

G Pay PhonePe BHIM 9623979067



Worldwide International Inter  
Disciplinary Research Journal

Website : www.widjr.com

C/o. R.G. Umbarkar, H.No. 624, Bela Nagar, Near Maroti Mandir,

Taroda Kh. Nanded - 431 605 Maharashtra (India)

Email : umbarkar.rajesh@yahoo.com

shrishprakashan2009@gmail.com

Mob : +91-9623979097



9 772454 780001



MAH/NAN/10936/2015  
ISSN : 2454-7905  
SJIF 2021 - Impact Factor: 6.91

## Worldwide International Inter Disciplinary Research Journal (A Peer Reviewed)

Year - 7, Vol.I, Issue-XL, 15 December 2021

Swami Ramanand Teerth Marathwada University Nanded

and  
Kisan Shikshan Prasarak Mandal, Udgir

**Mahatma Phule Mahavidyalaya, Ahmedpur**

Dist. Latur - 431515

(NAAC Accredited 'B' Grade)

One Day National Seminar (Online) on

### "Role of Physical Education & Yoga For Maintenance of Health and Fitness Under Covid-19 Situation"

Edited by

**Prof. Dr. Abhijeet S. More**

Address for Correspondence

**Mrs. Pallavi Laxman Shete**

Editor in Chief : Worldwide International Inter Disciplinary Research Journal (A Peer Reviewed Refereed)  
Principal, Sanskrit Public School, Nanded (MH, India) Email : shrishprakashan2009@gmail.com

**Dr. Rajesh G. Umbarkar**

House No. 624 - Belanagar, Near Maruti Temple, Taroda (Kh.) Nanded - 431605 (India - Maharashtra)

Email - umbarkar.rajesh@yahoo.com, shrishprakashan2009@gmail.com Mob. No. 9623979067

Director : Mr. Tejas Rampurkar (For International Contacts only + 91-8857894082)

(Arts - Humanities - Social Sciences - Sports, Commerce, Science, Education, Agriculture, Management,  
Law, Engineering, Medical, Ayurveda, Pharmaceutical, Journalism, Mass Communication, Library Science faculty's)

Worldwide International Inter Disciplinary Research Journal (A Peer Reviewed)

Year - 7, Vol. I, Issue-XL, 15 December 2021

**ISSN: 2454 – 7905**

***SJIF Impact Factor: 6 . 91***

# **Worldwide International Inter Disciplinary Research Journal**

*A Peer Reviewed Referred Journal*

**Quarterly Research Journal**

(Arts-Humanities-Social Sciences- Sports, Commerce, Science, Education, Agriculture, Management, Law, Engineering,  
Medical-Ayurveda, Pharmaceutical, MSW, Journalism, Mass Communication, Library sci., Faculty's)

**www.wiidrj.com**

**Vol. I**

**ISSUE – XL**

**Year – 7**

**15 December 2021**

**Swami Ramanand Teerth Marathwada University, Nanded.**

**and**

**Kisan Shikshan Prasarak Mandal, Udgir**

**Mahatma Phule Mahavidyalaya, Ahmedpur Dist. Latur – 431515**

**(NAAC Accredited 'B' Grade)**

**One Day National Seminar (Online) On**

**Department of Sports**

## **Role of Physical Education & Yoga For Maintenance of Health and Fitness Under Covid – 19 Situation**

**:: Editor ::**

**Dr. A. S. More**

**Professor, Department of Sports**

**Mahatma Phule Mahavidyalaya, Ahmedpur.**

### **Address for Correspondence**

**Mrs. Pallavi Laxman Shete**

Principal, Sanskriti Public School, Nanded.(MH. India)

**Website: [www.wiidrj.com](http://www.wiidrj.com)**

House No.624 - Belanagar, Near Maruti Temple, Taroda (KH), Nanded – 431605 (India -  
Maharashtra) **Email:** [Shrishprakashan2009@gmail.com](mailto:Shrishprakashan2009@gmail.com) [umbarkar.rajesh@yahoo.com](mailto:umbarkar.rajesh@yahoo.com)

**Dr. Rajesh G. Umbarkar Mob. No: +91-9623979067**

# Worldwide International Inter Disciplinary Research (A Peer Reviewed Referred)

**Worldwide International Inter Disciplinary Research (A Peer Reviewed Referred)** is quarterly published journal for Research scholars, teachers, businessman and scientists to integrate disciplines in an attempt to understand the complexities in the current affairs.

We also believe that both researchers and practitioners can contribute their knowledge by translating understanding into action and by linking theory and practice. This would enhance the relevance and thought in various related fields.

This Journal expected to bring together specialists in the field of commerce, economics, management and industry from different part of the world to address important issues regarding commerce, management and economics. One of the objectives of the journal is to create dialogue between scholars of various disciplines.

The editor, editorial team and the publisher do not hold any responsibility for the views expressed in **Worldwide International Inter Disciplinary Research (A Peer Reviewed Referred)** or for any error or omission arising from it.

The journal will cover the following Faculties for All Subject:

• Arts/ Humanities / Soc. Sci. / Sports	• Engineering
• Commerce	• Medical /Ayurveda
• Science	• Law
• Education	• Journalism
• Agriculture	• Mass Communication- Library sci.
• Pharmaceutical	• Social Work
• Management	• Any Other

**Director : Mr. Tejas Rampurkar** (For International contact only +91-8857894082)

*Printed by*

Anupam Printers, (Subbranch: Nanded) Men Branch : Hyderabad (AP)

© **Copy Right: Mahatma Phule Mahavidyalaya, Ahmedpur Dist. Latur**

**Cost: Rs. 400/-**

**Editors of Worldwide International Peer Reviewed Journal are not responsible for opinions expressed in literature published by journal.**

The views expressed in the journal are those of author(s) and not the publisher or the Editorial Board. The readers are informed, authors, editor or the publisher do not owe any responsibility for any damage or loss to any person for the result of any action taken on the basis of the work (c) The articles/papers published in the journal are subject to copyright of the publisher. No part of the publication can be copied or reproduced without the permission of the publisher.

## Editorial Board

<b>Dr. Deepak Bacchewar</b> M.C Member and Co-Dean Interdisciplinary Faculty, Swami Ramanand Tirth Marathwada Vidyapeeth Nanded. (MH., India.)	<b>Prof. Dr. vitthal Singh Parihar</b> Director of sports, Swami Ramanand tirth Marathwada Vidyapeeth Nanded. (MH., India.)
<b>Prof. Dr. Mardikar Madhavi</b> Head Physical Education and Coordinator PGDT Physical Education Rashtra Sant Tukdoji Maharaj Nagpur University Nagpur. (MH., India.)	<b>Dr. Pradeep Deshmukh</b> Ex.M.C member and Director of sport, Swami Ramanand tirth Marathwada Vidyapeeth Nanded. (MH., India.)
<b>Prof. Dr. Govind Martale</b> Director sports, Dhanaji Nana College Faizpur Jalgaon (MH., India.)	<b>Prof. Dr. Borkar D. S</b> Director of Sports Dr. Ambedkar College Dikshabhumi Nagpur (MH., India.)

## Peer-Review Committee

<b>Dr. Sasane S. G</b> Head Department of sociology, Mahatma Phule Mahavidyalaya Ahmedpur, Latur.	<b>Dr. Biradar Prashant</b> Head Department of Sanskrit Mahatma Phule Mahavidyalaya Ahmedpur, Latur
<b>Dr. Kasab Maroti</b> Department of Marathi, Mahatma Phule Mahavidyalaya Ahmedpur Latur	<b>Dr chaukatte Prakash</b> Head Department of political science, Mahatma Phule Mahavidyalaya Ahmedpur, Latur
<b>More Babruwan</b> Head Department of history Mahatma Phule Mahavidyalaya Ahmedpur Latur	<b>Mane Digambar</b> Head Department of of Geography Mahatma Phule Mahavidyalaya Ahmedpur, Latur
<b>Garje Sachin</b> Department of geography, Mahatma Phule Mahavidyalaya Ahmedpur, Latur	<b>chilgar Pandurang</b> Department of Hindi, Mahatma Phule Mahavidyalaya Ahmedpur, Latur
<b>Ingle Parmeshwar</b> Librarian, Mahatma Phule Mahavidyalaya Ahmedpur, Latur	<b>Akade Aatish</b> Department of English, Mahatma Phule Mahavidyalaya Ahmedpur Latur

## Advisor Committee

<b>Prof. Dr Choudhary Durga Das</b> Vice principal Mahatma Fule Mahavidyalaya Ahmedpur. Dist. Latur.	<b>Prof. Dr Mule Nagraj</b> Head Department of Hindi, Mahatma Phule Mahavidyalaya Ahmedpur District Latur.
<b>Prof. Dr Anil Munde</b> Department of Marathi, Mahatma Phule Mahavidyalaya Ahmedpur.Dist. Latur.	

**:: शुभाशंसा ::**

कोव्हीड - १९ की, महामारी विश्व के सामने एक चुनौति बनकर उभरी है | प्रगति का दंभ भरनेवाली विश्व की महानशक्तियों का अहंकार चूर-चूर हो गया | मनुष्य का जीवन कितना क्षणभंगुर है यह एक छोटेसे विषाणुने सिद्ध कर दिया | प्रगतिशीलता की होड में हमने हमारे कई अनमोल तत्त्वों को नजर अंदाज कर दिया था | इस महामारीने उन अनमोल तत्त्वोंका स्मरण हमें करा दिया | कोव्हीड -१९ की महामारी ने यह पुनः सिद्ध कर दिया कि स्वस्थ शरीर के लिए क्रीडाशिक्षा तथा योगा अत्यंत लाभदायक है | क्रीडाशिक्षा तथा योगा से शरीर सुदृढता के साथ फेफड़े, मजबुत तथा सक्षम होते हैं | इस परिप्रेक्ष्य में महात्मा फुले महाविद्यालय, अहमदपूर में ‘Role of Physical Education & Yoga For Maintenance Of Health & Fitness Under Covid – 19 Situation’ विषय पर आयोजित संगोष्ठी में उपयोगी चर्चा होगी | संसाधन विशेषज्ञ मार्गदर्शन करेंगे जो समस्त मानवजाति के लिए उपयोगी सिद्ध होंगे |

संगोष्ठी के आयोजन हेतु महाविद्यालय के प्रधानाचार्य डॉ. वसंत बिरादार तथा संयोजक डॉ. अभिजित मोरे को बहुत - बहुत बधाई देता हूँ तथा संगोष्ठी के लिए शुभकामनाएँ |

(डॉ. जोगेंद्रसिंह बिसेन)

उपकुलपति

स्वामी रामानंद तीर्थ मराठवाडा विश्वविद्यालय, नांदेड.

## संपादकीय

स्वामी रामानंद तीर्थ मराठवाडा विद्यापीठ नांदेड आणि किसान शिक्षण प्रसारक मंडळ उदगीर द्वारा संचालित महात्मा फुले महाविद्यालयाच्या क्रीडा विभाग यांच्या संयुक्त विद्यमाने “Role of physical education and yoga for maintenance of health and fitness under covid-19 situation” या विषयावर राष्ट्रीय परिषदेचे ऑनलाइन आयोजन करण्यात आलेले आहे.

बहुजन हिताय, बहुजन सुखाय’ या उद्दात ध्येयाने व महात्मा फुले यांच्या शैक्षणिक व सुधारणावादी विचाराने प्रेरित होऊन वसतिगृहाच्या माध्यमातून किसान शिक्षण प्रसारक मंडळ हे उदगीर येथे स्थापन झाले. आज मंडळाचे वसतिगृह, प्राथमिक, माध्यमिक, उच्चमाध्यमिक आणि वरिष्ठ महाविद्यालयाच्या रूपाने शैक्षणिक वटवृक्ष झाला आहे. किसान शिक्षण प्रसारक मंडळ, उदगीर द्वारा संचालित उदगीर येथे एक महाविद्यालय आणि अहमदपूर येथे महात्मा फुले महाविद्यालयाची स्थापना २००० मध्ये करण्यात आली. तेव्हा पासून उच्चशिक्षणाची समाजातल्या तळागाळापर्यंत पोहचवण्यासाठी व महात्मा फुलेंचे सर्वसामान्य, गरीब, कष्टकरी, महिला, आदिना शिक्षण देऊन त्यांच्या प्रगतीचे दार उघडले जाणार नाही तोपर्यंत समाजाची प्रगती होणार नाही. म्हणून महात्मा फुलेंचे हे स्वप्न आजही ख-या अर्थाने पूर्ण झाले नाही, असे वाटते. म्हणून आमचे फुले महाविद्यालय निरंतर प्रयत्नशील आहे

मागील दीड वर्षापासून कोरोना या साथीने जगामध्ये व भारतामध्ये पसरल्यामुळे मानवी जीवन विस्कळीत झाले आहे सर्व जग यामुळे लॉक डाऊन होऊन ठप्प झाले आहे माणसाचे उद्योगधंदे शेती व्यवसाय नोकरी विस्कळीत झाल्यामुळे माणसाची रोगप्रतिकारक शक्ती कमी झाली माणसाची शारीरिक क्षमता कमी झाली. मानवी हालचालींना बंधने आल्यामुळे त्यांची रोगप्रतिकारक क्षमता कमी होऊ लागली

भारत सरकारने या काळामध्ये आयुर्वेदिक औषधे व मानवी शारीरिक क्षमता वाढवण्यासाठी योगा व व्यायाम आणि चांगला आहार याचा आधार घेण्याचा सल्ला दिला या सल्ल्यामुळे जगातील तसेच भारतातील लोक योगा व शारीरिक शिक्षण व्यायाम कडे वळताना दिसली योग्यामुळे मानवी शरीराची शारीरिक व मानसिक क्षमतेत वाढ होते असे आपल्या पूर्वजांनी सांगितले आहे याचाच एक भाग म्हणून महाविद्यालयाने एक दिवसीय राष्ट्रीय सेमिनारचे आयोजन केले होते या सेमिनार मध्ये भारतातील अनेक विचारवंत प्रोफेसर प्राध्यापक क्रीडाप्रेमी संशोधक यांनी भाग घेतला या राष्ट्रीय चर्चासत्राच्या अनुषंगाने अनेक शोधनिबंध प्राप्त झाले या राष्ट्रीय सेमिनार मध्ये संशोधकांनी आपले शोध निबंध वाचन केले. ऑनलाइन राष्ट्रीय परिषदेच्या निमित्ताने लेखनाच्या माध्यमातूनही ही क्रीडा विभागाच्या वतीने दिनांक १५ डिसेंबर २०२१ रोजी “Role of physical

education and yoga for maintenance of health and fitness under nineteen situation” या संशोधन मूल्य असलेल्या ग्रंथाचे प्रकाशन करित आहोत. महाविद्यालयाचे प्राचार्य डॉ. वसंत बिरादार यांची यांची प्रेरणा व मार्गदर्शन, सिद्धी प्रकाशन नांदेडचे डॉ. राजेश उंबरकर, महाविद्यालयातील सर्व प्राध्यापकांच्या, कार्यालयीन कर्मचा-यांच्या सहकार्यामुळे हे दुष्कर कार्य आम्हाला सुकर करता आले. या ग्रंथासाठी क्रीडा क्षेत्रातील अभ्यासकांनी व संशोधकांनी अनेक शोधनिबंध पाठवलेले आहेत त्यांचे व प्रत्यक्ष अप्रत्यक्ष सहकार्य करणा-या सर्वांचे मी आभारी आहे धन्यवाद!!!

प्रो. डॉ. अभिजीत शामराव मोरे

क्रीडा विभाग प्रमुख

महात्मा फुले महाविद्यालय अहमदपूर, जि. लातूर

## प्रस्तावना



### उत्तम व दीर्घ आयुरारोग्यासाठी 'योग' नवसंजीवनी

स्वामी रामानंद तीर्थ मराठवाडा विद्यापीठ नांदेड आणि किसान शिक्षण प्रसारक मंडळ उदगीर द्वारा संचालित महात्मा फुले महाविद्यालयातील क्रीडा विभाग यांच्या संयुक्त विद्यमाने “Role of physical education and yoga for maintenance of health and fitness under covid-19 situation” या विषयावर दि. १५ डिसेंबर २०२१ रोजी राष्ट्रीय परिषदेचे ऑनलाइन आयोजन करण्यात आलेले होते.

'कोव्हिड-१९' काळामध्ये शारीरिक शिक्षण व योगाला अनन्य साधारण महत्व प्राप्त झाले आहे. भारतीय संस्कृतीने जगाला दिलेली महान देणगी म्हणजे योग होय. सुखी जीवनाचा मार्ग म्हणजे योगा होय. योग अभ्यासामुळे व्यक्तीच्या शारीरिक व मानसिक विकास होतो. मानवाचे सर्वांगीण विकास हे शारीरिक शिक्षणाचे ध्येय आहे. योग व शारीरिक शिक्षण याचा अत्यंत जवळचा संबंध आहे. 'covid-19' या साथ रोगांमध्ये मानवी शरीराची प्रचंड हानी झालेली आहे.

मानवाने आपले आरोग्य नेहमी 'निरोगी' ठेवण्यासाठी योगशास्त्रात विस्तृत सूचना दिलेले आहेत. 'योग शास्त्रा'चा एक भागच आहे. त्यामध्ये शारीरिक क्षमता, प्रत्येकाने पळवायची सार्वजनिक स्वच्छता, शारीरिक शिक्षण, रोगप्रतिबंध व रोगावर उपाय यावर आहे. वरील गोष्टीमुळे चांगले आरोग्य प्राप्त होते. एकदा उत्तम आरोग्य प्राप्त झाले, की पुढील फायद्याचा लाभ आपोआप मिळतो. यात रोगमुक्ती, सर्वोत्तम कार्यक्षमता, उमदा स्वभाव, उमदे व्यक्तिमत्व, उत्तम आरोग्यामुळे प्राप्त होणारे सौंदर्य, आनंदी जीवन आणि दीर्घायुष्य, मानवी शरीराची शारीरिक क्षमता वाढवण्याचे कार्य, शारीरिक शिक्षण व योग यांच्यामार्फत करता येते. हे ज्ञात असल्यामुळे भारत सरकारने या काळामध्ये शारीरिक शिक्षण व योगाला महत्त्व दिले आहे.

'योगा' हे उत्तम व दीर्घ आयुष्यासाठी वरदान आहे. योगामुळे प्रतिकार शक्ती वाढते. शरीरातली अतिरिक्त चरबी कमी होते. शरीरशुद्धी होऊन बसण्याच्या चुकीच्या सवयीमुळे होणारा त्रासही कमी होतो. व बसण्याची एक योग्य पद्धत तयार होते. नियमित योगामुळे शरीराची लवचिकता वाढते. सांध्यातुल



वंगण काम करते. स्नायू मजबुत बनतात. शरीरातील रक्ताभिसरण व्यवस्थित होऊन किडणी, हृदयाचे आजार उद्धवत नाहीत. योगा करतेवेळी शरीराला वर उचलले जाते त्यामुळे हाडाचा व्यायाम होतो. तसेच पेशींमधून शरीरातील विषारी पदार्थ बाहेर फेकले जातात म्हणून 'योगा' म्हणजे एक प्रकारची 'नवसंजीवनी' आहे.

दररोज शास्त्रशुद्ध पद्धतीने वा अचूक पद्धतीने 'योगा' करण्याचे वरील फायदे आहेत तसेच आणखी इतरही फायदे आहेत ते म्हणजे ज्यांना उच्चरक्तदाब, मधुमेह आहे अशांनी तर नियमितपणे योगा केल्यास यावर नियंत्रण मिळवता येते. वाईट कोलेस्ट्रॉल कमी होऊन चांगले कोलेस्ट्रॉल वाढते. नियमितपणे योगा केल्यास ताणतणाव कमी होतात. मनाची एकाग्रता वाढते. स्मरणशक्ती तल्लख होते. बुद्ध्यांक वाढतो. याचबरोबर शरीरातील अतिरिक्त कॅलरिज बर्न होतात. श्वासोच्छ्वास सुरळीत होतो. चांगली झोप लागते. शरीर रिलॅक्स होते. शरीराला ऑक्सिजन मिळते. नियमितपणे 'योगा' केल्यास शरीराचे सर्व अवयव नियंत्रणात ठेवता येतात. सर्व भावभावनांवर विजय मिळवता येतो. म्हणून 'योगा' ही आजच्या काळाची खरी गरज आहे. नव्हे तर ती काळाचीच हाक आहे.

ही काळाची हाक ऐकून तसेच 'योगा'चा प्रचार आणि प्रसार व्हावा या शुद्ध हेतुने महात्मा फुले महाविद्यालय, अहमदपूर मध्ये 'Role of physical education and yoga for maintenance health and fitness under covid-19 situations.' या विषयावर एक दिवसीय ऑनलाईन राष्ट्रीय चर्चासत्राचे आयोजन करण्यात आले होते. या चर्चासत्राच्या निमित्ताने या 'Role of physical education and yoga for maintenance health and fitness under covid-19 situations' ग्रंथातून क्रीडा क्षेत्रातील अनेक मान्यवर विचारवंतांनी आपले संशोधनात्मक लेख लिहिले. त्याबद्दल त्यांचे मी अभिनंदन करतो.

ऑनलाईन राष्ट्रीय परिषदेच्या निमित्ताने लेखनाच्या माध्यमातून संशोधन मूल्य असलेल्या या ग्रंथाची उपयोगिता सद्यस्थिती व भविष्यातही अत्यंत महत्त्वाची आहे. यासाठी या ग्रंथाचे संपादक महाविद्यालयातील क्रीडा संचालक प्रो. डॉ. अभिजीत मोरे यांनी घेतलेल्या परिश्रमाचे हे फलित आहे. त्यांचे व संशोधनात्मक लेख पाठवणा-या सर्व मान्यवरांचे मनःपूर्वक अभिनंदन...!

**धन्यवाद !!!**

**प्राचार्य डॉ. वसंत बिरादार**

महात्मा फुले महाविद्यालय, अहमदपूर ता. अहमदपूर जि. लातूर.

# INDEX

<b>Sr. No.</b>	<b>Title of the Paper</b>	<b>Name of Author</b>	<b>Page No.</b>
01.	प्रस्तावना	प्राचार्य डॉ. वसंत बिरादार	VII
02.	ATTITUDE OF STUDENTS TOWARDS PHYSICAL EDUCATION	Dr. Vinod Ganacharya	01
03.	STRESS MANAGEMENT THROUGH YOGA	Prof. Chatse Ashok Jayaji	03
04.	CHALLENGES OF ONLINE PHYSICAL EDUCATION CLASSES IN MIDDLE AND HIGH SCHOOL AND AN EFFECTIVE PLAN TO DEAL WITH THEM	Dr. Nilesh Rajendra Gadekar	06
05.	COVID-19 PANDEMIC AND ILL HEALTH IN SPORTS: CRITICAL STUDY	Dr. SACHIN DAULAT YELBHAR	10
06.	A BRIEF STUDY ON THE ROLE OF EXPERT YOGA TRAINER GUIDANCE ON CONTROLLING LOWER BACK PAIN THROUGH INTEGRATED YOGA THERAPIES	Ms. Archana B. Uikey	14
07.	NUTRITION AND PHYSICAL PERFORMANCE	Dr. Umesh R. Sadegaonkar	20
08.	“IMPORTANCE OF YOGA IN PHYSICAL EDUCATION AND SPORTS”	Dr. Amey Vinayak Kale	24
09.	THE IMPACT OF COVID-19 ON SPORTS, PHYSICAL ACTIVITY AND WELL-BEING AND ITS EFFECTS ON SOCIAL DEVELOPMENT	Dr. Gopal Laxmikant Moghe	27
10..	IMPORTANCE OF DIET DURING COVID-19 SITUATION	Dr. P. S. Ranmal	31
11.	A COMPARATIVE STUDY OF SELECTED HEALTH RELATED PHYSICAL FITNESS COMPONENTS OF DIFFERENT FACULTY GIRL STUDENTS	Dr. Kothe C.K. Miss. Shivani	35
12.	ROLE OF YOGA IN MAINTAIN HEALTH & FITNESS	Dr. Jyotiram D. Chavan	39
13.	SURVEY ON PHYSICAL FITNESS OF TRIBAL AND NON-TRIBAL WOMEN IN TRIPURA	Sajna Begam Dr. A. S. More	43
14.	EFFECT OF YOGA TRAINING PROGRAMME ON BMI & SIT –UPS OF SCHOOL STUDENTS OF NANDED DISTRICT	Dr. Kengale B. D.	46
15.	A COMPREHENSIVE STUDY OF POWERLIFTING AND WEIGHTLIFTING TECHNIQUES AND INJURIES TO ATHLETES	Dr. Kothe Chaya Kishanrao Mr. Hemant Kapile	49

16.	<b>ROLE OF YOGA IN MAINTAINING HEALTH</b>	<b>Dr. Dilip Bhadke</b>	57
17.	<b>BALANCED DIET AND FEMALE ATHLETES</b>	<b>Savita Dabhade</b>	59
18.	<b>ROLE OF YOGA IN MAINTAINING SOCIAL HEALTH</b>	<b>Dr. Kiran Kishanrao Yerawar</b>	62
19.	<b>IMPORTANCE OF DIET DURING COVID-19 SITUATION”</b>	<b>Mr. C.B. Satpute Dr. Uddhav R. Aghav</b>	64
20.	<b>ROLE OF SPORTS NUTRITION AND DIET IN PHYSICAL EDUCATION</b>	<b>Dr. Manda V. Thengne</b>	67
21.	<b>IMPACT OF COVID-19 PANDEMIC ON SPORTS PRESENT AND FUTURE</b>	<b>Dr. J. D. Kour</b>	70
22.	<b>IMPACT OF COVID-19 ON PHYSICAL EDUCATION AND SPORTING ACTIVITIES</b>	<b>Dr. Arvind P. Joshi</b>	74
23.	<b>FITNESS MANAGEMENT FOR SPORTS COMMUNITY DURING COVID-19 PANDEMIC</b>	<b>Miss. Vaishali Prakash Ghate Dr. Govind Sadashivrao Martale</b>	77
24.	<b>IMPACT AND IMPORTANCE OF BALANCED AND NUTRITIVE DIET DURING AND POST COVID-19 ERA</b>	<b>Dr. Charanjeetsingh Mahajan</b>	83
25.	<b>IMPACT OF COVID-19 PANDEMIC ON PHYSICAL FITNESS</b>	<b>Dr. Nitesh Ramling Swami</b>	92
26.	<b>ASSESSMENT OF PHYSICAL FITNESS, SOCIO-ECONOMIC STATUS AND PSYCHOMOTOR ABILITY RELATED TO THE HEALTH OF TRIBAL SCHOOL GOING CHILDREN IN TRIPURA</b>	<b>Sajna Begam Dr. Abhijeet Shamrao More</b>	98
27.	<b>EFFECTS OF YOGA ON MENTAL HEALTH</b>	<b>Dr. Palne Kailas Shivharrao</b>	104
28.	<b>ROLE OF PHYSICAL EDUCATION PERSONAL FOR MAINTENANCE OF HEALTH AND FITNESS</b>	<b>Dr. Karad Chandrakant</b>	107
29.	<b>IMPORTANCE OF YOGA TEACHER IN MAKING THE PRACTITIONERS BETTER AS WELL AS BENEFITS OF BEING A YOGA TEACHER</b>	<b>Dr. Bhaskar Mahadeorao Sawarkar</b>	111
30.	<b>IMPORTANT OF DIET DURING COVID-19 PANDEMIC</b>	<b>Nandedkar Ishwar Dattatrya Prof. Dr. Venkat Mane</b>	113
31.	<b>YOGA AND STRESS MANAGEMENT</b>	<b>Madhav Sopanrao Kadam</b>	118
32.	<b>YOGIC PRACTICES DURING COVID-19 PANDEMICS</b>	<b>Dr. Gomchale Minanath Shivajirao</b>	120
33.	<b>NEED OF NUTRITION DURING COVID-19 PANDEMIC</b>	<b>DR. NARAYAN JAIBHAYE</b>	123
34.	<b>‘POST COVID CHALLENGES’ ON PHYSICAL EDUCATION &amp; SPORTS PARTICIPATION.</b>	<b>Dr. Karad Chandrakant</b>	126
35.	<b>PSYCHOLOGICAL ASPECTS AND MOTIVATIONS FOR DOPING IN AN ADOLESCENTS AGE ATHLETES</b>	<b>Abdul Ansar Abdul Sattar</b>	129

36.	<b>“A SURVEY STUDY ON POST PANDEMIC CHALLENGES WITH RESPECT TO SPORTS &amp; GAMES PARTICIPATIONS AMONGST THE GIRLS”</b>	<b>Dr. Abhijit A. Sarnaik Dr. Pallavi S. Deshmukh</b>	132
37.	<b>IMPACT OF COVID -19 PANDEMIC ON SPORTS ACTIVITIES</b>	<b>Dr. Baliram Dnyanobarao Lad</b>	135
38.	<b>YOGA AND MEDITATION FOR HEALTH AND STRESS MANAGEMENT</b>	<b>Dr. Jadhav Dharamsing Gemsing</b>	138
39.	<b>“COMPARATIVE STUDY OF STRENGTH (S. B. J. TEST) BETWEEN URBAN AND RURAL SCHOOL STUDENTS: AGED 12 TO 14 YEARS”</b>	<b>Dr. Mahesh Vijaykumar Rajenimbalkar</b>	140
40.	<b>“THE PROCESS OF STRESS MANAGEMENT AT WORK PLACE THROUGH VIPASSANA MEDITATION”</b>	<b>Dr. Sanjiv K. Ekambekar</b>	143
41.	<b>SOCIAL AWARENESS AND YOGA</b>	<b>Dr. Hanmante Chandrakala Narayanrao</b>	147
42.	<b>ROLE OF PHYSICAL EDUCATION PERSONAL FOR MAINTENANCE OF HEALTH &amp; FITNESS</b>	<b>Dr. D. S. BORKAR</b>	150
43.	<b>ASHTANGA YOGA FOR MAINTENANCE OF HEALTH, PHYSICAL FITNESS AND SPIRITUALISM</b>	<b>Dr. Bharat Haribhau Chapke</b>	156
44.	<b>NEED OF YOGA UNDER THE EXPERT GUIDANCE OF YOGA TRAINER AT WORK PLACES AND HOME AFTER COVID-19 LOCKDOWN TO AVOID SEVERAL DISEASES.</b>	<b>Dr. Jyoti Motiram Gaikwad Dr. Bacchwar Deepak</b>	159
45.	<b>EFFECT OF YOGA TRAINING PROGRAMME ON BMI &amp; SIT –UPS OF SCHOOL STUDENTS OF NANDED DISTRICT</b>	<b>Dr. Kengale B. D. Mr. Jotiba Nivrutti Hurdukhe</b>	166
46.	<b>YOGA AND MEDITATION FOR HEALTH AND STRESS MANAGEMENT</b>	<b>Dr. Jadhav Dharamsing Gemsing</b>	169
47.	<b>ROLE OF PHYSICAL EDUCATION FOR ACHIEVING QUALITY OF LIFE</b>	<b>Hemant Trimabakrao Shinde</b>	171
48.	<b>ROLE OF YOGA TEACHERS FOR MAINTAINANCE OF HEALTH AND FITNESS</b>	<b>Dr. Usman Ganni Jainoddin</b>	175
49.	<b>ROLE OF PHYSICAL ACTIVITY DURING COVID-19</b>	<b>Mr. Jondhale S. M.</b>	179
50.	<b>कोविड-19 परिस्थितीत आहाराचे महत्त्व</b>	<b>प्रा. डॉ. सचिन सुभाषराव चामले</b>	183
51.	<b>करोना महामारी: योग्य आहार आणि योगाचे महत्त्व</b>	<b>प्रा. डॉ. विठ्ठल डुमनर</b>	187
52.	<b>कोव्हीड १९ च्या काळात योगासनांचा शारीरिक सुदृढता आणि अरोग्यावर होणा-या परिणामाचा विश्लेषणात्मक अभ्यास</b>	<b>प्रा. डॉ. जाधव बी. पी.</b>	191

53.	आरोग्य आणि फिटनेस राखण्यासाठी शारीरिक शिक्षणाची भूमिका	श्रीमती सुवर्णा गोवर्धन घोलप	194
54.	योग अभ्यास आणि शारीरिक शिक्षण	प्रा. कलवले जी. के	200
55.	खेळाडूंच्या जडणघडणीमध्ये पोषण व आहाराची भूमिका	डॉ. केंगले भिमराव दुंदा	203
56.	माध्यमिक स्तरावरील पारंपारिक शिक्षण व ऑनलाईन शिक्षण एक तुलनात्मक अभ्यास	कदम गणेश पुंडलिकराव प्रा. डॉ. वैजयंता ना. पाटील	206
57.	प्लायोमेट्रिक व्यायाम व प्रशिक्षणाचा ॲथलेटिक्स खेळांमध्ये फेकणे या प्रकारावर होणाऱ्या परिणामाचा अभ्यास"	प्रा. डॉ. चिंते विक्रम व्यंकट	216
58.	योगाचे मानवी जीवनात महत्त्व	प्रा. डॉ. सतिश गंगाराम ससाणे	219
59.	"पुणे शहर उच्च माध्यमिक शाळेतील ३० ते ४० वयोगटातील पुरुष व महिला शिक्षकांच्या शरीर संघटनेचा अभ्यास."	प्रा. पल्लवी योगेश तरडे	220
60.	नांदेड जिल्ह्यातील निवडक खेळातील १४ ते १६ वर्षे वयोगटातील खेळाडूंचे व्यक्तिमत्त्वया घटकाचा तुलनात्मक अभ्यास.	धनंजय शामसुंदर सिरसाट प्रा. डॉ. बी. डी. केंगले	224
61.	निरोगी व तंदुरुस्त राहण्यासाठी योगा उपयुक्त	प्रा. मुंडे दत्ता रामकिशन	227
62.	कोरोना परिस्थितीत आहाराचे महत्त्व	सचिन गोविंदराव चौधरी	230
63.	कोविड-19 : सांसर्गिक महामारी	प्रा. डॉ. खुशाल पांडुरंग वाघमारे	235
64.	योग शिक्षण व मानवी आरोग्य	डॉ. तातेराव केंद्रे	239
65.	कोविड -19 महामारी दरम्यान निरोगी खाणे	श्रीमती सुवर्णा गोवर्धन घोलप प्रा. डॉ. छाया कोटे	242
66.	खेल एवं शारीरिक क्रिया के दौरान जैवरासायनिक परिवर्तन	डॉ. संतोष बाबुराव कोकीळ	248
67.	विद्यार्थ्यांमध्ये अनुलोम विलोम प्राणायामाचा स्मृती,धारणा क्षमतेवर होणाऱ्या परिणामकारकतेचा अभ्यास	सौ. क्रांती संदेश क्षीरसागर	253

# ATTITUDE OF STUDENTS TOWARDS PHYSICAL EDUCATION

**Dr. Vinod Ganacharya**

Director of Physical Education and Sports, Dept.of Sports, B.Raghunath College,Parbhani, (M.S.) India

## **ABSTRACT:-**

The study attitudes of students towards physical education have been carried out in Parbhani District of Maharashtra state. The survey method of data collection was used. The questionnaire was administered to 150 students from various colleges. The questionnaire had 80 statements of which 10 each were related to social, physical, moral, mental, emotional, intellectual, vocational and recreational while 10 were to the general aspects. The statements were scored based on the likes scale. The response of the students was positive and all were in favorable attitude towards physical education.

**KEYWORDS :** *attitude, Physical education*

## **INTRODUCTION:**

Attitude serves as the motivating media to condition students which have been acquired. Thus attitude play an important role because the attitude determiners an individual willingness to learn. In the modern sports, physiological preparation of a team/individual is an important as teaching the different skills of a game with a scientific method. Most of the coaches, physical education teachers and trainers agree that the physical characteristics, skills and training of the players are extremely important, but they also feel that good mental and psychological presentation for competition is necessary component for success. Attitude is the mental and neural state of readiness organized through experience which exerts a directive or dynamic influence upon the individual response to all objectives and situation with which it is related.

Attitude has received attention and consideration moreover recently attitude towards self-have been studied in an attempt to again a better understanding of individuals and personality development. It is believed that the attitude scale would be of value in determining favorable and unfavorable attitude towards physical education. It is clearly understood that participation in organized physical activities lead an individual to achieve fitness in terms of physical, mental, emotional and social spheres and develop the attitude to adjust with life situations.

## **METHODOLOGY:**

Researcher interested to determine that students differ in their attitude towards physical education. Hence, he had undertaken this problem. In order to achieve the purpose, the researcher had confined himself to survey method based on scale. Physical education activity attitude inventory questionnaire for collecting the data.

The researcher after carefully studying various aspects of the subject under study after referring to various literature on attitude inventory questionnaire and in order to determine the structure of attitude towards physical education, consideration was given to the social, physical, moral, mental, emotional, intellectual, vocational, recreational and general categories of physical education attitudes. The inventory was administered to 150 students from various college of Parbhani district who are selected at random selection. Response to the eight statements give to student's

subjects was evaluated in the manner described by Likert Scale. All the statements favoring physical education were scored as Strongly Agree-5, Agree-4, Undecided-3, Disagree-2, and Strongly Disagree-1. For statements opposing physical education the statement were scored in opposite order strongly agree-1, agree-2, undecided-3, disagree-4 and strongly disagree-5. The total scores obtained on all the statements that measured the student's favorableness or un-favorableness to physical education. The collected data were subjected for statistical analysis in order to arrive at definite conclusions which have been explained in the following way.

### RESULTS AND DISCUSSION:

In this section, the attitude of college students towards physical education of colleges in Parbhani. District, various aspects are analyzed. The questionnaire used for this purpose was based on wear physical education attitude inventory. It had 80 statements of which 10 each were related to the social, physical, moral, mental, emotional, intellectual, vocational and recreational while 10 were to the general aspects. The median for each aspect is given in Table it also contains the total scores.

Sr.No.	Aspect	Median	Quartile Deviation	Coefficient Deviation	Nature of Attitude
1	Social	46	3.92	6.23	Favorable
2	Physical	44.93	3.32	7.34	Favorable
3	Moral	41.90	4.36	8.76	Favorable
4	Mental emotional	45	2.85	6.56	Favorable
5	Intellectual	37.62	2.98	8.23	Favorable
6	Vocational	38.55	2.86	6.96	Favorable
7	Recreational	43.20	2.60	6.93	Favorable
8	General	45.30	2.95	7.30	Favorable

### CONCLUSION:

With the limits of this study the following conclusions were down seems to be justified. The physical education attitude scale is reliable and valid means for determining attitude towards physical education. There is no much difference in the attitude of students towards physical education under various aspects. The response percentage is almost of the same. The results suggest that students had a very favorable attitude towards physical education.

### RECOMMENDATIONS:

Teacher of physical education must help pupils to acquire favorable attitude and appreciation which then serve as motivating agents that condition a student orientation to the use of learned skill, knowledge and understanding. The physical directors should be sent for the refresher course to update their knowledge and get acquainted with new roles and latest methods and techniques in teaching the physical education.

### REFERENCES :

- (1) Acord, D.M. "Attitudes toward Physical Activity in Co-education Physical Education Programs," Completed Research in health, Physical Education and Recreation. 19(1978):206
- (2) Swami Kannu, "Attitude of Madras City Collegiate Men Students towards Physical Education and its Introduction as an Examination Subject," unpublished Master degree thesis, University of Madras.1974.

# STRESS MANAGEMENT THROUGH YOGA

**Prof. Chatse Ashok Jayaji**

Director of Physical Education and Sports, Dept.of Sports, Rajarshi Shahu Mahavidyalaya, Parbhani (M.S.)  
India

## ABSTRACT:-

*In Contemporary society due to multiplicity of factor and forces, there is a lot of pressure of varied kinds on people, especially in terms of demand for fulfillment of ever growing needs, particularly due to a availability of goods and services of numerous types made possible by rapid pace of development in the field of science and technology which was radically transform the communication system and reduced the entire world community into a global village .Ever Increasing tempo of life had made in difficult for people to scope up with the new kinds of demands in the fast changing situations and force them to live under constant worry, anxiety and tension to the extent that relaxation of nerves up to the desired level does not become possible even after taking tranquilizers under such circumstances ,application of yoga is a panacea of cure.*

**KEYWORDS:** Stress Management, Yoga and Prannayam

## INTRODUCTION

### CONCEPT OF STRESS:

The stress was first used in a manner relevant for social sciences when the endocrinologist Hans Selye defined stress as the state manifested by a specific syndrome which consist of all the non specifically induced changes within a biological system.

Meaning and Definition: Broadly speaking the term refers to a typical condition of mental or emotional disquiet. It is non specific response of the body to any demand made on it. Stress is the tension and pressure that results when an individual views a situation presenting a demand that threatens to his or her capability or resources. Stress is a person's adaptive response to stimulus that places excessive psychological or physical demands on him or her.

### OBJECTIVES OF THE STUDY:

- 1) To know the factors responsible for stress.
- 2) To study the yogic measures to control stress.

### REVIEW OF LITERATURE:

**Selye (2010)** Studies that the living under continuous average stress leads to varied kinds of psycholosomatic disturbances. There are mental illness maladaptive behavior, physical diseases, violent behavior and habits of alcoholism and drug addiction.

**Caplan (2015)** and others revealed that meditation is a yogic technique which was recently become popular all over the world., there have been hundreds of researches on psycho-physical responses before and after mediation and its therapeutic uses.

### FACTORS RESPONSIBLE FOR STRESS:

#### ORGANIZATIONAL STRESSORS:

Organizational structure, organizational culture, pace of organizational change, rapidity of change in job, frequency of transfer opportunity for promotion, possibility of demotion quantum of work load, working conditions, conditions of work, particularly the availability of incentives, inter personal demands of organization in terms of its development, type of leadership, opportunity for communication and participation, nature of interpersonal relationship, job security, nature of job in



terms of involvement of new challenges, degree of inherent fear of failure in job mainly because of uncertainty with regard to successful job performance, long working hours without proper rest pauses, politicking, devolution of responsibility without corresponding authority and accountability, conflicting orders and demands from superiors, over expectations and unrealistic expectations of subordinates, conflict between task requirement and personal accomplishment, degree of prevailing lethargy and idleness on the part of employees, approach adopted by employees and their organizations problem creating a problem shooting, unreasonable and undue demands of employees and their organizations, conflict between organizational and societal values, opportunities for carrier growth and development, availability of supportive services like guidance, counseling, shop, especially in problem situations, etc.

### **ENVIRONMENTAL FACTORS:**

Spiraling process of commodities, deteriorating law and order situation, non availability of adequate creative opportunities for utilization of surplus time, particularly in old age after retirement, uncertainties in all walks of life economic, technological, political, educational, cultural and social; new kinds of demands and pressures, growing complexity of family problems, conflict, tension, unhygienic conditions not only in physical environment but also in socio-economic contexts immoral conditions, etc.

Personality stressors: Include personality type perception, past experiences, attitudes, beliefs and value system, emotions and feelings.

Yogic techniques for stress management: Yogic technique immensely helpful in controlling the stress, minimizing its physiological harmful effects and enhancing the immunity system of the body.

### **I. Hydrotherapeutic measures:**

Purification of body is essential for the normal functioning. In naturopathy and yoga, purification in a special form of therapy employed for the elimination of waste products from the body. During stress, the rate of waste production increases many times and if it is not bring out from the body it may cause may diseases, water therapy is the most appropriate therapy for purifying the body. These techniques are;

#### **(1) Water sniffing:**

Lukewarm water dilates the capillaries of the nasal cavity, causing more blood to the areas of lower and upper brain. As a reactionary effect, the brains activities are first stimulated later and depressed for some time. This has soothing effect on thinking process. Nerve fibers of parasympathetic are stimulated with the result one feels relaxation and happiness.

#### **(2) Stomach wash:**

Drinking lukewarm water and vomiting it out helps in the dilation of blood vessel, of the esophagus and stomach, provides extra nutrition to the abdominal muscles and increases peristalsis.

#### **(3) Colon cleansing:**

The lukewarm water removes the excreta, cleans the colon, stimulates the muscles and improves the blood circulation. This helps in increasing appetite and mental peace.

#### **(4) Cold bath:**

Cold bath is a physiological tonic and has the advantage over medicinal tonics of all sorts.

#### **(5) Cold foot bath:**

Vasometer and other reflex effects set up in the pelvic viscera causing contraction of the vessels and muscles of the genital organs.

**(6) Cold hip bath:**

It produces profound effect on the activities of the skin, cutaneous vessels and nerves.

**(7) Cold spinal bath:**

Cold spinal bath affects all the organs of the body through making impression on sympathetic and parasympathetic nerve fibers which mainly originate from the spine.

**II. Breathing exercises:**

Pranayam is a specialized technique to control the breathing and provide the opportunity to reach oxygen in the very cell of the body.

**III. Relaxation postures:**

The aim of relaxation is the release of tensions working at the level of muscles and nerves. Shavasana, Shashankasana and Makarasana are three postures or asanas for maximum relaxation of the body and mind.

**IV. Meditation:**

Regular practice of meditation helps in falling down the cholesterol level and plasma cortical level which is considered as an important bio-chemical indicator of stress.

**V. Diet control:**

The individual who does not take a proper diet and who does not have a proper understanding of the principles of eating gradually begins to harm himself both physically and mentally. Vegetarian diet is the appropriate diet for stress releasing. In the diet, fruit, salad, leafy vegetables, green vegetables should be included.

**CONCLUSION:**

The application of naturopathy and yoga brings about sound health and long life particularly with the help of various methods and techniques which give suppleness to the spine our very life axis by relaxing muscles, and by reviving organs and nervous centers.

**REFERENCES:**

- (1) Caplan, R.D., S. Cobb and J.R.P.French: "Relationships of cessation of smoking and job stress, personality and social support" journal of applied psychology, 2016,, Vol.60,p.211-219.
- (2) Selye, H.: The stress of life, McGraw Hills comp. New York, 1965,
- (3) quoted by Sharma, B.R., Administrative stress" IIPA, New Delhi, 2010.

# CHALLENGES OF ONLINE PHYSICAL EDUCATION CLASSES IN MIDDLE AND HIGH SCHOOL AND AN EFFECTIVE PLAN TO DEAL WITH THEM

**Dr. Nilesh Rajendra Gadekar**

Physical Director, Sant Dnyaneshwar Mahavidyalay, Soegaon, Dist: Aurangabad 431120 (Maharashtra)

## ABSTRACT

This review inspected the challenges of running web-based actual schooling classes with regards to Covid illness 2019 (COVID-19) and utilized the discoveries to foster an effective activity intend to address these troubles. Six center and secondary school actual training instructors partook; three were specialists in web-based actual training and dynamic in the Indian Council School Physical Education Promotion, and three were prescribed educators putting forth attempts to further develop the web-based classes presented by the Indian Ministry of Education. A subjective contextual investigation strategy utilizing phenomenological methods to gather and examine the information was utilized. The troubles of working center and secondary school online actual instruction classes interestingly incorporated the repetitiveness of the classes inside their restricted ecological conditions and restricted instructive substance that didn't enough pass on the worth of actual training, experimentation techniques applied cross country, coming about because of an absence of ability in working web-based actual schooling classes, and exceptionally restricted assessment rules proposed by the Indian Ministry of Education, which made efficient assessment with online strategies incomprehensible.

**Keywords:** coronavirus disease-19 pandemic; online evaluation; online physical education class; teaching expertise in physical education; value of physical education

## INTRODUCTION:

The whole world is right now confronting a disastrous circumstance coming about because of the Covid sickness 2019 (COVID-19) pandemic, which has impacted the day to day routines of individuals around the world. Since the World Health Organization pronounced a pandemic on 11 March 2020, staying away from up close and personal exercises and participating in friendly separating have turned into a piece of daily existence. The pandemic has likewise instigated changes in numerous nations instructive conditions as they started founding on the web classes, including South Indian (hereinafter Indian), whose schools neglected to start the customary school year in March, without precedent for history. Notwithstanding this extraordinary circumstance, Indian is effectively reacting to social changes by offering an assorted school educational program through online classes and growing new ways to deal with training. The progressions needed by the emergency might introduce a chance to adjust to the schooling needs of the beginning Fourth Industrial Revolution.

## Materials and Methods:

The review utilized a subjective contextual investigation strategy utilizing phenomenological methodology to gather and dissect the information. Going to the idea of lived insight of exploration members online actual schooling classes, the review investigated the experience of leading these classes, talked about and pondered their proficient activity and troubles experienced in that, and inspected the information by composing and reworking.

### 1. Members

To track down a summed up portrayal of center (1416 years of age) and high (1719 years of age) school online actual training classes in Indian, the scientist chose six members for this review, who were suggested by the Indian Ministry of Education and the Council for School Physical Education Promotion, which seeks after the rejuvenation of actual instruction in Indian. Three members were center and secondary school actual instruction instructors who were specialists in internet based actual training; the other three had attempted to further develop the three kinds of online classes presented by the Indian Ministry of Education.

### 2. Information Collection

The gathered information included material straightforwardly created by the exploration members and online recordings of their actual schooling classes. Top to bottom individual and gathering interviews were directed to inspect encounters arising in the members diaries. We inspected the members individual journals and their internet based actual training class activities. Five inside and out individual member interviews enduring 5070 min were directed among March and June 2020. The meetings started with members depicting individual activity designs and were fixated on the activity of these cases.

### 3. Information Analysis and Research Authenticity

An inductive class investigation was utilized, zeroing in on open coding, hub coding, and center coding [11]. The scientist attempted to comprehend the general stream and genuine importance of the material through continued perusing. The implications were characterized and gathered by subject and broke down through specialized, intelligent, and interpretive composition; then, at that point, the connections between the fundamental components of the outcomes were recognized to decide the general design. At long last, an iterative course of reevaluation, change, and mix was applied to guarantee that the created classes mirrored the reason for the review.

### RESULTS :

#### 1. Hardships in Running Online Middle and High School Physical Education Classes

#### 2. Passing on the Value of Physical Education

Hardships in passing on the worth of sports in web-based actual training classes stayed in the altered specialized practice. This worth included keeping up with wellbeing through proactive tasks, developing local area cognizance through proactive tasks with companions, and creating sports behavior through sports cooperation. Understudies occupied with online actual instruction classes regularly can't tie down sufficient room to adequately partake in active work and furthermore have restricted admittance to provisions and gear expected to follow online actual training classes. Hence, the members running the web-based actual instruction classes utilized supplies that were promptly accessible at home, which essentially decreased the actual schooling units that could be educated. This prompted a change in center from contest, which is a significant piece of in-school actual training, to wellbeing and active work difficulties in internet based guidance.

#### 3. Absence of Teacher Experience

Online actual schooling classes, established almost overall during the 2020 pandemic, were a completely new encounter for the two instructors and understudies. The members chief worries about running internet based actual training classes focused on the absence of productive substance and troubles in utilizing the substance. They stressed over the understudies capacity to take part in adequate proactive tasks given space limitations and the internet based course content they made, and regardless of whether the course content was instructively significant. The accessibility of media

to catch and alter different actual work photographs and recordings was significant for online course planning. The members experienced significant disarray in their underlying endeavors at online guidance, albeit the Ministry of Education and the civil and common schooling workplaces gave direction and preparing on working on the web classes and copyright issues after the change to online classes.

#### **4. Assessment**

The Ministry of Education introduced rules for assessing on the web classes, which indicated that educators were to abstain from directing assessments except if they should be possible eye to eye and prescribed leading assessments after the re-visitation of in-class guidance to the degree conceivable. Members thought that it is hard to apply assessments to online actual training classes. It appeared to be preposterous to assess understudies on what they had realized in school following an extensive stretch of online classes especially in case these were directed exclusively through talks and tasks without the understudies really performing and rehearsing the exercises to be evaluated particularly on the grounds that the extent of the assessment dependent on active work was high, given the idea of the subject of actual training.

#### **5. A Plan for the Efficient Operation of Middle and High School Online Physical Education Classes**

#### **6. Content that Conveys the Value of Physical Education**

Online actual instruction classes need to show the worth of active work as a significant component of wellbeing. Be that as it may, prior to showing understudies the worth of actual schooling, educators should zero in on actual training ideas while getting ready understudies to effectively take an interest in the internet based class. Online actual schooling classes should help understudies to emotionally foster future active work plans and self-coordinated skills. Albeit the web conveys classes without existence imperatives that almost everybody can get to, such classes are incapable and wasteful if understudies don't effectively and mindfully partake.

#### **7. Endeavors to Cultivate Teacher Expertise**

Members brought up that one change driven by online actual instruction classes was the dynamic advancement made by actual schooling instructors through cooperation, which gave preparing and help to educators who experienced issues making content in the beginning phase of online classes. This joint effort normally extended as they created class recordings and shared thoughts on task techniques and designs and class content. This coordinated effort was driven by the force of aggregate insight inside the actual schooling local area and showed a culture of sharing dependent on the independence of the Physical Education Research Society and organizations among associates.

#### **8. Groundwork for Improved Evaluations**

Online actual training execution is hard to assess. Conventional assessments are very restricted, including on the web and disconnected incorporated assessments, process-situated assessments, and active work arranged assessments. The exploration members adjusted their assessment strategies to decide if the understudy accomplishment principles were met and regardless of whether headway to the following class was fitting. One trait of online schooling is that understudies can foster one of a kind thoroughly considering learning exercises that address their issues and develop innovativeness through the method involved with thinking. Assessment strategies should be improved to catch the most common way of expressing understudies contemplations. It is important to lead assessments as a review to comprehend the instructive worth of online actual training classes, similar as the manner by which the exploration members extended the assessment to survey analysis, arrangement, and accomplishment notwithstanding execution.

**DISCUSSION:**

This review analyzed the hardships instructors experienced in running web-based actual training classes following the beginning of web based tutoring in Indian with regards to COVID-19 and introduced a proficient activity plan for future internet based actual schooling classes. The troubles of working internet based center and secondary school actual training classes included dullness identified with restricted ecological conditions and instructive substance, which eventually diminished the viability of passing on to understudies the worth of actual training. It is fundamental in this light to examine the worth of actual training during on the web classes. Second, actual training educators the nation over needed aptitude in utilizing on the web content and needed to turn to experimentation techniques. To resolve issues like these, we expect that compelling substance will create in different ways because of the COVID-19 flare-up. Third, understudy assessments directed as per the assessment rules proposed by the Indian Ministry of Education were extremely restricted, and a precise assessment was unrealistic in view of the internet based nature of the classes. There is plausible that another assessment technique that can be worked adequately in web-based classes should be built. In this review, the exploration members didn't have broad involvement with data and correspondence innovation coming into the pandemic and the coming of online instruction, yet they by the by effectively partook in internet based actual schooling classes and assumed the part of agents of Indian, putting forth the dynamic attempts needed by the occasions. At last, the need is clear to investigate different instances of online actual training, instructors and understudies encounters, and their importance, to work on the generalizability of the illustrations learned.

**CONCLUSION:**

The review discoveries had a few ramifications. To begin with, it is important to concentrate on the condition of various nations encounters in internet based guidance actual schooling guidance, contrasting and investigating how online actual training classes are directed around the world. In like manner, there is a need to survey and arrange ways to deal with online actual instruction classes that feature each country's social and instructive attributes and to inspect the viability of online actual schooling classes all in all. Second, there is a need to investigate the capability of online actual schooling classes connected to up close and personal actual instruction classes to analyze their particular viability and expected potential outcomes considering actual training educators expanded mastery acquired through their activity of online actual training classes. Third, future examinations ought to build up a hypothetical structure for online actual training classes by inspecting the instructive benefit of altering existing academic strategies, content, assessments, etc to all the more successfully show online actual schooling classes. Fourth, future examinations ought to likewise analyze the proficiency and affordances of various internet based stages utilized by actual instruction instructors and assess their generalizability across real school locales, particularly as original apparatuses are created.

**REFERENCES:**

1. Blaine, A.M. Interaction and presence in the virtual classroom: An analysis of the perceptions of students and teachers in online and blended Advanced Placement courses. *Comput. Educ.* **2019**, *132*, 31–43. [Google Scholar] [CrossRef]
2. Son, C.H.; Kang, S.G.; Ha, S.J. Study on application of online instruction for enhancing rights for learning: Focusing on high schools. *J. Creat. Inf. Cult.* **2016**, *2*, 9–22. [Google Scholar]
3. Lee, E.J. A study on college students' perception on convenience in online courses. *J. Educ. Inf. Media* **2010**, *16*, 341–362. [Google Scholar]
4. Lee, N.H.; Jung, H.R. The effects of the flipped learning sensory integration therapy class using online learning platform on learning participation. *Indiann Entertainment Ind. Assoc.* **2018**, *12*, 247–256. [Google Scholar] [CrossRef]
5. Yong, N. On-line classroom visual tracking and quality evaluation by an advanced feature mining technique. *Signal Process. Image Commun.* **2020**, *84*, 115817. [Google Scholar]
6. Jeong, Y.S. Providing high school students with online instruction for optional curriculum. *Indian Contents Soc.* **2014**, *14*, 500–508. [Google Scholar] [CrossRef]
7. Lm, H.J.; Kim, S.J. Development and application of e-learning contents to pre-service physical education teacher education. *Indiann J. Sport Pedagog.* **2007**, *14*, 21–40. [Google Scholar]
8. Lyu, M.J. A case study on structure and possibility of online courses in physical education. *J. Res. Curric. Instr.* **2011**, *15*, 353–370. [Google Scholar]
9. Hong, S.H. A study on teaching and learning plan of physical education in middle school using blended learning strategy linked. *Indiann J. Phys. Educ.* **2006**, *45*, 387–402. [Google Scholar]
10. Van Manen, M. *Researching Liver Experience*; The University of Western Ontario: London, ON, Canada, 1990. [Google Scholar]

# COVID-19 PANDEMIC AND ILL HEALTH IN SPORTS: CRITICAL STUDY

**Dr. SACHIN DAULAT YELBHAR**

Karmaveer Bhaurao Patil Mahavidyalay Pandharpur Tq. Pandharpur . Dist. Solapur. Maharashtra

## ABSTRACT:

Various late Managing Sport and Leisure critiques have investigated how COVID-19 is contacting sport. Our discourse adds to these conversations by considering COVID-19, lockdown and (handicap) sport. This is particularly relevant given the situating of debilitated individuals as especially powerless corresponding to current political talk. Four central issues of conversation are engaged upon. In the first place, we investigate how the media has taken care of issues concerning (inability) sport during lockdown. Second, thought is given to how wearing and active work openings have been advanced during lockdown. Third, we center around the idea of incorporation and investigate the manners by which this has flourished during lockdown. Fourth, consideration is given to local area (incapacity) sport post-lockdown and how might affect inability sport. We close by contending that the future tradition of lockdown and COVID-19 will educate us much regarding how crippled individuals have truly been embraced inside sport.

**KEYWORDS:** *COVID-19; lockdown; disability sport; inclusion; media*

## INTRODUCTION:

In England, sports clubs and recreation focuses locked their entryways weeks prior. There is a quietness in and around sports stadia. A canine scrabbling for a tennis ball on a neighborhood football pitch is the nearest anybody has come to playing football. Individuals have (re)found elective exercises with strolling, running and cycling profiting from expansions in cooperation (Sport England, 2020). This is the truth of lockdown for some individuals who appreciate playing sport as well as being genuinely dynamic. For ardent avid supporters, there could be as of now not should have passes to source or live brandishing accomplishments to be watched on the TV. All things considered, devoted games channels are circulating replays of vital matches and occasions. There has been a flood in virtual contests empowering a few avid supporters to get their fix of Formula One and football. Different games have live streamed patio conflicts between world-positioned competitors, for instance, the new shaft vault rivalry including Katerina Stefanidi, Katie Nageotte and Alysha Newman. Indeed, even with these lockdown choices, watching or playing sport is altogether different from what we have recently experienced.

Backing out of lockdown, numerous nations are taking on a staged progress and there remain inquiries over what this will mean for spectating sport and partaking in neighborhood and local associations at the core of our networks. For grassroots game clubs, concerns have been communicated about their future, with The European Sport NGO (ENGSO) cautioning in sport, particularly at grassroots level, this monetary emergency will bring about the liquidation of affiliations and clubs (ENGSO, 2020a, p. 2). Aware of this, some United Kingdom (UK) public games chambers are offering direction and backing. For instance, Sport England has set up a Community Emergency Fund focusing on nearby game clubs, territorial associations and associations. The truth will surface eventually if these sorts of measures will empower local area game to endure post-lockdown. Various ongoing Managing Sport and Leisure editorials have

investigated how COVID-19 is contacting sport. Our discourse reacts to the call to look at how the people who are engaged with sport have responded to the pandemic and the manners in which they expect this might affect on sport later on (Parnell et al., 2020). In doing this, we expand conversations by investigating COVID-19, lockdown and (inability) sport.<sup>1</sup> We forefront issues of handicap as we are cognizant that crippled individuals have generally been situated on the edges of society and thought about mediocre in sport (DePauw, 1997). This is reflected through the longstanding supposition that handicapped individuals can't take an interest in sport due to their debilitation. Obviously, more contemporary thoughts regarding handicapped individuals and game are rearticulating and esteeming crippled members.

The developing profile of the Paralympics has gone some approach to upgrading these understandings (Pullen et al., 2019). In any case, there stay continuous variations in sport support among handicapped and non-crippled individuals. For instance, while 81% of debilitated individuals might want to accomplish greater action (in examination contrasted with 57% of non-handicapped individuals), just 40% feel they are given freedoms to do as such, contrasted with 71% of non-impaired individuals (Activity Alliance, 2020a). Worries about the eventual fate of (incapacity) sport are maybe more relevant when considered considering the situating of handicapped individuals as especially powerless according to current political talk. Various writers have as of now raised worries about the effect of COVID-19 on debilitated people groups wellbeing and prosperity just as their admittance to assets and financing (Kwok, 2020; Smith and Judd, 2020).

In view of these issues, this analysis talks about four focuses rising up out of lockdown. To start with, how the media has taken care of issues concerning (inability) sport during lockdown. Second, how wearing and active work openings have been advanced during lockdown? Third, the manners by which consideration has flourished during lockdown. Fourth, thought is given to local area (handicap) sport post lockdown.

In shutting this piece, we hypothesize about the conceivable effect of the tradition of COVID-19 on sport for debilitated individuals. We arrange this discourse inside the setting of England, which is critical to perceive, as the public reactions to COVID-19 are altogether different across countries, even inside the UK. Besides, enactment and backing for crippled individuals vary across nations, as does the framework and arrangement made for debilitated individuals in sport.

These reflect various types of students and are mindful of consideration. These essential associations have a public dispatch to help incapacitated individuals and incorporation. Their history in creating comprehensive materials is probably going to have added to the quick reaction in advancing these assets. For the YST, this was accomplished in spite of the furloughing of most of their labor force. What these locally established assets show is that transformations can promptly be made to advance comprehensive movement. Regardless of an underlying sign of declining actual work designs (Sport England, 2020), we would contend that for some crippled individuals these new online assets may give an invigorating option in contrast to the negative encounters now and then experienced when getting to game and action programs in pre-lockdown times (Ives et al., 2019; Williams and Smith, 2018). The test present lockdown is on more immovably install the mindset found in these assets in the personalities of every one of those accused of advancing and conveying sport and actual work.

Like the associations referenced over, the Activity Alliance likewise includes content on its site and other web-based media channels dedicated to locally established active work. Get Dynamic at Home has a particular spotlight on adjusting exercises (Activity Alliance, 2020b). The Activity



Alliance expressly upholds Sport Englands #StayInWorkOut crusade and does this by utilizing the STEP apparatus to offer individuals a method for contemplating how to adjust exercises. This way to deal with action commitment has been upheld for a number of years, and numerous NGBs keep on using this device in their mentor schooling as it empowers professionals to think about how the space, errand, hardware and individuals associated with exercises can be altered. The Activity Alliance recommends that the STEP apparatus is one of the best ways of utilizing family things to be dynamic, which makes it especially important during lockdown (Activity Alliance, 2020c). Inside sport, the take-up and reach of the standards supporting devices like STEP have now and again been restricted. We say this perceiving that game is secured to specific customs and has watchmen including PE instructors and mentors attempting to keep up with business as usual (Fitzgerald, 2018). All things considered, during lockdown homes and cultivates have been loaded up with individuals certainly utilizing the standards of STEP.

Generally, this time of lockdown has seen a flood in the quantity of accidental trailblazers of comprehensive practice. For example, the web-based media takes care of for Sport Englands Join the Movement are loaded with instances of action and hardware advancements utilizing dish, bowls, water bottles, babies, seats and natural product. Essentially, there keeps on being a constant flow of other YouTube cuts circling where turning washing lines, wheeled carts, seats, plant pots and fences have been utilized to make new exercises and difficulties. Concerns are oftentimes raised with regards to the requirement for PE educators, mentors, and different professionals to get further preparing around working comprehensively and with debilitated individuals (Stevenson, 2009). It is obvious to us however that the accidental pioneers of comprehensive practice found in many homes the nation over show that innovativeness, creative mind and putting the member initially can cure the exclusionary elements of game and proactive tasks (Fitzgerald and Donovan, 2017). Here we are not proposing that comprehensive preparing isn't required in sport, however featuring that when tested to do as such, people can be ingenious and versatile with restricted assets which will add to comprehensive encounters. All the more yearningly, nonetheless, we are confident that the innovativeness and advancement showed by people during lockdown may impart them with certainty to be guardians in working with sport and actual work openings for others later on. Local area (inability) sport post lockdown Recently in England, as a feature of a staged way to deal with backing out of lockdown, individuals residing in a similar family would now be able to play sport together and it is reasonable to play tennis, golf and go fishing with social removing conditions set up. This makes one wonder however, what does the future hold for overseeing SPORT AND LEISURE 5 local area (handicap) sport post-lockdown?

We have most likely that there will be a few difficulties ahead, and say this realizing that there has been a drawn out time of somberness that has affected for quite a while on a scope of public area exercises, including local area sport (Findlay-King et al., 2018). Coronavirus will almost certainly add further strain to nearby legislatures currently restricted assets. Added to this, the diminished games area labor force that has come about because of the new leave is probably going to influence the speed at which sports can restore their projects and exercises. Obviously, facilitating lockdown will likewise bring worries for some with regards to social-reintegration and fears about the proceeded chances COVID-19 might in any case present (Williams et al. 2020).

This has shaken the actual embodiment of how individuals draw in with sport and active work. Set inside the setting of COVID-19, lockdown and game, we have mentioned some fundamental observable facts regarding how sport for handicapped individuals, and relatedly ideas of

consideration, are faring in these unsure occasions. Recorded as a hard copy this, we are not just worried about this specific crossroads in history yet in addition have as a top priority the effect the tradition of lockdown and COVID-19 might have on (handicap) sport. Our perspectives regarding what this will bring for the eventual fate of incapacity sport change.

When feeling negative, we surrender that the media and society all the more comprehensively will keep on seeing handicap sport from a perspective of inadequacy which brings about the proceeded with underestimation of impaired individuals. Relatedly, we are additionally worried that local area game might zero in less energy on (incapacity) sport and the consideration of impaired individuals as it coordinates assets and endeavors to different regions. Hopefully however, we are cheered to track down a more open and versatile standpoint towards sport and actual work in homes and cultivates the nation over, which for some has brought about them reconsidering being truly dynamic. For our purposes, it is this very standpoint that should be clutched a long ways past COVID-19, however not just in our homes. We really want to keep on assembling the aggregate endeavors of PE and game professionals who are now effectively reexamining the conveyance of actual work during these difficult occasions. We accept that this can possibly empower beforehand latent (incapacitated) individuals to imagine how active work can turn into a piece of their everyday schedules, and in manners that are charming, fulfilling and significant.

#### REFERENCES:

1. Activity Alliance. (2020a). Annual Disability and Activity Survey 2019/20 Activity Alliance Research Briefing Activity Alliance.
2. [http://www.activityalliance.org.uk/assets/000/003/308/Annual\\_Disability\\_and\\_Activity\\_Survey\\_%E2%80%93\\_executive\\_summary\\_original.pdf?1579607707](http://www.activityalliance.org.uk/assets/000/003/308/Annual_Disability_and_Activity_Survey_%E2%80%93_executive_summary_original.pdf?1579607707)
3. Activity Alliance. (2020b). Adapting activities. <http://www.activityalliance.org.uk/get-active/at-home/adapting-activities>
4. Activity Alliance. (2020c). STEP tips for disabled people, families and friends. [http://www.activityalliance.org.uk/assets/000/003/442/STEP\\_tips\\_for\\_disabled\\_people\\_families\\_and\\_friends\\_original.pdf?1587643802](http://www.activityalliance.org.uk/assets/000/003/442/STEP_tips_for_disabled_people_families_and_friends_original.pdf?1587643802)
5. Ahmed, M., Di Stefano, M., & Nicolaou, A. (2020, April 5). Can the sports industry survive the coronavirus shutdown? The Financial Times, <https://www.ft.com/content/fd7e58ec-7438-11ea-95fed274e920ca>
6. Association Internationale des Écoles Supérieures d'Éducation Physique. (2020, April 24). Joe Wicksthe face of PE? AIESEP #CoffeeWithColleagues (91). In Playing with research in health and physical education. AIESEP. <https://podcasts.apple.com/us/podcast/playing-with-research-in-health-and-physical-education/id1434195823>
7. Clarkson, B. G., Culvin, A., Pope, S., & Parry, K. D. (2020). Covid-19: Reflections on threat and uncertainty for the future of elite women's football in England. *Managing Sport and Leisure*. Advance online publication. <https://www.tandfonline.com/doi/full/10.1080/23750472.2020.1766377>

# A BRIEF STUDY ON THE ROLE OF EXPERT YOGA TRAINER GUIDANCE ON CONTROLLING LOWER BACK PAIN THROUGH INTEGRATED YOGA THERAPIES

**Ms. Archana B. Uikey**  
Chetana College Bandra Mumbai

## **ABSTRACT:**

### **CONTEXT:**

Chronic low back pain (CLBP) is a tremendous public health problem that has reached epidemic proportions. Yoga therapy has emerged as one of the complementary and opportunity therapies for CLBP.

### **AIM:**

The present study reports the development, validation, and feasibility of an integrated yoga therapy module (IYTM) for CLBP under expert yoga trainer guidance.

### **SETTINGS AND DESIGN:**

This take a look at became finished at the Yoga Center in Mumbai, Maharashtra. The IYTM under guidance of yoga expert for CLBP became designed, confirmed, and later examined for feasibility in patients with CLBP.

### **MATERIALS AND METHODS:**

In the first segment, IYTM for CLBP became designed primarily based on the literature evaluate of classical texts and currently posted studies research. In the second section, designed IYTM (26 yoga practices) changed into verified by using thirty issue be counted (yoga) professionals. Content validity ratio (CVR) changed into analyzed using Lawshe's method. In the 0.33 section, the proven IYTM (20 yoga practices) was tested on 12 sufferers for pain, disability and perceived strain at baseline and after 1-month of this intervention.

### **RESULTS:**

A overall of 20 yoga practices with  $CVR \geq 0.33$  had been blanketed, 6 yoga practices with  $CVR \leq 0.33$  were excluded from the designed IYTM. The feasibility have a look at with verified IYTM confirmed substantial discount in numerical ache score scale ( $P = 0.02$ ), Oswestry incapacity scale ( $P = 0.02$ ), and Perceived Stress Scale ( $P = 0.03$ ).

### **CONCLUSION:**

The designed IYTM turned into validated through thirty yoga experts and later evaluated on a small pattern. This study has proven that the established IYTM is possible, had no unfavorable outcomes and changed into beneficial in alleviating ache, incapacity, and perceived pressure in patients with CLBP. However, randomized manage trials with large pattern are needed to reinforce the look at.

**KEY WORDS:** Chronic low back pain; content validity ratio; integrated yoga therapy module.

### **INTRODUCTION:**

Chronic lower back pain (CLBP) defined as returned ache lasting  $>12$  weeks. Low lower back ache (LBP) is a commonplace and steeply-priced health hassle; 70–80 % of adults are afflicted by way of it at some point of time in their lives,[1,2] fees attributed to spine troubles

were in thousands of rupees consistent with character. The CLBP 42% incidence price.[3] In addition to the ache, CLBP has also ended in increased psychological misery,[4] improved disability, and decreased health-related fine of existence.[5,6] LBP become identified by using the Health Organization as one of the pinnacle 3 occupational fitness troubles.[7] The complex nature of the CLBP demand multidimensional technique to remedy.[8] There is a huge variety of remedies available for CLBP. A pilot examine by means of Eisenberg et al., showed that, multidisciplinary (integrated) method, which includes traditional care, complementary, and alternative drug treatments (CAM) or each is promising within the remedy of patients with chronic LBP.[9] In the recent beyond yoga has emerged as one of the proof-based CAM in CLBP, that's extensively used throughout the globe. Popularity of yoga has brought about several schools of yoga viz., Iyengar yoga, Viniyoga, Astanga yoga, Hatha yoga, Laughter yoga, Sudarshana kriya yoga, and many others. Stress-associated LBP appears to be the best indication for yoga therapy as massive number of literature supports the equal.[12] Literature review famous that, Viniyoga, Hatha yoga, Iyengar yoga, and Integrated yoga are the maximum normally used forms to deal with LBP.[13-15]. Different colleges of yoga have varying proportions of physical, breathing, and thoughts sports executed through numerous practices. Most of those research discovered a numerous range of advantageous advantages on CLBP. These advances have given us a cause expand a standardized module with the aid of extracting the fine yoga practices out of different schools of yoga, as that they had a not unusual goal "chittavrittinirodhah" (voluntary mastery over the modifications of the mind).[19] The present take a look at report development, validation, and feasibility of demonstrated incorporated yoga therapy module (IYTM) for CLBP.

#### **MATERIALS AND METHODS:**

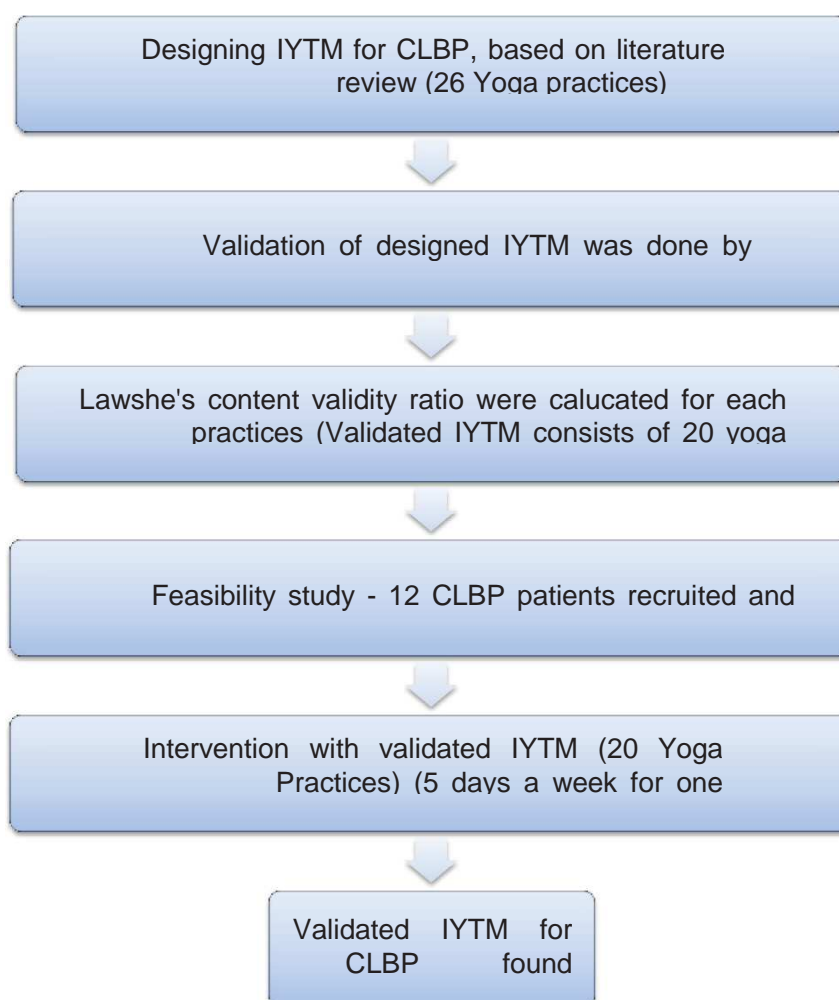
The designing, validation, and feasibility of IYTM for CLBP [Figure 1] were performed inside the following steps:

First phase: Designing of incorporated yoga therapy module for continual low back pain Designing the IYTM for CLBP was completed by using using classical texts,[19-21] latest books on returned pain,[22-27] peer-reviewed research publications and different related resources for the development of IYTM for CLBP.[14-18,28-30] Underlying mechanism of the beneficial outcomes of each yoga exercise yet to be explored. Twenty-six yoga practices have been tabulated under designed IYTM, which had strong assist for beneficial effects on CLBP [Table 1].

Second phase: Validation of incorporated yoga therapy module for continual low returned ache Validation of designed IYTM-26 yoga practices [Table 2] turned into performed with the help of problem remember professional raters (SMEs)/specialists, viz. Doctor of Medicine in Yoga, Doctorates in Yoga with minimal revel in of five years within the subject of yoga, and yoga therapists with a masters in Yoga having minimal revel in of 7 years after put up formal schooling. Thirty SMEs were consented to participate inside the evaluation. They marked content material validity on a 3 (0-2) point scale, viz. Not essential = 0, Useful but no longer essential = 1, Essential = 2. After validation, facts have been analyzed the use of Lawshe's content material validity ratio (CVR).[31]

Third section: Feasibility observe Twelve patients (five male and seven female) with age  $36.75 \pm \text{three}$ . Seventy nine having nonspecific CLBP who consented to participate in the

observe have been recruited from SVYASA Yoga University, Bengaluru, India. The inclusion standards had been (a) History of CLBP of greater than 12 weeks (b) ache inside the lumbar spine without or with radiation to legs and (c) age between 18 and forty five years. Exclusion standards were, (a) CLBP due to organic pathology inside the backbone, like malignancy (primary or secondary) or chronic infections investigated by X-ray of the lumbar spine.[32] The study was approved by the institutional review board and the ethical committee of the



**Figure 1:** Depicts the steps in the development of the integrated yoga therapy module for chronic low back pain

## RESULTS

Results: Content validity 30 SMEs confirmed all the 26 practices of designed IYTM for CLBP. Data were analyzed for content validity the usage of Lawshe's CVR.[31] Lawshe's formula is  $CVR = (ne - N/2)/(N/2)$ , in which, CVR = Content validity ratio, ne = variety of SME panelists indicating "essential," N = Total wide variety of SME panelists, SME. CVR become calculated for all the 26 practices and tabulated [Table 2]. Among them, 20 yoga practices [Table 3] with  $CVR \geq 0.33$  had been included, 6 yoga practices [Table 4] with  $CVR \leq 0.33$  had been excluded from designed IYTM. Mean CVR of confirmed IYTM become  $0.7 \pm 0.24$ . As in line with the Lawshe's CVR ratio the minimum fee for 30 SMEs is 0.33, it approach the CVR ratio finished to

evaluate the content material validity of the IYTM is determined to be huge and the demonstrated IYTM is valid to be used as an intervention for CLBP sufferers.

Twelve CLBP patients, who consented to the study, were intervened with validated IYTM, which consisted of 20 practices with  $CVR \geq 0.33$ . Assessments were done at baseline and after 1 month of intervention. All patients

Specific practices	Ne*	N**	N/2	Ne - N/2	CVR***
Suptaudarakarshanasana (folded leg lumbar stretch)	28	30	15	13	0.86
Shavaudarakarshanasana (crossed leg lumbar stretch)	28	30	15	13	0.86
Pavanamuktasana (wind releasing pose)	27	30	15	12	0.86
Setubandhasana breathing (bridge pose lumbar stretch)	30	30	15	15	1.0
Instant relaxation technique	24	30	15	09	0.6
VyaghraSana (tiger breathing)	24	30	15	09	0.6
Bhujangasana (serpent pose)	27	30	15	12	0.8
Shalabhasana breathing (locust pose)	20	30	15	05	0.33
Shashankasana breathing (moon pose)	16	30	15	01	0.06
Uttanapadasana (straight leg raise pose)	20	30	15	05	0.33
Quick relaxation techniques	27	30	15	12	0.8
Ardhakatichakrasana (lateral arc pose)	24	30	15	09	0.6
Ardhachakrasana (half wheel pose)	20	30	15	05	0.33
Parivrttatrikonasana (revolved triangle pose)	10	30	15	-05	-0.33
Ustrasana (camel pose)	17	30	15	02	0.13
Vakrasana (twisted pose)	14	30	15	-01	-0.06
Viparitarakani (half shoulder stand) with wall support	10	30	15	-05	-0.33
Deep relaxation technique	30	30	15	15	1.0
Vibhagiya pranayama (sectional breathing)	25	30	15	10	0.66
Nadishuddhi (alternate nostril breathing)	30	30	15	15	1.0
Bhramari (humming bee breath)	28	30	15	13	0.86
Dharana/dhyana (meditation)	26	30	15	11	0.73
Nadanusandhana (A, U, M, AUM chanting)	30	30	15	15	1.0
Om Dhyana (Om meditation)	23	30	15	08	0.53
Laghooshankhaprakshalana (yogic colon cleansing)	20	30	15	05	0.33
Trataka (yogic gazing)	09	30	15	-06	-0.4
Mean	22.58	30	15	7.58	0.61
SD	6.53	0	0	6.53	0.39

completed the intervention; no adverse effects were noticed during the study. Data were analyzed using Wilcoxon test, which showed a significant reduction in pain ( $P = 0.02$ ), disability ( $P = 0.02$ ), and perceived stress ( $P = 0.03$ ).

#### DISCUSSION:

This take a look at turned into deliberate in 3 phases viz. (a) designing of IYTM for CLBP (b) validation of IYTM for CLBP via SMEs (c) feasibility look at of verified IYTM. In the first section,

incorporated yoga module for CLBP changed into designed primarily based on literature opinions of conventional textual references, recent research guides, and recommendation from yoga experts. Our complete seek in conventional yogic texts did no longer yield any direct references for yogic practices with the ability of enhancing the CLBP. Greater ranges of content validity exist as large numbers of the panelists agree that a particular object is vital. Using these assumptions, Lawshe advanced a method termed the CVR: Lawshe's formula is  $CVR = (n_e - N/2) / (N/2)$ , wherein the CVR, quantity of SME panelists indicating "critical," general variety of SME panelists. This formulation yields values, which variety from +1 to -1; fantastic values indicate that as a minimum half the SMEs rated the object as crucial. The suggest CVR throughout the objects may be used as a trademark of common. Content validity ratio became calculated for all of the 26 practices of designed IYTM. Among them, 20 practices with  $CVR \geq 0.33$  included in the established IYTM [Table 3]. Other six practices with  $CVR \leq 0.33$  viz., Sasankasana respiration (0.06), Parivrittatrikonasana (-zero.33), Ustrasana / Ardhausanasana (zero.Thirteen), Vakrasana/ Ardhamastyendrasana (-0.06), Viparitarakarni with wall help (-zero.33), Trataka (-zero.Four). These practices had been both complimentary poses for an important posture to align the frame and mind degree. Due to these motives, maximum of the specialists have not taken into consideration them as critical for CLBP. Apart from those 6 practices, all other 20 practices had been considered to be important for CLBP; this made the final CVR ratio satisfy the minimum cost as consistent with Lawshe's CVR ratio. Twelve patients have been intervened with the aid of validated IYTM (20 practices), and that they had been assessed pre- and submit- intervention for pain (NRS), incapacity (ODI), and perceived strain (PSS). All 3 final results measures, confirmed statistically tremendous ( $P < 0.05$ ) fine impact of confirmed IYTM on CLBP patients. All 12 patients finished the intervention, there have been no unfavorable consequences observed for the duration of the have a look at. In case of nonspecific CLBP, proven IYTM may also use as complimentary intervention. However, RCT with large samples are needed to validate its efficacy as a number one intervention.

### CONCLUSION:

Integrated yoga therapy module having 26 practices for CLBP, was designed on the basis of literature review which was bvalidated by 30 Yoga experts. Among 26 yoga practices, 20 were found to be essential ( $CVR \geq 0.33$ ) and 6 not essential ( $CVR \leq 0.33$ ) for CLBP. Feasibility study showed that validated IYTM was found to be beneficial for pain, disability, and perceived stress in patients with CLBP. The present validation brings greater acceptability and better therapy module for CLBP.

### REFERENCES:

1. McBeth J, Jones K. Epidemiology of chronic musculoskeletal pain. *Best Pract Res Clin Rheumatol* 2007;21:403-25.
2. Breivik H, Borchgrevink PC, Allen SM, Rosseland LA, Romundstad L, Hals EK, *et al.* Assessment of pain. *Br J Anaesth* 2008;101:17-24.
3. Martin BI, Deyo RA, Mirza SK, Turner JA, Comstock BA, Hollingworth W, *et al.* Expenditures and health status among adults with back and neck problems. *JAMA* 2008;299:656-64.
4. Deyo RA, Mirza SK, Martin BI. Back pain prevalence and visit rates: Estimates from U.S. national surveys, 2002. *Spine (Phila Pa 1976)* 2006;31:2724-7.
5. Chou R, Qaseem A, Snow V, Casey D, Cross JT Jr, Shekelle P, *et al.* Diagnosis and treatment of low back pain: A joint clinical practice guideline from the American College of Physicians and the American Pain Society. *Ann Intern Med* 2007;147:478-91.
6. Currie SR, Wang J. Chronic back pain and major depression in the general Canadian population. *Pain* 2004;107:54-60.
7. Cherkin DC, Deyo RA, Wheeler K, Ciol MA. Physician variation in diagnostic testing for low back pain. Who you see is what you get. *Arthritis Rheum* 1994;37:15-22.
8. Salzberg L. The physiology of low back pain. *Prim Care* 2012;39:487-98.
9. Eisenberg DM, Buring JE, Hrbek AL, Davis RB, Connelly MT, Cherkin DC, *et al.* A model of integrative care for low-back pain. *J Altern Complement Med* 2012;18:354-62.

10. Shannahoff-Khalsa DS. Patient perspectives: Kundalini yoga meditation techniques for psycho-oncology and as potential therapies for cancer. *Integr Cancer Ther* 2005;4:87-100.
11. Moadel AB, Shah C, Wylie-Rosett J, Harris MS, Patel SR, Hall CB, *et al.* Randomized controlled trial of yoga among a multiethnic sample of breast cancer patients: Effects on quality of life. *J Clin Oncol* 2007;25:4387-95.
12. Wren AA, Wright MA, Carson JW, Keefe FJ. Yoga for persistent pain: New findings and directions for an ancient practice. *Pain* 2011;152:477-80.
13. Verrastro G. Yoga as therapy: When is it helpful? *J Fam Pract* 2014;63:E1-6.
14. Posadzki P, Ernst E. Yoga for low back pain: A systematic review of randomized clinical trials. *Clin Rheumatol* 2011;30:1257-62.
15. Tekur P, Singphow C, Nagendra HR, Raghuram N. Effect of short-term intensive yoga program on pain, functional disability and spinal flexibility in chronic low back pain: A randomized control study. *J Altern Complement Med* 2008;14:637-44.
16. Tekur P, Nagarathna R, Chametcha S, Hankey A, Nagendra HR. A comprehensive yoga program improves pain, anxiety and depression in chronic low back pain patients more than exercise: An RCT. *Complement Ther Med* 2012;20:107-18.
17. Tekur P, Chametcha S, Hongasandra RN, Raghuram N. Effect of yoga on quality of life of CLBP patients: A randomized control study. *Int J Yoga* 2010;3:10-7.
18. Cramer H, Lauche R, Haller H, Dobos G. A systematic review and meta-analysis of yoga for low back pain. *Clin J Pain* 2013;29:450-60.
19. Taimni IK. *The Science of Yoga: A Commentary on the Yoga Sutras of Patanjali in the Light of Modern Thought*. 5th ed. Illinois: Theosophical Publishing House; 1992.
20. Svatmarama. *Hatha Yoga Pradipika of Svatmarama*. 4th ed. Madras: Adyar Library and Research Centre; 1994.
21. Digambarji S, Gharote ML. *Gheranda Samhita*. 1st ed. Lonavala: Kaivalyadhama S.M.Y.M Samiti; 1978



# NUTRITION AND PHYSICAL PERFORMANCE

**Dr. Umesh R. Sadegaonkar**

Shri. Siddheshwar Mahavidhyalaya Majalgaon

## **ABSTRACT:**

The awareness of nutrition plays an important role in sports performance. Many factors can affect the performance of a sports person during competition, which may be related to different domains. Nutrition, physical performance and the level of functional capacity of the human beings are interrelated. Any dietary deficiency that adversely affects the health of the individual is likely to impair his or her physical performance capacity and thus nutrition and wellbeing assumes a vital role in the field of sports. The consequence of extremely prolonged exercise is huge energy expenditure and the subsequent nutrient loss and therefore athletes must be continuously supplied with adequate nutrients, to maintain their optimum nutritional wellbeing.

**KEYWORDS:** Nutrition and wellbeing, physical performance

## **INTRODUCTION:**

Successful athletic performance is a combination of proper training and a sensible approach to nutrition. During the past 20 years, there have been greater developments in health and physical performance. Sports nutrition has many goals to enhance performance. First, it improves performance by improving body composition, which increases speed, quickness, mobility, and strength. Second, it will help the speed of recovery, which will in turn create more capacity for practicing and competition as the body is becoming more fit and adjusted to the coupling of the good nutrition incorporated into the workout regimen. Third, it will allow one to increase energy for both practice and competition, which will definitely help one's performance. Strategic diet will also increase immunity, allowing one to stay healthy and be able to continue and intensify practice and training. Thus, nutritional status is a critical determinant of athletic performance.

Nutrition intake is undoubtedly an important component that has an impact on physical performance of athletes both men & women. Many sports scientists agree on the fact that sports, health and invariably the nutritional status are inter related. Reports from both western countries and India have strongly supported this view that at the very basic level, good nutrition plays an important role in the maintenance of health allowing the athlete to train and compete. In countries such as India where malnutrition is of a public health dimension, poor athletic performance could be partly due to poor physique and unsatisfactory physical fitness resulting from under nourishment. Nutritional status refers to the health of an individual and has a direct bearing on their physical performance and work capacity.

Good nutrition must be a key part of training programmes if one has to succeed. The nutrients are the distinct chemical components in the food. The six major nutrients present in the food are mainly carbohydrates, protein, fats or lipids, vitamins, minerals and water. They are like team mates that work together to provide good nutrition. Just as each team member carries out different tasks during a game, each nutrient performs specific functions in your body. A lack of even one nutrient is a disadvantage to your body. Nutritional deficiencies can result in decreased performance.

## **CARBOHYDRATES:**

Carbohydrates are the most important source of energy. It is the most preferred fuel for sports performance. Glucose is the simplest form of carbohydrate and starch is example of complex carbohydrates. Different forms of carbohydrates, which we consume in the diet, are converted into

glucose in our body, which is then metabolized to produce energy. 1 gm of carbohydrate gives 4-Kilo calories of energy. Foods rich in carbohydrates are Cereals like rice, wheat & wheat products. (Broken wheat rava, pasta etc.) and millets like maize, bajra, jowar, oats, ragi, and roots & tubers like potatoes, sweet potatoes, carrots etc. Carbohydrates contribute 50 to 60% of total energy requirement in a day.

### **PROTEINS:**

Primary role of proteins is bodybuilding and growth. Every organ, tissue and cells in our body is made up of proteins. Proteins help in muscle development, maintenance, and repair of all tissues. Protein requirement for normal people is 1 gm per kg ideal body wt. but for athletes it can be increased to 1.2 to 1.5 grams per kg body wt. in a day. About 60 to 80 grams of protein is sufficient for a day, which can be obtained from milk egg, meat, fish, dhal, pulses, cereals etc. but excess consumption of protein foods is not advisable as it can increase the workload on kidneys and can cause kidney damage in the later stage. It is a misconception that excess consumption of meat, milk, eggs etc. will give energy & stamina.

### **FATS:**

Fats are concentrated source of energy. 1gm of fat will give 9-kilocalories, which is, double the amount produced by carbohydrates. For example, 2 teaspoon of butter and 1 cup of rice gives 100-kilo calories. 20 to 30% of the total energy required in a day should come from fats. It is not good to consume excess amount of fat in the diet, as it will lead to obesity and heart diseases in the later part of life. It is better to avoid lot of butter and ghee and take more of vegetable oils like sunflower oil, soya bean oil or rice bran oil.

### **ENERGY REQUIREMENTS**

Carbohydrates, fats and proteins are known as energy yielding nutrients. But carbohydrates are the major source of energy, then fats and least from proteins. Approximately the caloric need of an athlete is around 3000 k calories per day. During heavy training and competition, the requirement may go up to 5000Kcals per day.

### **VITAMINS AND MINERALS**

Vitamins and minerals are known as the micronutrients as they are found in less amounts in the body, but they play a major role in maintaining many important physiological functions. The main functions of micronutrients are to enable many chemical reactions to occur in the body. Foods rich in vitamins and minerals are also known as “protective foods” as it helps to build body’s resistance and immunity and helps in energy metabolism, strengthening of bones and muscles, good vision, blood formation etc. Fat soluble vitamins are Vitamin A, D, E and K and rich sources are green leafy vegetables, orange yellow fruits and vegetables like carrot mango papaya etc. Important food sources are citrus fruits, milk, eggs, nuts, cereals etc. Vitamin deficiency of all kinds are damaging to work performance and can impair physical work capacity, which is expected to have the most immediate effect.

Major minerals are calcium and phosphorus, which is needed for the bones and teeth, and for muscle functioning. Iron deficiency is associated with decreased work capacity, poor mental performance and reduced hemoglobin levels, which will lead to decreased oxygen carrying capacity and cause anemia. Low calcium levels can cause irregular muscle contractions, bone density loss etc. foods like milk, egg, liver, meat, ragi, oats, green leafy vegetables, dry fruits like dates etc. should be

included in the diet. Other important minerals are sodium potassium, zinc, magnesium, fluoride, iodine, copper etc.that perform specific functions in the body.

### **WATER**

Of all the nutrients water is probably, the most essential for human life .Water constitutes 60-65% of the total body weight, 70% of the muscle composition, and 90% of the blood plasma. When you exercise, your body loses water through perspiration, which can lead to dehydration. Excess loss of water can lead to serious problem for sports people. It causes cramps, vomiting delirium and lead to unconsciousness similar to sunstroke.

### **RECOMMENDED DIETARY ALLOWANCE (RDA)**

An adequate balanced diet is necessary for an effective performance. The nutritional requirements of the athlete are more than the normal persons. However, excess consumption of any nutrient more than the recommended dietary allowance (RDA) will be harmful and dangerous. Following is the RDA for sports persons

NUTRIENTS	DAILY REQUIREMENTS
Energy	3000-5000KCal
Protein	60-90gms
Fat	80-150gms
Calcium	600-800mg
Iron	20-30mg
Vitamin A	750-1000mcg
Thiamine ( B1)	2-3mg
Riboflavin ( B2)	2-3.2mg
Niacin ( B3)	26-36mg
Ascorbic acid (Vit C)	50-80mg

### **DIETARY GUIDELINES FOR SPORTS PERSONS :**

Follow a balanced diet and eat all types of food in moderation

- Never skip breakfast as it the most important meal of the day
- It is better to eat 3- 5 meals a day rather than eating three heavy meals
- Have milk at least 2-3 glasses per day.
- Have plenty of fruits like papaya, guava, citrus fruits, watermelon etc and fruit juices.
- Have sprouted pulses (chana or moong) and salads at least a bowl every day.
- Eat whole cereals like daliya (broken wheat upma) wheat and ragi porridge & Oats.
- Eat dry fruits like dates raisins and nuts like groundnuts almonds etc
- Restrict no vegetarian foods 2-3 times a week and reduce excess consumption of red meat.
- Have plenty of green leafy vegetables, carrots, beetroot and other vegetables.
- Avoid soft drinks, alcohol and too much of coffee, tea, fatty foods and other junk foods and too many sweets. Have only 1-2 eggs per day.
- Never exercise immediately after a meal, or else it can lead to nausea, vomiting, distension and cramping.

### **CONCLUSION:**

It is concluded that the nutrients are very important for sports performance in order to improve their performance. A well balanced diet and effective training and coaching will be the

winning combination and will help the athlete to build up strength and stamina. Hence systematized modification of diet with steady monitoring of the deficiencies if any, by a sport dietitian, linked with skilled training programme and effective nutrition education can definitely lead to better performance.

## REFERENCES :

1. ADA, (1987), "Nutrition for physical fitness and athletic performance in adults: ADA Technical Report", *Journal of American Dietetic Association*, Vol.87, No.7, Pp.933-93
2. Beals, K. and Manore, M. (2007), "*Nutritional considerations for the female athlete*. In: *Advances in Sports and Exercise Science Series*". Philadelphia, PA: Elsevier; Pp.187–206.
3. Brown, R.C. (2002), "*Nutrition for optimal performance during exercise: Carbohydrate and fat*", *Current Sports Medicine Reports* 2002; Vol.1, No.4, P p.222-229.
4. Food and Nutrition Board (2000), "*Dietary Reference Intakes for Thiamine, Riboflavin, Niacin, Vitamin B6, Folate, Vitamin B12, Pantothenic acid, Biotin, and Choline*", Institute of Medicine, Washington, DC: National Academies Press;
5. Food and Nutrition Board (2005), "*Dietary Reference intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids*", Institute of Medicine, Washington, DC: National Academies Press;
6. Lambert, C.P., Frank, L.L. and Evans, W.J. (2004), "*Macronutrient considerations for the sport of bodybuilding*", *Sports Medicine*, Vol.34, No.5, Pp. 317-327.

# “IMPORTANCE OF YOGA IN PHYSICAL EDUCATION AND SPORTS”

**Dr. Amey Vinayak Kale**

Director of Physical Education and Sports, Sahebrao Sankarrao Dhamdhare Arts and Commerce College,  
Talegaon Dhamdhare, Tal – Shirur, Dist – Pune.

## **ABSTRACT:**

Yoga is one of the Indian philosophical systems that emphasizes the importance of working with the body to develop healthy behaviors and thoughts. Physical asanas in all its techniques, which are called asana in Sanskrit. It is important to remember that sports and gymnastics are related to the field of physical education. In our modern society, the term physical education is understood in different ways. Some say it's "Physical education" This is teaching the body to acquire certain skills and abilities. He is using work with the body as a strategy to reach the lofty goals of education: it is important to remember that sports and gymnastics are related to the field of physical education. Both yoga and physical education use the body as a tool to develop vital attitudes and abilities to achieve physical and mental health at their core.

**KEYWORDS:** Yoga, Physical education, Biomechanics, Flexibility, Inhalation, Energized, Strength, Breathing Sport,. etc.

## **INTRODUCTION :**

The word 'yoga' means "to come together or to combine yoga". It brings body and mind together to become a harmonious experience. Man is a physical, mental and spiritual creature; Yoga promotes balanced development of all three. Yoga is a method of learning that maintains a balance of "mind, body and soul." Yoga is a practice of historical origin in ancient Indian philosophy. Yoga is different from other types of exercises because it creates movement without stress and imbalance in the body. Other forms of physical exercise, such as aerobics, only guarantee physical health. They have little to do with spiritual or subtle physical development. Yogic exercises strengthen and facilitate the body with cosmic energy. They have little to do with spiritual or subtle physical development. Yogic exercises recharge and facilitate the body with cosmic energy

### **1. Benefit of Yoga in physical Education :**

Yoga is generally taken as a system of physical education with a spiritual element, although the truth is the opposite: Yoga is a spiritual system with a physical element. The practice of asanas is still a small part of the whole system of physical culture and education called Hatha Yoga.

- A) The role of yoga in education from different angles, including the type of education given to children around the world.
- B) Various stresses that children face. Difficulties, problems, struggles, deviations and wastage of their energy reduced by Yoga.
- C) Introduced some principles and methods of yoga, & to increase children's learning ability.
- D) In order to teach teachers their subjects in a slightly different way, we are teaching children with the idea of developing their whole personality.
- E) Yoga helps about child growth, what psychoanalysis says about child psychology, and how hormones and glands change and influence a child's reasoning, emotional structure, and creative production.

**2. Benefit of yoga in sports :**

- A. Yoga in Sports to reduce injury due to its repetitive nature and consequent musculoskeletal imbalance.
- B. On a physical level, yoga restores the body's balance and symmetry, making it a perfect complement to sports.
- C. Athletes are often drawn to yoga to deal with specific problems, such as improving flexibility or helping with injuries.
- D. The effect of both physical and mental yoga on the runners comes close by using the ability to strengthen the body especially and the muscles.

**3. Physical Benefits of Yoga:****i) Flexibility:**

Many sports people show more flexibility as the first reason to start practicing yoga. This is a good reason, as yoga stretches the muscles, increasing the range of motion in the respective joints. Increased flexibility reduces stiffness, resulting in easier movements and reduces many of the annoying aches and pains.

**ii) Strength :**

Yogasana involves using all the muscles in different muscles. Muscle tone is a by-product of strengthening muscles due to yoga. Yoga helps shape long, lean muscles that do not interfere with the free range of motion in the joints. E.g. In fencing he can develop his skills by making more use of hand and foot strength.

**iii) Biomechanical balance :**

Excessive use of some muscles while using other muscles causes muscle imbalance, which affects the entire musculoskeletal balance and impairs biomechanical function. For most sports individuals, biomechanical imbalances eventually lead to pain and injury. Depending on the action, the muscle is either contracting (i.e., agonist) or lengthening (i.e., antagonistic).

Healthy balance means contracting and stretching to maintain muscle balance as well as efficiency. This is important for runners because hamstrings often need to be lengthened while weak inner quads usually need to be strengthened. Each yoga posture is a balance of stability (muscle contraction and strengthening) and mobility (muscle stretching and lengthening). Only one muscle group is not used at any one time

**4. Fundamental Body function :****I. An Energized Body:**

Many types of exercise deplete the body of its energy reserves. Yet a yoga practice gives oxygen to the blood and generates more energy, making the body and mind feel restored and energized. Yoga provides a vehicle through which the body can actively recover from the physical demands of running.

**II. Improved Breathing: -**

The ability of the lungs is most important for athletes, as it creates the ability to maintain a uniform breathing pattern at all stages of any sport. The better the capacity of the lungs, the more oxygen is transmitted through the system. Which is most suitable for long and strong walks. However, the breathing methods used in running and other types of aerobic exercise include fast and shallow inhalation and exhalation.

Yogic breathing consists of slow, deep inhalation and long breathing. This uses the upper, middle and lower parts of the lungs. Yogic breathing has been shown to increase the capacity of the

lungs and more capacity of the lungs increases endurance. The use of breath is important in yoga. This reduces internal tightness, stress and anxiety. Physically helps the body in poses easily.

## **5. CONCLUSION :**

Incorporating yoga into the school curriculum will help provide quality physical education programs as an improvement over traditional physical education yoga in sports.

Helps in different ways and at different levels in the lives of sports players. Yoga can play an important role in developing mental control and concentration that helps athletes perform in their sport. It gives children and adults the opportunity to succeed in physical activity. This can help build a strong foundation for life. However, it will be easier for curriculum experts, teachers, instructors and students to take the real challenges of classroom teaching and real-life yoga education seriously and analyze them.

## **REFERENCES :**

1. Dune D. The Manual of yoga. W. Fauloshan and co. Ltd., London, 1956, 144.
2. Foiershtain, G. (2001). Encyclopaedia of Yoga. Sofia: LIK.
3. Central Council of BSFS. (1989). Protocol № 22, Decision № 1/19.VI.1989.
4. Bersma, D. & Visscher, M. (2003).
5. Yoga games for children: Fun and fitness with postures, movements and breaths. California: Hunter House Finger, A. (2000).
6. Introduction to yoga: A beginner's guide to health, fitness and relaxation. NewYork, NY: Three River Press

# THE IMPACT OF COVID-19 ON SPORTS, PHYSICAL ACTIVITY AND WELL-BEING AND ITS EFFECTS ON SOCIAL DEVELOPMENT

**Dr. Gopal Laxmikant Moghe**

Director, Physical Education and Sports, Maharashtra Mahavidyalaya, Nilanga, Dist. Latur, (M.S.) India

## INTRODUCTION:

Sport is a major contributor to economic and social development. Its role is well recognized by Governments, including in the Political Declaration of the 2030 Agenda, which reflects on “the contribution sports make to the empowerment of women and of young people, individuals and communities, as well as to health, education and social inclusion objectives.”

Since its onset, the COVID-19 pandemic has spread to almost all countries of the world. Social and physical distancing measures, lockdowns of businesses, schools and overall social life, which have become commonplace to curtail the spread of the disease; have also disrupted many regular aspects of life, including sport and physical activity. This policy brief highlights the challenges COVID-19 has posed to both the sporting world and to physical activity and well-being, including for marginalized or vulnerable groups. It further provides recommendations for Governments and other stakeholders, as well as for the UN system, to support the safe reopening of sporting events, as well as to support physical activity during the pandemic and beyond.

The impact of COVID-19 on sporting events and the implications for social development. To safeguard the health of athletes and others involved, most major sporting events at international, regional and national levels have been cancelled or postponed – from marathons to football tournaments, athletics championships to basketball games, handball to ice hockey, rugby, cricket, sailing, skiing, weightlifting to wrestling and more. The Olympics and Paralympics, for the first time in the history of the modern games, have been postponed, and will be held in 2021.

The global value of the sports industry is estimated at US\$756 billion annually. In the face of COVID-19, many millions of jobs are therefore at risk globally, not only for sports professionals but also for those in related retail and sporting services industries connected with leagues and events, which include travel, tourism, infrastructure, transportation, catering and media broadcasting, among others. Professional athletes are also under pressure to reschedule their training, while trying to stay fit at home, and they risk losing professional sponsors who may not support them as initially agreed.

In addition to economic repercussions, the cancellation of games also impacts many social benefits of global and regional sport events, which can cement social cohesion, contribute to the social and emotional excitement of fans, as well as their identification with athletes leading to greater physical activity of individuals. Sport has long been considered a valuable tool for fostering communication and building bridges between communities and generations. Through sport, various social groups are able to play a more central role towards social transformation and development, particularly in divided societies. Within this context, sport is used as a tool for creating learning opportunities and accessing often marginal or at-risk populations.

Major sporting organisations have shown their solidarity with efforts to reduce the spread of the virus. For example, FIFA has teamed up with the World Health Organisation (WHO) and launched a ‘Pass the message to kick out coronavirus’ campaign led by well-known football players



in 13 languages, calling on people to follow five key steps to stop the spread of the disease focused on hand washing, coughing etiquette, not touching one's face, physical distance and staying home if feeling unwell. Other international sport for development and peace organizations have come together to support one another in solidarity during this time, for example, through periodic online community discussions to share challenges and issues. Participants in such online dialogues have also sought to devise innovative solutions to larger social issues, for example, by identifying ways that sporting organisations can respond to problems faced by vulnerable people who normally participate in sporting programmes in low income communities but who are now unable to, given restriction to movement.

The closure of education institutions around the world due to COVID-19 has also impacted the sports education sector, which is comprised of a broad range of stakeholders, including national ministries and local authorities, public and private education institutions, sports organizations and athletes, NGOs and the business community, teachers, scholars and coaches, parents and, first and foremost, the – mostly young – learners. While this community has been severely impacted by the current crisis, it can also be a key contributor to solutions to contain and overcome it, as well as in promoting rights and values in times of social distancing.

As the world begins to recover from COVID-19, there will be significant issues to be addressed to ensure the safety of sporting events at all levels and the well-being of sporting organizations. In the short term, these will include the adaptation of events to ensure the safety of athletes, fans and vendors, among others. In the medium term, in the face of an anticipated global recession, there may also be a need to take measures to support participation in sporting organizations, particularly for youth sports.

The impact of COVID-19 on physical activity and well-being. The global outbreak of COVID-19 has resulted in closure of gyms, stadiums, pools, dance and fitness studios, physiotherapy centres, parks and playgrounds. Many individuals are therefore not able to actively participate in their regular individual or group sporting or physical activities outside of their homes. Under such conditions, many tend to be less physically active, have longer screen time, irregular sleep patterns as well as worse diets, resulting in weight gain and loss of physical fitness. Low-income families are especially vulnerable to negative effects of stay at home rules as they tend to have sub-standard accommodations and more confined spaces, making it difficult to engage in physical exercise.

The WHO recommends 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity physical activity per week. The benefits of such periodic exercise are proven very helpful, especially in times of anxiety, crisis and fear. There are concerns therefore that, in the context of the pandemic, lack of access to regular sporting or exercise routines may result in challenges to the immune system, physical health, including by leading to the commencement of or exacerbating existing diseases that have their roots in a sedentary lifestyle.

Lack of access to exercise and physical activity can also have mental health impacts, which can compound stress or anxiety that many will experience in the face of isolation from normal social life. Possible loss of family or friends from the virus and impact of the virus on one's economic wellbeing and access to nutrition will exacerbate these effects.

For many, exercising at home without any equipment and limited space can still be possible. For those whose home life can involve long periods of sitting, there may be options to be more active during the day, for example by stretching, doing housework, climbing stairs or dancing to music. In addition, particularly for those who have internet access, there are many free resources on how to

stay active during the pandemic. Physical fitness games, for example, can be appealing to people of all ages and be used in small spaces. Another important aspect of maintain physical fitness is strength training which does not require large spaces but helps maintain muscle strength, which is especially important for older persons or persons with physical disabilities.

The global community has adapted rapidly by creating online content tailored to different people; from free tutorials on social media, to stretching, meditation, yoga and dance classes in which the whole family can participate. Educational institutions are providing online learning resources for students to follow at home.

Many fitness studios are offering reduced rate subscriptions to apps and online video and audio classes of varying lengths that change daily. There are countless live fitness demonstrations available on social media platforms. Many of these classes do not require special equipment and some feature everyday household objects instead of weights.

Such online offerings can serve to increase access to instructors or classes that would otherwise be inaccessible. However, access to such resources is far from universal, as not everyone has access to digital technologies. For individuals in poorer communities and in many developing countries, access to broadband Internet is often problematic or non-existent. The digital divide has thus not only an impact on distance banking, learning or communication, but also on benefitting from accessing virtual sport opportunities. Radio and television programmes that activate people as well as distribution of printed material that encourages physical activity are crucial in bridging the digital divide for many households living in precarious conditions. Young people are particularly affected by social and physical distancing, considering sport is commonly used as a tool to foster cooperation and sportsmanship, promote respectful competition, and learn to manage conflict. Without sport, many young people are losing the support system that such participation provided. Currently some organizations, and schools have begun using virtual training as a method for leagues, coaches and young people to remain engaged in sport activities while remaining in their homes.

## **CONCLUSIONS AND RECOMMENDATIONS:**

The COVID-19 pandemic has had and will continue to have very considerable effects on the sporting world as well as on the physical and mental well-being of people around the world. The following recommendations seek to both support the safe re-opening of sporting events and tournaments following the pandemic, as well as to maximize the benefits that sport and physical activity can bring in the age of COVID-19 and beyond.

## **THE IMPACT OF COVID-19 ON SPORTING EVENTS**

### **1. Sporting federations and organizations:**

Governments and intergovernmental organizations may provide sports federations, clubs and organizations around the world with guidance related to safety, health, labour and other international standards and protocols that would apply to future sport events and related safe working conditions. This would allow all stakeholders to work cooperatively as a team with the objective to address the current challenges and to facilitate future sports events that are safe and enjoyable for all.

### **2. Professional sports ecosystem:**

The sport ecosystem, comprising of producers, broadcasters, fans, businesses, owners and players among others, need to find new and innovative solutions to mitigate the negative effects of COVID19 on the world of sport. This includes finding ways to engage with fans in order to ensure safe sport events in the future while maintaining the workforce, creating new operating models and venue strategies.

**The impact of COVID-19 on physical activity and well-being****1. Supporting physical activity:**

Governments should work collaboratively with health and care services, schools and civil society organizations representing various social groups to support physical activity at home. Enhancing access to online resources to facilitate sport activities where available should be a key goal in order to maintain social distancing. However, low-tech and no-tech solutions must also be sought for those who currently lack access to the internet. Creating a flexible but consistent daily routine including physical exercise every day to help with stress and restlessness is advisable.

**2. Research and policy guidance:**

The United Nations system, through its sports policy instruments and mechanisms such as the Intergovernmental Committee for Physical Education and Sport,<sup>7</sup> as well as through its research and policy guidance should support Governments and other stakeholders to ensure effective recovery and reorientation of the sports sector and, at the same time, strengthen the use of sports to achieve sustainable development and peace. Scientific research and higher education will also be indispensable pillars to inform and orient future policies.

**3. Technical cooperation and capacity development:**

Governments, UN entities and other key stakeholders should ensure the provision of capacity development and technical cooperation services to support the development and implementation of national policies and approaches for the best use of sport to advance health and well-being, particularly in the age of COVID-19.

**4. Outreach and awareness raising:**

Governments, the United Nations and the sporting community, including the sporting education community, should disseminate WHO and other guidance on individual and collective measures to counter the pandemic. Measures must be taken to reach communities that have limited access to the Internet and social media and that can be reached through cascading the sport education pyramid from the national/ministerial level down to the provincial/municipal level, from the national physical education inspector down to the teacher, from the national sport federation down to the clubs. In turn, escalating the pyramid provides for important feedback to identify needs and share specific solutions. Athletes, while deeply affected by the pandemic, remain key influencers to ensure that – especially young – audiences understand risks and respect guidance.

**5. Promoting positive social attitudes and behaviour:**

Sport education is a powerful means to foster physical fitness, mental well-being, as well as social attitudes and behaviour while populations are locked down. International rights and values based sport education instruments and tools, such as the International Charter of Physical Education, Physical Activity and Sport, the Quality Physical Education Policy package and the Values Education through Sport toolkit remain highly relevant references to ensure that the many online physical activity modules that are being currently deployed comply with gender equality, non-discrimination, safety and quality standards.

**REFERENCES:**

1. United Nation website.

# IMPORTANCE OF DIET DURING COVID-19 SITUATION

**Dr. P. S. Ranmal**

HOD Sports & Physical Education, Vasundhara College, Ghatnandur, Block Ambajogai, Dist. Beed.

## ABSTRACT:

This research is focusing on diet which is very helpful in the pandemic situation of Covid-19. With the medicine the diet is playing vital role in the affection of Covid-19, and also meditation and Yoga, exercise also helpful with diet. Here some diet and foods are suggested for improve immunity rapidly and also suggested some important diet plans for different personalities. The wave of coronavirus in the country is becoming dangerous every day. In this, the symptoms of infection are different than before and it is spreading more rapidly than before. The government and doctors are repeatedly asking people to take precautions. But in view of the ever-increasing cases, recently the World Health Organization has advised that proper nutrition and hydration is very important to fight wave of Covid-19. According to the WHO, people who eat a balanced diet have a stronger immune system and are less prone to infectious diseases. If Covid-19 is to be defeated, then every person has to eat foods rich in vitamins, minerals, fiber, protein and antioxidants. Doctors and health counselor says that, proper diet can help to individual for protect from disease and also recover earlier if affected. If we implement the suggested diet there will be definitely help for anyone rather than loss.

## KEYWORDS:

Importance of Diet, Pandemic, Immunity, Covid-19, Balanced diet, Nutrition.

## INTRODUCTION:

The issue of health and especially food, diet and hygiene has suddenly come up very high in the priority of the people. It is not that these things did not happen in the priority of the people earlier. Yes, it was definitely that food and cleanliness were the things of our lifestyle, in which likes and dislikes were given more priority. These days some people are worried about whether the disease of Covid-19 spreads through food and drink. The organization has said that given the current situation, people must be aware of the specific types of food that can strengthen our immune system to combat Covid-19. So let us tell you in this research paper, what are the guidelines related to diet and lifestyle given by the organization to face Covid-19. Staying indoors, social distance only keeps the virus away from the infected person but does not increase the immunity of the body. To increase immunity in the body, the amount of fruits and vegetables should be increased in the regular diet. For this, adopt the 2 percent rule of food. To increase the immunity of the body, one should definitely take fresh fruits and green vegetables in the morning on an empty stomach as well as a balanced diet is a diet consisting of a variety of foods in certain quantities and proportions so that calories, proteins, minerals, vitamins and alternative nutrients are adequate and a small portion is reserved for nutrients. In addition, a balanced diet should contain bioactive phytochemicals such as dietary fiber, antioxidants that have positive health benefits. A balanced diet should contain 60-70% of total calories from carbohydrates, 10-12% from protein and 20-25% of total calories from fat.

## Right diet is the Right *mantra*:

Staying home full time in lockdown is raising serious health concerns in which diet plays an important role. In the present scenario, our physical activities have decreased relatively while food

intake has increased, due to which the driving force of our diet has become unbalanced, which can lead to many health disorders. Follow a healthy diet regimen, which consists of right food choices and more importantly what, how, when and where we eat, will improve our immunity. Conversely, bad habits and food choices weaken our immunity, making us easy prey for virus infections and diseases. To stay healthy in every circumstance, the 'right diet' is the 'right mantra'.

### **Covid-19 and Indian Diet:**

A lot of energy is spent in fighting the virus present inside the body, due to which we feel tired. It is necessary to include calorie rich foods in your diet at this time to get back in form. Including whole grains like millets, oats, rice and starchy vegetables like potatoes, sweet potatoes can help increase calorie intake and make you energized.

To fight Corona, good food and immunity are needed. Make a habit of taking a balanced diet to protect yourself from viruses and diseases. There are three pillars of diet in COVID. Vitamin C, Vitamin D and Zinc. Have juicy fruits for vitamin C. Vitamins and minerals are available from green vegetables. Zinc will be obtained from garlic buds. Ginger will help fight the infection. Vitamin D comes from curd and minerals from spinach. Almonds provide essential vitamins. Sunflower seeds also provide vitamins and minerals. Turmeric, green tea, papaya are beneficial. Kiwi fruit is also a treasure trove of nutrients.

### **Covid-19 Affected Patient's Plate:**

Simple home cooked food is best. Vegetable, dal, rice plate is best. Multi grain roti is best in recovery. Fat, fiber-rich foods, protein, vitamin-rich foods, minerals, anti-oxidants, folate are all essential. The food of the patient should be clean and hot. Portions should be small but protein-rich. Plenty of beverages throughout the day is essential. Junk food, fried things should not be eaten. Avoid high sugar drinks as well.

### **Immunity increases by eating food at short intervals:**

In general, the patient of corona often loses his ability to taste and smell. In such a situation, he does not get the taste of any kind of food. During treatment, due to medicines and fever, they do not have the desire to eat food, but by eating something for a short time, the body's immunity to fight the disease remains.

### **Eat fruits and vegetables:**

This maintains the energy level in the body. If corona is positive, if you eat fruits and vegetables rich in vitamins and minerals in good quantity, then it will be beneficial. If you want, you can take dark chocolate with 70 percent cocoa. Covid patients have a bad taste in the mouth or have difficulty in swallowing food, such people are suggested to have soft food once in a while.

### **Drinking water and juices for improving immunity:**

You must have often heard that everyone should drink 2 to 3 liters of water daily, especially as a protection against the corona virus epidemic, people are keeping themselves hydrated by drinking more water than before, but drinking too much water can be harmful for you. Drink water according to thirst. According to health experts, a person should drink water according to his thirst, drinking water without feeling thirsty can cause you many problems.

You can also consume herbal mixtures, coconut water, milk and fresh juices. Avoid packed juices, caffeine and fizzy drinks.

### **Patient should consume those foods:**

Due to corona, the body feels very weak and tired, in such a situation, the patient should consume those foods, which will increase the strength in the muscles and increase the level of

energy. Experts say that whole grains like *ragi* oats contain a good amount of carbohydrates. It is essential for long term health. Eating cheese, soy, nuts and seeds gives strength to the body. These days, cooking only in walnuts, almonds, olive oil and mustard oil will improve immunity. Covid affected patient should drink turmeric milk once a day.

### **After Recovery What Should be Eat:**

The patient will feel tired for several days even after the Covid cured. To overcome this, it is good to consume energy boosting foods like banana, apple, and orange. Do not forget to include sweet potatoes in salads or meals. Drinking warm water with organic honey and lime will go a long way in relieving fatigue. Despite the corona patient becoming completely healthy, there is weakness in his body. In such a situation, it is very important that not only during the treatment of the disease, but even after that, for a few weeks, keep taking nutritious food and fluids to beat the corona as before. By doing this, the weakness of their body is removed. Along with this, the immunity of their body also develops.

### **Avoid fried food**

Fried foods are high in fat. It is true that often covid positive patients express their desire for fried foods with the intention of improving the deteriorating taste of the mouth. According to a report in 'Curletales', experts suggest that patients should avoid the craving to eat these fried foods during the period of treatment. Such foods can be harmful to the body and can weaken its ability to fight diseases, as such a diet negatively affects the gut microbes and increases the risk of heart diseases by increasing bad cholesterol.

### **SCHEDULE OF DIET DURING COVID-19 PANDEMIC SITUATION:**

**Morning:** 6-7 soaked almonds, 2-3 whole walnuts and 5-6 raisins with herbal decoction made from ginger, basil leaves and coriander seeds. Also, take one bud of raw garlic with water.

**Breakfast:** For breakfast have a tall glass of buttermilk with gram flour/*dal*/*ragi*/spinach cheela with mint chutney or *sabzipoha* or *idlisambar* or *uttapam* with coconut chutney or omelet stuffed with corn and spinach.

**Mid-Morning:** Coconut water with fruit of your choice (kiwi, orange, apple, papaya, pineapple) or juice of beetroot, spinach and amla.

**Lunch:** Cumin rice, *Ajwain* roti, *Rajma*, Carrot *matar* vegetable with a bowl of fresh curd. Or a bowl of curd with egg rice, carom bread, fenugreek potato, lentils (of your choice). Vegetable porridge, with a bowl of chickpea curd.

**After lunch:** 2 pieces of dates (*khajur*).

**Evening:** Herbal tea with sweet potato/chickpeas/*rajma*/corn/sprout *chaat* and any fruit of your choice.

**Dinner:** *Moong dal khichdi* with vegetables.- Rice or vegetable bowl, garlic roti with paneer *bhurji* and mixed vegetables.

**After dinner:** Turmeric milk or turmeric and black pepper water. Increase calorie intake.

### **CONCLUSION:**

After all we can say with proper medicine we need to consume proper and immunity booster food for recover from this fatal disease. Need to avoid spicy foods in your diet. This is because spices can cause acidity. And it can also cause stomach cramps and inflammation. Include fruits in your daily diet. We all know that fruits provide many vitamins. So drink fruit juice or eat fruits regularly. With proper diet plan need to be implemented regularly not for the situation but also for live long and healthy. We should aware about diet and nutrition for our generation to be save.

Therefore, these things with perfect nutrition should be included in the diet to stay physically fit even after recovery from corona disease. It helps in getting healthy and good health forever.

**REFERENCE:**

- 1) Nutrition During the Covid-19 Pandemic: Healthy Recipes to Support the Immune System – by Farah Hashem – (51-53)
- 2) <https://hindi.moneycontrol.com/news/markets/diet-is-your-shield-in-corona-know-how-to-avoid-infection-immunity-virus-disease--balanced-diet-covid-19-257981.html>
- 3) EAT RIGHT DURING COVID-19 GUIDELINES (EAT RIGHT INDIA) by FSSAI department –(06-14-15-16)
- 4) <https://www.loksatta.com/lifestyle/corona-diet-include-these-foods-daily-recover-early-covid-19-scs-2511495/>
- 5) Zinc in human health: effect of zinc on immune cells. by Prasad A. S. Mol Med 2008; 14:353–7.
- 6) Diet, immunity and inflammation (EDS). Cambridge: Woodhead Publishing, - by Calder PC, Yaqoob P. 2013.
- 7) <https://www.amarujala.com/photo-gallery/lifestyle/fitness/coronavirus-update-include-these-things-in-the-diet-immunity-will-be-stronger?pageId=2>
- 8) Association of obesity with more critical illness in COVID-19 by Sharma A, Garg A, Rout A, Lavie C

# **A COMPARATIVE STUDY OF SELECTED HEALTH RELATED PHYSICAL FITNESS COMPONENTS OF DIFFERENT FACULTY GIRL STUDENTS**

**Dr. Kothe C.K.**

Research Guide, B.P.Ed. College, Nanded (Mah.)

**Miss. Shivani**

Research Scholar, School of Educational Science SRTMU, Nanded, (Mah.)

## **ABSTRACT:**

The purpose of the study was to measure strength, flexibility and B.M.I of different faculty girl students. For this study researcher had selected 120 girl's students, 30 from each department. The data pertaining to this study were collected from the girl students of S.R.T.M. University campus Nanded. The age group of the subjects was ranging from 19-25 years. The statistical technique (ANOVA) was used to analyses the data and the level of significance was fixed at 0.05

**KEYWORD-** Strength, Flexibility, B.M.I

## **INTRODUCTION:**

Education means preparation of life. It should help every individual to become all he is becoming. Education must be concerned with developing optimal organic health, vitality, emotional, spiritual, social consciousness, and knowledge, and wholesome attitude, spiritual and moral qualities. These educational objectives can be better achieved through physical education as physical education aims at the development of physically fit, mentally sound, emotionally balanced and socially adjustable individual. Thus physical education has a vital role of play as an integral part of general education which aims at enabling an individual to live in an enriched and abundant life in an every changing world. As physical education and sports help in the development of fundamental skills essential for the daily life activities of the human being and social skill, which aid in making him a well adjusted and useful member of society?

Health is a very important; health people constitute a healthy nation. It is necessary to explain the meaning of health as it is not merely absence of disease but much more. Health is that quantity of life that enables individuals to live most and serve best. Health can be achieved maintained and improved by supplying the basic physical, mental, emotional and social needs in proper proportion. In fact health is the key to education success, good citizenship and happy life. "Health is a state of complete physical, mental and social well being and not merely an absence of diseases or infirmity", (W.H.O. (1948)

## **PHYSICAL FITNESS:**

Physical fitness refers to the organic capacity of the individual to perform the normal task of daily living without undue tiredness or fatigue having reserve of strength and energy available to meet satisfactorily any emergency demands suddenly placed upon him. Softball is a sport requiring high levels of physical fitness. It is one of those rare games which demands not only speed but agility, strength, power and endurance. Softball players need a combination of technical, tactical and physical skills in order to succeed. Improving aerobic capacity and overall fitness boosts performance on the softball field. Cricket is a deceptively demanding sport ; players spend a long day on their feet, there are periodic fast sprints when batting, chasing down a ball , and bowling, pulse various dynamic movements such as leaping, throwing, and turning quickly. It really is vital



that all players should increase their base levels of fitness because that will allow them to realize their potential. It will allow them to maintain their level of performance for longer, increasing their concentration and endurance, and that is something each player will have to do if they want to do themselves justice on the world's biggest cricketing stage. Fitness is important at all levels of the game, whilst being essential for top level players; it is beneficial for beginners who will improve both their effectiveness and enjoyment through good standards of fitness. Fitness enables a player to cope with the physical demands of the game as well as allowing the efficient use of his various technical and tactical competencies throughout the match. Muscular fitness is to the human body what fine-tuning is to an engine. It enables one to perform up to our potential muscular fitness refers to the organic capacity of the undivided to perform the normal task of daily living without under fatigue or tiredness. Having reserves of strength and energy available to meet satisfactorily any emergency demands suddenly placed upon him.

Health is a dynamic state ranging from chronic illness or disability to optimum levels of functioning in all aspects of life. Health has been defined as a human condition with physical, social, and psychological dimensions, each characterized on a continuum with positive and negative poles (from the 1988 International Consensus Conference on Exercise, Fitness, and Health). Within this definition, positive health is associated with life enjoyment and not merely the absence of disease. Negative health is associated with morbidity and at the extreme, premature death. According to the Centers for Disease Control and Prevention (CDC), the definition of physical fitness emphasizes the difference between health-related physical fitness and athletic ability physical fitness. Its point-of-departure is the health of the US nation, which is often referred to as the "public health perspective. Physical fitness is an important part of life. It is an indicator which shows whether you have the ability to perform and enjoy day to day physical activities with ease.

#### **STRENGTH:**

The primary reason why muscular strength is important is its effect on activities of daily living (ADLs). Efficiency and safety during ADLs are two of the most important reasons for becoming proficient in all 5 components of physical fitness. The best way to build fitness for performing ADLs is through functional, or exercises that mimic the activities you do in daily life or your sport of choice. At the very least, to be physically fit in the muscular strength department, you should demonstrate the basic muscular strength needed to efficiently your ADLs. While ADLs vary from person to person, you can also consider activities such as push-ups, pull-ups, and carrying heavy objects to be ADLs.

#### **FLEXIBILITY:**

To some degree, your flexibility determines the efficiency of your muscles. Increased flexibility has also been associated with decreased risk of acute and chronic (overuse) injuries. Poor flexibility can directly affect cardiovascular endurance, muscle strength, and muscular endurance. Physiologically, flexibility can include extra muscular factors, such as range of motion at a joint, as well as intramuscular factor, such as hyper tonicity (knots) within the muscles themselves.

#### **B.M.I.:**

Though BMI has limitations, it is an important measurement tool. It's a rough indicator of current health status and disease risk, based upon weight and degree of obesity. The American Cancer Institute says an abnormal BMI (overweight) in women with breast cancer is associated with

lower survival rates; and according to the American Heart Association, as BMI during childhood climbs, so does the risk of coronary heart disease in adulthood. Additionally, as BMI rises above 25, both blood pressure and cholesterol increase while high-density lipoprotein (HDL) or "good" cholesterol decreases.

#### METHODOLOGY:

For the purpose of this study the researcher had selected 120 girl's students 30 from each department the age of the subjects were ranging from 19-25 years. Variables which were used in this study are as under:-

**Strength:** Hand grip test

**Flexibility:** Sit and Reach Test

**Body Mass Index:** Body fat was measured through the measuring of height and weight.

**One way analysis of variance (ANOVA) statistical technique was employed independently for each selected variable .the level of significance was set at 0.05 level.**

Variable	Source of variation	Degree of freedom	Sum of squares	Mean sum of squares	F-ratio	Sig.
STRENGTH	Between the groups	8.500	7	1.214	.747	.655
	Within the groups	6.500	4	1.625		
BMI	Between the groups	7	67.917	9.702	3.528	.120
	Within the groups	4	11.000	2.750		
FLEXIBILITY	Between the groups	47.000	7	3.313	.2858	.258
	Within the groups	13.250	4			

Significant at 0.05 level

**Discussion on Findings:** According to the finding of statistical analysis it is quite clear that there was no significant difference of Strength and Flexibility among different faculty girls students. As above observed in Strength F ratio was .747. Which is required to be 2.68 at 0.5 level of significance and in Flexibility F ratio were .2858. Which is required to be 2.68 at 0.5 level of significance. It was also observed that there was significant difference of B.M.I among different faculty girls Students. As above observed in F ratio was 3.528 which is required to be 2.68 at 0.5 level of Significance.

#### REFERENCES:

1. Ajmer Singh et. al. ( 2003 ). Essential of physical education.
2. Brusseau TA, (2014 Jun), Health-related fitness of American Indian youth.
3. Bass RW1, Brown DD, Laurson KR, Coleman MM. (2013 Aug), Physical fitness and academic performance in middle school students.
4. Cattuzzo, M.T. (2014 Dec 12), Motor competence and health related physical fitness in youth: A systematic review.
5. Centers for Disease Control and Prevention (CDC), (www.myfitnessroad.com)

6. Cieśła E1, Mleczko E2, at (2014), Health-Related Physical Fitness, BMI, physical activity and time spent at a computer screen in 6 and 7-year-old children from rural areas in Poland.
7. Cuenca-Garcia M1, (2013 Nov-Dec). Clustering of multiple lifestyle behaviors and health-related fitness in European adolescents.
8. De Miguel-Etayo P, (2014 Sep), Physical fitness reference standards in European children: the IDEFICS study.
9. Elżbieta Cieśła1, at (2014), Health-Related Physical Fitness, BMI, physical activity and time spent at a computer screen in 6 and 7-year-old children from rural areas in Poland
10. Grande AJ1, Silva V1, Parra SA2. (2014 Jan-Mar). Effectiveness of exercise at workplace in physical fitness: uncontrolled randomized study.
11. **John F. Kennedy**, (<http://www.health-galaxy.com>)
12. Kwok-Kei Mak1, (2010), Health-related physical fitness and weight status in Hong Kong adolescents
13. Manmeet Gill\*, (2010), Comparative Study of Physical Fitness Components of Rural and Urban Female Students of Punjabi University, Patiala.
14. Vanhelst J, Béghin, L, (2014 Nov-Dec), [BOUGE-fitness test battery: health-related field-based fitness tests assessment in children and adolescent]

# ROLE OF YOGA IN MAINTAIN HEALTH & FITNESS

**Dr. Jyotiram D. Chavan**

Director of Physical Education & Sport, Shri Yoganand Swami Arts College, Basmath.

## INTRODUCTION:

Yogic Pranayama has attained tremendous significance in the new age because Pranayam improves breathing. This is very much benefiting long life as well as for good health. Briefly, it can be said that Pranayama means control of breath in a systematic manner. It has been observed that a “student or athlete who wants to learn Pranayama and continue practising it needs to have a clear idea regarding its scope and limits. As a part of yoga, pranayama should normally be practised along with other parts, such as Asanas and meditation. This gives better results especially in the prevention or cure of disorders.”<sup>1</sup> Here in this study impact of Pranayam on athletes has been examined to understand their improvement in their competence.

Yoga and vitality is a evergreen and younger discipline in the new world. But however, one should not forget that, it is a heritage handed over by Indian Rishis-our ancestors of holding of supreme knowledge “Paramgnayan” through their unique contributions. Yoga can be described as supreme eternal power a light of light, which even enlightens Prana. Yoga is a Vaidic Science of Improving age and health. Vaidic Hymns have chanted peace and harmony through a coherent reflection of truthfulness. Yoga provides peace of mind and improves understanding of life.<sup>2</sup> Yoga or Pranayama can be source of all delights if it is properly performed. Right understanding, right thinking and right action through Yogic Sanskras reach to the salvation and perfection in life. Yoga provides spirit of life, it leads to the path of satisfaction and goal of Moksha. In a practical life better performance is as good as doing right karma. Yoga provides energy to human being through a source for prosperity and stability of life. The total aim of Yoga studies is related to establishment of peace and progress in human life. Athlete who performs Yoga is also benefited through achieving excellence in Pranayama in his day-to-day regular performances.

It is true that, the study of human physique has persisted throughout the centuries. However, the concept of ideal body proportion has varied from time to time. For example, polyglots fashioned Coryphaeus, the spear thrower, as fighter and an athlete, broad-shouldered, thick neck and square chested the perfect specimen of manhood. Physical education has a rich heritage in the area of “Yoga”.<sup>3</sup> Yoga is a structured Indian system of physiological training. There is evidence in the Yogic literature that relaxation Shavasana and Pranayama are helpful to increase the efficiency of respiratory and circulatory organs.

## THE CONCEPT OF YOGA:

Swami Satya Prakash has rightly observed that, it is a common practice to derive Sanskrit terms from their roots, for example, Yoga from Yuj, to join, to Yoke, to combine together, or to bring together. And hence the term YOGA conveys the sense of union.<sup>4</sup> The athletes can also improve his good health by unifying with super power and by deriving energy from him. How this occurs is the process of scientific enquiry which has been explored here.

Further it is true that, the system of Yoga, does not conceive of a geometrical time space or physico chemical union or linkage with the Lord. It is in the dimensions of spiritual consciousness that

we feel that we are in the closest proximity of our lord.<sup>5</sup> This process provides strength and energy to any person, who practice Yoga.

Yoga is a process of seeking which adds to the personality. It is true that, seeking makes your mind focus somewhere in the future, and the thing that you are seeking is already here.<sup>6</sup> The futuristic approach is positive but we have to think about present in a realistic manner. It has been pointed that, Yoga has to be practiced through ages, and through life cycles.<sup>7</sup> One has to study whether athlete is well aware of yoga and how do he practice it through either some Aasanas or Pranayama in his day to day exercises.

About the functions of human being Swami Satya Prakash has rightly pointed that, Yoga has been defined as the inhibition of the function of the mind brought about by practice and freedom from attachment.<sup>8</sup> It would be interesting to study how, yoga and Pranayama influence athlete's performance in his day-to-day activities.

Yoga is a science of vitality and spirit. We require specific efforts to inculcate this spirit in the minds and hearts of sports persons. Athletes' vision of life can be reshaped and a new outlook can be provided to them by study of Yoga. In this chapter the relevance of Yoga has been focused for pinpointing the significance of physical education in 21st Century. This chapter is thus a review of not only previous theories but also it is reunderstanding of Yoga in the age of globalization.<sup>9</sup> Competitiveness and connectivity is a great character of the new age. This has increased the tension and serious problems in all walks of life and sports is also not an exception to this. On this background a new approach has been presented here.

#### **THE SCIENTIFIC APPROACH TO YOGA:**

The word Yoga is derived from the Sanskrit word "Yuj" meaning "to unite", "to combine" or "to integrate" and thus may be considered to refer to a "state of union or integration". Yoga is generally understood as the union of the individual soul with the cosmic, divine or supreme soul that constitutes the ultimate fulfillment of human being. Concept of Yoga can be studied by using ancient Indian texts such as Yog-sutra written by Patanjali. Yogic exercises are used towards conditioning and their effects in increasing the efficiency of the organs required of human body etc.

Basically, Yoga darshana of Patanjali has four chapters, known as Samadhi pada- nature of communion containing 51 sutras. The second part is known as Sadhna Pada- which includes the means of attaining communion containing 55 sutras. The third one is described as Vibhuti pada, which means power, or perfections containing 55 sutras and the fourth and last is given title as Kaivalya pada which means isolation, which included 34 sutras. The entire Yogsutra is 194 number of sutras.<sup>10</sup> We have to first examine the concept of yoga in general and the application of Pranayama in particular to understand its effect on athletes' performance.

#### **HISTORICAL DEVELOPMENT OF YOGA:**

Spirituality in another word that is relevant to our discussion of Yoga as science. This word is yet to find acceptance as a popular idiom in the English language, although it is increasingly used in philosophical, inter religious and even socio-political forums. We have to mention serious efforts made by some Indian scholars to develop Yoga as a science. Here mention can be made to Shri Aurobindo and Acharya Vinoba Bhave. Yoga spirituality refers naturally to the quality of spirit, as opposed to that of matter. The relevant Latin root here is "Spirare" meaning to breathe spirit is the very breath of life and spirituality may thus be taken as a fundamental quality deeper than those of the body, mind or intellect.

According to Shri Joshi, Yoga to be associated with the acquisition and exhibition of supernatural powers, requiring complete discipline of the mind and the body.<sup>11</sup> He has further explained the word “Yoga” as the noun form, derived from the root “Yujur” meaning to unite or to connect. Yoga has its own technology and also scientific basis. It is an art, which aspires to broaden ones perspective and insight to achieve a state of personal enlightenment. The prescribed practice and procedures of Yoga, the need of life and attenuate the obstacles in acquiring the state of enlightenment.

Yoga is also a method of self-realization which brings with the perfection of ones physical self and as perse to achieve a state of self-consciousness. The preaching of Yoga reveals that the basis is natural, its beliefs natural, its beliefs rational and it is widened to truth, moral duties and religion. As stated by Vishnudevananda, Yoga philosophy holds not only the answer to all man’s problems, but offers a scientific way to transcend his problems and sufferings. Athlete is not an exception to these phenomena.

Yoga is both a spiritual and securely in the modern science. It has been observed that, moreover, Yoga philosophy does not quarrel with any religion or faith and can be practiced by any one, who is science and willing to search for the truth. There is no vague doctrine, in noted. Even imperatively little efforts, will bring immense returns of knowledge, strength, and peace. This is a positive benefit of Pranayama.

#### **SOCIOLOGICAL APPROACH:**

Sport is a part of social system and any game or athletes are essentially a part of social process. Hence, we have studied Pranayama here in a sociological angle. Yoga and Pranayama need social motivation because, modern athlete have no time to concentrate on Yoga. About motivation it has been pointed that, a force which result in persistent behavior directed towards certain goal. 10 The athletes can improve their overall performance if they have specific goals to achieve success.

Health consciousness is essential for conditioning the mind of athlete, though every individual directly or indirectly get information about Pranayama through any source; he has to find systematic information and practicing for good health.<sup>12</sup> Because, Pranayama needs a constant and continuous education based on practice. It is true that, Pranayama followed by Japa increases confidence of Yogin. Further balanced foods is also very much important for improving good health and healthy mind of athlete. According to O.P. Annand, Pranayama improves mental health and social health of every citizen.<sup>13</sup> The sociological analysis of Pranayama reveals that, Pranayama can only be practiced where there is cordial social atmosphere.

Yoga has been defined by Patanjali as a process of awakening with declining mind from organic interest and setting formal with sole is Yoga. However this can be possible only in conditioning of body and mind. Geeta has advised common man to study spiritual knowledge and to follow the Yoga for better life. Such kind of knowledge can be achieved only by constant and continuous practice. It has been truly noted that, all the questions in the life can be solved on the basis of spiritual awakening based on Yoga. An athlete is not an exception to this phenomenon. It has been rightly pointed that, the live spirit of Yoga is of multi fold benefit. According to Patanjali Yoga provides a path of maturity, which includes friendships with the happy people, sympathy towards the persons suffering from miseries, respect towards divine persons. The spiritual man can get all benefits of Yoga and Pranayama and athlete can also benefited by practicing this science of spiritual awakening. The major problem of today’s human being is that, he is not performing his duties as per Yogsutras guidelines. The social life can be more stable and more balanced if one

follows the principles of Yoga for right social order. Geeta has described Dhyana Karma and Sankhya Yoga. The fifth Adhyaya of Geeta has highlighted positive aspect of Karma yoga.<sup>14</sup> Yoga has been studied from Vedic times to modern times in different angles. Yoga is a outcome of social interactions in India, from bygone days. However, we have studied benefits of Yoga for an athlete in this study in a critical angle.

### SUMMARY:

Yoga is based on four stages of meditation, which means Waking, Dream, Dreamless sleep and Samadhi. 33 We need serious efforts to undergo the last stage of Samadhi. Yoga can help to reach highest position in the field. Sport is not an exception to this phenomenon. Karma yoga provides a background for the practice of Yoga. 34 Selfless dedication and devotion is also required for improving performance in any game or sports. It has been observed that, the practice of meditation is an attempt to make the mental mode conform with reality. The more the mental mode conforms with reality the more the light of reality shines in the mental mode. 35 Athletes' performance can be improved by performing Yoga postures because athlete knows preparation of background through yoga in a delightful manner. Thus the study of Yoga is gaining significance not only in day-to-day life, but also in the field of sports and physical education. Physical education as a method of learning can be very much useful for improving athletes' performance. These athletes' can develop competence in the future. In this work problems will be examined and remedies will be suggested for better future of the athletes'. This chapter completes our discussion regarding concepts theories and practices in Pranayama performance. In this chapter Pranayama has been described in detail and various aspects about basic tenets have also been properly highlighted. Here adequate treatment has been given to conceptual framework with special reference to the theme of research work. The first chapter has been presented with basic ideas and practices with special reference to inclusion of Pranayama and Yoga in physical education courses. Very recently UGC has directed all Universities to include Yoga as a part of basic component in higher education. Hence this study is very much relevant for improving Yoga part in Physical Education system.

### REFERENCES:

1. Vimala Thakar, Life As Yoga, Motilal Banarsidas, Delhi, 1977, p.1
2. Vijay Kumar Jain, Diseases Treatment through Yogasana, Sadhna Books, Delhi, 2002, p.151
3. Vimala Thakur, op cit., p.1
4. Swami Satyaprakash, Patanjala Raja Yoga, S. Chand & Co. Ltd, New Delhi, 1975, p.1
5. Ibid P.3
6. Yog Sudha, Yoga the alpha and the omega, Yog Laxmi Rajneesh Foundation, Poona, 1978, p.5
7. Atmananda, The Four Yogas, Bombay; Bharatiya Vidya Bhavan, 1966, p.135
8. K.S. Joshi, Yoga and personality, Allahabad, Udayana Publication, 1967, p.2
9. C.T. Kenghe, Yoga as depth psychology and parapsychology, Varanasi, Bharata Manisha, 1975, p.15-143
10. Swami Vishudevananda, The complete Illustrated Book of Yoga, New York, Bell publishing co. 1959, p.11
11. Yogi Vithaldas, The yoga system of health and Relief from tension. New York Corner Store library publication, 1969, p.8
12. Jayadeva Yogendra and J. Clement Vaz. Vol.3 Today Mc Millan Co. of India, 1971, p.3
13. Swami Satya Prakash Sarswati, Patanjali Yoga, New Delhi, S. Chandra & Co. 1975, p. 316-329
14. Surendranath Das Gupta, Yoga a philosophy and religion, Delhi, Motilal Banars, 1924, p.136

# **SURVEY ON PHYSICAL FITNESS OF TRIBAL AND NON-TRIBAL WOMEN IN TRIPURA**

**Sajna Begam**

SRTMU, Nanded

**Dr. A. S. More**

Mahatma Phule collage, Ahmadpur

## **ABSTRACT:**

The purpose of the survey is analyzing the physical health of tribal and non-tribal girls in Tripura. Tripura is smallest state in India. The state is newly forming after the independence therefore the people economic conditions are moderated. These conditions affect the physical and mental health of the people. The condition of women is very serious. It shows high percentage of malnutrition, underweight, sudden death etc. in children. There is lack of awareness among the people specially women in the society in terms of their health. It is important to analyze the physical health of women and girls. The author wants to improve the conditions of women in the society and make them aware about nutritional values for themselves and the family also. This survey may help to improve the conditions of tribal women and girls in Tripura.

**KEYWORDS: Tribal and Non-Tribal, nutrition, Physical health**

## **INTRODUCTION:**

Nutrition has been a major health issue in India for centuries. Chronic hunger and under-nutrition is the worst tribulation of the poverty that still plagues millions of households in India. India, in recent past, has made a considerable progress in social and economic fronts but improvement in nutritional status especially of the women is found to be lagging behind. The survey is carried out to improve the conditions of women and girls of Tripura state.

- (1) Tribal in India need to struggle hard for survival and development. They constitute an outsized number of population so their development is important for integrated development of the country as a full. ArshaVidya institutes are voluntary organizations, which are being run the service and education of these children who reside in adivasi villages or belong to backward classes. 50 children are consider for analysis. The result shows that, the grades of behaviour problems were evenly distributed across and no apparent difference was found. commonest behavior problems were sibling rivalry, scholastic problems, inattention, babyish behaviour, lack of concentration & temper tantrums by being present in additional than 50% in both the groups. Limitation of the study is the size of sample within the study was small that the findings can't be generalized and there was lack of comparable group of tribal children living in tribal region.
- (2) Government of India has been making several efforts in developing health and population policies. The health of girls is linked to their status within the society. The demographic consequence of the women has formed expression in various forms, like female infanticide, higher death rate, lower sex ratio, low literacy level and lower level of employment of girls within the non-agricultural sector as compared to men. Health and Nutrition Education needs to be strengthened through department of health and ICDS, to bring awareness and behavioural change for better health and nutrition practices to improve the nutritional status of mother and child.



- (3) Analyze the disadvantages of tribal status affects women and children. Data on a sampling of 4,540 women (comprising 955 tribal and three, 585 non-tribal women) and 1,599 children (426 tribal and 1,173 non tribal) from the third National Family Health Survey (NFHS-3, 2005-06) for the state of Orissa was used. Tribal children of Orissa were 2.6 times less to receive any vaccination, 1.4 times more anemic, 1.6 times more underweight and had 1.3 and 1.8 times higher risk of infant and under five mortality compared to non-tribal children.
- (4) Studies the nutrition status of preschool children in West Bengal. India could be a developing country. This study involved a survey of 119 children (59 boys & 60 girls) aged 1 to 10 years. Anthropometric measurements of kids were done using standard procedures. This study found that preschool children are more likely to suffer from under nutrition than school going children. Present study provided evidence that these children were under acute and chronic nutritional stress within the variety of underweight, stunting, wasting, and thinness indicating the requirement for immediate appropriate public health nutritional intervention programs.
- (5) Studies the under-nutrition among tribal children in Palghar district. Maharashtra is the wealthiest Indian state. The ponder is based on a study conducted among the 375 tribal family units with children aged between 1 and 6. As it were 13% of the children achieved a least level of count calories differences. The show ponder affirms that in spite of a few sustenance programs, the degree of under-nutrition has remained greatly tall within the children living in transcendently tribal rustic areas of Palghar locale, Maharashtra.
- (6) Studies the impact of nutritional meals on the status of nutrition on tribal students. The Government of Maharashtra undertook the Annapurna Project to provide Ashram/residential tribal nutritious meals. In order to achieve optimum growth and development and to avoid morbidity, school students use a centralised kitchen. The main objective of our research was to decide if the provision of nutritious meals through centralised kitchens improves the percentage Kids with underweight and stunted kids. The provision of daily nutritious meals in government tribal residential schools of Maharashtra is successful through centralised and local kitchens and critical in tackling Tribal children's under-nutrition. It shows the improvement in underweight students.

#### **PROBLEM STATEMENT:**

To analyse the physical fitness of tribal and non-tribal women in Tripura.

#### **Objectives of the survey:**

To analyze the conditions of women and social factors affect on their health. From the analysis spared the awareness about the importance of health and nutrition values in their life cycle.

#### **Gap:**

The survey is done by referring only papers published by Indian author so might have a chance to miss out some relevant information. In the previous work the analysis is done together for children and mother. The survey concentrates on the physical fitness and nutritional values.

#### **CONCLUSION:**

As we know, tribal women having lack of nutrition because of their poor knowledge of nutrition and their economic status. The survey will help author to understand their daily life challenges. It will be analyze the root cause of the difficulties and we try to find out the solutions according to that. The major problem is the society ignores the basic need of women compared to men. It will help us to spread the awareness among the society to stop the future consequences.

**FUTURE WORK:**

In this paper we are going to survey about the topic. In further research work wanted to done the statistical analysis considering different aspects and factors depend on it.

**ACKNOWLEDGEMENT:**

This work is supported to physical and nutrition field of India. Authors are thankful to faculty of Physical Education and Sports Swami Ramanand Teerth Marathwada University, Nanded for providing the facility to carry out the research work.

**REFERENCES:**

1. Dr. R. Agarwal, Dr. K. S. Yadav, Dr. A. Nijhawan, Dr. M. Nijhawan, Dr. Preetkamal, "A comparative study of behaviour problems in tribal and nontribal children residing in urban areas", IOSR Journal of Dental and Medical Sciences, vol. 17, Issue: 2, Feb 2018.
2. K. M. Rao, N. Balakrishna, N. Arlappa, A. Laxminath, G. N. V. Brahmam, "Diet and nutritional status of women in India", Journal of Human Ecology, vol. 29, Issue: 3, 2017.
3. S. Agrawal, "Disadvantageous situation of tribal women and children of Orissa, India: a special reference to their health and nutritional status", Journal of Community Nutrition & Health, vol. 2, Issue: 1, 2013.
4. J. Ghosh & R. R. Pati, "Assessment of nutritional status among Santal-Munda tribal children in rural area of Amdanga block, North 24th Parganas District of West Bengal, India", International Journal of Current Microbiology and Applied Sciences, vol. 4, Issue: 7, 2015.
5. S. Ghosh & S. Varerkar, "Undernutrition among tribal children in Palghar district, Maharashtra, India", PLoS ONE, vol. 14, Issue: 2, 2019.
6. R. Devara & D. Deshmukh, "Impact of Nutritious meals on the Nutritional status of the tribal students: A comparison between centralized kitchens (Annapurna) and regular kitchens in Government tribal residential schools from two districts of Maharashtra, India", Indian Journal of Public Health, vol. 6, Issue: 1, 2017

# EFFECT OF YOGA TRAINING PROGRAMME ON BMI & SIT –UPS OF SCHOOL STUDENTS OF NANDED DISTRICT

**Dr. Kengale B. D.**

Assistant Professor, School of Educational, S.R.T.M. University Nanded.

**Mr. Jotiba Nivrutti Hurdukhe**

Ph.D Scholar, School of Education, S.R.T.M. University Nanded .

## ABSTRACT:

The finding are compiled by the researcher and provide conclusions and recommendation “Effect of Yoga training programme on selected Elements of Physical Fitness of school student of Nanded District” the research presented was selected by the researcher at the Kedarnath government owned Ashram School in Hadgaon Taluka of Nanded District and all selected student 30 and sampling to 12 and 14 age selected student for this purpose the researcher had fixed the research tools as follows; Physical Fitness test and Yogic seats were taken .

In this the researcher had prepared a Yoga training program. Some of these were taken by the selected Yogas as follows; vijrasana , bhujangasan, halasan, dhanurasan, varstanna, vrishnasana, trichomaasan, padtasaasan, utsavayan, natarajas an Anulom Vilom Pranayam ,Kapalbhati ,Pranayam Parvatsana Shavasan planned a 12 weeks programmer .

Preliminary preparation in 1 to 4 for 10 minutes a week 40 minutes Yogic exercise type, 10 minutes relaxation, 40 minutes yogic exercise type ,15 minutes to 5 to 8 weeks preliminary preparation 9 to 12 week 15 minutes relaxation and 15 minutes its physical strength pre-and post-test was taken

The Sit-ups was fixed This value 0.05 is meaningful when Pre-test and answer testes are conducted on the Physical of Students Differences these factors have been found is the sit-ups of Physical Fitness.

In this, then result of Yoga training is that the individual thinks about health.

## INTRODUCTION

The word yoga is derived from the Sanskrit language yaz. These can be tied together or Co-ordinate combining or focusing your attention on something. That is, this metal has different meaning to use. They also mean cohesion and unity. In recent times many scientific practitioners and researchers Of Yoga have received scientific meeting. With modern science, the daily life of humans has become mechanical and dynamic. All of this has an impact on human Life and the stress is getting to the beholder so and the publicity is gaining momentum so there is need for Yoga. In the

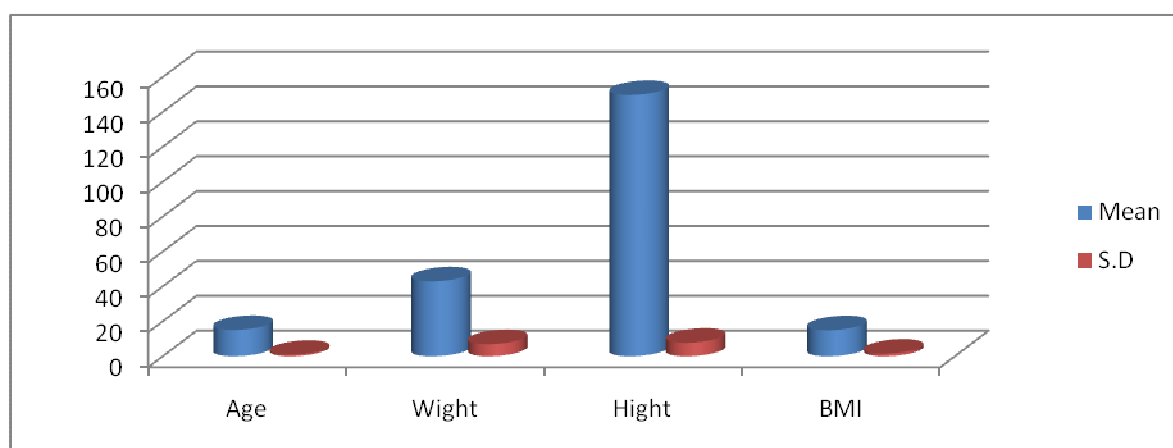
twenty First Century, eating habits and Stresses led to unhealthy eating disorders while we were living the traditional way of life. that is why Yoga is needed. The main objective of the study to measure Effect of Yoga Training Programme on Mental Health & BMI of School Students of Nanded District.

### TABLE SHOWING THE MEAN AND STANDARD DEVIATION OF AGE AND HEIGHT OF SCHOOL STUDENTS

TABLE NO.01

	Unit	Mean	S.D
School Student	Age	15.06	0.86
	Wight	42.93	6.98
	Hight	149.8	7.78
	BMI	14.93	1.53

The average age of this element is the same as that of the students in the government ashram School 15.06 and Standard Deviation 0.86 were found .the median of the weight factors 42.93 and Standard Deviation 6.98 were found.



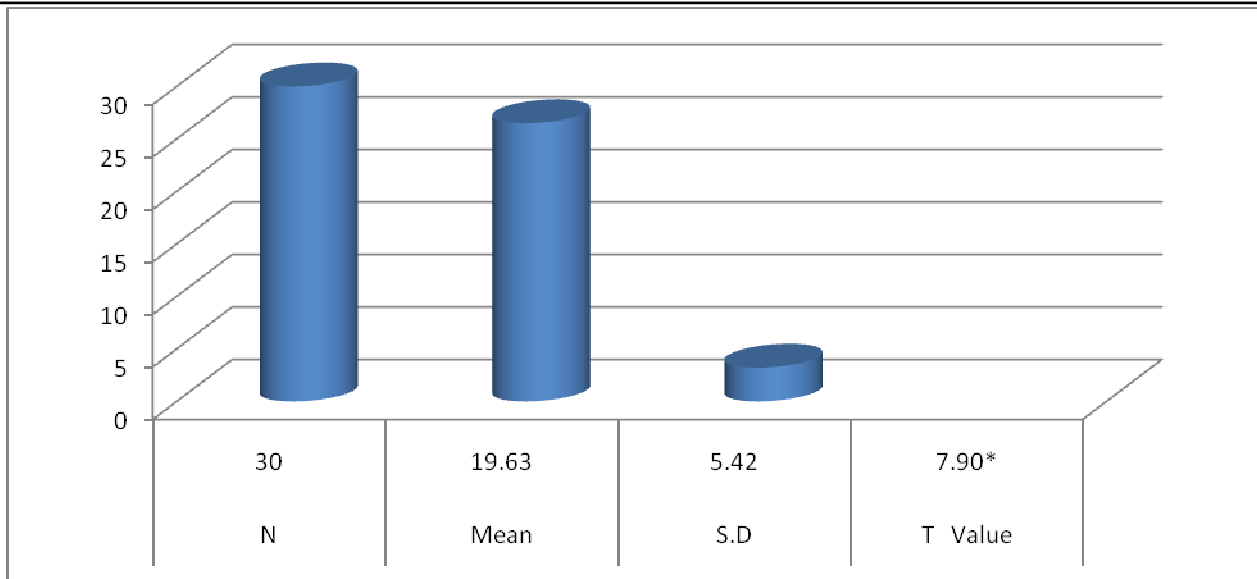
COMPARATIVE ANALYSIS OF STI UPS OF SCHOOL STUDENT'S  
Table No. 2

Sit-ups	Test	N	Mean	S.D	T Value
	Pre-Test	30	19.63	5.42	7.90*
	Post Test	30	26.5	3.22	

Table No: 2 it can be seen from the comparison that the median Standard Deviation of this faction and the t-test result were analyzed by the Sit-ups of Physical Reinforcement of School Student. The median of Pre test School Student's 19.63 and Standard Deviation 5.42

That's it also the median of the answer test is 26.5 and Standard Deviation 3.22 the t-test Value of 7.90 it has come to

This t- Value 0.05 is meaningful at the level of significance general chart lounge Differences in this factor have been found in the Sit-ups of Physical Fitness the result of yoga training is shown in answer test.



## Conclusion

1. There is no effect of Yogic Training Programme of BMI of school level Students of Nanded.
2. There is Positive effect of Yogic Training Programme of BMI of school level Students of Nanded.

## REFERENCES:

1. [https://scholar.google.co.in/scholar?q=yogik+program+effect+on+physiology+factors+and+psychological+factors+and+physical+fitness&hl=en&as\\_sdt=0&as\\_vis=1&oi=scholart](https://scholar.google.co.in/scholar?q=yogik+program+effect+on+physiology+factors+and+psychological+factors+and+physical+fitness&hl=en&as_sdt=0&as_vis=1&oi=scholart)
2. <https://www.ncbi.nlm.nih.gov/pubmed/19272856>
3. Physical Education and Sports, 10 th class Handbook
4. Yoga Guru Sunil Singh- 2018 Yoga into Healthy Life Style ISBN:81-288-1839-2H

# A COMPREHENSIVE STUDY OF POWERLIFTING AND WEIGHTLIFTING TECHNIQUES AND INJURIES TO ATHLETES

**Dr. Kothe Chaya Kishanrao**

Assistant Professor, College of Physical Education, Nanded (B.A, B.PED, M.PED, MPhil, PhD)

**Mr. Hemant Kapile**

Research Scholar, S.R.T.M.U. Nanded

## ABSTRACT

To achieve the highest results in the Sport of Powerlifting and Weightlifting it is necessary for an athlete to undergo specific training. While in training or during the actual event, injury can be occurred to an athlete. Injuries can be joint pain, Sprains and strains, tearing of ligaments etc. To avoid these injuries, the trainer or coach must plan out periodization and training programme which must include training types, training intensity, aggression, Convenience, nutrition, change in the exercise pattern and rest are the factors to be considered. The purpose of this research was to study the powerlifting & weightlifting techniques and injuries of athletes from Pune District using Survey method. The population of this study is Powerlifting and weightlifting players and coaches from Pune District. 50 Weightlifting & powerlifting athletes both boys & girls and were selected as sample using convenience sampling technique. For the present research, Questionnaire was constructed and circulated to the selected athletes and coaches for data collection. Statistical tool used was SPSS to calculate percentage and frequency for this research. A questionnaire was constructed for data collection. The Questionnaire was proved valid using Content validity method and reliable using test-retest method. The questionnaire was circulated to players before their training session. Factors which were considered for the research were Duration of training, rest between two sets, rest between two training sessions, injury, training type, training intensity, training load. The researcher noted the frequency of participants for each option and converted it into percentage form. The results concluded that the average duration of a training session for powerlifting is 1 to 2 hours and 2 to 3 hours for weightlifting. The average rest between two sets for powerlifting is 1 to 3 mins and 30 sec to 1 min for weightlifting. The average duration between 2 training sessions for powerlifting & weightlifting is 6 to 18 hours. The most injured part in powerlifting & weightlifting is the knee and back. The event that is more prone to injury in powerlifting is Squats & for weightlifting its clean and jerk. The type of injury that occurs in powerlifting and weightlifting is acute injury. The most commonly occurring injury in powerlifting and weightlifting is Muscle strain.

**KEYWORDS:** Powerlifting, weightlifting, injury, training, exercise pattern

## INTRODUCTION:

To be physically, mentally and socially fit, happy and away from problems one must involvethemselves in sports. Physical fitness comprises of Health-related fitness factor and skill relatedfitness factor. Similarly, power lifting consists more of strength whereas weightlifting consists ofexplosive strength. None of the skill or sports can be gained without training and experience.Team sport, rhythmic sports, seminars and competitions develop personality and character. Toincrease physical ability equipment, players, coaches etc are the responsible factors. (Paul, 2014).Power

lifting and weightlifting are the sports which are played using heavy weights. Players can get injured during their competitions these injuries may keep players away from sports so to avoid this, players need to take proper treatment at proper time. The power lifters and weightlifter face injuries in wrist, ankle, knees and back/spine. To achieve excellence and good sports skills players should have good physical ability, potential and to improve sports skills the physical training according to body needs is important. When training, coaches or athletes need to understand that players shouldn't be injured by training type or training program. Quickness is the factor responsible for power lifting and weightlifting. Power lifting has been originated in 20th century in America and weightlifting in 1800 AD. Power lifting is a game in which a player shows aggression and strength of his/her own to others. Power lifting has been categorized in 3 parts i.e., Squat, dead lift and bench press. In each lift a player has to lift maximum weight, in each of 3 lifts. Power lifting is a game under IPF. It has been included in Paralympics since 1984 and is also played at local, national and international levels. In 1896, London Olympics weightlifting was organized for 1<sup>st</sup> time. In, 1896, Athens Olympics permitted this game. Karnam Malleshwari in 2000 represented India at Sydney Olympics and got bronze medal which was 1<sup>st</sup> medal by women. In 1995, IWF was founded in India. Powerlifting event includes Squats, Deadlift and Bench press & Weightlifting event includes events like Clean and jerk & Snatch. Movements involved in these events are Quick and explosive and are more prone to injury. Hence this interests the research to study about techniques and Injuries in powerlifting and weightlifting.

## METHODOLOGY:

The population for this research were Powerlifting & Weightlifting athletes from Pune district. Non- Probable sampling method i.e., convenience sampling technique was used to select 50 powerlifting & weightlifting athletes. A questionnaire was constructed for data collection. The Questionnaire was proved valid using Content validity method and reliable using test-retest method. The questionnaire was circulated to players before their training session. Factors which were considered for the research were Duration of training, rest between two sets, rest between two training sessions, injury, training type, training intensity, training load. The researcher noted the frequency of participants for each option and converted it into percentage form.

## Data Analysis:

**Question 1** – What is the duration of your training session?

**Table 1**

		Frequency	Percentage
<b>Powerlifting</b>	10 mins to 1 hour	0	0%
	1 hour to 2 hours	13	69.6%
	2 hours to 3 hours	7	30.4%
	3 hours and more	0	0%
	<b>Total</b>	<b>23</b>	<b>100%</b>
<b>Weightlifting</b>	10 mins to 1 hour	0	0%
	1 hour to 2 hours	1	4.8%
	2 hours to 3 hours	18	85.7%
	3 hours and more	2	9.5%
	<b>Total</b>	<b>21</b>	<b>100%</b>

<b>Powerlifting and Weightlifting</b>	10 mins to 1 hour	0	0%
	1 hour to 2 hours	2	33.3%
	2 hours to 3 hours	4	66.7%
	3 hours anmore	0	0%
<b>Total</b>		<b>6</b>	<b>100%</b>

**Powerlifting –**

For the above Question 0% have chosen the option '10 mins to 1 hour'. 69.6% have chosen the option '1 hour to 2 hours.' 30.4% have chosen the option '2 hours to 3 hours.' 0% have chosen the option '3 hours and more.' **Weightlifting** - For the above Question 0% have chosen the option '10 mins to 1 hour'. 4.8% have chosen the option '1 hour to 2 hours.' 85.7% have chosen the option '2 hours to 3 hours.' 9.5% have chosen the option '3 hours and more.' **Powerlifting & Weightlifting**- For the above Question 0% have chosen the option '10 mins to 1 hour'. 33.3% have chosen the option '1 hour to 2 hours.' 66.7% have chosen the option '2 hours to 3 hours.' 0% have chosen the option '3 hours and more.'

**Question 2–** What is the duration of rest between two set of exercises?

**Table 2**

		<b>Frequency</b>	<b>Percentage</b>
<b>Powerlifting</b>	Depends of different training types	6	23.1%
	30 secs to 1 min	7	30.4%
	1 min to 3 mins	9	39.1%
	3 mins to 5 mins	1	4.3%
	No rest	0	0%
	<b>Total</b>	<b>23</b>	<b>100%</b>
<b>Weightlifting</b>	Depends of different training types	2	9.5%
	30 secs to 1 min	9	42.1%
	1 min to 3 mins	7	33.3%
	3 mins to 5 mins	3	14.3%
	No rest	0	0%
	<b>Total</b>	<b>21</b>	<b>100%</b>
<b>Powerlifting &amp; weightlifting</b>	Depends of different training types	1	16.7%
	30 secs to 1 min	1	13.7%
	1 min to 3 mins	2	33.3%
	3 mins to 5 mins	2	33.3%
	No rest	0	0%
	<b>Total</b>	<b>6</b>	<b>100%</b>

**Powerlifting –**

For the above Question 0% have chosen the option '10 mins to 1 hour'. 69.6% have chosen the option '1 hour to 2 hours.' 30.4% have chosen the option '2 hours to 3 hours.' 0% have chosen the option '3 hours and more.' **Weightlifting** - For the above Question 0% have chosen the option '10 mins to 1 hour'. 4.8% have chosen the option '1 hour to 2 hours.' 85.7% have chosen the option '2 hours to 3 hours.' 9.5% have chosen the option '3 hours and more.' **Powerlifting & Weightlifting**- For the above Question 0% have chosen the option '10 mins to 1 hour'. 33.3% have chosen the option '1 hour to 2 hours.' 66.7% have chosen the option '2 hours to 3 hours.' 0% have chosen the option '3 hours and more.'



**Question 3 – What is the duration between two training sessions?****Table 3**

		Frequency	Percentage
<b>Powerlifting</b>	6 to 18 hours	15	65.2%
	18 to 30 hours	7	30.4%
	30 to 42 hours	0	0%
	42 to 50 hours	1	4.3%
	<b>Total</b>	<b>23</b>	<b>100%</b>
<b>Weightlifting</b>	6 to 18 hours	19	90.5%
	18 to 30 hours	2	9.5%
	30 to 42 hours	0	0%
	42 to 50 hours	0	0%
	<b>Total</b>	<b>21</b>	<b>100%</b>
<b>Powerlifting &amp; Weightlifting</b>	6 to 18 hours	2	33.3%
	18 to 30 hours	3	50%
	30 to 42 hours	0	0%
	42 to 50 hours	1	13.7%
	<b>Total</b>	<b>6</b>	<b>100</b>

**Powerlifting –**

For the above Question 65.2% have chosen the option ‘6 to 18 hours.’ 30.4% have chosen the option ‘18 to 30 hours.’ 0% have chosen the option ‘30 to 42 hours.’ 4.3% have chosen the option ‘42 to 50 hours.’ **Weightlifting** - For the above Question 90.5% have chosen the option ‘6 to 18 hours.’ 9.5% have chosen the option ‘18 to 30 hours.’ 0% have chosen the option ‘30 to 42 hours.’ 0% have chosen the option ‘42 to 50 hours.’ **Powerlifting & Weightlifting**- For the above Question 33.3% have chosen the option ‘6 to 18 hours.’ 50% have chosen the option ‘18 to 30 hours.’ 0% have chosen the option ‘30 to 42 hours.’ 13.7% have chosen the option ‘42 to 50 hours.’

**Question 4- Which body part is mostly injured in powerlifting/ weightlifting.****Table 4**

		Frequency	Percentage
<b>Powerlifting</b>	Knee	20	33.3%
	Back	19	31.7%
	Shoulder	6	10%
	Waist	10	16.7%
	Wrist	5	8.3%
	Ankle	0	0%
	<b>Total</b>	<b>60</b>	<b>100%</b>
<b>Weightlifting</b>	Knee	15	25%
	Back	18	30%
	Shoulder	10	16.7%
	Waist	6	10%
	Wrist	11	18.3%
	Ankle	0	0%
	<b>Total</b>	<b>60</b>	<b>100%</b>
<b>Powerlifting&amp;</b>	Knee	4	6.75
	Back	5	8.3%
	Shoulder	4	6.7%

<b>Weightlifting</b>	Waist	3	5%
	Wrist	4	6.7%
	Ankle	0	0%
	<b>Total</b>	<b>60</b>	<b>100%</b>

**Powerlifting –**

For the above Question 33.3% have chosen the option 'Knee.' 31.7% have chosen the option 'Back.' 10% have chosen the option 'Shoulder.' 16.7% have chosen the option 'Waist.' 8.3% have chosen the option 'Wrist'. 0% have chosen the option 'Ankle' **Weightlifting** - For the above Question 25% have chosen the option 'Knee.' 30% have chosen the option 'Back.' 16.7% have chosen the option 'Shoulder.' 10% have chosen the option 'Waist.' 18% have chosen the option 'Wrist'. 0% have chosen the option 'Ankle'. **Powerlifting & Weightlifting**- For the above Question 6.5% have chosen the option 'Knee.' 8.3% have chosen the option 'Back.' 6.7% have chosen the option 'Shoulder.' 5% have chosen the option 'Waist.' 6.7% have chosen the option 'Wrist'. 0% have chosen the option 'Ankle'.

**Question 5-** Which event in Powerlifting is more prone to injury?

**Question 6-** Which event in Weightlifting is more prone to injury?

**Table 5**

		<b>Frequency</b>	<b>Percentage</b>
<b>Powerlifting</b>	Squat	14	60.9%
	Deadlift	6	26.1%
	Bench press	3	13%
	<b>Total</b>	<b>23</b>	<b>100%</b>
<b>Weightlifting</b>	Clean and Jerk	15	71.4%
	Snatch	6	28.6%
	<b>Total</b>	<b>21</b>	<b>100%</b>
<b>Powerlifting &amp; Weightlifting</b>	Squat	3	50%
	Deadlift	3	50%
	Bench press	0	0%
	<b>Total</b>	<b>6</b>	<b>100%</b>
	Clean and Jerk	3	50%
	Snatch	3	50%
	<b>Total</b>	<b>6</b>	<b>100%</b>

**Powerlifting –**

For the above Question 60.9% have chosen the option 'Squat.' 26.1% have chosen the option 'Deadlift.' 13% have chosen the option 'Bench press.' **Weightlifting** - For the above Question 25% have chosen the option 'Clean & jerk.' 30% have chosen the option 'Snatch.' **Powerlifting & Weightlifting**- For the above Question 50% have chosen the option 'Squat.' 50% have chosen the option 'Deadlift.' 0% have chosen the option 'Bench press.' 50% have chosen the option 'Clean & jerk.' 50% have chosen the option 'Snatch.

**Question 7-** Which type of injury is commonly occurred in Powerlifting/ weightlifting?

**Table 6**

		Frequency	Percentage
<b>Powerlifting</b>	Chronic	8	34.8%
	Acute	15	65.2%
	<b>Total</b>	<b>23</b>	<b>100%</b>
<b>Weightlifting</b>	Chronic	8	38.1%
	Acute	13	61.9%
	<b>Total</b>	<b>21</b>	<b>100%</b>
<b>Powerlifting &amp; Weightlifting</b>	Chronic	1	16.7%
	Acute	5	83.3%
	<b>Total</b>	<b>6</b>	<b>100%</b>

**Powerlifting –**

For the above Question 34.8% have chosen the option ‘Chronic.’ 65.2% have chosen the option ‘Acute.’ **Weightlifting** - For the above Question 38.1% have chosen the option ‘Chronic.’ 61.9% have chosen the option ‘Acute.’ **Powerlifting & Weightlifting**- For the above Question 16.7% have chosen the option ‘Chronic.’ 83.3% have chosen the option ‘Acute.’

**Question 8-** Which is the most occurring injury in Powerlifting / Weightlifting?

**Table 7**

		Frequency	Percentage
<b>Powerlifting</b>	Joint dislocation	0	0%
	Muscle Strains	19	47.8%
	Muscle rupture	10	43.5%
	Muscle fibre rupture	2	8.7%
	<b>Total</b>	<b>23</b>	<b>100%</b>
<b>Weightlifting</b>	Joint dislocation	0	0%
	Muscle Strains	16	86.2%
	Muscle rupture	5	23.8%
	Muscle fibre rupture	0	0%
	<b>Total</b>	<b>21</b>	<b>100%</b>
<b>Powerlifting &amp; Weightlifting</b>	Joint dislocation	1	16.7%
	Muscle Strains	3	50%
	Muscle rupture	1	16.7%
	Muscle fibre rupture	1	16.7%
	<b>Total</b>	<b>6</b>	<b>100%</b>

**Powerlifting –**

For the above Question 0% have chosen the option ‘Joint Dislocations.’ 47.8% have chosen the option ‘Muscle Strains.’ 43.5% have chosen the option ‘Muscle rupture.’ 8.7% have chosen the option ‘Muscle fibre rupture.’ **Weightlifting** - For the above Question 0% have chosen the option ‘Joint Dislocations.’ 86.2% have chosen the option ‘Muscle Strains.’ 23.8% have chosen the option ‘Muscle rupture.’ 0% have chosen the option ‘Muscle fibre rupture.’ **Powerlifting & Weightlifting**- For the above Question 16.7% have chosen the option ‘Joint Dislocations.’ 50% have chosen the option ‘Muscle Strains.’ 16.7% have chosen the option ‘Muscle rupture.’ 16.7% have chosen the option ‘Muscle fibre rupture.’

**Question 9 –** What is the duration of rest between two training sessions?

**Table 8**

		Frequency	Percentage
<b>Powerlifting</b>	1 to 2 hours	4	17.4%
	2 to 4 hours	3	13%
	4 to 6 hours	3	13%
	6 hours and more	13	56.5%
	<b>Total</b>	<b>23</b>	<b>100%</b>
<b>Weightlifting</b>	1 to 2 hours	11	52.4%
	2 to 4 hours	2	9.5%
	4 to 6 hours	0	0%
	6 hours and more	8	38.1%
	<b>Total</b>	<b>21</b>	<b>100%</b>
<b>Powerlifting &amp; Weightlifting</b>	1 to 2 hours	2	33.3%
	2 to 4 hours	1	16.7%
	4 to 6 hours	0	0%
	6 hours and more	3	50%
	<b>Total</b>	<b>6</b>	<b>100%</b>

**Powerlifting –**

For the above Question 17.4% have chosen the option ‘1 to 2 hours.’ 13% have chosen the option ‘2 to 4 hours.’ 13% have chosen the option ‘4 to 6 hours.’ 56.5% have chosen the option ‘6 hours and more.’ **Weightlifting** - For the above Question 52.4% have chosen the option ‘1 to 2 hours.’ 9.5% have chosen the option ‘2 to 4 hours.’ 0% have chosen the option ‘4 to 6 hours.’ 38.1% have chosen the option ‘6 hours and more.’ **Powerlifting & Weightlifting** - For the above Question 33.3% have chosen the option ‘1 to 2 hours.’ 16.7% have chosen the option ‘2 to 4 hours.’ 0% have chosen the option ‘4 to 6 hours.’ 50% have chosen the option ‘6 hours and more.’

**Question 10-** What is the duration of Stretching or cooling down after training?

**Table 9**

		Frequency	Percentage
<b>Powerlifting</b>	5 mins	2	8.7%
	10 mins	9	39.1%
	15 mins	5	21.7%
	20 mins	7	30.4%
	No stretching	0	0%
	<b>Total</b>	<b>23</b>	<b>100%</b>
<b>Weightlifting</b>	5 mins	3	14.3%
	10 mins	2	9.5%
	15 mins	8	38.1%
	20 mins	8	38.1%
	No stretching	0	0%
	<b>Total</b>	<b>21</b>	<b>100%</b>
<b>Powerlifting &amp; Weightlifting</b>	5 mins	1	16.7%
	10 mins	3	50%
	15 mins	1	13.7%
	20 mins	1	13.7%
	No stretching	0	0%
	<b>Total</b>	<b>6</b>	<b>100%</b>

**Powerlifting –**

For the above Question 8.7% have chosen the option '5 mins.' 39.1% have chosen the option '10 mins.' 21.7% have chosen the option '15 mins.' 30.4% have chosen the option '20 mins.' 0% have chosen the option 'No stretching.'

**Weightlifting** - For the above Question 14.3% have chosen the option '5 mins.' 9.5% have chosen the option '10 mins.' 38.1% have chosen the option '15 mins.' 38.1% have chosen the option '20 mins.' 0% have chosen the option 'No stretching.'

**Powerlifting & Weightlifting** - For the above Question 16.5% have chosen the option '5 mins.' 50% have chosen the option '10 mins.' 13.7% have chosen the option '15 mins.' 13.7% have chosen the option '20 mins.' 0% have chosen the option 'No stretching.'

**CONCLUSION:**

The Study was conducted to check the training type, intensity, load and most common injuries that occur in Powerlifting and weightlifting. The results concluded that the average duration of a training session for powerlifting is 1 to 2 hours and 2 to 3 hours for weightlifting. The average rest between two sets for powerlifting is 1 to 3 mins and 30 sec to 1 min for weightlifting. The average duration between 2 training sessions for powerlifting & weightlifting is 6 to 18 hours. The most injured part in powerlifting & weightlifting is the knee and back. The event that is more prone to injury in powerlifting is Squats & for weightlifting its clean and jerk. The type of injury that occurs in powerlifting and weightlifting is acute injury. The most commonly occurring injury in powerlifting and weightlifting is Muscle strain.

**REFERENCES:**

1. Blahnik, J. (2004). Full-body flexibility. IL: Human Kinetics.
2. Newton, H. (2010). Explosive lifting for sports. United States, IL: Human Kinetics.
3. Stoppani, J. (2006). Encyclopedia of muscle and strength. United States, IL: Human Kinetics.
4. Fleck, S. & karemer, W. (2004). Desining resistance training programs. (3<sup>rd</sup> ed.). United States, IL: Human Kinetics.
5. Best, K. & kahn, J. (2003). Research in education. (9th ed.). United States, NJ: Prentice-Hall.
6. <http://en.wikipedia.org/wiki/powerlifing>
7. <http://www.sportsmed.com.au/newsevents/latestnews/articles/archeive/preenting/>
8. [injures-in-powerlifting/weightlifting](http://www.sportsmed.com.au/newsevents/latestnews/articles/archeive/preenting/)
9. <http://breakingmuscle.com/>
10. <https://www.t-nation.com>

# ROLE OF YOGA IN MAINTAINING HEALTH

**Dr. Dilip Bhadke**

Dhunda Maharaj Degloorkar College, Degloor Dist. Nanded (M.S.)

## INTRODUCTION:

Health is the foundation of happiness of the people. This develops the strength of nation 1946 World health organization (WHO) defined health as a state of complete physical mental, and social wellbeing and not merely the absence of disease or infirmly “Today many more factors are influencing of our health such as homes schools and colleges, workspaces and communities. Our healths greatly determined by the conditions in which we live. The good health is always depending on social and economic opportunities, and staying health. Always staying active helps to reduce the condition like heart disease. Diabetes crime during addiction. terrorism, suicide etc through yogic exercise yogic exercise has also been linked to improved mental health and physical health. Today the most important thing is yoga is a science that regulates the physical physiological and social behavior of human being. The main aim of yoga education is development of proper attitude, emotions and character in society. Regular practice of yoga will develop physical fitness, moral value and also it gives the mental power. Yoga is a Sanskrit word meaning union or joining together. It helps in social development which is related to the behavior with other persons in the society.

The main aims of yoga in daily life is develops the physical health, mental health, social health, self health and self realization. Yoga can be practiced by anybody men or women of all ages and at any stage of life in the society. Yama niyama asana pranayama, dharana, dhyana and samadhi of ashtanga yoga can be important tools for social reconstruction. Yoga play significant role to maintain social health in the following ways.

## PHYSICAL:

Health is a fundamental right of each and every individual in the society. A healthy body is source of pleasure, which can be achieved through the practice of yoga. Yoga is the great emphasis on purification of internal and external organs, art of eating relaxation methods and different yoga asanas for preventing diseases and promoting health. Today health yoga is the most popular form of yoga for its role insistence of health. In hatha yoga various asanas are occupied which aims to promoting of health and efficiency of vital internal organs. Asanas keep the spine nerves muscles and glands in healthy condition and given strength and vigour the whole body. Hatha yoga is the only ideal system for attaining proper and harmonious development of body, mind and soul patanjali. The father of yoga stated that harmonious development of body mind and soul can be obtained through eight limbs of yoga yama niyama asanas pranayama, pranayama, dharana, dhyana and Samadhi, by using different

types of yoga and practicing. The asanas following diseases can be cured or a combination of yoga and medicines.

### **PSYCHOLOGICAL:**

Yoga is a psychology. The every practice of yoga are related with nature mind and body. The subject of psychology is related with mind and behavior. Yoga and psychology as separate subjects, however, a close connection is between yoga and psychology. According to American psychology association yoga increases body awareness relieves stress reduces muscle tension, strain and inflammation, and calms and centers the nervous system. yoga can also improve the symptoms of schizophrenia.

### **SPIRITUAL:**

The word yoga means to join or unite and yogis view this union in different ways the union of body, mind and spirit uniting all the aspects of yourself, or uniting with a higher power of spiritual force. Regular practicing yoga develops your stamina your strength, and your rock star also postures challenge the body however, yoga is also a mental practice where you work through emotional stress and psychological changes may even meditate. The yoga is the only methods known to us for a better and quicker inner peace. The inner peace generated increases and improves our capability in making effective decisions even at serious circumstances. A basic principle of yoga is religious freedom yoga is not supposed to be though a religion. It is the source of spirituality and wisdom the root of all religions. Yoga outstrips religious boundaries and reveals the way to unity yoga is a nonviolence activity which includes in thought, word feeling and action, yoga is related with prayer meditation mantra, positive thinking and tolerance which leads to a good spiritual health.

### **CONCLUSION:**

Yoga is science that regulates the physical, psychological and spiritual behavior of an individual. Regular practice of yoga is developing the physical fitness, which gives the mental power. Yoga is ancient, Indian activity, has become popular only in the recent past. It is scientific method for exercising and relaxing to ease the tensions and stress of modern day living. To conclude this, I would strongly recommend suggest yoga as one of the preventive and social medicines of maintaining the social health.

### **REFERENCES :**

- 1.Shankar Ganesh (1998), Holistic Approach of Yoga, M.P. Aditya Publisher. Pp-19-20.
- 2.Pal Satya Aggarwal Dholan Dass (2013), Yogasanas and Sadhana New-Delhi: V & S Publishers.
- 3.Kumar Amresh (2007), How to use Yoga, New-Delhi: Khel Sahitya Kendra.

# BALANCED DIET AND FEMALE ATHLETES

**Savita Dabhade**

Ph.D. Research Scholar, Dr. B.A.M.U.

## ABSTRACT:

The motive of this evaluate is to provide the simple concepts of a healthful nutrients in lady athletes enriched by using the present day clinical suggestions. The prevalence of female athlete Triad, consuming problems, and body photograph problems among lady athlete reviewed. Inadequate dietary intake is greater commonplace in lady athletes than in their male opposite numbers. Proper weight-reduction plan is paramount for active individuals to maintain adequate power during bodily interest and for post activity recovery. An person's dietary desires rely upon his or her intercourse and body size, at the demands of the interest performed, and the period for which the person plays the hobby. Nutritional components consist of macronutrients (carbohydrates, protein, and fat) and micronutrients (fluids, electrolytes, vitamins, and minerals). Furthermore, presenting proper education and aid to female athlete may additionally assist to save you accidents, destiny health issues and enhance athletic performance.

**KEYWORDS:** Female athletes, athletes performance, Diet

## INTRODUCTION:

The participation of women in sports activities has greatly accelerated over the past several many years. Information indicate that even though the prevalence of medical eating problems degrees from 0 to eight % amongst expert and university girl athletes many of them are at threat for eating issues which places them at risk for menstrual irregularity, bone injuries and decrease athletic performance. Nutrition for athletes has three purposes: 1) maximize initial performance; 2) sustain maximal performance; and 3) rapid healing. For the female athlete, right vitamins is likewise needed to maintain menstrual cycle and bone fitness.

The menstrual cycle is an additional electricity purchaser, so girl athletes want to eat each for athletic standard overall performance and to keep a normal menstrual cycle. Ok nutrients also lets in maintain everyday degrees of estrogen, a hormone needed no longer only to hold everyday menstrual cycle, but additionally to stimulate bone growth. Consequently, inadequate vitamins reasons issues with athletic basic performance; the menstrual biking. Prolonged time among intervals or whole cessation of intervals and bone fitness. If a woman athlete lacks well enough caloric intake, it is far going to affect her athletic overall performance and her bone improvement, at the same time as additionally inflicting bizarre menstruation. Lady athletes who participate in sports activities sports that inspire leanness because of a need to place on contour-revealing apparel or because of the reality the sports contain scoring on the basis of appearance generally have insufficient nutritional intake.

## DIETARY PARTS:

Healthy body and mind is basic requirement of health standards all over the world. Knowledge of sound and relevant principles to people regarding dietary components and nutrition, eating habits of people may be moved towards taking good economic tasty and nutritious foods able to fulfill not only daily energy requirements of body but also to keep the body and mind healthy.



## MACRONUTRIENTS

### *Carbohydrates*

Carbohydrates are important to fulfill strength wishes, greater so in persistence athletes than in power athletes. Carbohydrate needs are normally based at the athlete's body length and interest degree. People engaged in moderate-period, low-intensity exercise require 5-7 g of carbohydrates in step with kilogram of body weight. Fruit, vegetables, brown rice, enriched entire-grain breads, entire grain cereals, rolled oats, beans, legumes, and sweet potatoes are true examples of wholesome carbohydrate ingredients.

### *Protein*

Energetic individuals have a heightened protein requirement due to the fact they've a high percentage of lean muscle tissues to aid, they want protein to repair muscle mass that is damaged at some point of exercise, and that they require additional protein for electricity in the course of workout.

Protein-wealthy meals encompass lean red meat and pork, hen, fish, eggs, beans, tofu, and low-fat dairy merchandise. Women at chance for having a low protein consumption are folks that limit their strength intake to reap weight reduction or those who eat a vegetarian eating regimen.

### *Fat*

Fats provides important elements for the mobile membranes and is essential for the absorption of fats-soluble nutrients. Fat have to account for 25-30% of a person's power consumption. In women, intakes are suggested as Linoleic acid consumption eleven-12 g/d, &Alpha-linoleic acid intake 1.1 g/d Women ought to avoid ingesting fat discovered in processed ingredients because of their exceedingly saturated nature. Low-fats diets are not encouraged for energetic people. Low-fats diets lower electricity and nutrient intake, reduce workout performance, and decrease oxidation of body fats shops. Fat gives the maximum strength in keeping with gram of all the macronutrients and may assist in accomplishing a wonderful strength balance. Nutritional fat maintains concentrations of intercourse hormones and may prevent menstrual disturbances.

### *Fluids and electrolytes*

Dehydration impairs performance; therefore, athletes ought to remain nicely hydrated. Good enough fluid intake is about 2.2 L/d for women aged 19-30 years, and extended drinking is needed for lively people or the ones in hot environments. Athletes should devour 400-six hundred mL of fluid 2 hours before exercising. At some point of exercise, 150-350 mL need to be ingested every 15-20 mines. Post exercise meals should consist of fluids and foods containing sodium, due to the fact diuresis occurs with the ingestion of plain water.

### *Vitamins and minerals*

Girl athletes are at multiplied risk for iron, calcium, nutrition B, and zinc deficiencies. Those nutrients are critical for constructing bone and muscle and for energy production. Vegetarians are especially at risk for developing deficiencies in these nutrients and minerals. Iron insufficiency is one of the most familiar nutritional deficiencies the various woman athlete because of menstrual losses .Iron deficiency may additionally lead to fatigue. Ferritin values are generally used to reflect iron stores; however, their reliability inside the girl athlete is puzzled. Immoderate iron ingestion may additionally cause problems, inclusive of gastrointestinal misery, constipation, and iron toxicity. Complications of Nutritional Deficiencies Young ladies and ladies with low energy and supplement admission are powerless to numerous complexities like Fatigue, Dehydration in young ladies or female adolescents, Delayed growth, Poor execution

**Amenorrhea**

Deficient nourishment can prompt Amenorrhea and a deferral or capture of adolescence. Amenorrhea can likewise happen due to passionate or actual pressure, like exceptional preparing. Amenorrhea is more conspicuous in the athletic populace (3-66%) than in the overall female populace (2-4%).

**Female athlete triad**

The 2014 female competitor tern ion alliance agreement articulation characterized the female competitor group of three as including three parts: low energy accessibility with or without disarranged eating, feminine brokenness, and low bone mineral thickness. The female competitor group of three can prompt extreme and long-standing effects. Characteristics of this tern ion are: Amenorrhea, Disarranged eating, & Osteoporosis

In one review, more competitors who contended in leanness sports (70.1%) than those taking part in no leanness sports (55.3%,  $P < 0.01$ ) were delegated being in danger for the female competitor set of three.

**CONCLUSION:**

Female competitors have extraordinary nourishment needs for ideal execution and wellbeing. Female competitors, more so than male competitors, are at a higher danger of creating eating disorders osteoporosis additionally they have the most noteworthy danger of having the female competitor group of three because of their cutthroat nature to get the best build. An even eating routine ought to work on the dietary status of female competitors. Thus, a positive effect on their overall wellbeing status can be anticipated.

**REFERENCES:**

1. Tarnopolsky M. Protein requirements for endurance athletes. Nutrition (2004) 20:662–8.10.1016/j.nut.2004.04.008
2. Nogueira JA, Da Costa TH. Nutritional status of endurance athletes: what is the available information? Arch Latinoam Nutr (2005) 55:15–22.
3. Escalante Guillermo. Nutritional Considerations for Female Athletes. Strength and Conditioning Journal 2016.58(2), 57-63.
4. Luis E Palacio. Nutrition for the Female Athletes. Medscape 2015.
5. Volek, J., et al. Nutritional aspects of women strength athletes. British Journal of Sports Medicine. 2006.40 (9): 742-8.

# ROLE OF YOGA IN MAINTAINING SOCIAL HEALTH

**Dr. Kiran Kishanrao Yerawar**

Director of sports Lokmanya Mahavidyalaya Sonkhed Tq. Loha Dist. Nanded Maharashtra (India)

## INTRODUCTION:

Health is the foundation of happiness of the people. This develops the strength of nation. 1946 World Health Organization (WHO) defined health as a state of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity "Today many more factors are influencing of our health such as homes, schools and colleges, workspaces and communities. Our health is greatly determined by the conditions in which we live. The good health is always depending on social and economic opportunities. and staying of activeness in daily life. Living an active life is important to staying healthy. Always staying active helps to reduce the condition like heart disease. diabetes, crime, drug addiction, terrorism, suicide etc through yogic exercise. Yogic exercise has also been linked to improved mental health and physical health. Today the most important thing is that yoga plays a vital role to maintaining the social health. It's help to reduce the risk of chronic disease improve your overall health and wellbeing. reduce stress and anxiety levels, minimize health related medical costs, help you to maintain healthy weight, assist in proper balance and posture and the maintenance of healthy bones, strong muscles and flexibility, and improve your sleeping patterns. etc. Yoga is a science that regulates the physical. physiological and social behavior of human being. The main aim of Yoga education is development of proper attitudes, emotions and character in society. Regular practice of yoga will develop physical fitness, moral value and also it gives the mental power. Yoga is a Sanskrit word meaning union or Joining together. It helps in social development which is related to the behavior with other Persons in the society.

The main aims of yoga in daily life is develops the Physical health. mental health, social health, spiritual health realization. Yoga can be practiced by anybody men Or women of all ages and at any stage of life in the society. Varna niyama asana pratyahar Pranayama, dharana, dhyan and samadi of asthanga yoga can be important tools for social reconstruction. Yoga play significant role to maintain social health in the following ways:

## PHYSICAL:

Health is a fundamental right of each and every individual in the society. body is source of pleasure. which can be achieved through the practice of yoga. Yoga is the great n emphasis on purification of Internal and external organs. art relaxation methods and different yoga sans for preventing diseases and promoting health. Today hatha yoga is the most popular form of yoga for Its role insistence of health. In hatha yoga various asanas are occupied which aim to promoting of health and efficiency of vital internal organs. A sons keep the spine nerves, muscles and glands in healthy condition and give strength and vigour the whole body. Hath yoga is the only ideal system for attaining proper arid harmonious development of body, mind and soul. patanjali, the father of yoga stated that harmonious development of body mind and soul can be obtained through eight limbs of yoga yama niyama, asanas, pranayam, praiyahar, dharna, dhyan and samadhi. By using different types of yoga and practicing. The asanas following diseases can be cured or a combination of yoga and medicines can help a great majority of patients suffering from these disorders. They are cardiac problems. stroke. stress. obesity, hypertension. diabetes, cervical spondylosis. urinary disorders.

backache, enhancement of immune system, bronchial asthma, constipation and menstrual disorders etc.

### **PSYCHOLOGICAL :**

Yoga is a psychology. The every practice of yoga are related with nature, mind and body. The subject of psychology is related with mind and behavior. Yoga and psychology as separate subjects. however, as close as connection is between yoga and psychology. According to American psychology Association - Yoga increases body awareness, relieves stress. reduces muscle tension, strain and inflammation, and calms and centers the nervous system. Yoga's positive benefits on mental health have made it important practice tool of psychotherapy. The regular practicing yoga improves the symptoms of depression and sleep disorders. Yoga can also improve the symptoms of schizophrenia.

### **SPIRITUAL:**

The Word Yoga means to join or unite, and yogis view this union in different ways- the union of body, mind and spirit, uniting all the aspects of yourself, or uniting with a higher power of spiritual force. Regular practicing yoga develops your stamina, your strength, and your rock star also. Postures challenge the body. However, yoga is also a mental practice where you work through emotional stress and psychological changes- you may even meditate. The yoga is the only methods know to us for better and quicker inner peace. The inner peace generated increases and improve our capability in making effective decision even at serious circumstances. A basic principle of yoga is religious freedom. Yoga is not supposed to be though a religion, it's the source of spirituality and wisdom. the root of all religions. Yoga outstrips religious boundaries and reveals the way to unity. Yoga is a nonviolence activity which includes In thought, word, feeling and action. Yoga is relate with prayer, meditation, mantra, positive thinking and tolerance which leads to a good spiritual health.

### **CONCLUSION:**

Yoga is science that regulates the physical, psychological and spiritual behavior of an Individual Regular practice of yoga is developing the physical fitness, which gives the mental power. Yoga is ancient, Indian activity, has become power only in the recent past. It is scientific method for exercising and relaxing to ease the tensions and stress of modern day living. To conclude this, I would strongly recommend suggest yoga as one of the preventive and social medicines of maintaining the social health.

### **REFERENCES:**

- 1) Shankar Ganesh (1998), Holistic Approach of Yoga, M.P.: Aditya Publisher. pp. - 19-20
- 2) Pal Satya, Aggarwal Dholan Dass (2013), Yogasanas and Sadhapa, New-delhi : V&S Publishers
- 3) Kumar Amresh (2007), How to use Yoga, New-Delhi : Khel Sahitya Kendra
- 4) University News a weekly Journal of Higher Education. New- Delhi, Association of Indian University, AIU House, Vol. 48 No.05, February 01-07-2010, ISSN : 0566-2257.
- 5) International Journal of clinical & Medical, Volume 1, Issue 4, 2014, ISSN : 2376-0249

### **Websites:**

- a). [kentucky.kve.org](http://kentucky.kve.org)
- b). <https://www.healthline.com>health>
- c). <https://en.m.wikipedia.org>wild>
- d). <https://www.researchgate.net>3308>
- e). <https://www.psychologytoday.com>>
- f). <https://positivepsychology.com>be>
- g). [e-pao.net>education>healthissue](http://e-pao.net>education>healthissue).
- h). <https://www.doyou.com>the-spiritu>
- i). <https://www.occonieyoga.com>imp>.

# IMPORTANCE OF DIET DURING COVID-19 SITUATION''

**Mr. C.B. Satpute**

Director, Physical Education & sports,  
A.C.S. College, Gangakhed  
Dist. Parbhani 431514

**Dr.Uddhav R. Aghav**

Librarian,  
ACS College, Gangakhed

## ABSTRACT:

The present paper discusses the importance of diet during COVID-19 situation. Healthy diet & exercise tips are given. Further it gives benefits of eating healthy and healthful diet. In the next part shortly discussed COVID-19 situation in India & Maharashtra by WHO, nutrition advice for adults during COVID-19 outbreak and given tips for food safety and safer food by concluding daily diet with amount & avoid something.

## KEY WORDS:

WHO, COVID-19, Diet, Healthy food, Healthful diet, COVID-19 situation India, Maharashtra, Nutrition advice, Foods safety, Safer food, NCDs etc.

## INTRODUCTION:

Consuming a healthy diet throughout the life-course helps to prevent malnutrition in all its forms as well as a range of non-communicable diseases (NCDs) and conditions.

However increased production of processed food, rapid urbanization and changing lifestyles has led to a shift in dietary patterns. People are now consuming more foods high in energy, fats, free sugars and salt/sodium and many people do not eat enough fruit, vegetables and other dietary fibre such as whole grains.

The exact make-up of a diversified balanced and healthy diet will vary depending on individual characteristics (e.g. age, gender, lifestyle and degree of physical activity) cultural context locally available foods and dietary customs.

However the basic healthy diet remains the same. A healthy diet can protect the human body against certain types of diseases in particular non-communicable diseases such as obesity, diabetes, cardiovascular diseases, some types of cancer and skeletal conditions. Healthy diets can also contribute to an adequate body weight.

## DIET:

There are 12 diet and exercise tips.

- ✓ Do not skip breakfast. Skipping breakfast will not help you lose weight.
- ✓ Eat regular meals.
- ✓ Eat plenty of fruit and vegetables.
- ✓ Get more active.
- ✓ Drink plenty of water
- ✓ Eat high fibre foods
- ✓ Read food labels.
- ✓ Use a smaller plate.
- ✓ Do not ban foods.
- ✓ Do not stock junk food.
- ✓ Cut down on alcohol.

- ✓ Plan your meals.  
(Source: National Health Service (NHS) in Great Britain)

### **What are the benefits of eating healthy?**

Healthful eating also means replacing foods that contain trans fats added salt and sugar with more nutritious options.

- ✓ Heart health
- ✓ Reduced cancer risk
- ✓ Better mood
- ✓ Improved gut health
- ✓ Improved memory
- ✓ Weight loss
- ✓ Diabetes management
- ✓ Strong bones and teeth
- ✓ Getting good night's sleep
- ✓ The health of the next generation

### **HEALTHFUL DIET:**

These are plenty of small positive ways to improve diet including.

- ✓ Swapping soft drinks for water and herbal tea.
- ✓ Eating no meat for at least 1 day a week.
- ✓ Ensuring each meal consists of around 50% fresh product.
- ✓ Swapping cow's milk for plant based milk.
- ✓ Consuming whole fruits instead of junkies which contains less fiber and often include added sugar.
- ✓ Avoiding processed meats which are high in salt and may increase the risk of colon cancer
- ✓ Eating more lean protein which people can find in eggs, tofu, fish and nuts

A person may also benefit from joining a cooking class and learning how to incorporate more vegetables into meals.

### **COVID-19 situation in India:**

The WHO India weekly COVID-19 situational report provides a comprehensive summary of the COVID-19 situation in India.

The report provides an epidemiological overview of India, highlights WHO India operational updates on risk communication and community engagement, infection prevention and control, clinical management, operation support & logistics. The WHO situational report summarises the severity of public health and social measures implemented in India and provides an update on pandemic vaccine deployment in the country.

These are 93 India situation reports available with WHO on weekly basis. 322,49,900 people are so far affected in India by novel coronavirus COVID-19. 31,44,12,60 out of 32,44,99,00 have recovered. Sadly, 4,32,11,2 patients have died due to coronavirus in India. 3,63,84,9 patients are still in hospital and recovering. The last recorded case of coronavirus in India was 49 minutes ago.

### **COVID-19 in Maharashtra:**

In Maharashtra, total cases are 6,39,68,05 and now cases are 41,45. Total deaths are 1,35,13,9 and new deaths are 100. Total recovered patients are 61,95,74,4 and active cases are 62,45,2. (Source : Corona India Tracker, best updated 2021-08-13 23:27:22)

**Nutrition advice for adults during the COVID-19 outbreak:**

Proper nutrition and hydration are vital. People WHO eat a well – balanced diet tend to be healthier with stronger immune systems and lower risk of chronic illness and infection diseases. So you should eat a variety of fresh and unprocessed foods every day to get the vitamins, minerals, dietary fibre, protein and antioxidants your body needs. Drink enough water avoid sugar fat and salt to significantly lower your risk of overweight obesity heart disease stroke diabetes and certain types of cancer.

- ✓ Eat fresh & unprocessed food every day
- ✓ Drink enough water every day
- ✓ Eat moderate amounts of fat & oil
- ✓ Eat less salt and sugar
- ✓ Avoid eating out
- ✓ Counselling & psycho social support
- ✓ Flyer info graphic and social cards

**Tips for food safety during COVID-19:**

There is no evidence that COVID-19 can be spread through contact with food or food packaging. COVID-19 is generally thought to be spread from person to person however it's always important to practice good hygiene when handling food to prevent any food borne illnesses. Follow WHO'S five key to safer food

- ✓ Keep clean
- ✓ Separate raw and cooked
- ✓ Cook thoroughly
- ✓ Keep food at safe temperatures
- ✓ Use safe water & raw materials

**CONCLUSION:**

Daily eat: 2 cups of fruits (4 servings) 2.5 cups of vegetables (5 servings) 180gm of grains and 160gm of meat and beans (red meat can be eaten 1-2 times per week and poultry 2-3 times per week) for snacks, choose raw vegetables and fresh fruit rather than foods that are high in sugar fat or salt.

**REFERENCES:**

1. <https://www.covid19india.org>
2. <https://www.healthifyme.com>
3. <https://www.who.int>
4. <https://www.healthline.com>
5. National Health Service, British agency.

# ROLE OF SPORTS NUTRITION AND DIET IN PHYSICAL EDUCATION

**Dr. Manda V. Thengne**

Yeshwant Mahavidyalaya Wardha. Dist. Wardha

## **ABSTRACT:**

Nutrition performs an crucial position on sports activities performance. Following an ok vitamins sample determines prevailing the gold medal or failing withinside the attempt. That is why it's miles generally noted as "invisible education." However, concerning meals and performance, it isn't best noted expert athletes. Nowadays, a massive variety of beginner athletes carry out each day bodily interest each recreationally and semiprofessionally. That populace additionally seeks to obtain an development of their non-public brands, which may be reached following right dietary guidelines. In athlete populace, nutrient necessities are incremented in comparison with non-athlete populace. Therefore, it's miles crucial to perform a dietary method tailored to the athlete and education sessions. In addition, different benefits of ok meals consumption in sports activities are associated with adjustments in frame composition, discount of injuries, and prolongation of expert profession length. The goal of this bankruptcy is to decide the dietary necessities of athlete populace that permit to obtain their carrying goals. Nutritional techniques could be addressed in phrases of macronutri-ents intake, hydration, and timing relying on kind and depth of workout.

## **INTRODUCTION:**

Nutrition is strongly related to fitness, in particular while sports activities are concerned, because of the boom in power and nutrient demands. It is essential to realize the body structure of the workout in an effort to realize the distinct metabolic pathways that coexist in the course of sports activities practice. In this way, you could expect the adjustments that arise withinside the organism in the course of bodily attempt, in an effort to obtain a few nutritional recommendations. The dietary practices of athletes are multifactorial and rely upon the habits, culture, or dietary know-how of the athlete. So the paintings of a sports activities nutritionist is to advocate the athlete and his surroundings to make the essential adjustments in his consumption and thereby enhance sports activities performance (SP). Nutrition is determinant in accomplishing an ok SP, that is described via way of means of 3 variables: education, rest, and feeding. However, the primary goal of sports activities vitamins ought to be keeping the fitness of the athlete, which may be accomplished with an ok consumption tailored to the kind of education performed. Optimal vitamins presents the power essential to carry out bodily workout whilst decreasing harm fee, a thing that collectively makes the SP boom via way of means of itself. Two of the components which can restrict the SP are the nation of hydration and the power contribution.

Hypohydration states produce changes in homeostasis, reduced blood volume, extended coronary heart fee, decrease fee of sweating, extended organismtemperature, and extra belief of attempt which interprets into SP deterioration. Likewise, a low power intake accentuates fatigue, immunosuppression, and predisposition for injuries, that may intervene withinside the improvement of SP. Nowadays, an exponential boom withinside the populace that plays bodily interest has been reported. In the USA, the whole variety of runners encouraged in marathon occasions is 541,000 in 2013, which represents 27% greater members than discovered in 2008 withinside the equal fashion



discovered in lots of countries. For example, in Spain the variety of members extended from 28,000 (2008) to 57,931 (2013), which represented an boom of 101%. These will increase some distance from ceasing have persevered developing withinside the closing five years. Specifically, marathons of Sevilla and Valencia have reached 14,500 and 20,000 runners in 2018, which assessment with the preceding participation discovered in 2013 (5963 and 9653 members, respectively). Unfortunately, sports activities vitamins is frequently referenced to sports activities dietary supplements or “magical” extraordinary diets. In reality 40–70% of athletes use sports activities dietary supplements with out even studying if their use is simply essential.

### **BODY COMPOSITION :**

The frame composition (BC) of the athletes is associated with the SP, as it may be changed in the course of the season. There isn't anyt any unmarried BC for every institution of athletes; however, it may function a manual for athletes and coaches. The season of the athlete could be divided into distinct levels in the course of the aggressive period. Competitive season may be divided in preseason, aggressive period, transition period, and withinside the worst case harm period. Due to distinct intensities, timing, and varieties of education, the BC is commonly distinct withinside the aggressive season. Therefore, it's miles important to realize the BC of the athletes in an effort to decide the adequacy of the present day season stage. Apart from a better frame mass index (BMI), there are numerous techniques for the assessment of BC. Dual-power X-ray absorptiometry (DEXA) is taken into consideration the gold general for the evaluation of frame fat, especially because of its excessive reproducibility and accuracy. However, DEXA has excessive monetary cost, isn't portable, and additionally emits a small radiation, so its use isn't very common.

### **METABOLIC PATHWAYS AND EXERCISING:**

Prior to organising necessities concerning amount and timing of macronutrients, a short method approximately one of a kind metabolic pathways that gives strength at some point of exercising is vital. The strength structures are included through a hard and fast of metabolic pathways that come into operation at some point of exercising, relying at the depth and period. In summary, they may be divided into non-oxidative pathways (phosphogenic and glycolytic pathways) and cardio pathways (nutrient oxidation). Both pathways goal to generate ATP so that it will be ate up at some point of the exercising. The non-oxidative pathways arise withinside the mobile cytosol, do now no longer require oxygen, and are activated at some point of short-time intervals (seconds). Phosphagen path makes use of ATP and phosphocreatine, lasting among 1 and 10 s, and is a path that doesn't want oxygen and does now no longer generate lactate. Glycolytic pathways metabolize glucose, muscle, and liver glycogen thru glycolysis and arise in high-depth sporting activities up to three min. These glycolytic pathways generate lactate and hydrogen bonds, producing an acidity withinside the muscle cell—this acidity being one in every of its barriers. The cardio pathway happens in the mitochondria, so it calls for the presence of oxygen to metabolize fuels. It is standard of resistance sporting activities with medium-low depth and lengthy period. It consists of the oxidation of CHOs, fats, and to a lesser volume proteins. This path generates a lot extra ATP than the anaerobic route however extra slowly, velocity being the challenge of this route.

### **ENERGY NEEDS:**

The key to fulfillment for any athlete can be to conform strength consumption to strength expenditure, which permits the suitable functioning of the organism even as enhancing BC. However, it could be complex because of a couple of modifications in periodization of education and competitions. The strength needs of athletes fluctuate broadly relying at the sort of sport,

period, depth, aggressive stage, and character variability of every athlete. The extra traumatic the aggressive stages of the athlete are, the finest boom withinside the depth of each education and opposition happens, so as to bring about a huge discount strength reserves that need to get replaced through an ok eating regimen. Macronutrients In order to set up hints for macronutrients, it's miles greatest thinking of the frame weight (BW) of the athlete, in preference to giving the standard probabilities primarily based totally on the whole caloric consumption of the eating regimen. For this cause the hints can be supplied through grams of nutrient/kg of BW. Main strength substrates used for bodily exercising are carbohydrates (CHO) and lipids, even as proteins as strength substrate are reserved for severe conditions. The use of strength substrate varies relying at the depth and period of the exercising, stage of education of the athlete, and the kingdom of pre-exercise CHO stores. The use of CHO as strength substrate is produced especially at some point of highintensity and short-period sporting activities. Meanwhile, much less excessive and lengthy-time period sporting activities use fats' essential strength substrate. However the usage of CHO will even have a tremendous effect on sporting activities of much less depth and longer period which includes resistance test, displaying that depletion of CHO collectively with dehydration is a prime challenge of the SP.

#### **HYDRATION:**

During exercising, increments of strength necessities are related to large manufacturing of metabolic warmth. Human organism dissipates that more warmth especially through the mechanism of evaporation, which in the long run induces dehydration. One of the finest barriers of SP is dehydration. It is predicted that every kg of BW misplaced at some point of exercising corresponds to one L of sweat. The sensitivity to dehydration is personal, however usually no losses extra than 2% of the BW are encouraged so as now no longer to compromise the SP. In fact, 1% of BW misplaced results in SP lower through 10%. Some authors have raised the opportunity of education dehydration, however there may be a few controversy approximately it.

#### **CONCLUSION:**

The foundation of sports activities nutrients is a various eating regimen and in my view tailor-made to the necessities and appetency of every athlete. The athlete need to be advised approximately the significance of eating regimen, called "invisible education," which isn't handiest vital on opposition day. Prior to organising dietary guidelines, it's miles vital to understand and adapt the BC of the athlete withinside the one of a kind intervals of the season and make revisions thru the sum of six skinfolds.

#### **REFERENCES :**

1. Eberle, S. G. "Endurance sports activities nutrients". Fitness Magazine. 24 (6): 25.
2. Navarro, Guadalupe; Allard, Camille; Xu, Weiwei; Mauvais-Jarvis, Franck (April 2015). "The position of androgens in metabolism, weight problems and diabetes in adult males and females". Obesity (Silver Spring, Md.). 23 (4): 713–719. doi:10.1002/oby.21033. ISSN 1930-7381. PMC 4380643. PMID 25755205.
3. Lizcano, Fernando; Guzmán, Guillermo (2014). "Estrogen Deficiency and the Origin of Obesity at some point of Menopause". BioMed Research International. 2014: 757461. doi:10.1155/2014/757461. ISSN 2314-6133. PMC 3964739. PMID 24734243.
4. Jurek, Scott (2012). Eat and Run. London: Bloomsbury.

# IMPACT OF COVID-19 PANDEMIC ON SPORTS PRESENT AND FUTURE

**Dr. J. D. Kour**

Collage of Physical Education, Koutha, Nanded-431603 (M.S.)

## INTRODUCTION:

As the sporting world grapples with the covid-19 shutdown, we take a look at number of ways in which our favorite sports might be affected after resumption. First, there were denials. Secondly, sports administrators over the world started taking notice. Soon postponements followed with a promise to resume live-action soon. But as on after another countries across the globe went into lockdown, hopes of seeing our favorite athletes on the field started diminishing further. Perhaps the most telling blow came when the Tokyo Olympics were postponed to the following year with no fixed date in sight. Corona virus domination over the wide world of sports was complete. With no clarity as to when this crisis will be over one thing is for certain sports including day-to-day life will never be the same if and when the pandemic subsides.

With close to 4 million people being affected to date (June 2020), the world stands at a crossroads, faceted with the decision of jumpstarting the economy, while living under the fear of the novel Covid-19 Sports administrators are also increasingly grappling with questions regarding the future of various events and leagues across the world. There has been some good news recently in the form of the GermanBundesligadeclaringaMay16restart while the England and Wales Cricket Board (ECB) planning to host West indies for a full tour starting in July. But even the most optimistic of sports fan would understand that unless and until vaccine or the corona virus is invented and is available for the masses when and how sports will retune to their pre-Covid-19 status anybody guess. in this piece, we try to present anew key areas regarding popular sports which are set to undergo massive changes as they to get back on tract.

## PRESENT COVID-19 IMPACT ON IMPORTANT SPORTING EVENTS CRICKET:

The global economic slump triggered by the Covid-19 pandemic could change the entire sports industry in ways though unthinkable till now some sports will be hit harder than others. The economic structure of international cricket is likely to change and lower-ranked nations will face crunch in funds. The key revenue generation for sports bodies is through licensing of television broadcast rights. With the stoppage in sporting events, it is likely that most sporting events, it is likely that most sporting bodies will face financial hits, Indian cricket could be relatively better placed. smaller countries like west indies, Bangladesh and Sri Lank cold face challenges if their respective media contracts are not renewed, sports other than cricket might find it harder to return to normal in India, because they do not have as deep finical pockets.

## FOOTBALL:

The Indian Super League (ISL) final was held in an empty stadium in Goa on March 14. 1-League season was halted on March 15, with the Neroca vs Chennai City 2-2 drw becoming the last match of the season. The season was eventually called off with 23 matches left and Mohun Bagan was crowned champions. With many months to go before the start of the next season. Indian clubs have continued making moves on the transfer market during the lockdown. India's remaining World Cup qualifiers have been postponed. Matches against Qatar Afghanistan and Bangladesh were scheduled for the March-April window and there's little clarity on when they will be played the

postponement of the U-17 Women's Football World Cup, which was to be hosted in India in November, has also caused some concern, though FIFA has said that new dates will be identified at a more suitable time.

### **BADMINTION:**

The all England Championship, which concluded On march 15 was the last event India s major badminton Stars part pated in even then their had been some voices which had said that the BWF the would federation for the sport, was putting athletes in danger. Since then, the BWF has postponed or cancelled all events in its calendar for the next few months. The Swiss Open, India Open, Malaysia open and Singapore open have been cancelled, so has the Polish Open scheduled for last week of March.

### **TENNTS:**

In tennis, concern for lower ranked players India was to take on Latvia in a Fed Cup layoff on April 17-18 but that has been postponed. With events getting cancelled in tennis, there has been concern that lower ranked players who depend on competitions will be financially hit. If you re not in the top 100 you will struggle, Vijay Amritraj had mentioned in an interview. India's Siddhartha Rawat, who is ranked 438 in the world, had said that he could sustain on his saving till September or October. After that, I'i be has been cancelled while the French Open has been postponed till September 20.

### **OTHER OLYMPIC SPORTS**

Olympic sorts are divided into five categories, and each international federation receives money from the international Olympic committee (IOC) depending on their audience and size, with those in top-most bracket receiving around \$40 million and the lowest getting \$7 million. With the postponement of the Games, the IOC is likel to freeze

### **ATHLETICS:**

Track and field athletes will be in for a hectic time in the summer of 2022. With three major competitions inred up over two months. The World athletics commonwealth games July 27 August 7) and the Asian Games from September 10 Among major events which were scheduled since March. The World indoor championship in Nanjing from March 13.15 have been postponed to March 19.21, 2021. The Doha Diamond League in Qatar on April 17 has been postponed.

### **ARCHERY:**

Boxing: The Asia Oceania Olympic qualifiers which were moved from Wuhan China to Amman Jordan were held form March 3.11. The Indian contingent came up with a record breaking showing in Jordan on their return to the country they were screened at the Delhi airport and then became the first bunch of Indian athletes to go into quarantine in the aftermath of the corona virus outbreak. The World Cup in Cologne Germany form june 17-20 has been cancelled.

### **SHOOTING :**

The World Cup in new delhi from march 15-16 has been postponed to june 2-9. The Olympic test event in Tokyo from April 16-16 has been cancelled.

### **TABLE TENNIS:**

Table Tennis: The World team chanpionships in Busan South Korea have been postponed from may 22-29 to June 21-28 The Asain Olympic qualifying tournament in Tokyo from April 6-12 has been postponed.

### **WEIGHTLIFTING:**

The Asian championship in Tashkent, Uzbekistan from April 16-25 has been postponed.

**WRESTLING:-**

The Asian Championships were held in New Delhi from February 20-23 though China, North Korea, Turkmenistan teams withdrew. The Asian Olympic qualifying event from March 27-19 in Xi'an China has been postponed. Line in many Olympic sports has put the qualification scenario for the next edition of the Games in turmoil.

**HOCKEY:**

Even before the pandemic hockey had a hard time to mouth existence in post nations, with the exception of India, Netherlands and Australia to some extent. But as this report pointed out with top of the top nations struggling, combined with the current fragile situation of the international hockey federation (FIH) and an uncertain future, it is feared the sport could be headed for a tumultuous period. The tour that the India women's team was to undertake of China from March 14-25 has been cancelled.

**EXPECTED SPORTS SCENARIO AFTER COVID-19:**

We will have to live with the threat of the corona virus and warned that sports might never return fully to the way it was before 2020. It could also see the death of smaller sporting leagues and sports. The first step towards initiating a return to normal will be for the respective sporting bodies to sit with the government and chart out their roadmaps. There are two ways in which the return to normalcy will play out. The first is that fans are allowed back and that social distancing norms are maintained in stadiums. Medical experts have said the plan to do mass testing of players and officials on the sidelines of tournaments is impractical at this stage and therefore so is a return to sports. The other is that sports be held in empty stadiums for the foreseeable future, with a focus on improving the viewing experience for the fan. Viewing experience for the fan more analysis which appears on the screen using Artificial intelligence to customize fans experience are some of the changes we could see in broadcasting said by many sports experts.

**STADIUM EXPERIENCE:**

Playing in front of empty stadiums is an idea that has been mooted by many since the onset of the pandemic and it seems the only logical way to restart play while living with the virus.

**SPECTATOR CONCERN**

With the lack of any live action at the moment there is no doubt that fans are currently hungry for more but if the period under lockdown is anything to go by, players and teams all over the world have started finding new ways to keep their fans engaged. The sudden spike in Social media's live sessions with athletes across sports is already a signal that more such ways of personalized fan engagement are set to become the norm.

**INNOVATIONS AND RULE CHANGES:**

Necessity is the mother of invention and in the case of cricket, the fear of Covid-19 has already started a debate regarding whether it's still appropriate to continue using saliva on the ball. For a game already grappling with fall in attendance figures, cricket could also use more innovations on the lines of T10 leagues or The Hundred similarly in other sports, multiple rule changes to avoid contact between players and keeping the fans sitting at home glued to their screens are sure to bring much more innovation at a faster pace.

**PLAYER TRAINING:**

With athletes being consigned to their homes due to the lockdown, there is an increasing concern regarding whether they will be fit to perform when asked to. In this scenario, we might see a

shift in the training approaches as they will have to be remotely monitored. Thus, training might become much more personalized and layer centric. In the same vein, teams and sporting bodies would do well to remember the mental toll a pandemic could take on a player. Physios and mental conditioning coaches might have to be on their toes, more actively than before and design regimens that cater to the needs of each player.

#### **EXPECTED RESTART SOON:**

As of May 5m more than 150 sports events have been either postponed cancelled since the bringing of the Covid-19 pandemic, While there was no choice for the sports federations to do so, one of the biggest questions facing them is that of when these events will be held eventually. Scheduling is going to be under focus also as the qualifying rounds for the above events are also set to be compromised with there being no sunset date in sight as far as the Covid-19 is concerned. Howe sports administrators are going to deal with these issues is a factor that is giving to define the future course of sports all over the world.

#### **CONCLUSION**

The corona virus outbreak, which has been declared a pandemic by the World Health organization, has also had a major effect on sporting events in India and across the world. Sports field mainly tournaments, training etc are postponed and some are cancelled, according to health government guidelines the sports programs need to organize, here players and all people who has been corporate during organize of the sports events, each one's health and life is first priority with this aware and caution sense sports could be organize in different version and normally could be expecting as soon with god's grace.

#### **REFERENCES:**

1. <https://www.indiatoday.in>
2. <https://www.indianexpress.com>
3. <https://www.timesofindia.indiatimes.com>
4. <https://www.weforum.org/agenda/2020/04/sports-covid19-coronavirus-exercise-spectators-media-coerage>  
<https://www.un.org/development/desa/dspd/2020/05/covid-19-sport>.

# IMPACT OF COVID-19 ON PHYSICAL EDUCATION AND SPORTING ACTIVITIES

**Dr. Arvind P. Joshi**

(Vice principal) Dr. Ambedkar college Deekshabhoomi Nagpur

## **ABSTRACT:**

The unfold of COVID-19 has led college students to take instructions on line (instead of face-to-face) international, along with in China. For this study, we carried out qualitative consciousness institution discussions to discover the enjoy of and problems confronted with the aid of using on line bodily training college students in better training taking on line instructions, along with the effect on their bodily hobby performance, in addition to a few fitness issues they face at the same time as taking on line instructions at some stage in the quarantine duration, consisting of weight advantage, depression, and tension. Finally, using Mayer's studying version as a conceptual framework, we advise a technique that addresses a way to efficiently manipulate an most effective destiny studying machine for bodily training college students, each at some stage in and after the COVID-19 outbreak situation. During the isolation duration of COVID-19, the desired gadget for the contributors turned into not often to be had at domestic at the same time as attending the web instructions, which unavoidably decreased the quantity of bodily training gadgets that might be conveyed. This ended in a switch of interest from opposition to underperformance, weight advantage, and unfavourable mental situations. We finish that it's far essential to check and systematize the techniques of on line bodily training studying, specially highlighting the cultural and academic traits of various nations, and to research the effectiveness of on line bodily training as a whole.

## **INTRODUCTION:**

The unfold of COVID-19 has brought about the interruption of extra than 850 million college students and has disturbed the presently to be had coaching techniques of instructional establishments across the international. According to United Nations and UNESCO, the epidemic has brought on big harm to the training machine, along with the closure of schools, main to big stress being located on parents, college students, educators, academic establishments, and governments to make sure the continuity of studying. This is expressly true, as many instructors and college students have little to no on line studying enjoy. The outbreak of COVID-19, which commenced on the cease of 2019, has swiftly modified the country wide emergency coverage in China. Soon after, maximum nations commenced to offer on line coaching to college students thru exceptional on line applications. In order to sell on line training and the brief ceasing of ordinary coaching orders, on 6 February 2020, the Ministry of Education of the People's Republic of China began out to take on line coaching techniques into consideration.

## **LITERATURE REVIEW**

The international COVID-19 epidemic has brought about the closure of stadiums, gyms, swimming pools, physiotherapy centers, dance and health studios, playgrounds, and parks. As a result, many people have turn out to be not able to actively take part of their ordinary person or institution wearing sports out of doors their domestic. In this case, maximum humans enjoy much less bodily hobby, longer display screen time, abnormal slumbering habits, and worse diet, which result in weight advantage and lack of fitness. Low-profits households are specially vulnerable to

the bad effect of lockdown guidelines, as their lodging situations are regularly sub-popular and their residing area is narrower, such that it's far hard for them to perform bodily exercising. This circumstance has brought about a massive-scale transformation, which has impacted the academic machine in that nations everywhere in the international fast closed down in-character school rooms and became to coaching in exceptional digital environments on the time of the COVID-19 epidemic.

### **The impact of COVID-19 on sporting events and the implications for social development:**

To shield the fitness of athletes and others involved, maximum primary wearing activities at international, nearby and country wide degrees were cancelled or postponed – from marathons to soccer tournaments. The Olympics and Paralympics, for the primary time withinside the records of the present day games, were postponed, and could be held in 2021. The international price of the sports activities enterprise is estima–ted at US\$756 billion annually. In the face of COVID-19, many hundreds of thousands of jobs are consequently at threat globally, now no longer best for sports activities specialists however additionally for the ones in associated retail and wearing offerings industries linked with leagues and activities, which encompass travel, tourism, infrastructure, transportation, catering and media broadcasting, amongst others. Professional athletes also are beneathneath stress to reschedule their schooling, at the same time as looking to live in shape at domestic, and that they threat dropping expert sponsors who might not help them as to start with agreed.

### **The impact of COVID-19 on physical activity and well-being:**

The international outbreak of COVID-19 has ended in closure of gyms, stadiums, pools, dance and health studios, physiotherapy centres, parks and playgrounds. Many people are consequently now no longer capable of actively take part of their ordinary person or institution wearing or bodily sports out of doors in their homes. Under such situations, many have a tendency to be much less bodily energetic, have longer display screen time, abnormal sleep styles in addition to worse diets, ensuing in weight advantage and lack of bodily health. Low-profits households are specially prone to bad outcomes of live at domestic guidelines as they generally tend to have sub-popular resorts and extra restricted areas, making it hard to interact in bodily exercising. The WHO recommends a hundred and fifty mins of moderate-depth or seventy five mins of vigorous-depth bodily hobby consistent with week. The advantages of such periodic exercising are demonstrated very helpful, specially in instances of tension, disaster and fear. There are issues consequently that, withinside the context of the pandemic, loss of get admission to to ordinary wearing or exercising exercises might also additionally bring about demanding situations to the immune machine, bodily fitness, along with with the aid of using main to the graduation of or exacerbating present sicknesses which have their roots in a sedentary lifestyle. Lack of get admission to to exercising and bodily hobby also can have intellectual fitness impacts, that could compound strain or tension that many will enjoy withinside the face of isolation from ordinary social lifestyles. Possible lack of own circle of relatives or pals from the virus and effect of the virus on one's financial health and get admission to to vitamins will exacerbate those outcomes. For many, exercise at domestic with none gadget and restrained area can nonetheless be possible. For the ones whose domestic lifestyles can contain lengthy durations of sitting, there can be alternatives to be extra energetic at some stage in the day, as an example with the aid of using stretching, doing housework, hiking stairs or dancing to music. In addition, specially for the ones who've net get admission to, there are numerous loose assets on a way to live energetic at some stage in the pandemic. Physical health games, as an example, may be attractive to humans of every age and be utilized in small areas. Another essential factor of preserve bodily health is energy schooling which does



now no longer require massive areas however allows preserve muscle energy, that is specially essential for older humans or humans with bodily disabilities.

### CONCLUSION:

The COVID-19 pandemic has had and could hold to have very sizeable outcomes at the wearing international in addition to at the bodily and intellectual health of humans across the international. The following hints are seeking to each help the secure re-starting of wearing activities and tournaments following the pandemic, in addition to to maximise the advantages that game and bodily hobby can convey withinside the age of COVID-19 and beyond.

### REFERENCES

1. "COVID-19 Educational Disruption and Response". UNESCO. four March 2020. Retrieved 24 May 2020.
2. Skulmowski A, Rey GD (May 2020). "COVID-19 as an accelerator for digitalization at a German university: Establishing hybrid campuses in instances of disaster". Human Behavior and Emerging Technologies. 2 (3): 212–216. doi:10.1002/hbe2.201. PMC 7283701. PMID 32838228.
3. Goudeau, Sébastien; Sanrey, Camille; Stanczak, Arnaud; Manstead, Antony; Darnon, Céline (27 September 2021). "Why lockdown and distance studying at some stage in the COVID-19 pandemic are probably to growth the social magnificence fulfillment gap". Nature Human Behaviour. doi:10.1038/s41562-021-01212-7

# FITNESS MANAGEMENT FOR SPORTS COMMUNITY DURING COVID-19 PANDEMIC

**Miss. Vaishali Prakash Ghatge**

Ph. D. Research Scholar K. B. C. N. M.U Jalgon

**Dr. Govind Sadashivrao Martale**

Director of Physical Education Dhanaji Nana Mahavidyalaya, Faizpur Jalgoan

## **ABSTRACT:**

This unprecedented situation is evolving rapidly and new information is emerging by the hour. It's important to remain current on reputable COVID-19 updates, like from the World Health Organization and therefore the Centers for Disease Control and Prevention, to remember of what this suggests for you and your loved ones in your geographic area. No matter what happens, recognize that the sole thing you've got control over is you, more specifically, your attitude, your effort, and your actions. We are all facing tons of uncertainty immediately, so it's even more important to possess awareness of what's happening around you and specialise in what you'll control. Believe your previous experience, your strengths, and your network to reply with resilience and composure. While you ought to remain vigilant to react during a timely manner, know that it's okay to require an opportunity and disconnect from the overwhelming amount of data that's available. In other words, take a while during your day to show off your TV and put down your smartphone so as to mentally and emotionally get over the strain of this pandemic.

## **KEYWORDS:**

Fitness Management, Covid-19, Emotional Rollercoaster, Virtual Communication, Exercise is Medicine, Sports Management

Everyone within the sport community is feeling the impact of COVID-19. Events and competitive seasons in the least sport levels are being cancelled and training facilities are closing. Athletes, coaches, parents, and sport stakeholders are scrambling to develop contingency plans. With no live events to hide, media sources are that specialize in the Coronavirus pandemic, which might be further exacerbating everyone's concerns. Fortunately, mental performance and psychological state practitioners and organizations are helping to mitigate the consequences of this extremely fluid situation through online support.

## **BENEFITS OF FITNESS MANAGEMENT DURING COVID-19**

Physically active individuals usually live longer than those that are inactive or may have a risk of heart condition. Inactivity is a crucial risk factor almost like high vital sign, smoking, or high cholesterol. These are some benefits of exercise:

1. Stress and anxiety relief: Stress and anxiety are rising with the present pandemic, and it can lower your immune reaction. Exercising releases chemicals in your brain, like serotonin and endorphins which may help improve your mood, reduce the danger of depression and cognitive decline, and delay onset of dementia.
2. Immune support: Regular PA helps your system function.

3. Weight management: It shouldn't come as a surprise that regular PA paired with a balanced nutritious diet helps with weight management. Excess weight is related to higher health risks.
4. Reduces health risks and prevents diseases: Regular PA reduces vital sign also as risks of great health issues like type 2 diabetes, heart condition , and stroke when it's paired a balanced nutritious diet.
5. Bone, muscles, balance, and flexibility: PA also improves bone and muscle strength, and increases balance and adaptability . this is often important for everybody , especially older adults because it can prevent falls and injuries. As for youngsters , it aids with growth and development and sets healthy habits for the longer term.
6. For children, PA can lessen behavioural issues like ADHD and help with concentration during schoolwork which is vital now that they're reception all the time.

### **THE EMOTIONAL ROLLERCOASTER IS REAL**

In the midst of the present global crisis, it's normal to desire you're on an emotional rollercoaster; the constant influx of data , changes to daily routines, uncertainty with personal health and therefore the health of others including rapidly changing reports, is characteristic of the ups and downs of a rollercoaster. All of which is physically and emotionally draining. the primary step in managing your experience is to acknowledge how you are feeling . COVID-19 is impacting everyone differently, and therefore the impact it's having on you is totally normal and valid. Some common feelings are fear, anxiety, loss, relief, confusion, disappointment, exhaustion, frustration, and anger. In cities and towns across the world , mandates to remain home and socially distance may cause you to feel physically alone, however, you're not emotionally on an island. many people are feeling a bit like you and it's important to remain virtually connected. Acknowledge what you're feeling, identify those emotions, and work on trying to know and accept them. Acknowledge what you're feeling, identify those emotions, and work on trying to know and accept them. Anticipate that your emotions also will likely change over time because the Coronavirus pandemic evolves.

### **BASIC NEEDS FIRST**

As you plan to manage in light of imposed societal restrictions, start by addressing your basic physiological and safety needs (Maslow's hierarchy of needs). lookout of needs like food, water, shelter, clothing, sleep, employment, and health the maximum amount as possible. We are all finding ourselves in uncharted territory and certain without adequate preparation. For some, basic needs like food, water, and shelter are daily luxuries and scarce during a widespread crisis. If you discover yourself in need of food or housing assistance thanks to the COVID-19 pandemic, there are a spread of programs and resources available. a couple of of note within the us are Volunteers of America, Meals on Wheels, Feeding America, National Low Income Housing Coalition, Salvation Army , and Find Your Local VA center (for Veterans specifically).

### **MAINTAIN VIRTUAL COMMUNICATION**

It is also important to acknowledge that humans are hard-wired for connection. this is often why it's natural to require to ascertain and be together with your family, friends, teammates, neighbours, et al. . While we are currently limited in our ability to possess face-to-face interactions, use virtual means like text, Face Time, Skype, Zoom, social media, or

other sorts of technology to remain connected. Additionally, for any health care needs where you'd traditionally see knowledgeable in-person, consider reaching bent your providers regarding availability of health services; the U.S. Department of Health and Human Services has lifted traditional health restrictions at this point.

### **STAY UPDATED**

This unprecedented situation is evolving rapidly and new information is emerging by the hour. it's important to remain current on reputable COVID-19 updates, like from the planet Health Organization and therefore the Centers for Disease Control and Prevention, to remember of what this suggests for you and your loved ones in your geographic area. No matter what happens, recognize that the sole thing you've got control over is you, more specifically, your attitude, your effort, and your actions. We are all facing tons of uncertainty immediately, so it's even more important to possess awareness of what's happening around you and specialise in what you'll control. believe your previous experience, your strengths, and your network to reply with resilience and composure. While you ought to remain vigilant to react during a timely manner, know that it's okay to require an opportunity and disconnect from the overwhelming amount of data that's available. In other words, take a while during your day to show off your TV and put down your smartphone so as to mentally and emotionally get over the strain of this pandemic.

### **EXERCISE IS MEDICINE**

Exercise helps to manage stress, repel illnesses, and maintain positive psychological state. While you'll not be ready to attend the gym to coach or compute, there are other creative alternatives to assist you stay physically active while social distancing. If you decide to exercise within your home, use what you've got at your disposal. for instance, if you are doing not have exercise equipment, you'll use stairs, chairs, and water bottles or cans to exchange weights. Hunt down new, safe ideas from reputable sources like those curated by the American College of medicine. If you've got an existing health condition, confirm to respect any guidelines that your medical team has provided.

### **MONITOR MENTAL AND EMOTIONAL HEALTH**

Stressful events causing uncertainty, fear, and anxiety can contribute to a spread of emotions and cause a slippery slope of “why me” and “what ifs.” Individuals with a history of psychological state concerns, those more vulnerable to contracting COVID-19, and people who could also be significantly economically impacted by this pandemic (e.g., hourly or low-wage workers, those experiencing homelessness, or those that are unemployed), may experience heightened psychological state symptoms during this point. Also, increased stigma and xenophobia can impact the emotional well-being of racial and ethnic group groups, particularly those within Asian communities. Now, quite ever, it's important to concentrate to your psychological state, extend compassion to others (at a secure distance), and work to make some semblance of normalcy in your day-to-day life. the subsequent are resources to assist manage the COVID-19 situation and your mental health:

Specific tips for various members of the game community

#### **1.Stay connected-**

Confine touch together with your team collectively and individually the maximum amount as possible. Recognize that you simply are likely a crucial, valuable a part of their

lives, and intrinsically, you'll be one among the few people that athletes trust and are willing to speak to about their feelings, insecurities, worries, and well-being immediately. the maximum amount as you'll, create space for them to share what's happening with them, listen, and ask how you'll help.

## **2. Recognize the degrees of impact –**

It's important to think about that some athletes and their families might not feel much of an impression while others might not have a secure place to remain, access to food or other essentials, or a stable financial situation during this point of crisis, and everything in between. Additionally, the COVID-19 pandemic can take a toll on other aspects of athletes' lives, like motivation. Some athletes will find it challenging to coach alone thanks to their motivation being strongly tied to feelings of community with their teammates. Some athletes are feeling a big loss thanks to being unable to end their senior season or finalize a multi-year cycle of focus and dedication. Some athletes will experience a way of relief thanks to injury, burnout, or performance anxiety. All of those can impact motivation; by seeking to know athletes individually and uncovering needs, you'll provide appropriate guidance.

## **3. Still be a resource –**

Supported the requirements of your athletes, provide insights into continued training options, home-based workout suggestions via credible online programs or apps, healthy recipes to undertake, or opportunities to urge outside and move like hiking, walking, running, and biking. you'll also consider creative ways for them to remain involved in their sport, like sending sport-specific trivia questions for them to research, podcast episodes to concentrate to, or books to read.

## **4. Remain neutral and factual –**

Attempt to remain neutral regarding any governing body's decision to cancel or postpone events. Keep the Coronavirus pandemic in perspective to assist athletes understand and rationalize any perceived unfairness or doneness. Athletes will look to you for a way to reply to the present crisis. Composure and resilience are key.

## **5. Practice and model self-care –**

Determine methods of self-care that you simply want to feature to your daily or weekly routines moving forward. Examples are becoming enough sleep, engaging in personal hobbies, eating nutritious foods, being physically active, practicing gratitude, or journaling. Done consistently, these actions will assist you to feel more control and luxury, while modelling healthy, positive behaviours that you simply can share together with your athletes.

## **6. Connect together with your professional community –**

Professional organizations that provide resources for coaches, teachers, and instructors recognize the strain and responsibilities that are added to your lives this year. additionally to print resources, many organizations have created free or low-cost interactive trainings and virtual opportunities to interact with peers. These connections can help provide valuable professional support and enhance your work together with your athletes.

## **7. Lookout of your psychological state –**

Give yourself space to acknowledge your own feelings associated with managing this pandemic. Believe your support network, including other coaches, to speak about how you're doing, mitigate stress and challenges, share best practices, resources, and referrals, and

troubleshoot. Certified Mental Performance Consultants® and/or psychological state professionals are available to supply support, not only to athletes but to coaches and other support staff also.

#### **8. Recognize the extra stressors –**

The present crisis has changed all the principles by which we engage in and play sports. Athletes, coaches, athletic support staff, and families are all battling not only the loss of playing time, but also the uncertainty of what full return to play will appear as if and when it'll occur. Coaches and athletic trainers are working to take care of athletes' health and fitness while trying to navigate implementing essential COVID-19 protocols.

#### **9. Maintain open communication –**

As individuals still work from home, visit offices on staggered schedules, and avoid gatherings, the sense of isolation and detachment can grow, even in small departments. Despite the circumstances, there are varieties of the way you'll support your staff and stay connected.

#### **10. Encourage self-care –**

Sport is usually a busy, outcome-driven enterprise. While centered on performance and physical activity, ironically coaches and sports administrators aren't always known for creating time for his or her own self-care. Further, talking about and acknowledging emotions are often seen as weaknesses within the sport culture. You'll set an example by openly acknowledging the present challenges and creating space within your department for your staff to be vulnerable.

#### **11. Hunt down additional resources –**

While managing and developing the coaches and athletic department staff may be a part of your responsibilities, this doesn't mean that you simply got to provide all of the services and support on your own. Consult your department's sport psychology professional or reach bent a licensed Mental Performance Consultant® (CMPC) to solidify and strengthen psychological state and/or mental performance resources, referral pathways, and support for your staff and athletes.

#### **12. Model best practices –**

As an administrative leader, crisis management is usually a part of your job, so it's time to leverage that have. Staff, coaches, and athletes will still look to you for information around safety protocols, appropriate decision-making, and the way to effectively answer this crisis. While there are certainly large demands on some time and energy, periodically pause to gauge your own mental and physical health and make adjustments as required. Through these deliberate actions and considering your impact on the game community you serve, you'll positively impact the security, well-being, and productivity of your program and your people.

#### **13. Maintain awareness and initiate action –**

Utilize COVID-19 updates to work out how the pandemic will still impact you and your family. Respect and support the choices made by various governing bodies about sport and performance events that align with current Coronavirus recommendations. As new information or changes arise, use that as a chance to initiate or continue conversations together with your family about facts, expectations, and feelings.

#### **14. Be a positive role model –**

Regardless of how young or old your children are, they're going to likely search to you to work out the way to respond under these circumstances. This is often a chance to point out the way to productively express emotions while managing stress and uncertainty. Show them resilience, instead of panic and despair. Help your children keep the pandemic in perspective rather than fueling any negative emotions over sport-specific decisions and updates. Be open and available to speak to, listen, and support your children. Be “all in” during these moments to assist them feel valued and heard.

### **15. Encourage self-care, creativity, and meaning-making-**

Ask your children about where they have dedicated support from you (i.e., with schoolwork). Outside of distance learning and maybe training guidance from their coach, they likely have tons of additional time on their hands; it's important to assist them find productive, positive, meaningful ways to spend that point, instead of logging hours and hours of screen time. You'll help brainstorm other ways to interact in hobbies or activities, provide suggestions for self-care, or offer to assist them stay active by playing games, throwing a baseball within the yard, or performing on dribbling skills within the driveway, for instance. Staying busy helps them to avoid focusing all of their attention on negative ramifications of the pandemic like event cancellations, school closures, and social isolation. Not having the ability to compete might be a possible psychological state for a few athletes. While it's important to let your children process such feelings if this is often what they're experiencing, helping them find ways to be productive and look out for themselves physically and mentally can help ease the pain and confusion they could be feeling.

### **15. Lookout of yourself-**

Establish your own self-care routine in order that you're ready to effectively manage stress and regulate your emotions while supporting your family. Virtually stay in-tuned with other parents, particularly ones who have children with similar ages and/or parents from your kids' teams, to support one another, normalize your feelings, and problem solve.

### **CONCLUSION:**

Important to remain current on reputable COVID-19 updates, like from the World Health Organization and therefore the Centers for Disease Control and Prevention, to remember of what this suggests for you and your loved ones in your geographic area. No matter what happens, recognize that the sole thing you've got control over is you, more specifically, your attitude, your effort, and your actions. We are all facing tons of uncertainty immediately, so it's even more important to possess awareness of what's happening around you and specialise in what you'll control. Believe your previous experience, your strengths, and your network to reply with resilience and composure. While you ought to remain vigilant to react during a timely manner, know that it's okay to require an opportunity and disconnect from the overwhelming amount of data that's available.

### **REFERENCE:**

1. [www.appliedsportpsych.org/blog/2020/03/the-covid-19-pandemic-tips-for-athletes-coaches-parents-and-the-sport-community](http://www.appliedsportpsych.org/blog/2020/03/the-covid-19-pandemic-tips-for-athletes-coaches-parents-and-the-sport-community)
2. [www.medicine.umich.edu/dept/psychiatry/michigan-psychiatry-resources-covid-19/your-lifestyle/importance-physical-activity-exercise-during-covid-19-pandemic](http://www.medicine.umich.edu/dept/psychiatry/michigan-psychiatry-resources-covid-19/your-lifestyle/importance-physical-activity-exercise-during-covid-19-pandemic)
3. [www.aspenprojectplay.org/coronavirus-and-youth-sports](http://www.aspenprojectplay.org/coronavirus-and-youth-sports)
4. [www.olympics.com/athlete365/well-being/how-to-stay-positive](http://www.olympics.com/athlete365/well-being/how-to-stay-positive)
5. [www.cypherpsych.com/blog/coronavirus](http://www.cypherpsych.com/blog/coronavirus)
6. [www.drjimtaylor.com/4.0/sports-meets-covid-19-what-to-say-what-to-do](http://www.drjimtaylor.com/4.0/sports-meets-covid-19-what-to-say-what-to-do)
7. [www.fifpro.org/en/health/coronavirus-shutdown-sharp-rise-in-players-reporting-depression-symptoms](http://www.fifpro.org/en/health/coronavirus-shutdown-sharp-rise-in-players-reporting-depression-symptoms)

# IMPACT AND IMPORTANCE OF BALANCED AND NUTRITIVE DIET DURING AND POST COVID-19 ERA

**Dr. Charanjeetsingh Mahajan**

Director of Physical Education, Narayanrao Chavan Law College, Nanded.

## ABSTRACT:

The new COVID-19 pandemic keeps on spreading creating additional general wellbeing, social, and monetary issues. The aberrations in the paces of death between nations offers conversation starters about the significance of way of life propensities and the insusceptible status of populaces. An investigation of dietary propensities and COVID-19-related passing may unwind relationship between these two factors. Without a doubt, while both wholesome abundance and lack are related with immunodeficiency, satisfactory sustenance prompting an ideally working invulnerable framework might be related with better results concerning forestalling disease and difficulties of COVID-19, just as fostering a superior resistant reaction to other pathogenic infections and microorganisms. This article diagrams the vital elements of the insusceptible framework and how macronutrients, micronutrients, and metabolites from the stomach microbiome can be fundamental in the improvement of a productive safe framework. Also, the impacts of irregular fasting on the incendiary state just as metabolic boundaries will be examined.

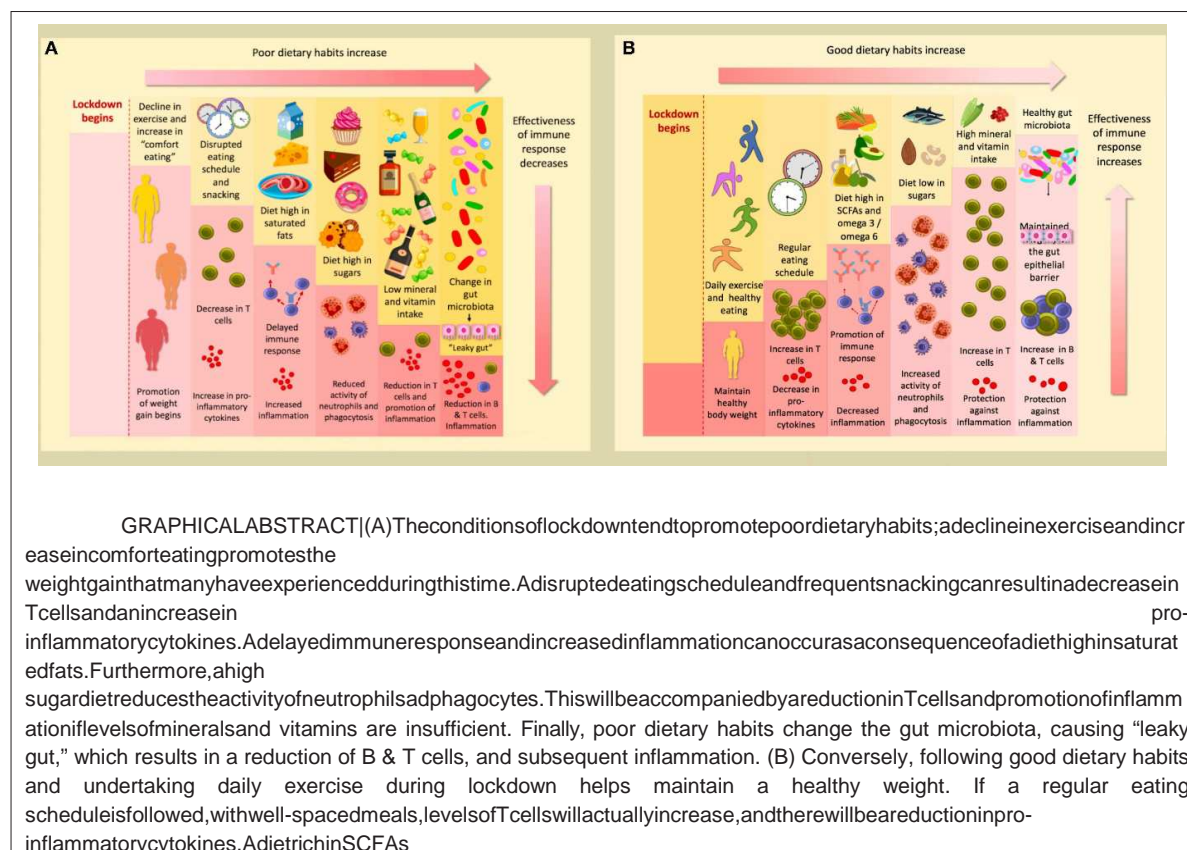
**KEYWORDS:** COVID-19, immunesystem, balanced diet, micronutrients, macronutrients

## INTRODUCTION:

Coronavirus is the name of a recently recognized sickness brought about by SARS-CoV-2, and it was initially seen as a group of abnormal pneumonia cases happening in Wuhan, China, in December 2019 (2). While this recently distinguished infection has a place with something similar - Covid sort as SARS-CoV and MERS-CoV, the original sickness is by all accounts described not just by gentle upper respiratory contaminations, like other Cvids, yet in addition by the presence of manifestations of the lower respiratory plot that are now and then exceptionally serious (4). These gentle and surprisingly asymptomatic cases have added to the quiet spread of contaminations around the world, expanding the likelihood of tainting high danger gatherings of people including immunocompromised patients and those with ongoing illnesses (1). Some examinations have shown that patients with COVID-19 experience a dysregulation of their invulnerable reaction (13). Then again, different investigations have stressed how a few people can recuperate from COVID-19 manifestations in no time; a powerful safe reaction was viewed as related with effective clinical recuperation (4). Many examinations have featured the significant job of the human natural and versatile framework in COVID-19 pathophysiology (15). Besides, there is proof that natural elements, like lopsided nourishment, poisons, and irritation, and the unexpected way of life changes that happen during isolation/lockdown can cause physicochemical and mental pressure. These variables might prompt a compromised invulnerable framework and liberate the insusceptible framework, making the human body more defenseless against viral diseases (17). An ideal nourishing state has been viewed as fundamental for a well-working resistant framework and for the security against viral diseases (11). Besides, hunger as well as a lopsided eating routine address a significant reason for immunodeficiency around the world, with babies, youngsters, youths, and the older being the most impacted (12). In this specific circumstance, insufficiencies in fundamental



supplements are related with a disability of cell-intervened resistance, phagocyte work, supplement framework, and cytokine creation in people. Besides, insufficiency in micronutrients like nutrients, minerals, and polyphenols has been displayed to have significant ramifications for resistant framework working and powerlessness to disease. Carotenoids, nutrients, selenium, zinc, and polyphenols, just as numerous different supplements, have been displayed to balance the invulnerable framework.



## Components of the Human Immune System and Lines of Defense Against Viral Infection

The main line of immune guards incorporates the physical and substance hindrances that endeavor to hinder the section of microorganisms. At the point when these boundaries are penetrated, the organisms will be battled by the parts of the inside inborn resistant framework which is made out of leukocytes and protective proteins that act promptly and vaguely to destroy diseases (8). On the off chance that natural invulnerability neglects to kill the contamination, the versatile insusceptible framework will be actuated. T and B lymphocytes are the versatile safe cells which can perceive antigens with high explicitness (9). Table 1 sums up the significant elements of the natural and versatile resistant cells. The safe reaction is set off by the communication between the example acknowledgment receptors (PRRs) of the host cells and the microbe related sub-atomic examples (PAMPs) (4). The antiviral protection is started when PRRs, for example, Toll-like receptors (TLRs), retinoic corrosive inducible quality I (RIG-I)- like receptors (RLRs) or NOD-like receptors (NLRs) tie to viral PAMPs like DNA, RNA, or proteins (6). This association incites some flagging falls through the initiation of various groups of record factors (10). Type I and Type II interferons (IFN-I and IFN-II) are cytokines delivered in light of viral diseases (15). IFN-I (IFN- $\alpha$  and IFN- $\beta$ ) are delivered by different kinds of cells and meddle with viral replication which makes an antiviral state through different components (16). As well as straightforwardly repressing viral replication, IFN-I can

regulate the intrinsic and versatile invulnerability including the enactment of the cytotoxic action of regular executioner (NK) cells and cytotoxic CD8+ T lymphocytes (CD8+ CTL) cells which are fundamental to kill the virally contaminated host cells. Besides, IFN-I can animate the development of IFN-(IFN-II) by NK cells. IFN-advances the macrophages old style pathway (M1) which incites aggravation and advances the intracellular killing systems. Besides, IFN-invigorates the separation of CD4+ T partner (Th) lymphocytes into Th1 which themselves are significant makers of IFN-. Alternately, Th2 enact the elective pathway of macrophages (M2) which smothers aggravation and advances the maintenance components (16). Hence, the Th1 reaction, along with the cytotoxic exercises of NK and CD8+ CTL, are fundamental antiviral instruments (20).

**Table 1- 1 | Summary of the major functions of the innate and adaptive immune cells.**

Innate leukocytes	Description and function
Mast cells	Produce/secrete proinflammatory mediators such as cytokines, eicosanoids, and vasoactive amines such as histamine, which causes vasodilation and increases vascular permeability.
Macrophages	Phagocytes that ingest and destroy microbes. They also produce inflammatory cytokines
Monocytes	Circulating phagocytes which can ingest microbes in blood. They migrate to tissues under inflammatory conditions and differentiate to macrophages. They also produce inflammatory cytokines
Neutrophils	Circulating phagocytes/granulocytes. They migrate to tissues under inflammatory conditions and destroy microbes by phagocytosis and degranulation. They also produce inflammatory mediators
Eosinophils	Circulating granulocytes. They migrate to tissues under inflammatory conditions and kill parasites
Basophils	Circulating granulocytes. They migrate to tissues under inflammatory conditions and kill parasites
Natural Killer (NK) cells	They are responsible for killing host cells that are infected, stressed, or damaged. Therefore, they play an important role in the eradication of intracellular pathogens and tumor cells. They also produce inflammatory cytokines
Dendritic cells (DC)	They function as antigen presenting cells (APC) which mediate the transition from innate to adaptive immunity. If the innate immune system fails to eliminate infection, DC capture and process protein antigens and present them to T lymphocytes. They produce inflammatory cytokines.
CD4+ T cells	Upon activation by APC, they become helper T cells (Th1, Th2, or Th17). Some CD4+ T cells are regulatory (Treg).
	Th1: Activate the M1 pathway of macrophages which induce inflammation. They also produce inflammatory cytokines.
	Th2: Activate the M2 pathway of macrophages which suppress inflammation.
	Th17: Produce IL-17 which activates and recruits inflammatory leukocytes to various tissues
CD8+ T cells	Upon activation by APC, they become cytotoxic T cells (CTL) which are responsible for killing infected, stressed, or damaged host cells

B cells

When activated, they produce antibodies that neutralize pathogens and enhance the effector mechanisms of other immune cells such as phagocytes

**TABLE2|Recommendeddietaryallowance**

Macronutrients and micronutrients	Recommended dietary allowance				
	Children, M/F 4–8 years	Children, M/F 9–13 years	Children, M/F 14–18 years	Adults, M/F 19–50 years	Old age, M/F 51–>70 years
Fats, g/day	ND			ND	ND
Carbohydrates, g/day	130	130	130	130	130
Proteins, g/day	19	34	52	34/56	46/56
Vitamin C, mg/day	25	45	65/75	75/90	90/75
Vitamin D, µg/day	15	15	15	15	15/20
Vitamin A, µg/day	400	600	700/900	700/900	700/900
Vitamin E, mg/day	7	11	15	15	1.5/1.7
Vitamin B6, mg/day	0.6	1	1.2/1.3	1.3	1.5/1.7
Vitamin B12, µg/day	1.2	1.8	2.4	2.4	2.4
Vitamin B9, µg/day	200	300	400	300/400	400
Vitamin B2, mg/day	0.6	0.9	1.3	1.1/1.3	1.1/1.3
Vitamin B3, mg/day	8	12	16	14/16	14/16
Vitamin B5, mg/day	3*	4*	5*	5*	5*
Vitamin B5, µg/day	12*	12*	20*	30*	30*

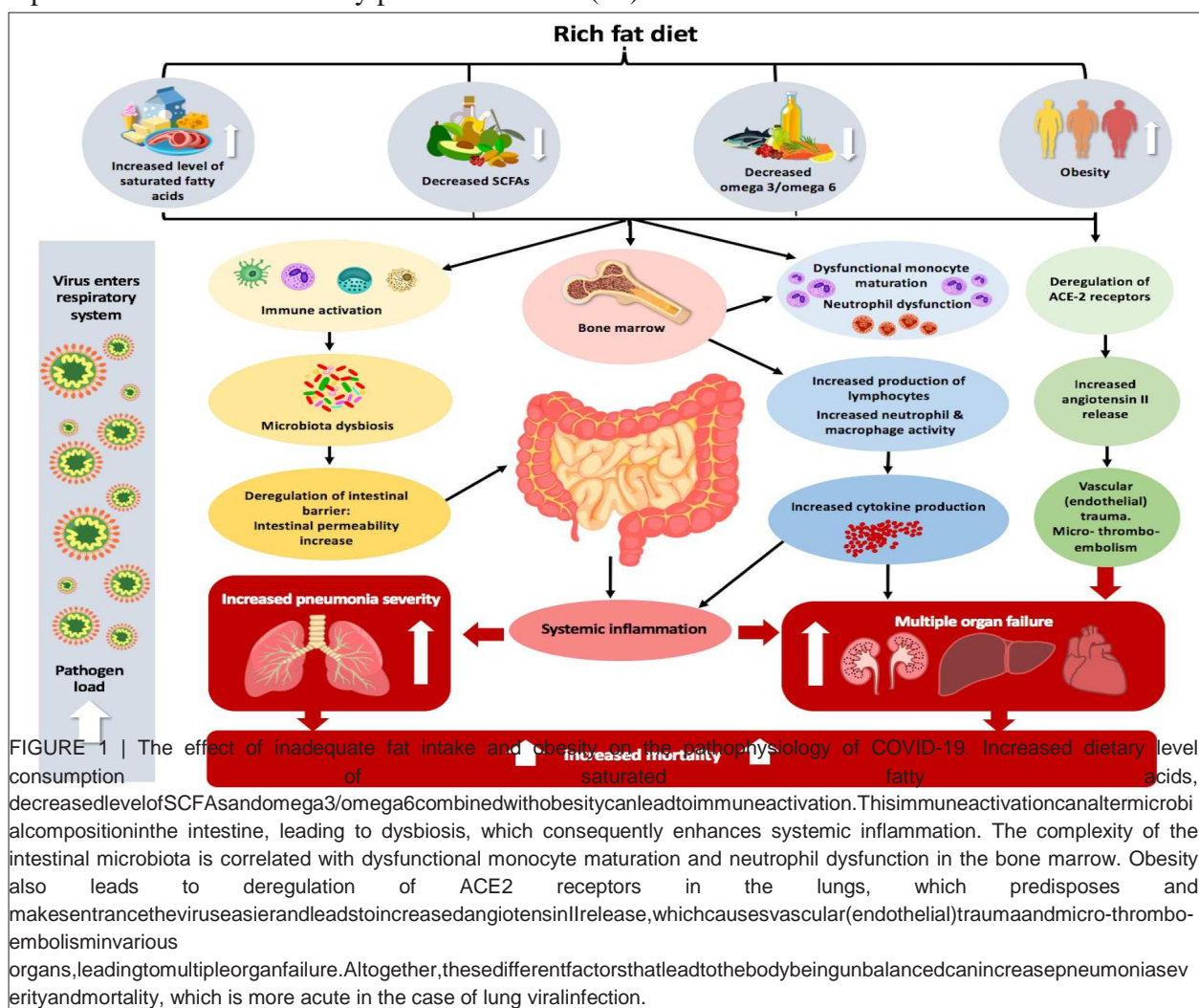
**THE ROLE OF NUTRITION IN IMMUNE FUNCTION**

A balanced, adequate diet is required for the cells of the immune system in order to function optimally. During situations with increased requirements (e.g., infection, stress, and pollution), the immune system is activated and thus increases the demand for energy. A balanced, optimal diet strengthens the immune response and supports the function of the immune cells not only by producing an effective response against pathogens, but also by resolving infections in a short time thus avoiding any further chronic inflammation (10). Various nutrients are involved in this process. This section highlights some that have been shown to play specific roles in the development and maintenance of an effective immune system.

**Effect of Dietary Fats in the Immune System**

Dietary fats are mostly triglycerides and are among the most important sources of nutrition in humans if taken appropriately. Many food sources contain various types of fatty acids, such as olive oil which is rich in monounsaturated fatty acids, animal products rich in saturated fats (but also with large proportions of monounsaturated and polyunsaturated fatty acids depending on the origin), plants rich in alpha-linolenic acid, and nuts and seeds (such as walnuts and linseed), rich in omega 3 polyunsaturated fatty acids (15). Fatty acids are known to play diverse roles in immune cells (17). Dietary fats are important for absorption of liposoluble vitamins A, D, E, and K (which are also involved in the immune system), as well as permeability and stability of immune cell membranes. Short chain fatty acids (SCFAs), like acetate, propionate, and butyrate can be provided by many fermented foods made by bacterial fermentation such as cheese, butter, pickles, soy sauce, yogurt,

and alcoholic beverages. Many studies have shown that SCFAs exert anti-inflammatory properties and present immunomodulatory potential *in vitro* (15).



### Effect of Dietary Carbohydrates in the Immune System:

Carbohydrates are supplements tracked down basically in vegetables, organic products, and grains and can be separated into basic sugars and oligo-or poly-saccharides. The suggested day by day dietary recompense of starches is 130 g/day (15). Sugars devoured as a component of adjusted eating routine are sound however can be harmful if overconsumed. Starches are the main fuel source and are vital for the ordinary working of safe cells. Albeit an increment on lymphocytes during anaerobic glycolysis has been shown which is a sign of the expansion of glucose as a fuel during lymphocyte multiplication the utilization of this micronutrient as a wellspring of energy diminishes (16). Additionally, carbs significantly affect the safe framework in light of their capacity to forestall the reduction of the quantity of cells conjoint to apoptosis (18). This reality is vital for COVID-19, in light of the fact that in extreme cases there is an expansion in apoptosis of lymphocytes.



### Effect of Dietary Proteins and Amino Acids on the Immune System

Proteins are considered the building blocks of life and their monomeric component, the amino acids, are considered key regulators of various pathological and physiological processes, including immune responses (13). The recommended daily dietary allowance of proteins is 19–56 g/day (15). It has been demonstrated that a deficiency of dietary protein and accompanying reduced concentrations of most amino acids in plasma, impairs the immune function and increases the susceptibility of humans to infectious diseases (16). A deficiency in protein intake is associated with the alteration of one of the first line of defense against pathogens: the physical barrier. This deficiency is accompanied by thinner collagen and connective tissue, reducing the number of antibodies in the physical barrier, which results in a favorable environment for the aggressor (15). Moreover, the protein-energy malnutrition associated with chronic diseases has been recognized as a virulence factor for severe COVID-19 because it can deregulate immune cell activation leading to increasing inflammation in the lungs and longer viral persistence (13). Moreover, it has been shown that COVID-19 patients require a diet rich in high energy nutrients (105–160 kJ/kg/day or 25–40 kcal/kg/day) and proteins (17). In this context a protein intake >1 g/kg/day (up to 1.5–2 g/kg/day) has been proposed in COVID-19 patients that do not show any chronic renal insufficiency.

### Vitamins

Vitamins and different micronutrients are fundamental constituents of the human eating routine that have for quite some time been known to impact the invulnerable framework (18). An insufficiency in these micronutrients influences the natural and versatile insusceptible framework reaction, prompting dysregulation of the reasonable host reaction (18). Many examinations have shown that vitamins A, B, C, D, E, minerals zinc, iron, magnesium, selenium, iodine, copper, and polyphenols among different micronutrients, have a significant impact in supporting the immune system.

### Iron

This micronutrient is available in creature sources like red meat and poultry, just as in plants like beans and lentils, cashews, spinach, and entire grains. Note that the body assimilates a few times more iron from creature sources than from plants. Iron is a fundamental micronutrient for the separation and development of epithelial tissue as a first line of safeguard against microbes (18). An eating regimen wealthy in iron (10–18 mg/day), or iron dietary supplementation, works on intracellular microbial killing and cell invulnerability by shaping poisonous hydroxyl revolutionaries, and is hence associated with the killing of microorganisms by neutrophils and keeping a specific degree of lymphocyte bactericidal movement.

## Iodine

It is well-known that a large number of people around the world do not consume enough iodine (24). However, deficiency is rare in developed countries because of iodized salt. The RDA of iodine is 150 µg/day for both males and females over 14 years old, while it increases to 220 µg/day during pregnancy and to 290 µg/day during breastfeeding (21). It has been shown that iodine presents a role in modulating the function of human immune cells and present some therapeutic effects in different pathologies.

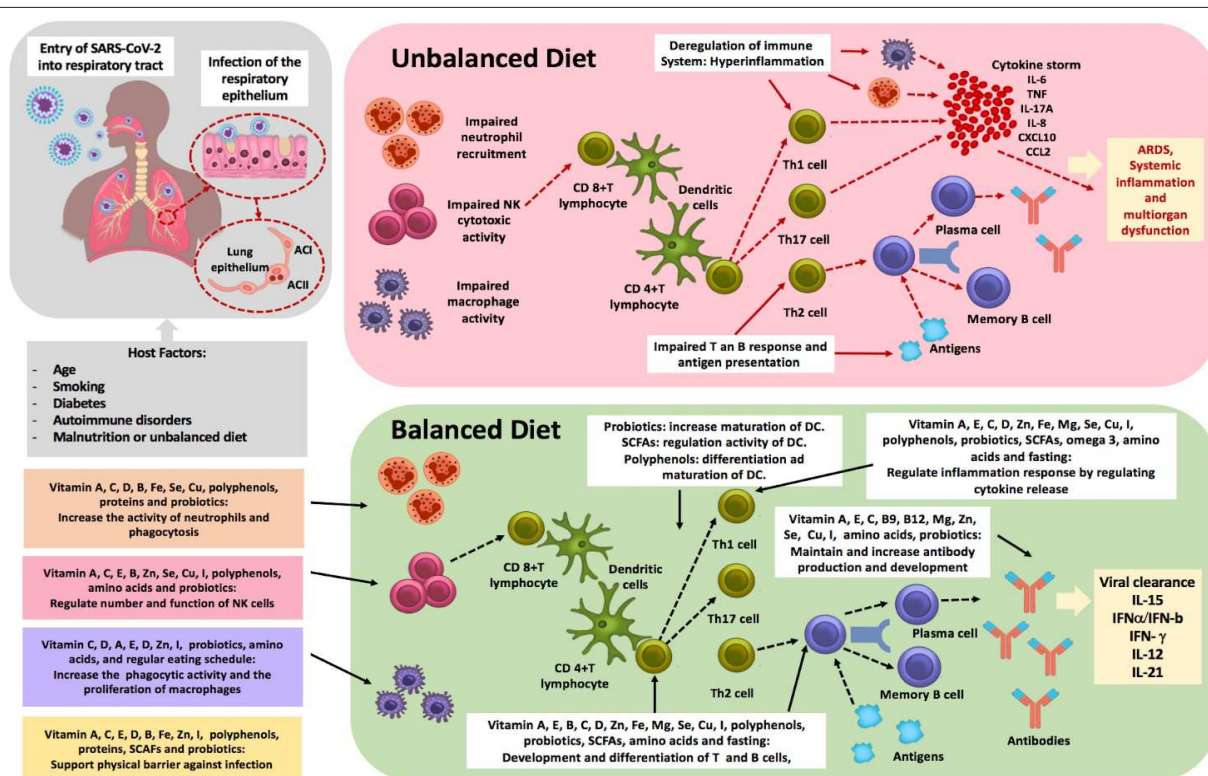


FIGURE2|Important role of nutrition in strengthening the immune system in regard to the fight against SARS-CoV-2 infection.

Red box: The effect of an unbalanced diet on the immune system response.

Different host factors including age, smoking, diabetes, autoimmune disorders, malnutrition, or an unbalanced diet may affect the immune system response, leading to high levels of inflammation which explain these severe cases of COVID-19. In fact, in this case, invasion of the respiratory epithelium and other target cells by SARS-CoV-2 involves T-lymphocytes infection and apoptosis, leading to their decreased number and activity, and the consecutive impaired activation of B cells and the production and secretion of antibodies. This leads to the compensatory increased neutrophil and macrophage activity, their accumulation in the lungs and hyper-secretion of cytokines, in order to re-activate the adaptive immune system. The viral clearance is delayed and prolonged infection causes a decrease in ACE2 receptors, leading to over-activity of renin-

## CONCLUSION:

Nutrition and diet can advance the working of the immune system as a preventive measure by lessening both irritation and oxidative pressure that may be brought about by different elements. Inadequacies in certain micronutrients can expand irritation and the danger of contamination. A few of the micronutrients examined in this survey, can cooperate with record variables to direct the statement of receptors utilized by infections like ACE2. Also, nourishment and diets regulate the stomach microbiota, which can influence stomach porosity and fiery status. It is fundamental that

probiotics and essential supplements, for example, vitamins which influence the invulnerable framework are not disregarded previously and during disease. Nutrients A, C, D, B, E, iron, magnesium, zinc, copper, selenium, iodine, proteins, SCFAs, omega-3, a low fat eating routine, and polyphenols were displayed to straightforwardly uphold the body normal guard framework by upgrading the various degrees of invulnerability and in this manner may advance infection freedom. It follows that contaminated patients who as of now have dietary lacks or abundance might have an insufficient fiery response causing more extreme negative clinical results. Future clinical investigations ought not disregard the capability of minerals, nutrients, polyphenols, and probiotics in tweaking the safe reaction. Additionally, close observing of micronutrient levels during treatment of COVID-19 patients would add to an extraordinary development in understanding the job of nourishment in treatment of COVID-19.

## REFERENCES:

1. Petrosillo N, Viceconte G, Ergonul O, Ippolito G, Petersen E. COVID-19, SARS and MERS: are they closely related? *Clin Microbiol Infect.* (2020) 26:729–34. doi:10.1016/j.cmi.2020.03.026
2. Guarner J. Three emerging coronaviruses in two decades: the story of SARS, MERS, and now COVID-19. *Am J Clin Pathol.* (2020) 153:420–1. doi:10.1093/ajcp/aqaa029
3. Wu D, Wu T, Liu Q, Yang Z. The SARS-CoV-2 outbreak: what we know. *Int J Infect Dis.* (2020) 94:44–48. doi:10.1016/j.ijid.2020.03.004
4. Muniyappa R, Section CE, Branch O, Diseases K. COVID-19 pandemic, coronaviruses, and diabetes mellitus. *Am J Physiol Endocrinol Metab.* (2020) 318:E736–41. doi:10.1152/ajpendo.00124.2020
5. Li C, Yang Y, Ren L. Genetic evolution analysis of 2019 novel coronavirus and coronavirus from other species. *Infect Genet Evol.* (2020) 82:1–3. doi:10.1016/j.meegid.2020.104285
6. Nelemans T, Kikkert M. Viral innate immune evasion and the pathogenesis of emerging RNA virus infections. *Viruses.* (2019) 11:961. doi:10.3390/v11100961
7. Fung SY, Yuen KS, Ye ZW, Chan CP, Jin DY. A tug-of-war between severe acute respiratory syndrome coronavirus 2 and host antiviral defence: lessons from other pathogenic viruses. *Emerg Microbes Infect.* (2020) 9:558–70. doi:10.1080/22221751.2020.1736644
8. Mehta P, McAuley DF, Brown M, Sanchez E, Tattersall RS, Manson JJ. COVID-19: consider cytokine storm syndromes and immunosuppression. *Lancet.* (2020) 395:1033–4. doi:10.1016/S0140-6736(20)30628-0
9. Zhang J, Wang X, Jia X, Li J, Hu K, Chen G, et al. Risk factors for disease severity, unimprovement, and mortality in COVID-19 patients in Wuhan, China. *Clin Microbiol Infect.* (2020) 26:767. doi:10.1016/j.cmi.2020.04.012
10. Munster VJ, Koopmans M, van Doremalen N, van Riel D, de Wit E. A novel coronavirus emerging in China—key questions for impact assessment. *N Engl J Med.* (2020) 382:692–4. doi:10.1056/NEJMp2000929
11. Liu H, Chen S, Liu M, Nie H, Lu H. Comorbid chronic diseases are strongly correlated with disease severity among COVID-19 patients: a systematic review and meta-analysis. *Aging Dis.* (2020) 11:668. doi:10.14336/AD.2020.0502
12. Furukawa NW, Brooks JT, Sobel J. Evidence supporting transmission of severe acute respiratory syndrome coronavirus 2 while presymptomatic or asymptomatic. *Emerg Infect Dis.* (2020) 26:6059. doi:10.3201/eid2607.201595
13. Qin C, Zhou L, Hu Z, Zhang S, Yang S, Tao Y, et al. Dysregulation of immune response in patients with COVID-19 in Wuhan, China. *Clin Infect Dis.* (2020) 71:762–8. doi:10.1093/cid/ciaa248
14. Thevarajan I, Nguyen THO, Koutsakos M, Druce J, Caly L, van de Sandt CE, et al. Breadth of concomitant immune responses prior to patient recovery: a case report of non-severe COVID-19. *Nat Med.* (2020) 26:453–5. doi:10.1038/s41591-020-0819-2

15. Caso F, Costa L, Ruscitti P, Navarini L, Del Puente A, Giacomelli R, et al. Could Sars-coronavirus-2 trigger autoimmune and/or autoinflammatory mechanisms in genetically predisposed subjects? *Autoimmun Rev.* (2020)19:102524. doi:10.1016/j.autrev.2020.102524
16. Li G, Fan Y, Lai Y, Han T, Li Z, Zhou P, et al. Coronavirus infections and immuneresponses. *J Med Virol.* (2020)92:424–32. doi:10.1002/jmv.25685
17. Christian LM, Glaser R. The impact of everyday stressors on the immune system and health. In: *Stress Challenges and Immunity in Space: From Mechanisms to Monitoring and Preventive Strategies* (2012). p.31–43.
18. Shaha M, Roy B, Akter T, Karim E, Rahaman M. Host immune responses to the infections caused by the infectious viruses. *Acta Sci Microbiol.* (2018)1:13–6.
19. Bae YS, Shin EC, Bae YS, Van Eden W. Editorial: stress and immunity. *Front Immunol.* (2019) 10:245. doi:10.3389/fimmu.2019.00245
20. Prompetchara E, Ketloy C, Palaga T. Immune responses in COVID-19 and potential vaccines: lessons learned from SARS and MERS epidemic. *Asian Pacific J Allergy Immunol.* (2020)38:1–9. doi:10.12932/AP-200220-0772
21. Calder PC, Carr AC, Gombart AF, Eggersdorfer M. Optimal nutritional status for a well-functioning immune system is an important factor to protect against viral infections. *Nutrients.* (2020)12:1181. doi:10.3390/nu12041181
22. Briguglio M, Pregliasco FE, Lombardi G, Perazzo P, Banfi G. The malnutritional status of the host as a virulence factor for new coronavirus SARS-CoV-2. *Front Med.* (2020) 7:146. doi:10.3389/fmed.2020.00146
23. Katona P, Katona-Apte J. The interaction between nutrition and infection. *Clin Infect Dis.* (2008) 46:1582–8. doi: 10.1086/587658
24. Oz HS. Nutrients, infectious and inflammatory diseases. *Nutrients.* (2017) 9:1085. doi:10.3390/nu9101085
25. Somerville VS, Braakhuis AJ, Hopkins WG. Effect of flavonoids on upper respiratory tract infections and immune function: a systematic review and meta-analysis. *Adv Nutr.* (2016) 7:488–97. doi: 10.3945/an.115.010538



# IMPACT OF COVID-19 PANDEMIC ON PHYSICAL FITNESS

**Dr. Nitesh Ramling Swami**

Director in Physical Education and Sports Head, Department of Physical Education, Dayanand Commerce College, Latur, Maharashtra, India.

## ABSTRACT :

The COVID-19 pandemic has carried this quick world to a stop. The effect of this pandemic is gigantic, and the solitary system to check the quick spread of the illness is to follow social separating. The forced lockdown, bringing about the conclusion of business exercises, public spots, wellness and action focuses, and generally speaking public activity, has hampered numerous parts of the existences of individuals including routine wellness exercises of wellness monstrosities, which has brought about different mental issues and genuine wellness and wellbeing concerns. In the current paper, the author pointed toward understanding the interesting encounters of wellness monstrosities during the time of lockdown because of COVID-19. The paper likewise proposed to investigate the manners by which substitute activities and wellness exercises at home assisted them with managing mental issues and actual wellbeing results. Semi-organized phone interviews were directed with 24 grown-ups who were consistently working out in the exercise center before the COVID-19 pandemic however remained at home during the cross-country lockdown.

**KEY WORDS:** COVID-19 Pandemic, Physical Fitness, Physical Awareness (PA), Exercise

## INTRODUCTION:

The COVID-19 pandemic is an enormous worldwide wellbeing emergency (Bavel et al., 2020) and quickly spreading pandemic (Bentlage et al., 2020) of late occasions. When contrasted with the previous pandemics the world has seen, the current COVID-19 pandemic is presently on the first spot on the list as far as overall inclusion. This is the first run through the entire world is influenced all the while and struck unequivocally in a limited ability to focus time. At first, the passing rate because of COVID-19 was around 2%, which has now expanded to around 4–6% (World Health Organization [WHO], 2020). The insights doesn't look so extreme, yet the absolute number of cases and the rate at which these cases are expanding step by step make the circumstance disturbing. Dramatic development in COVID-19 cases has prompted the segregation of billions of individuals and overall lockdown. Coronavirus has influenced the existence of almost every individual all throughout the planet. The contrast between close to home or expert lives has limited because of work-from-home guidelines, and individuals' lives are rotating around these two because of the lockdown. Individuals have likewise been considering over an indispensable worry at home, i.e., the significance of their wellbeing and wellness.

It is critical to take note of that proactive tasks (PA) and exercise keep up physical and mental wellbeing as well as assist our body with reacting to the adverse results of a few sicknesses like diabetes, hypertension, cardiovascular illnesses, and respiratory (Owen et al., 2010; Lavie et al., 2019; Jiménez-Pavón et al., 2020). In a new audit of 31 distributed investigations, Bentlage et al. (2020) presumed that actual dormancy because of current pandemic limitations is a significant general medical problem that is an unmistakable danger factor for diminished future and numerous actual medical issues (Jurak et al., 2020). Exercise is appeared to keep other actual capacities (respiratory, circulatory, solid, anxious, and skeletal frameworks) unblemished and upholds

different frameworks (endocrine, stomach related, resistant, or renal frameworks) that are significant in battling any known or obscure danger to our body (Lavie et al., 2019; Jiménez-Pavón et al., 2020).

### **PRINCIPLES FOR THE PRESENT RESEARCH**

Since the beginning of this sickness, individuals have been bound to their homes, which has brought about different mental medical problems as well as tested their actual wellness and wellbeing (Ammar et al., 2020a,b,c,d; Chtourou et al., 2020; Xiao et al., 2020). Albeit this pandemic circumstance has prompted the unforeseen discontinuance of practically all the external routine exercises of the multitude of people, it has significantly hampered the proactive tasks of wellness cracks (the individuals who consistently go to the rec center for their actual wellness), as rec centers and other such places have been closed down because of the lockdown. Notwithstanding, examines resolving the issues of wellness monstrosities, who used to invest a lot of energy for standard exercise to keep up their actual wellness, wellbeing, and appearance, appear to have discovered no spot so far in the writing corresponding to the current pandemic circumstance. Probably, the novel encounters of such individuals, their medical problems, and the manners by which they have managed these issues during the COVID-19 pandemic have remained underexplored.

Likewise, it is notable that the COVID-19 pandemic has made it hard for individuals to satisfactorily keep up their ordinary actual work designs at home (Ammar et al., 2020a). There are a lot of studies that have tended to the effect of COVID-19 on proactive tasks of the overall population (Ammar et al., 2020a,b,c,d; Chtourou et al., 2020; Xiao et al., 2020), exhibited the critical reduction in proactive tasks and exercise designs, and delineated its evil consequences for physical and psychological well-being status. There is likewise a developing assemblage of writing that proposes methodologies to urge individuals to be associated with locally established activities and wellness exercises (Ammar et al., 2020a,b,c,d; Chtourou et al., 2020; de Oliveira Neto et al., 2020). Notwithstanding, every one of these examinations were directed in the prior period of the pandemic. There is an absence of studies exploring the manner by which individuals have managed the issues emerging from the COVID-19 pandemic and ensuing lockdown/home control. Truth be told, it is intriguing to investigate how and how much individuals had the option to follow and profited with the exercise at home advices. In this manner, the current exploration targets understanding individuals' exceptional encounters during the time of lockdown because of COVID-19 and investigating the manners by which ordinary exercise commitment assisted them with managing the mental and actual outcomes of home constraintment.

### **METHODS:**

To acquire a rich and broad comprehension of encounters into individuals' lives during this pandemic and their endeavors to keep a sound way of life, a subjective methodology was embraced for the investigation. We utilized Interpretive Phenomenological Analysis (IPA) to dig into the members' discernments and to give a nearby image of the members' special encounters during the lockdown time frame.

### **PARTICIPANTS(MEMBERS):**

A homogeneous example of 24 members was chosen for this examination. The measure based purposive examining procedure was utilized to recognize and choose the members. We originally reached the rec center proprietors/mentors and looked for them agree to help us in the conduction of this research. Upon assent, we mentioned them to give us the subtleties of their ordinary rec center individuals who ceaselessly go to the exercise center and do wellness practices

for at any rate a half year before the forced lockdown. When the rundown was created, the forthcoming members were then associated by telephone, were clarified the reason for the examination, and were mentioned for their agree to take part. The individuals who assented for their consideration in the research were then posed a few inquiries dependent on the pre-chosen incorporation and avoidance rules for the investigation. Based on this data, those members who met the consideration rules (i.e., the individuals who were proceeding with wellness exercise in their home or inns and were following severe home restriction measures during the COVID-19 pandemic and resulting lockdown) were additionally reached and mentioned to give an arrangement to a phone meet.

#### **INCLUSION AND EXCLUSION CRITERIA FOR THE PARTICIPANTS:**

The members meeting the accompanying standards were remembered for the investigation:

- Individuals matured 18 years or more established.
- Individuals with no known history of physical or potentially mental sickness.
- Individuals who were doing ordinary exercise center exercise throughout the previous a half year or more for in any event 45 min every prior day COVID-19.
- Individuals who were totally subject to rec center exercise for their actual wellness.

**In any case, people meeting the accompanying measures were excluded from the investigation:**

- Individuals who were unpredictable or incidental exercise center guests.
- Individuals who were rehearsing other actual activities other than exercise center exercise.
- Individuals with any physical as well as mental conditions or people on any sort of drug.

**Table 1 presents the demographic and exercise characteristics of the participants included in this study)**

Variables	Variable levels	Characteristics
<b>Gender</b>	Male	20
	Female	4
<b>Age (in years)</b>	Minimum	18
	Maximum	36
	Mean age	27
<b>Occupation</b>	Student	6
	Homemakers	4
	Working professionals	14
<b>Marital Status</b>	Single	20
	Married	4
<b>Living Status</b>	Living alone	9
	Living with family	15
<b>Socioeconomic status</b>	Upper class	9
	Upper Middle class	12
	Middle class	3

#### **6. STRATEGY**

The reason, significance, and pertinence of the investigation were disclosed to the members, and educated assent was gotten for their cooperation. Every one of the members were guaranteed of the privacy of their reactions and character. Upon assent, the members were mentioned to share their advantageous time

for a phone meet. Semi-organized phone interviews were directed to investigate the select encounters of the members concerning their actual wellness during the lockdown. A meeting plan made out of non-order, open-finished inquiries was ready. There was no fixed request of inquiries; they were changed and re-adjusted according to the progression of the discussion with every member. A portion of the principle questions arranged for the semi-organized meetings included "What is your impression of the present circumstance we are right now living in?," "What is your lockdown experience?," "How habitually you used to go to rec center for practice before the lockdown was forced?," "How would you oversee practice at home?," "What is your activity plan now?," "What changes did you see in yourself during this lockdown?," "How are you adapting to this lockdown?," "Did you experience any mental issue during this timeframe?," "How do actual activities help in battling the emergency you are confronting?," "What foundation help do you use while practicing at home?," "What is the need to utilize such guides while working out?," "How uniform effect you when you practice during the lockdown?," "What is the significance of appropriate snooze following a customary timetable of activity during this lockdown?," "Do you miss your rec center mates?," "Do you believe you share a personality with your kindred rec center mates?," and so on Extra testing questions were likewise added as the need happened during the individual meetings. Likewise questions were additionally asked to comprehend the contrasts between their pre and during COVID-19 lockdown wellness practice designs (see Table 2).

**Table-2: Pre- and during COVID fitness exercise information of the participants(n=24)**

<b>Fitness routine</b>	<b>Levels</b>	<b>Before covid</b>	<b>During lockdown March 15th to June 5th ,2021</b>	<b>Lost lockdown (limited restrictions)</b>
<b>Variables</b>	Frequency	Daily	4-5 days a week	5-6 days a week
	Hours (Daily)	1-3 h	50-60 mins	30 mins to 50 mins
	Types of exercise	Weight training, Muscle training, strength training, stretching	High intensity workout with available dumbbells, barbells, rope Jumping, Yoga	Yoga, meditation, walking, jogging, High-intensity workout with home equipment's at home/terrace
	Place of exercise	Gym	Home	Home and park
	Dependence on any other physical fitness exercise	No	Yes	Yes

## 7. ANALYSIS AND RESULTS

Every one of the recorded meetings were translated. These records were then dissected utilizing the Interpretative Phenomenological Analysis (IPA) system to recognize the members' encounters of lockdown, their elective decision to proceed with their wellness schedule, and its effect on their wellbeing. A stepwise movement strategy was utilized to dissect the information. From the start, the analysts read the records ordinarily to get a more profound comprehension of the encounters as depicted by the members. To acquire as close a comprehension of the information as could be expected, the specialists paid attention to the sound chronicles of the members while perusing the translated information.

## 8. DISCUSSION

The COVID-19 pandemic has acquired significant disturbance the existence of each person across the globe. It has hampered the everyday exercises of practically all people including the individuals who rely upon rec centers for their actual wellness schedule. The current investigation was led with people for whom going to the rec center was a standard action to investigate their encounters as far as their view of the pandemic circumstance and their methods of adapting to COVID-19-prompted vulnerabilities and medical problems.

The discoveries of this investigation not exclusively are steady with a scope of studies that have announced mental medical problems because of the COVID-19 pandemic and resulting lockdown (Hawryluck et al., 2004; Ammar et al., 2020a,b,c,d; Chtourou et al., 2020; de Oliveira Neto et al., 2020; Shigemura et al., 2020; Varshney et al., 2020) yet additionally go past those to recommend that, with time, people figure out how to embrace to circumstances in solid and positive manners. Members revealed encountering a huge change in their resting design, unexplained lethargy, and mental weakness, and having an overall sensation of dread, uneasiness, stress, and dissatisfaction because of home constraint, which affected their inspiration to discover substitute approaches to proceed with wellness works out.

## 9. FUTURE SUGGESTIONS

The current examination shows that regardless of the underlying experience of uneasiness and dread and the absence of inspiration to take part in actual exercise at home, wellness monstrosities had the option to move to home activities and were enormously upheld by online media uses and paying attention to music. One could contend that this investigation just included wellness monstrosities who think that its hard to disconnect themselves from proactive tasks for quite a while, and this was presumably the justification their shift to locally established activities. Notwithstanding, there is no uncertainty that the discoveries of this examination have exhibited that whenever performed consistently, actual exercise can possibly relieve the evil physical just as mental impacts of the COVID-19 pandemic. The discoveries of this investigation, subsequently, could be reached out to the basic public to likewise convince them to participate in actual wellness works out, which would result in a superior actual wellbeing as well as in an upgraded mental wellbeing and prosperity.

## 10. DATA AVAILABILITY STATEMENT

The crude information supporting the finishes of this article will be made accessible by the author, without excessive reservation, to any certified specialist.

## REFERENCES:

- [1] Ammar, A., Brach, M., Trabelsi, K., Chtourou, H., Boukhris, O., and Masmoudi, L. (2020a). Effects of COVID-19 Home Confinement on Eating Behaviour and Physical Activity: Results of the ECLB-COVID19 International Online Survey. *Nutrients* 12:1583. doi: 10.3390/nu12061583
- [2] Ammar, A., Chtourou, H., Boukhris, O., Trabelsi, K., Masmoudi, L., Brach, M., et al. (2020b). COVID-19 Home Confinement Negatively Impacts Social Participation and Life Satisfaction: A Worldwide Multicenter Study. *Int. J. Environ. Res. Publ. Health* 17:6237. doi: 10.3390/ijerph17176237
- [3] Ammar, A., Trabelsi, K., Brach, M., Chtourou, H., Boukhris, O., Masmoudi, L., et al. (2020c). Effects of home confinement on mental health and lifestyle behaviours during the COVID-19 outbreak: Insight from the “ECLB-COVID19” multi countries survey. *medRxiv Preprint*
- [4] Ammar, A., Trabelsi, K., Brach, M., Chtourou, H., Boukhris, O., Masmoudi, L., et al. (2020d). Effects of home confinement on mental health and lifestyle behaviours during the COVID-19 outbreak: Insight from the ECLB-COVID19 multicenter study. *Biol. Sport* 38, 9–21. doi: 10.5114/biolSport.2020.96857
- [5] Bavel, J. J. V., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., et al. (2020). Using social and behavioural science to support COVID-19 pandemic response. *Nat. Hum. Behav.* 4, 460–471. doi: 10.1038/s41562-020-0884-z
- [6] Bentlage, E., Ammar, A., How, D., Ahmed, M., Trabelsi, K., Chtourou, H., et al. (2020). Practical Recommendations for Maintaining Active Lifestyle during the COVID-19 Pandemic: A Systematic Literature Review. *Int. J. Environ. Res. Publ. Health* 17:6265. doi: 10.3390/ijerph17176265

- [7] de Oliveira Neto, L., Elsangedy, H. M., de Oliveira Tavares, V. D., La, ScalaTeixeira, C. V., Behm, D. G., et al. (2020). TrainingInHome - Home-based training during COVID-19 (SARS-COV2) pandemic: physical exercise and behavior-based approach. *Revista Brasileira de Fisiologia Do Exercício* 19, S9–S19. doi: 10.33233/rbfe.v19i2.4006
- [8] Fox, K. R. (2003). "The effects of exercise on self-perceptions and self-esteem," in *Physical activity and psychological wellbeing*, eds S. J. H. Biddle, K. R. Fox, and S. H. Boutcher (London: Routledge), 88–118.
- [9] Jurak, G., Morrison, S. A., Leskošek, B., Kovač, M., Hadžić, V., Vodičar, J., et al. (2020). Physical activity recommendations during the coronavirus disease-2019 virus outbreak. *J. Sport Health Sci.* 9, 325–327. doi: 10.1016/j.jshs.2020.05.003
- [10] Hawryluck, L., Gold, W. L., Robinson, S., Pogorski, S., Galea, S., and Styra, R. (2004). SARS control and psychological effects of quarantine, Toronto, Canada. *Emerging Infect. Dis.* 10, 1206–1212. doi: 10.3201/eid1007.030703
- [11] Jiménez-Pavón, D., Carbonell-Baeza, A., and Lavie, C. J. (2020). Physical exercise as therapy to fight against the mental and physical consequences of COVID-19 quarantine: special focus in older people. *Prog Cardiovasc. Dis.* 24, 386–388. doi: 10.1016/j.pcad.2020.03.009
- [12] Joy, L. (2020). Staying Active During COVID-19. Available online at: [https://www.exerciseismedicine.org/support\\_page.php/stories/?b=892](https://www.exerciseismedicine.org/support_page.php/stories/?b=892), (March 17, 2020)
- [13] Lavie, C. J., Ozemek, C., Carbone, S., Katzmarzyk, P. T., and Blair, S. N. (2019). Sedentary Behavior, Exercise, and Cardiovascular Health. *Circ. Res.* 124, 799–815. doi: 10.1161/CIRCRESAHA.118.312669
- [14] Owen, N., Sparling, P. B., Healy, G. N., Dunstan, D. W., and Matthews, C. E. (2010). Sedentary behavior: emerging evidence for a new health risk. *Mayo Clin. Proc.* 85, 1138–1141. doi: 10.4065/mcp.2010.0444
- [15] Shigemura, J., Ursano, R. J., Morganstein, J. C., Kurosawa, M., and Benedek, D. M. (2020). Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: Mental health consequences and target populations. *Psychiatry Clin. Neurosci.* 74, 281–282. doi: 10.1111/pcn.12988
- [16] Varshney, M., Parel, J. T., Raizada, N., and Sarin, S. K. (2020). Initial Psychological Impact of COVID-19 and its Correlates in Indian Community: An online (FEEL-COVID) survey. *PLoS One* 15:e0233874. doi: 10.1371/journal.pone.0233874
- [17] World Health Organization [WHO] (2020). Novel coronavirus (2019-nCoV) advice for the public. Available online at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>, (accessed Jan, 30 2020).
- [18] Xiao, H., Zhang, Y., Kong, D., Li, S., and Yang, N. (2020). Social capital and sleep quality in individuals who self-isolated for 14 days during the coronavirus disease 2019 (COVID-19) outbreak in January 2020 in China. *Med. Sci. Monit.* 26:e923921. doi: 10.12659/MSM.923921

# ASSESSMENT OF PHYSICAL FITNESS, SOCIO-ECONOMIC STATUS AND PSYCHOMOTOR ABILITY RELATED TO THE HEALTH OF TRIBAL SCHOOL GOING CHILDREN IN TRIPURA

**Sajna Begam**

Research Scholar

**Dr. Abhijeet Shamrao More**

Director of Physical Education and Sports, Mahatma Phule College, Ahemadpur.

## ABSTRACT

*The aim of the present study is to assess the physical fitness, socio-economic status and psychomotor capacity of the children attending tribal schools in Tripura. Five hundred subjects in the age group of 14 to 16 years from four different districts of Tripura were selected for the study. The study was limited to health-related physical fitness variables, Rajiv Lochan Bhardwaj's socioeconomic status questionnaire and the ability to measure socioeconomic status and the psychomotor ability of children attending tribal schools. The socio-economic status and psychomotor abilities of tribal school children in Tripura were examined using correlation techniques. The percentile scale was then used to assess the health-related physical fitness, socioeconomic status and psychomotor capacity of tribal school children in Tripura.*

**KEYWORDS:** Physical Fitness, Socio-Economic Status, Psychomotor Ability

## INTRODUCTION

Physical activity offers many benefits, including obesity prevention, improved confidence, and overall fitness. Physical education programs in a school setting can set the stage for how children view physical fitness, activity levels, and future health. Physical education programs also include general health and safety information and provide students with the opportunity to learn how to collaborate with each other in a team setting. Nutritional information Physical education classes are ideal for introducing children to basic nutrition concepts. Wrong eating habits are common in many children and adolescents; However, a strong foundation of healthy eating choices can help lay the foundation for improved food choices. Children who eat regular, healthy meals that include a variety of food choices are better focused and less distracted at school. Healthy eating reduces the risk of serious health problems in children and reduces the risk of obesity in young people and adults. In order for a person to feel physically fit, the heart, lungs, and muscles need to function at a certain level in order for the person to feel able to function. At the same time, what humans do with their bodies has a direct effect on the state of mind, thus affecting some degree of fitness, such as mental alertness and emotional expression. There are also other factors that affect physical activity, fitness and health: physical activity, psychomotor abilities, personal qualities, physical environment and social environment, factors other than lifestyle, lifestyle, for example smoking, diet, alcohol and sleep patterns. Many personal characteristics, such as age, gender, socioeconomic status, personality, motivation and attitude towards physical activity, and other health habits, can shape a person's lifestyle. The social environment combines social, cultural, political, and economic conditions that affect physical activity, fitness, and health. Environmental conditions such as temperature, humidity, air quality, altitude and climate change can affect physical activity, health related fitness and health.

**HEALTH RELATED PHYSICAL FITNESS:**

Health-related physical fitness includes those components of physical fitness that are related to good health. Factors are generally defined as anatomy, cardiovascular fitness, flexibility, muscle endurance and strength. Psychomotor ability is related to physical and motor development. This is the main goal of physical educators. In the psychomotor domain we are providing opportunities to develop balance, eye-hand coordination, agility, flexibility, strength, reactivity and other elements of the domain. Reaction time is the interval between the onset of a signal (stimulus) and the onset of response to a movement. The development of the psychomotor domain can be important for the health and well-being of the individual as well as the health of the community. The personal, social and economic consequences of fitness activities in the school setting are significant.

The socio-economic environment refers to a wide range of interrelated and diverse aspects and references to variables related or included in the combination of social and economic factors. These aspects and variables can, in general, be classified into several categories, including demographic, public service, economic and social. Social aspects may include, for example, community life as well as social and cultural attitudes and values. Community services may include accommodation and requirements for public services such as water, sanitation, transportation, police and fire safety facilities, solid waste disposal, and health and education services. Demographic aspects may include population growth structure, distribution, and density. Similarly, economic factors may include general characteristics, structures and changes in various economic activities and employment.

Various tribal societies in India are at different stages of development, but they are still backward compared to the so-called civilized people. These tribals are the tribals of our country. They have been studied from many angles. An active life with plenty of physical activity to get daily bread and butter contributes to their physical development. The genetic ability to perform vigorous physical activity can be useful for performing well in certain sports and games. It is believed that India will be able to produce champion athletes in the near future if the tribal communities in Assam, Madhya Pradesh, Manipur, Nagaland, Orissa, Tripura and West Bengal are given due importance in selecting and training potential candidates at an early age. The right kind of training to unravel their potential into higher potential categories. Players should be selected at an early age with the idea of "catch them young and coach them right". Tribal people should be given proper type of coaching / training, selection of best practices from various training techniques, proper loading and adaptation, nutrition, fitness training, psychological training etc. Which can lead to significant improvement in performance in various sports and sports in India.

These observations should guide public health policy to develop appropriate intervention strategies to effectively address these health habits, psychomotor and social problems in early life. Therefore, it would be beneficial to assess the health related physical fitness, socio-economic status and psychomotor capacity of tribal school children in Tripura.

**MATERIAL AND METHODS:**

A total of five hundred school children were selected from both government and private schools in the state of Tripura. Prior consent was obtained from the concerned principals and parents prior to the test and they were accurately informed about the purpose and procedure of data collection. All tests were conducted on the school grounds and in the classroom between 7 am. to 10. a.m. The study was limited to children in the age group of 14 to 16 years in private as well as government schools in Tripura district from 10 am.



The study was limited to the following health-related physical fitness variables: lower back flexibility, body fat percentage, aerobic / cardiovascular function, abdominal muscle strength and endurance, and use of upper body muscle strength and endurance, further socioeconomic status and reaction ability. . Assess the socio-economic status and psychomotor capacity of tribal school children in Tripura, respectively.

#### STATISTICAL PROCEDURE:

Socio-economic status as well as health-related physical fitness and psychomotor ability of tribal school children in Tripura were examined using the correlation technique. To assess health-related physical fitness, socioeconomic status and psychomotor abilities of tribal school children on the Tripura Percentage Scale were used.

**Table 1.1**

#### Coefficient Correlation Between Health-Related Physical Fitness Variables and Socio-Economic Status of Tribal Children

Sr. No	Statement	Coefficient Correlation
1.	Lower Back Flexibility	0.168
2.	Body Fat Percentage	0.038
3.	Aerobic Function	0.118
4.	Strength and Endurance of Abdominal Muscular	0.086
5.	Strength and Endurance of Upper Body Muscular	0.041

**Source:** Primary Data

*r' value required to be significant at 0.05 level of confidence with 498 degree of freedom was 0.195*

**Table 1.2**

#### Coefficient Correlation Between Health-Related Physical Fitness Variables and Reaction Ability of Tribal Children

Sr. No	Statement	Coefficient Correlation
1.	Lower Back Flexibility	0.241
2.	Body Fat Percentage	0.199
3.	Aerobic Function	0.209
4.	Strength and Endurance of Abdominal Muscular	0.229
5.	Strength and Endurance of Upper Body Muscular	0.0213

**Source:** Primary Data

*r' value required to be significant at 0.05 level of confidence with 498 degree of freedom was 0.195*

**Table 1.3**

#### Sit and Reach Test Criteria and Measurement Result

Sr. No	Sit and Reach Test (cm)	No of Respondent	%
1.	> 37 cm	70	14.00
2.	33 – 37 cm	228	45.60
3.	30 – 33 cm	160	32.00
4.	27 – 30 cm	32	06.40
5.	< 27 cm	10	02.00
<b>Total</b>		<b>500</b>	<b>100.00</b>

**Source:** Fieldwork

The above table 1.3 describes about the sit and reach test criteria and its measurement result of the respondent and it was observed that out of 500 respondent 70 (14.00%) of the respondents having 37 cm sit and reach test and having excellent in measurement, 228 (45.60%) of the respondents are having sit and reach test between 33 – 37 cm and having above average measurement result, 160 (32.00%) of the respondents are having between 30 – 33 cm of sit and reach test which is average result of measurement, 32 (6.40%) of the respondents are having between 27 – 30 cm of sit and reach test which is below average measurement result and remaining 10 (2.00%) of the respondents are having less than 27 cm of sit and rest test which is poor measurement of result.

**Table 1.4**  
**Rating Body Fat Percentage and Measurement Result**

Sr. No	Body Fat Percentage	No of Respondent	%
1.	< 10%	28	05.60
2.	10% - 20%	286	57.20
3.	20% - 25%	151	30.20
4.	> 25%	35	07.00
<b>Total</b>		<b>500</b>	<b>100.00</b>

**Source:** Fieldwork

The above table 1.4 describes about the body fat percentage and measurement result and it was observed that out of 500 respondent 28 (5.60%) respondents are having less body fat percentage which is less than 10%, 286 (57.20%) of the respondents are having between 10%-20% of body fat percentage which is count as normal measurement result, 151 (30.20%) of the respondents are having 20 – 25% of body fat percentage which is count as slightly high percentage in measurement result and remaining 35 (7.00%) of the respondents are having above 25% of body fat percentage which is count as high fat percentage in measurement result.

**Table 1.5**  
**Criteria of Partial Curl Ups and Measurement Result**

Sr. No	Partial Curl Ups	No of Respondent	%
1.	> 30	50	10.00
2.	26 – 30	142	28.40
3.	20 – 25	231	46.20
4.	17 – 20	43	08.60
5.	< 17	34	06.80
<b>Total</b>		<b>500</b>	<b>100.00</b>

**Source:** Fieldwork

The above table 1.5 describes about the rating criteria of partial curl ups and measurement result and it was observed that out of 500 respondent 50 (10.00%) respondents are made less than 30 partial curl ups which is count as excellent measurement result, 142 (28.40%) of the respondents are made in between 26 – 30 partial curl ups which is count as above average in measurement result, 231

(46.20%) of the respondents are made in between 20 – 25 partial curl ups and it count in average measurement result, 43 (8.60%) of the respondents are made in between 17 – 20 partial curl ups and remaining 34 (6.80%) of the respondents are having less than 17 partial curl ups which is count as poor in measurement result.

**Table 1.6**  
**Criteria of Right-Angle Push- Ups and Measurement Result**

Sr. No	Right Angle Push Ups	No of Respondent	%
1.	> 39	20	04.00
2.	29 – 38	42	08.40
3.	23 – 28	78	15.60
4.	18 – 23	181	36.20
5.	< 18	179	35.80
<b>Total</b>		<b>500</b>	<b>100.00</b>

**Source:** Fieldwork

The above table 1.6 describes about the criteria of right angle push ups and measurement result and it was observed that out of 500 respondent 20 (4.00%) of the respondents are done above 39 push ups which is measures in excellent result, 42 (8.40%) of the respondents are done in between 29 – 38 right angle push ups and its measures in above average result, 78 (15.60%) of the respondents are made in between 23 – 28 right angle push ups and it measures in average result, 181 (36.20%) of the respondents are done in between 18 – 23 right angle push ups and it measures in below average result and remaining 179 (35.80%) of the respondents are made less than 17 right angle push ups and its measures in poor result.

**Table 1.7**  
**Socio Economic Condition of the Respondent**

Sr. No	Socio Economic Condition	No of Respondent	%
1.	Upper Class	00	00.00
2.	Upper Middle Class	00	00.00
3.	Middle Class	127	25.40
4.	Upper Lower Class	373	74.60
5.	Lower Class	00	00.00
<b>Total</b>		<b>500</b>	<b>100.00</b>

**Source:** Primary Class

The above table 1.7 describes about the socio economic condition of the respondent and it was observed that out of 500 respondent 127 (25.40%) of the respondents are belongs to middle class family and remaining 373 (74.60%) of the respondents are belongs to upper lower class family.

**Table 1.8**  
**Reaction Ability and Result of Measurement**

<b>Sr. No</b>	<b>Reaction Ability (cm)</b>	<b>No of Respondent</b>	<b>%</b>
1.	< 7.5 cm	50	10.00
2.	7.5 – 15.9 cm	421	84.20
3.	15.9 – 20.4 cm	29	05.80
4.	20.4 – 28 cm	00	00.00
5.	> 28 cm	00	00.00
<b>Total</b>		<b>500</b>	<b>100.00</b>

**Source:** Primary Class

The above table 1.8 describes about the reaction ability of the respondent and it was observed that out of 500 respondent 50 (10.00%) of the respondents reaction ability was at less than 7.5 cm which is measured in excellent result, 421 (84.20%) of the respondents are having between 7.5 – 15.9 cm which is measured in above average result and remaining 29(5.80%) of the respondents are having 15.9 – 20.4 cm of reaction ability and it has measures in average result.

#### **RESULT:**

No significant correlation was found between health-related physical fitness and socioeconomic status ( $p > 0.05$ ). There was a significant positive correlation between health-related physical fitness and reactivity ( $p > 0.05$ ). The average scores of subjects for the sit and reach test, body fat percentage, partial curl up right angle push up, socioeconomic status and reaction ability were 33.76 cm, 18.92 percent, 8, 25, 22, 477.63 and 0.231 seconds, respectively.

#### **CONCLUSION:**

Current findings support the notion that physical fitness has a positive relationship with socioeconomic status. It was also particularly noted that there is a significant positive relationship between health-related physical fitness and reaction time. Further present findings also support the assumption of low physical health and socio-economic status of the tribals in the state but the psychomotor capacity of the children attending tribal schools in Tripura was found to be somewhat better.

#### **REFERENCES:**

1. Freitas D, Maia J, Beunen G, Claessens A, Thomis M, Marques A, Crespo M, Lefevre J. Socio-economic status, growth, physical activity and fitness: the Madeira Growth Study. *Ann Hum Biol*, 34(1): 107- 22, 2007.
2. Johnson BL and Nelson JK. *Practical Measurements for Evaluation in Physical Education*, New Delhi, Surjeet publications, pp. 246-247, 2007.
3. Kamlesh ML and Sangral MS. *Principles and History of Physical Education*, Ludhiana: Prakash Brothers, pp. 42-43, 1981.
4. Lohman and Nagamine, obesity assessment recommended in 1972, 1986.
5. Magill RA. *Motor Learning Concepts and Applications*, 5<sup>th</sup> edition. Boston, USA: McGraw-Hill, p 19, 1998.
6. Murdock SH, Leistritz FL and Hamm RR. The State of Socioeconomic Impact Analysis in the United States of America: Limitations and Opportunities for Alternative Futures, *Journal of Environmental Management*, Volume 23, No.: 2, Sept, 1986.
7. Saha Gopal Chandra. Assessment of health-related physical fitness, socio economic status and psychomotor ability of tribal school going children of west Bengal. 10(1); 41-51

# EFFECTS OF YOGA ON MENTAL HEALTH

**Dr. Palne Kailas Shivharrao**

Head, Department of Physical Education and Sports, Shivjagruti Senior College, Nalegaon.

## INTRODUCTION:

The conceptual background of yoga has its origins in ancient Indian philosophy. There are numerous modern schools or types of yoga (i.e., Iyengar, Viniyoga, Sivananda, etc.), each having its own distinct emphasis regarding the relative content of physical postures and exercises (asanas), breathing techniques (pranayama), deep relaxation, and meditation practices that cultivate awareness and ultimately more profound states of consciousness. The application of yoga as a therapeutic intervention, which began early in the twentieth century, takes advantage of the various psychophysiological benefits of the component practices. The physical exercises (asanas) may increase patient's physical flexibility, coordination, and strength, while the breathing practices and meditation may calm and focus the mind to develop greater awareness and diminish anxiety, and thus result in higher quality of life. Other beneficial effects might involve a reduction of distress, blood pressure, and improvements in resilience, mood, and metabolic regulation.

Khalsa stated that a majority of the research on yoga as a therapeutic intervention was conducted in India and a significant fraction of these were published in Indian journals, some of which are difficult to acquire for Western clinicians and researchers. In their bibliometric analysis from 2004, they found that 48% of the enrolled studies were uncontrolled, while 40% were randomized clinical trials (RCT), and 12% non-RCT (N-RCT). Main categories which were addressed were psychiatric, cardiovascular, and respiratory disorders.

Systematic reviews on the therapeutic effects of yoga, there is still a lack of solid evidence regarding its clinical relevance for many symptoms and medical conditions. For many specific indications and conditions, there is inconsistent evidence with several studies reporting positive effects of the yoga interventions, but other studies are less conclusive. In some instances, these discrepancies may result from differences between the study populations (e.g., age, gender, and health status), the details of the yoga interventions, and follow-up rates. In the present paper, we summarize the current evidence on the clinical effects of yoga interventions on various

Components of mental and physical health. In general, the respective reviews (Table 1) and an Agency for Healthcare Research and Quality Report (AHRQ) evidence report on "Meditation Practices for Health," which cites also studies on yoga, include a heterogeneous set of studies with varying effect sizes, heterogeneous diagnoses and outcome variables, often limited methodological quality, small sample sizes, varying control interventions, different yoga styles, and strongly divergent duration of interventions.

## DEPRESSION:

It is found four relevant publications, including two reviews on the effects of yoga on depression, a description of studies on yogic breathing for depression, and one "summary". The reviewing authors have reported that the studies reviewed showed a large variety of diagnoses ranging from "major depression or some other type of diagnosed depression" to "elevated depressive symptoms". Although several randomized controlled trials (RCTs) reported beneficial effects of yoga interventions for treating depressive symptoms, the quality and quantity of the data from these studies appear insufficient to conclude whether there is substantial clinical justification to consider

yoga as a treatment of depression. Compared to passive controls, the yoga interventions seem to be effective; when compared with active controls, not surprisingly, the effects are less conclusive. The study results are so far not sufficient in quantity and quality to determine whether studies with a focus on the *asanas* are more effective as compared to studies with meditation-focused or *pranayama*-focused styles. Thus, there is a strong need to conduct more conclusive studies with high methodological quality and larger patient samples. Whether motivation of depressed patients could be a problem or not remains to be clarified. There has been an attempt to explore mechanisms of action and to understand the complete picture of the effects of yoga in depression looking at electrophysiological markers of attention, and neurotransmitters which were found to change with yoga.

#### **FATIGUE:**

It is found one systematic review/meta-analysis evaluating the effects of yoga on fatigue in a variety of medical conditions. The review included 19 RCTs and included healthy persons as well as patients with cancer, multiple sclerosis, dialysis, chronic pancreatitis, fibromyalgia, and asthma. Overall, a small positive effect with an SMD of 0.28 [0.24–0.33] was found. This standardized mean difference (SMD) describes the difference in the group mean values divided by the respective standard deviation; a value between 0.3 and 0.5 can be regarded as small, SMD between 0.5 and 0.8 as moderate, and SMD >0.8 as large. For those studies that included cancer patients ( $n = 10$ ), the treatment effect of yoga was 0.20 (0.15–0.24); for all other studies that did not include cancer patients ( $n = 9$ ), the effect was 0.46 (0.24–0.67). Nevertheless, there are some studies on cancer-related fatigue which indicate that treatment effects of yoga could be improved in well-designed future studies.

#### **ANXIETY AND ANXIETY DISORDERS:**

There is one systematic review examining the effects of yoga on anxiety and anxiety disorders [1], a Cochrane review on meditation therapy for anxiety disorders [10] (citing one yoga study [32]), a description of studies on yogic breathing (which are also addressed in the systematic review), and one summary. Most studies described beneficial effects in favor of the yoga interventions, particularly when compared with passive controls (i.e., examination anxiety), but also compared with active controls such as relaxation response or compared to standard drugs. However, there are currently no meta-analyses available which would clearly differentiate this important issue. At least the AHRQ report stated that “yoga was no better than Mindfulness-based Stress Reduction at reducing anxiety in patients with cardiovascular diseases”.

#### **STRESS:**

One systematic review describes the effects of yoga on stress-associated symptoms. Chong et al. identified 8 controlled trials, 4 of which were randomized, which fulfilled their selection criteria. Most studies described beneficial effects of yoga interventions. Although not all studies used adequate and/or consistent instruments to measure stress, they nevertheless indicate that yoga may reduce perceived stress as effective as other active control interventions such as relaxation, cognitive behavioral therapy, or dance. Also the AHRQ report stated that “yoga helped reduce stress” [30]. Here, the two included studies showed a significant reduction of stress scores in favor of the yoga group (SMD =  $-1.10$  [CI:  $-1.61$  to  $-0.58$ ]).

#### **POSTTRAUMATIC STRESS DISORDER:**

A single review article looked at the existing research on yoga for posttraumatic stress disorder (PTSD). Seven articles were reviewed which included 8 studies on PTSD following

exposure to natural disasters such as a tsunami and a hurricane (1 RCT, 1 NRCT, 3 group study, 2 single-arm studies, 1 cross-sectional study) and 2 studies on PTSD due to combat and terrorism (1 RCT, 1 single-arm study). After a natural disaster, yogapractice was reported to significantly reduce symptoms of PTSD, self-rated symptoms of stress (fear, anxiety, disturbed sleep, and sadness) and respiration rate. Similarly, yoga interventions were able to improve the symptoms of PTSD in persons with PTSD after exposure to combat and terrorism. The interventions varied in duration from one week (when interventions were given on the site) to six months. The review suggested a possible role of yoga in managing PTSD, though long-term studies conducted with greater rigor are needed.

Further studies should identify which patients may benefit from the interventions, and which aspects of the yoga interventions (i.e., physical activity and/or meditation and subsequent life style modification) or which specific yoga styles were more effective than others. Larger-scale and more rigorous research is highly encouraged because yoga may have potential to be implemented as a safe and beneficial supportive/adjunct treatment that is relatively cost-effective, may be practiced at least in part as a self-care behavioral treatment, provides a life-long behavioral skill, enhances self-efficacy and self-confidence, and is often associated with additional positive side effects.

### CONCLUSION:

The degree to which yoga interventions are curative treatments remains to be determined; currently it is safe to suggest that yoga can be a beneficial supportive add-on or adjunct treatment. Jayasinghe stated that one may “conclude that yoga can be beneficial in the primary and secondary prevention of cardiovascular disease and that it can play a primary or a complementary role in this regard” [38]. Because of yoga’s low risk for side effects, when selecting appropriate postures for the population, and potential for actual positive side effects, it might be a promising candidate particularly for cardiac rehabilitation, depending on the patients’ abilities and willingness to adopt yoga practices with regularity. However, the meditative and self-reflective (cognitive) aspects of yoga could be problematic especially for patients with psychotic or personality disorders. Nevertheless, there is currently insufficient data on contraindications or side effects related to yoga practices in patients with psychological disorders. Taken together, while several reviews suggest positive benefits of yoga, various methodological limitations (including small sample sizes, heterogeneity of controls and interventions) limit the generalizability of these promising study findings. It is quite likely that yoga may help to improve patient self-efficacy, self-competence, physical fitness, and group support, and may well be effective as a supportive adjunct to mitigate medical conditions, but not yet as a proven stand-alone, curative treatment. Confirmatory studies with higher methodological quality and adequate control interventions are needed.

### REFERENCES :

1. S. B. S. Khalsa, “Yoga as a therapeutic intervention: a bibliometric analysis of published research studies,” *Indian Journal of Physiology and Pharmacology*, vol. 48, no. 3, pp. 269–285, 2004.
2. K. Boehm, T. Ostermann, S. Milazzo, and A. B’ussing, “Effects of yoga interventions on fatigue: a meta-analysis,” in press.
3. M. S. Lee, J. I. Kim, J. Y. Ha, K. Boddy, and E. Ernst, “Yoga for menopausal symptoms: a systematic review,” *Menopause*, vol. 16, no. 3, pp. 602–608, 2009.
4. K. N. Udupa, R. H. Singh, and R. M. Settiwar, “A comparative study on the effect of some individual yogic practices in normal persons,” *Indian Journal of Medical Research*, vol. 63, no. 8, pp. 1066–1071, 1975.
5. V. Singh, A. Wisniewski, J. Britton, and A. Tattersfield, “Effect of yoga breathing exercises (pranayama) on airway reactivity in subjects with asthma,” *Lancet*, vol. 335, no. 8702, pp. 1381–1383, 1990.

# ROLE OF PHYSICAL EDUCATION PERSONAL FOR MAINTENANCE OF HEALTH AND FITNESS

**Dr. Karad Chandrakant**

MA, M.Ped, PhD, B.Ped College Udgir, Dist-Latur

Physical Education is an integral part of Education. It starts in the human life from conception of the child in the mother womb. Physical Education is the education which is gained through the physical activities in various conditions and its related responses. Through the Physical Education the all round development of the individuals can be made. In Physical Education most of the situations and conditions are always uncertain and the individuals have to respond according to it.

Physical Education now a day is a very important subject but unfortunately in our state even in the country the subject does not get the due importance. Physical education helps to upgrade the sports culture. Without strong physical education background it is not possible to improve or develop the sports performance. Physical Education is the most diverse subject. Students have to study all kind of

Subject right from Philosophy to Information Technology. Each and every subject has the direct impact on the performance of the individuals. Physical Education provides a solid foundation preparing a individual to pursue a variety of careers, from chiropractic to teaching, from recreation leadership to athletic training, and from dance therapy to sports management. Today, Physical Education professionals have a very important role to play in the future of the health of our nation and the world.

## **Physical Education helps to students**

- ♣ Learn skills in a variety sports, games, dance, swimming, and outdoor pursuits for own enjoyment and to share with others in many ways.

- ♣ Develop creativity, leadership, organization, management and communication skills which are most important in any interaction in career.

- ♣ Come to understand the science of the human body and how it works, especially the musculoskeletal system, the nervous system, the respiratory system – and the cardiovascular system – and learn how to apply this knowledge to improve sports or dance skills, to repair injury, or to make appropriate exercise and nutrition decisions.

- ♣ Understand and apply principles of healthy living, physically, mentally, emotionally, spiritually, socially, and environmentally.

Regular physical activity participation throughout childhood provides immediate health benefits, by positively effecting body composition and musculo-skeletal development (Malina and Bouchard, 1991), and reducing the presence of coronary heart disease risk factors (Gutin et al., 1994). In recognition of these health benefits, physical activity guidelines for children and youth have been developed by the Health Education Authority [now Health Development Agency (HDA)] (Biddle et al., 1998). The primary recommendation advocates the accumulation of 1 hour's physical activity per day of at least moderate intensity (i.e. The equivalent of brisk walking), through lifestyle, recreational and structured activity forms. A secondary recommendation is that children take part in activities that help develop and maintain muscular-skeletal health, on at least two occasions per week



(Biddle et al., 1998). This target may be addressed through weight-bearing activities that focus on developing muscular strength, endurance and flexibility, and bone health.

The potential difficulties of achieving such a target are associated with the diverse aims of PE. These aims are commonly accepted by physical educators throughout the world (International Council of Sport Science and Physical Education, 1999), although their interpretation, emphasis and evaluation may differ between countries. According to Simons-Morton (Simons-Morton, 1994), PE's overarching goals should be (1) for students to take part in appropriate amounts of physical activity during lessons, and (2) become educated with the knowledge and skills to be physically active outside school and throughout life. The emphasis of learning during PE might legitimately focus on motor, cognitive, social, spiritual, cultural or moral development (Sallis and mckenzie, 1991; Department for Education and Employment/Qualifications and Curriculum Authority, 1999). These aspects may help cultivate students' behavioural and personal skills to enable them to become lifelong physical activity participants [(thus meeting PE goal number 2 (Simons-Morton, 1994)]. However, to achieve this, these aspects should be delivered within a curriculum which provides a diverse range of physical activity experiences so students can make informed decisions about which ones they enjoy and feel competent at. However, evidence suggests that team sports dominate English PE curricula, yet bear limited relation to the activities that young people participate in, out of school and after compulsory education (Sport England, 2001; Fairclough et al., 2002). In order to promote life-long physical activity a broader base of PE activities needs to be offered to reinforce the fact that it is not necessary for young people to be talented sportspeople to be active and healthy.

While motor, cognitive, social, spiritual, cultural and moral development are valid areas of learning, they can be inconsistent with maximizing participation in health-enhancing physical activity [i.e. PE goal number 1 (Simons-Morton, 1994)]. There is no guidance within the English National Curriculum for PE [NCPE (Department for Education and Employment/Qualifications and Curriculum Authority, 1999)] to inform teachers how they might best work towards achieving this goal. Moreover, it is possible that the lack of policy, curriculum development or teacher expertise in this area contributes to the considerable variation in physical activity levels during PE (Stratton, 1996a). However, objective research evidence suggests that this is mainly due to differences in pedagogical variables [i.e. Class size, available space, organizational strategies, teaching approaches, lesson content, etc. (Borys, 1983; Stratton, 1996a)]. Furthermore, PE activity participation may be influenced by inter-individual factors. For example, activity has been reported to be lower among students with greater body mass and body fat (Brooke et al., 1975; Fairclough, 2003c), and higher as students get older (Seliger et al., 1980). In addition, highly skilled students are generally more active than their lesser skilled peers (Li and Dunham, 1993; Stratton, 1996b) and boys tend to engage in more PE activity than girls (Stratton, 1996b; mckenzie et al., 2000). Such inter-individual factors are likely to have significant implications for pedagogical practice and therefore warrant further investigation.

In accordance with Simons-Morton's (Simons-Morton, 1994) first proposed aim of PE, the purpose of this study was to assess English students' physical activity levels during high school PE. The data were considered in relation to recommended levels of physical activity (Biddle et al., 1998) to ascertain whether or not PE can be effective in helping children be 'fit and healthy'. Specific attention was paid to differences between sex and ability groups, as well as during different PE activities.

FIT INDIA Movement was launched on 29th August, 2019 by Honourable Prime Minister with a view to make fitness an integral part of our daily lives. The mission of the Movement is to bring about behavioural changes and move towards a more physically active lifestyle. Towards achieving this mission, Fit India proposes to undertake various initiatives and conduct events to achieve the following objectives:

- To promote fitness as easy, fun and free.
- To spread awareness on fitness and various physical activities that promote fitness through focused campaigns.
- To encourage indigenous sports.
- To make fitness reach every school, college/university, panchayat/village, etc.
- To create a platform for citizens of India to share information, drive awareness and encourage sharing of personal fitness stories.

Evidence for both direct and indirect health effects of physical activity has been reported (Hallal et al., 2006), and the need for ongoing participation in physical activity to stimulate and maintain the chronic adaptations that underlie those benefits is well documented. To understand the relationship of physical activity and aerobic fitness to health during childhood, it is important first to recognize the developmental changes that occur throughout maturation. During the early stages of adolescence, for example, participation in physical activity and corresponding physical fitness begin to decline (Duncan et al., 2007). Such differences across stages of development highlight the importance of examining the effects of growth and maturation on physical and cognitive health. Accordingly, this chapter reviews how physical activity may influence developmental processes and other aspects of somatic growth and maturation. A complete review of the effects of physical activity on all tissues and systems is beyond the scope of this report. Rather, the focus is on components of body composition and systems that underlie engagement in physical activity,

The prevalence, health impact, and evidence of changeability all have resulted in calls for action to increase physical activity across the lifespan. In response to the need to find ways to make physical activity a health priority for youth, the Institute of Medicine's Committee on Physical Activity and Physical Education in the School Environment was formed. Its purpose was to review the current status of physical activity and physical education in the school environment, including before, during, and after school, and examine the influences of physical activity and physical education on the short and long term physical, cognitive and brain, and psychosocial health and development of children and adolescents.

*Educating the Student Body* makes recommendations about approaches for strengthening and improving programs and policies for physical activity and physical education in the school environment. This report lays out a set of guiding principles to guide its work on these tasks. These included: recognizing the benefits of instilling life-long physical activity habits in children; the value of using systems thinking in improving physical activity and physical education in the school environment; the recognition of current disparities in opportunities and the need to achieve equity in physical activity and physical education; the importance of considering all types of school environments; the need to take into consideration the diversity of students as recommendations are developed.

This report will be of interest to local and national policymakers, school officials, teachers, and the education community, researchers, professional organizations, and parents interested in physical activity, physical education, and health for school-aged children and adolescents

Based on the HMC (Seymour et al., 2010) and the fact that physical activity is a volatile behaviour, an individual-centred description is suggested here. This approach is linked to a *personal goal*. Based on the evidence that even small amounts of physical activity are beneficial for health (Powell et al., 2011), such an individual goal may differ from current recommendations (e.g., Health Enhancing Physical Activity recommendation). This *goal* should define a *progression of volume* and refers to *an intended change of that volume*.

For example, person A is currently engaging in 20 min of moderate physical activity per week. She intends to increase this volume to 30 min of moderate intensity per week. The increased volume of physical activity is a *personal goal*. If the person fails to reach their goal, this would be defined as a “lapse.” A “recovery” describes whether a person re-establishes the individual goal after a lapse. Lapses as well as recoveries could be assessed by asking people to define their intended physical activity volume and whether they were successful or failed to reach that goal in the last week, for instance. If one fails, this would be counted as a lapse. As soon as one attains the intended physical activity volume again, this would be counted as a recovery. The volume of physical activity could also be assessed by objective assessments, such as accelerometers, and compared with the intended physical activity volume.

The number of lapses and recoveries from those lapses during a period are indicators of maintenance of physical activity. Both should be valued in relation to each other; otherwise, misinterpretations could occur. For instance, persons A and B take part in a 26-week physical activity program aiming to enhance their physical activity. Person A experienced 2 lapses and 2 recoveries. Person B was faced with 4 lapses and showed 3 recoveries. Regarding only the recoveries, person B is more successful than person A. Valuing both shows that person A is the one who remains physically active, because person B showed one recovery fewer than the number of lapses occurred.

The advantages of this approach are as follows: First, lapses and recoveries stem from individual data. The lapse–recovery relationship describes the behaviour of a given person but could also be analyzed on a group level without depending on other person's physical activity patterns (i.e., the study sample). Second, all variables are continuous, which allows for more complex statistical analysis than lower measurement levels do. Third, the lapse–recovery relationship respects the usage of maintenance as a “success term” (Marcus et al., 2000). It is based on an individual goal, an intended behavior change and it provides information if one has failed to reach that goal. Lastly, this way of describing and analyzing maintenance of physical activity respects one's physical activity level and goal and is therefore appropriate for tailored interventions. It would eliminate the issue of different “gaps” (due to different starting levels) to achieve prescribed physical activity levels, which in turn could affect the success rates.

# IMPORTANCE OF YOGA TEACHER IN MAKING THE PRACTITIONERS BETTER AS WELL AS BENEFITS OF BEING A YOGA TEACHER

**Dr. Bhaskar Mahadeorao Sawarkar**

Director of Physical Education & Sports, G. S. Gawande College, Umarched, Dist- Yavatmal

## **ABSTRACT:**

More specifically, meditative practises are a popular topic in science and education theory and practice these days, whereas yoga has gotten less attention so far. However, Yoga helps people improve their physical, mental, and spiritual health. It is often said that health is wealth, and that in order to work properly, one must be healthy. Yoga is a spiritual and ascetic discipline that includes breath control, simple meditation, and the adoption of specific bodily postures, and a portion of it is commonly practiced for health and relaxation. The system of Yoga has proven to be quite effective in the treatment of many diseases, including lifestyle disorders, according to extensive research and investigations in the field of Yoga. The paper discusses and emphasizes the importance of Yogic exercises and Yoga Teacher in the life of practitioners to help them practice the asanas perfectly, error-free, and give strength to the students so to make their life healthy and to fight various diseases, reduce the risk of getting sick and to live a fit life.

## **INTRODUCTION:**

In our lives, what are the most important relationships? What about our other halves, parents, children, and best friends, but what about the student-teacher relationship? What difference does it make? The relationship between a Guru and a shishya (disciple) is very special in ancient Indian culture, even overtaking the bond between parent and child or husband and wife. While that may be a bit extreme for our Modern understandings, finding the right teacher is undoubtedly important in our yoga journey. Teaching yoga is much more than a job, just as the practice of yoga is much more than a fitness routine. It's a way of life – a spiritual practice, a balanced approach to living. It's a union of the mind, body, and soul if we want to go really deep. We are confident that you will agree that the more people who practice yoga, the better.

## **IMPORTANCE OF YOGA TEACHER:**

Let's take a look at some of the ways Yoga teachers, Yoga classes, and the various styles of Yoga have influenced the world today in a positive way. In fact, there is a Yoga style to suit everyone's needs, goals, and personalities. Yoga classes and Yoga teachers have had a positive impact on the world's society as a whole. For example; Meditation, which is a part of most Yoga classes, is a proven and beneficial tool for mental health. There's a lot more to Yoga than just exercises; however, let's stick to the benefits that Yoga teachers provide in a typical Yoga Poses style. In many Yoga classes, pranayama, or breathing techniques, is taught. Simply by breathing correctly, yoga students learn to take control of their lives and regulate their health. When you consider proper breathing as a practical deterrent to panic attacks, high blood pressure, chest pains, and a variety of other stress-related diseases, you're talking about preventative medicine.

A great teacher will ensure that your practice is improving rather than stagnating. They'll do it patiently, sensing when you're ready to move on to the next task, not because your friend is doing it,

but because you and your body are. A teacher, on the other hand, will understand when you need to take a step back and to get back to basics.

**BENEFITS OF BEING A YOGA TEACHER:**

1. Your personal skill level will rise.
2. You can live a healthy lifestyle.
3. You have the satisfaction of helping others improve their health.
4. You can achieve peace of mind when your body is healthy and fit.
5. The role is unusual and unique.
6. You can travel the world.
7. You can get to know many people of the same interests; which then can help in research purposes.
8. You're seen as a powerful figure.
9. You can develop good entrepreneur skills.
10. You will have a sense of freedom.
11. Yoga can be combined with a second interest.
12. You can have a good pay scale.
13. You can have job flexibility.

**CONCLUSION:**

For the student, the easy and clear process of receiving instruction is far preferable to the intense process of personal inquiry, which is tempting to put off as long as possible. The teacher may make the error of wanting to shape the student into his or her own image and/or make them dependent on him or her. A great teacher will ensure that your practice is improving rather than stagnating. They'll do it patiently, sensing when you're ready to move on to the next task, not because your friend is doing it, but because you and your body are. A teacher, on the other hand, will understand when you need to take a step back and to get back to basics.

**REFERENCES:**

1. Google and Wikipedia basic recommendations.
2. <https://www.mokshamantra.com/benefits-of-yoga-asana>
3. <https://honairesort.com/blog/what-is-the-importance-of-yoga-in-our-daily-life>
4. <https://blog.expertrating.com/yoga-certification/8-benefits-of-becoming-a-yoga-instructor/>
5. <https://yogalondon.net/monkey/the-importance-of-finding-the-right-yoga-teacher/>

# IMPORTANT OF DIET DURING COVID-19 PANDEMIC

**Nandedkar Ishwar Dattatrya**

Research Scholar

**Prof. Dr. Venkat Mane**

Research Guide (Physical Education)

S.R.T.M.University.Nanded, Director of Physical Education & Sports

Digambarrao Bindu Arts, Commerce & Science, College, Bhokar Dist.Nanded(M.S)

## ABSTRACT:

We are living in difficult times because of the corona virus. Those challenges can affect us both physically and emotionally. It is difficult to follow the same routine when you have to physically distance yourself from others, especially if you are at high risk of getting really sick from the virus. So making meals becomes a special challenge.

## INTRODUCTION:

The new outbreak was first reported in December 2019 in Wuhan, the capital of China's Hubei province, and has since spread globally and turned into a global epidemic. Common symptoms of the disease include fever, cough, and shortness of breath, while other symptoms may include fatigue, muscle aches, diarrhea, sore throat, loss of smell, and abdominal pain. Generally, the period from infection to onset of symptoms can be two to fourteen days. While most cases have mild symptoms, some patients have fears of viral pneumonia and multiple organ failure. As of 12 April 2021, more than 13,58,69,704 cases have been reported in 185 countries, resulting in more than 29,35,271 deaths. More than 7,72,84,566 people have been cured. About 2% of all infected patients have died.

The virus is mainly spread by coughing, sneezing or spitting in close contact. These drops or frost drops can be inhaled and fall on the surrounding ground or surface, and people can become infected by touching the contaminated surface with their hands and then applying it to their face. These viruses can survive on this contaminated surface for up to 72 hours. The virus is most contagious in the first three days after the onset of symptoms, but it is also highly contagious during and after the onset of symptoms. The standard method of diagnosis is the reverse transcription polymerase chain reaction (RT-PCR) of nasal samples.

Frequent hand washing with soap, physical contact with others (especially from people with symptoms), coughing or sneezing. In case of sudden sneezing and not near the handkerchief, holding the elbows on the inside of the hand, learning to keep unwashed hands away from the face and using such measures helps to prevent the spread of the virus. Masks are recommended for those who suspect a virus infection or have mild symptoms, and those who care for or come in contact with them. Treatments based on the patient's symptoms, boosting immunity, isolation and some experimental measures are used as treatment.

Some details about how the disease spreads have been fixed. According to the World Health Organization and the US Centers for Disease Control and Prevention (CDC), the virus is spread mainly through close contact between two people, as well as through coughing, sneezing or talking drops. The closest contact is considered to be 1 meter or 3 feet. Research in Singapore has found that the Coronavirus 2019 (Covid-19) virus can spread up to 15 feet in the air if you do not use a handkerchief or mask when coughing or sneezing. The virus enters the mouth or nose of nearby people and spreads through inhalation to the lungs. According to preliminary studies, the number of

people infected with the Coronavirus Disease 2019 (Covid-19) virus doubled every 6 to 7 days and its original reproductive rate ( $R_0$ ) was thought to be 2.2 - 2.7, but was published on April 7, 2020. According to the study, the number of infected people in Wuhan doubled every 2.2 to 3.3 days during the initial period of the epidemic.

When a person touches the eye, nose or mouth with the same hand after touching a contaminated surface, the person becomes infected, which is called fomatom transmission. Although there is concern about the spread of the virus through the feces of an infected person, the risk is considered low. The virus is most contagious when symptoms appear, but it is possible for a person to spread the virus when there are no symptoms and before they occur, but the risk is considered low. According to the European Center for Disease Prevention and Control (ECDC), although it is not entirely clear how easily the disease spreads, one person usually infects two to three people.

#### **DIAGNOSIS:**

On January 17, 2020, the World Health Organization published several RNA testing criteria for SARS-COV-2 and standardized real-time reverse transcription polymerase chain reaction (RT-PCR) testing to confirm corona infection. This test is usually performed on nasal samples or throat saliva samples. Chinese scientists have succeeded in finding the genetic chromosome of coronavirus after analyzing the virus sample. The research was published by Chinese scientists with the aim of helping researchers around the world develop their own reverse transcription polymerase chain reaction (RT-PCR) test kit. On April 7, 2020, in view of the increasing prevalence of corona in India, the National Institute of Virology approved the Rapid Antibody Blood Test Kit developed by HLL Lifecare Limited as a preliminary test. With the help of this 15 to 20 minute test, it will be useful to study where the incidence of corona is increasing. The experience in China is that the accuracy of this rapid antibody blood test is only 60 to 70%. If a patient is found to be infected with an antibody blood test, they will undergo a World Health Organization-certified RT-PCR test.

#### **COVID-19 AND DIET:**

The Covid-19 epidemic is causing a lot of changes in our daily lives. We are observing social distance, living at home and not being able to dine in restaurants. Getting into unhealthy eating habits can be easy at this time of the year, but with a little thought and preparation, maintaining a healthy diet is not an easy task. Good nutrition is always important, but it is even more important during this epidemic. This is because a balanced diet of nutrients helps in strengthening the immune system. When it comes time to go shopping for groceries, a little planning can help you get in and out of the store early.

If you don't want to risk being around others in the supermarket, buying and distributing food online is another option that some local supermarkets have to offer. We are also surrounded by a variety of community-supported farming systems, where small farmers sell directly to consumers and through home delivery food boxes. This is a great way to help local farmers get as much fresh food as possible for your family.

It is advisable to eat plenty of fruits and vegetables, which are rich in vitamins and minerals as well as fiber. Frozen or canned fruits and vegetables also contain vitamins and minerals, although ingredients such as sugar, salt or preservatives are sometimes added to the process of these products. Be sure to read the label so you can choose what's best for you and your family. When we are stressed we are tempted to get satisfactory food and this is fine for a while. But don't make it a habit because many of these foods, such as mac and cheese, pizza and burgers and fries are high in fat, sugar and salt.

**HERE ARE SOME TIPS THAT CAN SUPPORT YOU AND YOUR FAMILY BOTH PHYSICALLY AND MENTALLY:**

- Try your best to eat a nutritious meal with lots of fruits and vegetables, lean protein and whole grains. These substances can help keep your body and mind healthy during times of stress.
- Reduce anxiety-boosting substances such as sugar, caffeine and alcohol.
- It is important to enjoy the small moments, but avoid getting too excited. Try to limit your consumption of sugar, caffeine and alcohol. Excessive consumption can lead to anxiety or lethargy.
- Recognize your cravings if you feel like having a “snack snack”, then take two or three deep breaths and ask yourself if you are really hungry or spending time.
- Doing daily schedule and routine can reduce anxiety and help you stay stable. This also applies to meals! Try to eat at regular meals and avoid snacks in between.
- If you live at home with other people, try to eat at least one meal together every day. It can help reduce the feeling of loneliness and help you to eat a conscious diet. Cooking together can help you connect with others and reduce stress.

**SAFE GROCERY SHOPPING:**

You can also help reduce the spread of coronavirus when you are shopping for groceries. By following a few basic guidelines, you can shop safely and efficiently, protecting yourself and others. The key is to plan ahead, limit exposure to the virus, and buy what you want - if buyers don't stockpile, everyone will have enough food.

- Think ahead to limit your time in the store. Plan meals and gift items for one or more weeks. If an item is temporarily terminated, keep calm and don't be distracted - it may be an alternative to the item.
- Include healthy foods in your shopping list that can last a long time. Those foods may include carrots, turnips, potatoes, beets, onions, cabbage, apples, melons, oranges, grapes, lemons and lemons, as well as frozen fruits and vegetables.
- It may be advisable to send only one member of the household for purchase, and avoid bringing additional members if possible.
- It is best to use a cloth to cover the face when shopping. Also, there are hand sanitizers available wherever you go shopping and try to use them if available. Don't forget to wash your hands after leaving the store and keeping groceries.
- When shopping, try to keep at least 6 feet away from other shopkeepers and grocery store staff.
- Touch the items you want to buy while shopping.

**FOOD TO BOOST MOOD AND ENERGY LEVELS:**

- It would be healthy to include whole grains, such as whole bread and brown rice, in every main meal.
- Foods like fruits, nuts and yoghurt should be taken with the meal.
- A variety of vegetables and fruits can help your body function better.
- Omega-like oils are found in fatty fish that contain tinned fish (eg salmon).
- Make sure you get out of the house every day for exercise and vitamin D. This can be important even in the absence of sunlight.



According to dieticians, it is important to include vitamins and proteins in the diet to prevent coronavirus. Proper supply of these nutrients helps to keep the body healthy. This strengthens your body's immune system. Vitamin D and Vitamin C are essential for the body. Eat foods that will supply vitamins. There should be no negligence in maintaining health during an epidemic.

The body needs adequate supply of protein and minerals. Include fruits and vegetables in your diet which are rich in Vitamin C, Vitamin D and Beta Carotene. Mushrooms, tomatoes, capsicum, broccoli will supply you with nutrients. Care should be taken not to cause stomach problems.

Avoid eating processed foods in the current situation. Processed foods are high in fats, sugar and salt. Before buying such items, check the information on the packet. Also buy nutritious food. Processed foods are harmful to the body. This affects our immune system.

You can also consume turmeric milk regularly to reduce cold and cough. If possible, drink turmeric milk twice a day. Do not eat other foods immediately before or after drinking milk. Also take together basil, cinnamon, black pepper, ginger and black currant and prepare its extract. If the extract tastes very spicy, you can mix jaggery or lemon juice in it.

Eating peanuts, almonds, walnuts, black dates also boosts the immune system. Dried fruits also contain protein, salts, fatty acids. Also, yogurt, lemon water, garlic chutney should be included in the diet. The diet should include protein, vitamin C, vitamin A, vitamin E and antioxidants, polyphenols and important salts.

Eating a nutritious diet is not enough to stay healthy. It is also important to get enough sleep and exercise to stay away from illness. Proper planning of all these things will keep the body healthy. If you keep all these things in mind during the growing outbreak of Corona virus, this deadly virus will not even circulate around you.

#### **HEALTHY EATING FOR THE WHOLE FAMILY:**

Social distance guidelines and virtual education mean a big change in the family routine and may include how you feed your family. Good food can be a good fuel not only for the body but also for the brain. This is especially true for young and school-age children. Creating a healthy, nutritious breakfast, lunch, and dinner every day can seem daunting, but taking one step at a time and focusing on progress can help for the better.

#### **BREASTFEEDING AND COVID-19 GUIDE:**

Breastfeeding is one of the most important things a mother can do for her baby's long-term health. Because it is the best source of nutrition for most young children. However, it is also important to exercise caution when breastfeeding babies during coronavirus epidemics. Taking some precautionary steps, like the recommended steps to reduce personal contact with coronavirus, can help keep your baby healthy while breastfeeding.

#### **BE SAFE WHEN SHOPPING AT THE FARM / AGRICULTURAL MARKET:**

Agricultural markets are a good source of locally grown fruits and vegetables. Shopping at a farm / agricultural market is like shopping at a grocery store safely. Consider the following tips when shopping:

- If you feel sick, stay home.
- Keep a distance of 6 feet between you and others, follow the guidelines of social distance.
- Wear a face mask to help protect the people around you.

- If possible, go to the market with just one family member to help reduce your family exposure.
- Wash and clean your hands frequently. Most agricultural markets have cleaning centers - it's a good idea to take advantage of them.
- Do not touch products or items from the seller until you have received them.
- Bring small bills to reduce the amount of money you have to spend.
- Be patient Shopping may take a little longer.
- Check the market requirements on reusable bags. If they are allowed, machine wash them during each shopping trip.
- Follow every sign and symbol displayed in your market.

**CONCLUSION:**

Good nutrition is essential for Covid-19 patients and those who are slowly recovering. In fact, the body was very weak during Covid-19. Even after the onset of symptoms, the person does not feel well for several days. Thus, it is very important to eat the right kind of food for quick recovery. Not only sound education but his alertness and dedication too are most required. It is believed that people with weakened immune systems are more likely to become infected. Therefore, those who are infected should choose a healthy diet. It strengthens the immune system and also provides relief in later problems.

**REFERENCES:**

1. COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)". ArcGIS. Johns Hopkins University.
2. Perlman, Stanley. "Another Decade, Another Coronavirus". The New England Journal of Medicine. 382(8): 760–762.
3. Boseley, Sarah (January 30, 2020). "WHO declares coronavirus a global health emergency". The Guardian.
4. Dey, Sushmi. "Vital test to cover all symptomatic cases in hotspots now".
5. 'Importance of Healthy Eating During Covid-19', <https://www.dpvhealth.org.au/news-events/news-posts/importance-of-healthy-eating-during-covid-19/>
6. 'The importance of maintaining a healthy diet during the COVID-19 pandemic', Mount Nittany Health.
7. 'Healthy Eating During the COVID-19 Pandemic', Minnesota Department of Health

# YOGA AND STRESS MANAGEMENT

**Madhav Sopanrao Kadam**

Dir. Of Physical Education & Sports, Sant Tukaram College, Parbhani.

Modern Organization presently recognize that people face various types of stress in their daily work and personal life. Stress is an inherent part of life it cannot be totally eliminated. Stress is our body's internal reaction coming from the environment the assumption of yoga system of education is that samadhi is an easy condition of the mind. Scientific era because of science and technological developments improved the quality and standard of life with charms and excitement. Stress is a common condition a response to a physical threat that generates a host of chemical and hormonal reactions in the body. Yoga is a promising approach for dealing with the stress response. Stress has been shown to be one of the factors leading to musculoskeletal disorders such as eye strain, carpal tunnel syndrome. Practicing yoga at the workplace teaches employees to use relaxation techniques to reduce.

## CONCEPT OF STRESS:

Stress of injury on the job yoga at the workplace is a convenient and practical outlet that improves work performance by relieving tension there are many proven skill that we can use to manage stress. These help us to remain calm in high pressure situation.

Stress is a facing we have when under pressure yoga is the perfect example of holistic health because of this combination of mind and body. Yoga can be a helpful training for sports more athletes now a days are turning to yoga to help improve their performance. Yoga is the inhibition of the modifications of the mind. Yoga is a way of life this means that it prevents the contents of the mind from taking different forms.

Stress management techniques like meditation progressive relaxation stress is a common condition a response to a physical threat. The practices recommended range from intense to moderate to relaxed asana and pranayama. According to Richard Lazarus stress is a feeling experienced when a person thinks that the demands exceed the personal and social resources the individual is able to mobilize. He is considered one of the founding fathers of stress research. The stress of creative successful work is beneficial which that of filature humiliation. Stress is an integral part of our lives. It is natural by product of all our activities. Life is a dynamic process and thus forever changing and is a dynamic process and thus forever changing and stressful. Our body responds to acute stress by liberation of chemicals.

## CONCEPT OF MANAGEMENT:

Management has emerged as an essential activity since people began forming groups to accomplish goals they could not achieve as individuals and also to mobilize and coordinate individual efforts which are recognized essential for the good of the society. Managers can work better by using the organized knowledge may be primitive or advanced exact but when well organized clear and pertinent it becomes a science, management may differ in its purpose definition and accomplishment in one situation that in another but the basic manageable aim remains the same that of having surplus in terms of performance achievement and profits economic use of Input of resources greater personal satisfaction and accelerated future advancement management in sport in an important consideration as in other of human endeavors.

## CONCEPT OF YOGA:

In this modern world our environment is fighting for survival and we humans suffer from more and psychological stress. We cannot always control them but can learn how to face them and to this end yoga is as good an invention it has ever been, The aim of yoga is attainment of physical mental and spiritual health. Yoga is a mind and body practice with historical origins in ancient Indian thoughts. Like other meditative movements that are used for health purposes, various styles of yoga typically combine physical postures. Yoga started back 3000 years ago in India. It is important for stress relief. It makes your body fit and healthy. Yoga means to yoke to bind to link to connect to merge. As yoke joins two bulls together. Yoga joins body and mind together. It is possible only through the control over sense organs and through continued practice and detachments. Yoga is a set of powerful tools for achieving union and healing with parts of Ourselves. Yoga postures stretch your body and induce relaxation. They affect the vital force and cause it to flow in specific parts of the body. They are excellent remedy for back aches and heart problems. Yoga postures can strengthen the joints and various parts of the body. The mental personality is greatly affected through concentration.

Yoga has become popular than ever with celebrities' politics and almost every walk of life currently prating the practice of yoga is about creating balance in the body by developing both strength, flexibility. This is accomplished by performing a series of poses which are designed for specific benefits to each part of body. We see more evidence every day that yoga is a valuable tool for people of all ages to improve their quality of life. It is included in many health and the continuing growth of mind body awareness in our culture is positioning yoga as an important complement to healthcare. Even beginners tend to feel less stressed and more relaxed after their first class. Yoga styles depend on deep breathing techniques to focus the mind on the breath. Among yoga antistress benefits are a series of biochemical responses.

#### **CONCLUSION:**

Regular practice of yoga given by well trained teacher decreases the stress of students. Blood pressure in normal condition. Fresh and active body. Good stamina yoga can be a great remedy for stress and can offer some stress relief yoga has combined set of principles and exercises that can greatly benefit you and help you to deal with stress. Benefits help yoga practitioners become more resilient to stressful conditions and reduce a variety of important risk factors for various diseases in general and cardio pulmonary diseases in particular.

#### **REFERENCE:**

1. J.P. Sharma, Management of Physical Education and Sports.
2. Dr. A.K. Srivastava, Health and Yoga.
3. Dr. R.C. Kanwar, Health Education.
4. B.K. S. Ayagar, Yoga dipika.
5. googal.com.

# YOGIC PRACTICES DURING COVID-19 PANDEMICS

**Dr. Gomchale Minanath Shivajirao**

Director of Sports (Associate professor) Narayanrao Waghmare Mahavidyalaya, Akhada Balapur, Dist. Hingoli (M.S.)

## ABSTRACT :

*Yoga is an essentially a spiritual subject focused on bringing harmony between mind and body. It is beautiful art as well as science for healthy living. The word 'Yoga' is derived from Sanskrit root words 'Yuj' meaning 'to join' 'to yoke' or 'to unite'. As per yogic literature, the practice of Yoga leads to the union of individual consciousness with universal consciousness. Yog is an inner science, compression, of a variety of methods through which human being can achieve by union between the body and the mind to attain self realization. The aim of yoga practice is to overcome all kinds of sufferings that lead to a sense of freedom in every worked of life with holistic health, happiness and harmony.*

**KEY WORDS:** Yogic practices, covid-19 and effects.

## DEFINITIONS OF YOGA

According to Vedanta:

“Yujir Yoge” means to unite, to bind together or to yoke  
(individual spirit + Universal spirit)

“Yuj SAMADHOU” means concentration or meditation.

According to Bhagawad Gita:

Yoga karamasu Kousalam means dexterity in action

Samatvam Yoga uchyate means evenness of mind.

Dukh asamyogam viogam severance from the union with pain is yoga.

According to Maharishi Patanjali:

YOGAH CHITTA VRITTINIRA. DDAH cessation of the modifications of Chita.

Broad categories of Yoga

Broadly yoga can be put into four categories:

Jyana Yoga – The way of wisdom.

Bhakti Yoga – The way of emotional report

Karma Yoga – The way of dedicated work; and

Raja Yoga – The way of spiritual practice.

What popularly known as yoga in the west is Hatha Yoga involved physical disciplines including Asanas, Pranayama, Satkarams and Mudras. Among them Raja Yoga (Ashtanga Yoga) is the famous.

Ashtanga Yoga

Yama (Great Universal Commandments)

Ahimsa - Non violence (Lord Buddha)

Satya - Truth (King Harichandra)

Asteya - Non – stealing (King Bharata)

Brahmachararya -Self control (Shuka)

Aparigraha -Unselfishness (Vishnu dasa)

Niyama (Personal Disciplines)

Soucha -Cleanliness

Santosha -Contentment (Krishna and Sudama)

Tapass -Great effort (Dhruva)

Savdhyaya -Self study (Nachiketa)

Ishavara pranidhana -Faith to God (Prahlada)

Asana (posture or stance)-84 lakhs in numbers

Meditative Asana

Cultural Asana

Relaxative Asana

Pranayama (Scientific control of breath)

Pratyahara (Control of senses or withdrawal of senses – taste, touch, smell, sight and hearing)

Dharana (Concentration)

Dhyana (Meditation)

Samadhi (Kaivalya, is the goal of yoga where yogi unites with God.)

### **OBJECTIVE OF THE STUDY:**

To know the effects of Yogic practices during Covid-19 pandemics.

Needs of Yoga in present scenario (during covid-19 Pandemics)

During this Covid-19 second wave Pandemics people are suffering like anything. We are weakening economic position, retard health condition, i.e. physically, mentally, socially, spiritually, and emotionally. This is the right time to adopt yogic practice during the pandemics.

Let us discuss some benefits of yoga practice during covid-19 in human being.

### **YOGIC PRACTICE TO RELAXATION:**

During yoga, our brain releases all sort of chemicals that not only help us relax but also lower your stress and anxiety levels including, gamma aminobutyric acid (GABA), dopamine, oxytocin, serotonin, and endorphins. Each of which functions in its own way to help us calm down and feel better.

GABA is a neurotransmitter or brain's chemical messenger. Its job is to suppress neural activity in order to prevent your brain from getting overly excited. In doing so, it controls how much fear, stress, anxiety or nervousness we'll feel. Research shows that yoga increases GABA levels by 27%. In fact, another study found that yoga is even better than walking if you want to relax and reduce anxiety.

### **HAPPINESS HORMONES:**

Collectively, our happiness hormones are dopamine, oxytocin, serotonin, and endorphins. They are called as such because each of them makes us feel better about our self and well being. For example, dopamine makes us feel rewarded and experience pleasure, meanwhile, serotonin reduces tension to help relieve stress and anxiety.

Together, these chemicals help us relax and feel content. That is why many yogis will tell what they feel happier after a class.

### **YOGA PRACTICE TO STRESS REDUCTION:**

During a yoga session, certain parts of your brain's slow down to allow them to rest. This functionality helps distress, which takes place in two a major areas of the brain;

Frontal lobe: The Frontal lobe is the most advanced part of your brain because it is responsible for most of the thinking, planning, and reasoning. Additionally, it plays a role in self awareness and emotional regulation.

Parental lobe: It handles all the information come from our senses of sights, sounds and everything else observe around us. Yoga likewise causes our parietal lobe to slow down.

Yoga also helps reduce stress by lowering your body"s cortisol and adrenaline levels, two critical stress hormones.

### **YOGA PRACTICE TO ANXIETY:**

Anxiety is closely related to stress. But, they aren"t the same thing. Stress is the response your body produces due to a threat. Once that situation passes, the stress goes away. On the other hand, anxiety can be a result of stress as well as a myriad of other factors.

Common symptoms of anxiety may include constant worry, feeling restless, startling easily, inability to focus, and often difficulties sleeping.

Yoga practice reduce of gray matter in your amygdale means that there is less activity in this part of our brain. As such, we"re better at handing fear and our emotions. Plus, we"re likewise better able to relax.

### **YOGA PRACTICE TO NERVOUS SYSTEM:**

Conscious breathing practice (Paranyama), Asanas and meditation strengthens nerve transmissions from body to brain, decreasing our stress and muscular tension. Conscious practice of yoga slowly convert from Sympathetic Nervous System to Parasympathetic Nervous System which leads to human in the state of calm, peace, normal blood pressure, harmony and happy. Vishnu Devananda Swami (The Book of Yoga 1983, P-32) studies the emerging effect of Yoga postures or asanas Revealed the Karelain photographs that the left hand"s palm was taken before a 15 minutes session of asanas. When the subjects were photographed after session a fuller, more couple "AURA" was revealed. Interestingly a 15 minutes session of Gymnastics with the same subjects failed to produce any changes in AURA. AURA is the influence of human waves which have sense to fell, it depends on human power of goodness quality.

### **CONCLUSION:**

Yogic Practice is just like a process as in soft iron converted to Magnet. If a soft iron is rubbed on a magnet, the soft iron converted into magnet. The positive charge and negative charge are separated into two poles due to rubbing. When we hang the soft iron with a thread in the mid middle, it tells north and south poles. Same as in human being, consciously practice yoga, the positive and negative qualities can easily bifurcated. A person who reached as magnet through Yogic process, we called Samadhi state, equality to God. Live as Human being and Work as profession By adopting some easy/suitable yogic practice for 45 to 60 minutes every day can make great changes in human life during Pandemics. It may safe most of life from threatening of dreaded covid-19. Stay home stay save, and adopt yogic practice during this pandemics. By practicing breathing exercise and asanas for increasing lungs efficiency and immune system against covid virus.

### **REFERENCES:**

1. Charles, A. B. (1960). *Foundation of physical education*, 3rd edition, New York: St. Louis v. Mosbo" company.
2. Deshmukh, P. N., R. P. Tuppekar and A. P. Borikar. *Health education*. Ist edition, Nanded: ALFA, publications.
3. Donald Chu, (2002). *Dimensions of sports studies*, New York: John Wiley and sons.
4. Singh, A and J. Baines (2001). *Essentials of physical education*, New Delhi: Friend"s Publication.

# NEED OF NUTRITION DURING COVID-19 PANDEMIC

**DR. NARAYAN JAIBHAYE**

Sports Director, Department of Sports, Sanjeevane Mahavidyalaya, Chapoli. Dist. Latur.

## ABSTRACT:

In the present scenario Covid-19 Pandemic is a dominant challenge across the world. It is compulsory to maintain good nutritional status to fight against Corona-virus. Nutritional status of every individual are affected by various factors such as sex, age, life style and health. Nutritional status of individuals has been used as resilience towards destabilization during Covid-19 Pandemic. Dietary and optimal nutrient intake impact the immune system, hence the only sustainable way to survive and strengthen the immune system. There is no evidence found that supplement can cure the immune system except Vitamin-C, which is one of the best way to improve immune system. A proper diet can ensure that the body is in proper state to defeat the virus. However, along with the dietary management guidelines the food safety management and good food practices is mandatory. This manuscript explores the importance of nutrition to boost immunity and gives some authentic dietary guidelines about nutrition and food safety to withstand Covid-19.

**KEYWORDS:** Covid-19, Pandemic, Nutrition, Immunity.

In an ancient ago, a great thinker, Hippocrates said that; *“Let food be thy medicine and medicine be thy food.”* Both nutrient intake and nature of disease usually influence the nutritional status particularly of developing nations, where everyone is striving for food. Inadequate diet and infectious diseases can lead to severe malnutrition. Currently, the COVID-19 pandemic is the leading challenge across the world, hence, scientific researchers are attempting to create a specific vaccine for this virus but to no avail so far. Even if they were able to find the vaccination method, there is a high possibility that other anti-microbial resistant infections will prevail in society. Nutritional status is very important to maintain a strong immune system against the virus.

Certain factors like age, lifestyle, health, sex, and medications affect the nutritional status of an individual. During the COVID-19 pandemic, the nutritional status of individuals has been used as a measure of resilience toward destabilization. Optimal nutrition and dietary nutrient intake impact the immune system through gene-expression, and cell-activation. In addition, various dietary ingredients are determinants of gut microbial composition and subsequently shape the immune responses in the body. Therefore, the existing evidence suggests that the only sustainable way to survive in the current situation is to strengthen the immune system.

An adequate intake of zinc, iron, and vitamins A, B 12, B6, C, and E is essential for the maintenance of immune function. In the present day, COVID-19 has imposed a new set of challenges for the individual to maintain a healthy diet. The state of self-isolation, social distancing and lockdown are important measures to flattening the curve of the disease, although these measures have severe repercussions on an individual's life. The act of confining to one's home has significant impacts on one's health, including changes in eating patterns, sleeping habits, and physical activity. It would promote behaviours that affect mental and physical health and lead to an increased risk of obesity. Fear and anxiety may also cause changes in dietary habits leading to unhealthy dietary patterns and less desire to eat or with lessened enjoyment during eating.



A balanced diet will guarantee a strong immune system that can help withstand any assault by the virus. There is currently no evidence that any supplement can ‘boost’ our immune system and treat or prevent any viral infections, except Vitamin C. Vitamin-C is one of the major constituents vitamin which tends to make a strong immune system. The daily recommended dietary allowance for Vitamin C is 90mg/d for men and 75mg/d for women. In the current situation, it is necessary to be aware of the specific types of food that can improve our immune system in order to combat COVID-19. Here are some professional and authentic dietary guidelines to withstand COVID-19:

- ❖ Eat fresh vegetables (green bell peppers, garlic, ginger, kale, lime, coriander, broccoli, green chili pepper)
- ❖ Eat fruits daily - apple, banana, strawberry, grape-fruit, pineapple, papaya, orange with a serving size of two cups.
- ❖ Red meat can be eaten once or twice per week, and poultry 2–3 times per week. Use foods from animal sources (e.g. fish, eggs, and milk) and 160 g of meat and beans.
- ❖ Eat whole grains and nuts, 180 g of grains (wheat, millet, brown rice or roots such as yam, potato)
- ❖ Use nuts like almonds, coconut, and pistachio.
- ❖ Limit the salt intake to five g a day.
- ❖ Drink 8-10 glasses of water every day. It helps to transport nutrients in the blood, gets rid of waste, and regulates the body temperature.
- ❖ For snacks, choose fresh fruits and raw vegetables rather than foods that are high in sugar, salt or fat. Avoid irregular snacking.
- ❖ Do not overcook vegetables as it leads to the loss of important nutrients such as vitamins and minerals.
- ❖ When using dried or canned fruits and vegetables, choose varieties without added sugar or salt.
- ❖ Eat at home to avoid contact with other people and try to reduce the chance of being exposed to COVID-19.
- ❖ Consume unsaturated fats (found in avocado, fish, nuts, soy, olive oil, canola, corn oil, and sunflower) rather than saturated fats (found in butter, fatty meat, coconut and palm oils, cheese, ghee, and cream).
- ❖ Maintain a healthy lifestyle of exercise, meditation, and regular sleep. Adequate sleep will help to support immune functioning.
- ❖ Avoid all fizzy, carbonated, concentrated juices, and all drinks which contain sugar.

A proper diet can help to ensure that the body is in the strongest possible state to battle the virus. The food safety management system must provide food safety individuals with proper personal protective equipment to avoid contamination. Researchers have found that there is no source of virus contamination via food packaging or food. However, good food practices are always recommended by following them to minimize the risk of contamination which are as follows:

- ❖ Food service workers should use gloves while preparing a meal.
- ❖ Try not to display or sell unwrapped food from the self-service counter.
- ❖ Wash vegetables and fruits before eating.
- ❖ Wash disinfect objects and surfaces every time before and after use.
- ❖ Keep cooked and raw foods separate, as it would prevent the harmful microbes from raw foods spreading to cooked foods.

- ❖ Use different chopping boards and utensils for cooked and raw foods to prevent cross-contamination.
- ❖ Frequently disinfect surfaces which came in contact with customers or workers such as door knobs and counters.

**CONCLUSION:**

A proper and healthy diet can ensure a robust immune system that can resist any onslaught by the virus. A certain amount of particular nutrient saturates into cells and prevents any kind of nutritional deficiency. Individuals consuming well-balanced diets appear to be safer with better immune systems and lower incidence of chronic diseases and infections. The main objective of this manuscript is to induce healthy dietary habits that help to maintain the physical and mental health of individuals.

**REFERENCES:**

1. Bogoch II, Watts A, Thomas-Bachli A, Huber C, Kraemer MU, Khan K. Pneumonia of unknown etiology in Wuhan, China: potential for international spread via commercial air travel. J Travel Med. 2020;272:1-3.
2. Aslam MF, Majeed S, Aslam S, Irfan JA. Vitamins: Key role players in boosting up immune response, A mini review. Vitam. Miner. 2017; 6:153.
3. Ksiazek TG, Erdman D, Goldsmith CS, Zaki SR, Peret T, Emery S, Tong S, et al. A novel coronavirus associated with severe acute respiratory syndrome. N Engl J Med. 2003;348(20):1953-1966.
4. Yousafzai AK, Rasheed MA, Bhutta ZA. Annual research review: Improved Nutrition—a pathway to resilience. J Child Psychol Psychiatry. 2013;54:367-377.
5. Gleeson M, Nieman DC, Pedersen BK. Exercise, nutrition and immune function. J Sports Sci. 2004;22:115-125.

## **‘POST COVID CHALLENGES’ ON PHYSICAL EDUCATION & SPORTS PARTICIPATION.**

**Dr. Karad Chandrakant**

MA, M.P.ed, PhD B.P.ed College Udgir, Dist-Latur

The rapid and inexorable worldwide spread of SARS-CoV-2—the coronavirus which causes the disease known as COVID-19—presents physical education professionals with new and unforeseen challenges related to program delivery. Campus closures due to the pandemic created an urgent need, in P-12 schools and institutions of higher education, to consider available alternatives to in-person programming. Indeed, scholastic education is largely out of touch with globalization, social media, explosion of time and space, and so on; however, in the current situation, amid the pandemic, we already see the budding of feelings of “hiraeth with regard to the school” and a refusal to take part in remote educational activities. In addition, it is an urgent demand that the state-run school provide the teachers with conditions that encourage a critical and transformative teaching style, with the support of technology. Sport is a major contributor to economic and social development. Its role is well recognized by Governments, including in the Political Declaration of the 2030 Agenda, which reflects on “the contribution sports make to the empowerment of women and of young people, individuals and communities, as well as to health, education and social inclusion objectives.”

Since its onset, the COVID-19 pandemic has spread to almost all countries of the world. Social and physical distancing measures, lockdowns of businesses, schools and overall social life, which have become commonplace to curtail the spread of the disease, have also disrupted many regular aspects of life, including sport and physical activity. This policy brief highlights the challenges COVID-19 has posed to both the sporting world and to physical activity and well-being, including for marginalized or vulnerable groups. It further provides recommendations for Governments and other stakeholders, as well as for the UN system, to support the safe reopening of sporting events, as well as to support physical activity during the pandemic and beyond. The impact of COVID-19 on sporting events and the implications for social development. To safeguard the health of athletes and others involved, most major sporting events at international, regional and national levels have been cancelled or postponed – from marathons to football tournaments, athletics championships to basketball games, handball to ice hockey, rugby, cricket, sailing, skiing, weightlifting to wrestling and more. The Olympics and Paralympics, for the first time in the history of the modern games, have been postponed, and will be held in 2021.

The global value of the sports industry is estimated at US\$756 billion annually. In the face of COVID-19, many millions of jobs are therefore at risk globally, not only for sports professionals but also for those in related retail and sporting services industries connected with leagues and events, which include travel, tourism, infrastructure, transportation, catering and media broadcasting, among others. Professional athletes are also under pressure to reschedule their training, while trying to stay fit at home, and they risk losing professional sponsors who may not support them as initially agreed.

In addition to economic repercussions, the cancellation of games also impacts many social benefits of global and regional sport events, which can cement social cohesion, contribute to the social and emotional excitement of fans, as well as their identification with athletes leading to greater

physical activity of individuals. Sport has long been considered a valuable tool for fostering communication and building bridges between communities and generations. Through sport, various social groups are able to play a more central role towards social transformation and development, particularly in divided societies. Within this context, sport is used as a tool for creating learning opportunities and accessing often marginal or at-risk populations.

Major sporting organisations have shown their solidarity with efforts to reduce the spread of the virus. For example, FIFA has teamed up with the World Health Organisation (WHO) and launched a 'Pass the message to kick out coronavirus' campaign led by well-known football players in 13 languages, calling on people to follow five key steps to stop the spread of the disease focused on hand washing, coughing etiquette, not touching one's face, physical distance and staying home if feeling unwell. Other international sport for development and peace organizations have come together to support one another in solidarity during this time, for example, through periodic online community discussions to share challenges and issues. Participants in such online dialogues have also sought to devise innovative solutions to larger social issues, for example, by identifying ways that sporting organisations can respond to problems faced by vulnerable people who normally participate in sporting programmes in low income communities but who are now unable to, given restriction to movement. The global outbreak of COVID-19 has resulted in closure of gyms, stadiums, pools, dance and fitness studios, physiotherapy centres, parks and playgrounds. Many individuals are therefore not able to actively participate in their regular individual or group sporting or physical activities outside of their homes. Under such conditions, many tend to be less physically active, have longer screen time, irregular sleep patterns as well as worse diets, resulting in weight gain and loss of physical fitness. Low-income families are especially vulnerable to negative effects of stay at home rules as they tend to have sub-standard accommodations and more confined spaces, making it difficult to engage in physical exercise. The WHO recommends 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity physical activity per week. The benefits of such periodic exercise are proven very helpful, especially in times of anxiety, crisis and fear. There are concerns therefore that, in the context of the pandemic, lack of access to regular sporting or exercise routines may result in challenges to the immune system, physical health, including by leading to the commencement of or exacerbating existing diseases that have their roots in a sedentary lifestyle. Lack of access to exercise and physical activity can also have mental health impacts, which can compound stress or anxiety that many will experience in the face of isolation from normal social life. Possible loss of family or friends from the virus and impact of the virus on one's economic wellbeing and access to nutrition will exacerbate these effects.

### **The impact of COVID-19 on sporting events**

#### **1. Sporting federations and organizations.**

Governments and intergovernmental organizations may provide sports federations, clubs and organizations around the world with guidance related to safety, health, labour and other international standards and protocols that would apply to future sport events and related safe working conditions. This would allow all stakeholders to work cooperatively as a team with the objective to address the current challenges and to facilitate future sports events that are safe and enjoyable for all.

#### **2. Professional sport ecosystem.**

The sport ecosystem, comprising of producers, broadcasters, fans, businesses, owners and players among others, need to find new and innovative solutions to mitigate the negative effects of COVID19 on the world of sport. This includes finding ways to engage with fans in order to ensure

safe sport events in the future while maintaining the workforce, creating new operating models and venue strategies.

## **The impact of COVID-19 on physical activity and well-being**

### **1. Supporting physical activity.**

Governments should work collaboratively with health and care services, schools and civil society organizations representing various social groups to support physical activity at home. Enhancing access to online resources to facilitate sport activities where available should be a key goal in order to maintain social distancing. However, low-tech and no-tech solutions must also be sought for those who currently lack access to the internet. Creating a flexible but consistent daily routine including physical exercise every day to help with stress and restlessness is advisable.

### **2. Research and policy guidance.**

The United Nations system, through its sports policy instruments and mechanisms such as the Intergovernmental Committee for Physical Education and Sport,<sup>7</sup> as well as through its research and policy guidance should support Governments and other stakeholders to ensure effective recovery and reorientation of the sports sector and, at the same time, strengthen the use of sports to achieve sustainable development and peace. Scientific research and higher education will also be indispensable pillars to inform and orient future policies.

### **3. Technical cooperation and capacity development.**

Governments, UN entities and other key stakeholders should ensure the provision of capacity development and technical cooperation services to support the development and implementation of national policies and approaches for the best use of sport to advance health and well-being, particularly in the age of COVID-19.

### **4. Outreach and awareness raising.**

Governments, the United Nations and the sporting community, including the sporting education community, should disseminate WHO and other guidance on individual and collective measures to counter the pandemic. Measures must be taken to reach communities that have limited access to the Internet and social media and that can be reached through cascading the sport education pyramid from the national/ministerial level down to the provincial/municipal level, from the national physical education inspector down to the teacher, from the national sport federation down to the clubs. In turn, escalating the pyramid provides for important feedback to identify needs and share specific solutions. Athletes, while deeply affected by the pandemic, remain key influencers to ensure that – especially young – audiences understand risks and respect guidance.

### **5. Promoting positive social attitudes and behaviour.**

Sport education is a powerful means to foster physical fitness, mental well-being, as well as social attitudes and behaviour while populations are locked down. International rights and values based sport education instruments and tools, such as the International Charter of Physical Education, Physical Activity and Sport, the Quality Physical Education Policy package and the Values Education through Sport toolkit remain highly relevant references to ensure that the many online physical activity modules that are being currently deployed comply with gender equality, non-discrimination, safety and quality standards.

In the current situation many International sports competitions have started. The major issue faced is the travelling, where teams need to be in Bio Bubble for some days. In some of the competitions audience is also not allowed.

# PSYCHOLOGICAL ASPECTS AND MOTIVATIONS FOR DOPING IN AN ADOLESCENTS AGE ATHLETES

**Abdul Ansar Abdul Sattar**

*Research Scholar, School of Educational Sciences, S.R.T.M.U. Nanded*

## **ABSTRACT:**

*This paper explains that how adolescent age is motivated easily in doping to any athlete. The adolescence brain is emotionally developed but it still does not develop the ability to think rationally. Hence the emotions of adolescents are very strong to wants immediate benefits due to this they tend to undertake risk. Since the centre of the self-control in the brain is not fully developed, they lack control on their mind and get carried away very easily. Adolescent Athletes compete with their peers and try to win at any cost. So this psychological aspects and motivations involves in doping to athletes. We can identify and support to adolescent athlete by developing self-regulation, strong moral and anti-doping stance in them.*

**KEYWORDS:** Adolescent age, Adolescent Brain and Athlete, Psychological aspects and motivations

## **What is Adolescence?**

The word adolescence has its origin from word 'Adolescere' which means 'to grow' or 'to mature'. It also means 'to achieve identity'. Adolescent is typically the period between 13-19 years. (Dr. Shirisha Sathe, Sheetal Bapat and others: Self Development and Art Appreciation)

Adolescence is almost a transitional period between childhood and adulthood which is indicated by many physical, social and emotional changes. Yet it is very important to understand that adolescents have great energy to learn and work, enhance curiosity and a dream to create a better world. Adolescence is marked by rapid changes in brain and the body. However these changes continue till the age of 24 years. Thus the adolescence brain is in 'work in progress' condition.

## **How the Adolescent brain is different?**

It is to understand the behavior traits in adolescence, it is important to understand the development of the brain. During the adolescence, the emotional brain is highly developed but the thinking brain is still developing. This imbalance, coupled with rapid physical and hormonal changes makes adolescents behave in an impulsive, therefore risky manner.

Their brain cannot always successfully predict, plan or react properly to harmful situations and hence they may fail to act responsibly.

One thing that adolescents yearn for is freedom and they think they can do everything on their own. Their brain developed emotionally not rationally. The consequences of their impulsive and risky decisions done out of the sense of freedom and entitlement can often create confusion. Adolescents may try to find escape routes which could be even more harmful, dangerous and may need help from adults.

## **ADOLESCENT AGE ATHLETES AND DOPING:**

The use of drugs in adolescent athlete is mostly Anabolic-Androgenic Steroid (AAS) in appearance of improving their performance in games. The current strategy for dealing with performance enhancing drug use by adolescents is many-sided involves educational, interdiction and

drug testing programs. However the demands for performance enhancing drugs have been created by our social fixation on winning at any cost and physical appearance.

Mostly school competitions performances are admirable. Most high school, college, amateur and professional athletes participate in sports for the opportunity to show their abilities against those of their peers, and to experience the satisfaction that comes from playing to their potential. And others participate to satisfy a fame and recognition. Unfortunately, that creates some athletes who are determined to win at any cost. And, they may use that determination to justify the use of anabolic steroid, despite evidence that these drugs can inflict several irreversible physical harm and have significant side effects.

Adolescents are especially responsive of social pressures and expectations regarding sports competition and physical appearance and tend to participate in risky behavior with possible harmful long-term effects.

Doping does not only concern top level sports but it also have an impact on sports as a whole young athletes may be influenced by its role model. (Yesalic CE, Bahrke MS - Doping among adolescent athletes)

### **How adolescent brain motivates for doping?**

A number of behavioral and psychological aspects have been related to performance enhancing drugs abuse in adolescents.

Doping amongst the adolescents from a motivational perspective and motivational variables, such as achievement good orientations and the perceived self determination of sports activities, may be related to the moral attitudes. Doping intentions and doping behavior in adolescent. (Jiri Mudrak, Pavel Slepicsa, Irena Slepickova - sports motivation and doping adolescent athletes)

Two major motivations for adolescents use performance enhancing drug (PED) because they strive for physical attractiveness, which appears to be an especially dominant motive among adolescent athletes not engaged in competitive sports, and second one is adolescent athletes use performance enhancing drug (PED) to obtain advantage and succeed in sports competition. It appears that a focus on victory and success in competition has become a dominant discourse even in youth sports, which has increased the incidence of problematic behavior such as a cheating and doping.

### **Prevention to be taken for adolescents to avoid doping.**

Promoting Positive Youth Development: Promoting youth development through and exercise is a psycho educational approach to counseling adolescence.

Athlete should develop a coping mechanism for their stress like control, relaxation, mental development and help seeking. (Johnson Pok-Him Tam and Manroy Sahni - Mental health of elite young athletes: spot and support them before it's too late)

Parents' should discuss all general, physical and psychological problems with athlete and their trainer. Parents' must have the belief on his child's to be a professional athlete. Because most of the time adolescent athletes feel that pressure of their parent's acceptations.

### **CONCLUSION:**

Adolescent age having it's advantageous and disadvantageous. It's better to understand and sports trainer how to handle his emotional and physical appearance towards sports. It can be prevent by doing in counseling, self-regulation, strong moral and anti-doping stance and resilience. Sports

trainer handles their adolescence age emotions, there are many way to increase their strength and improve appearance. So we can support them by doing all these activities before it's too late.

#### REFERENCES:

1. Jiri Mudrak, Pavel Slepicsa, and others - sports motivation and doping adolescent athletes
2. Johnson Pok-Him Tam and Manroy Sahni - Mental health of elite young athletes: spot and support them before it's too late. Retrieved On 15 January 2019
3. Andrea Petroczi and Eugene Aidman : Psychological drivers in doping: The life-cycle model of performance enhancement Retrieved On 20 January 2019
4. Justine Allen, Paul Dimeo and others: Precipitating or prohibiting factor? Examining coaches' perspectives of their role in doping and anti-doping.
5. Dr. Shirisha Sathe, Sheetal Bapat and others : Self Development and Art Appreciation : Retrieved On 22 March 2019
6. Laurie Patterson, Patrick Duffy and others : Doping prevention: Exploring coaches' experiences and opinions of their role : Carnegie Research Institute, Leeds Metropolitan University (UK) Retrieved On 22 March 2019
7. C Blank, V Leichtfried and others : Role of parents as a protective factor against adolescent athletes' doping susceptibility Retrieved On 24 March 2019



# **“A SURVEY STUDY ON POST PANDEMIC CHALLENGES WITH RESPECT TO SPORTS & GAMES PARTICIPATIONS AMONGST THE GIRLS”**

**Dr. Abhijit A. Sarnaik**

Director, Physical Education & Sports, Late Sow. Kamaltai Jamkar Mahila Mahavidyalaya, Parbhani

**Dr. Pallavi S. Deshmukh**

Assistant Professor, Department of Physical Education, Shri.Shivaji Mahavidyalaya, Parbhani

## **ABSTRACT:**

Since the Covid – 19 pandemic situation occurred the whole scenario has changed drastically through this research researcher tried to explore the real situation after the pandemic situation within city of Parbhani. Objective of The Study: The main objective of this research was to know the level of interest in Various Sports Activity and Fitness Activities of girl students after the Covid-19 Pandemic Situation. Hypothesis of the Study: The level of participation in Various Sports Activity and may decrease amongst Girl Students after the Covid 19 Pandemic Situation. Limitation of The Study: There was no control of investigator on the nourishment of the subjects. Inheritance Communal environment Financial Status. The effects of climate situations were considered as limitations. No inspiration methods were used during Study. The study is limited to these Indoor Sports disciplines: Chess, Table Tennis, Badminton and Fencing. Delimitation of the Study: The selected samples for this research were between 18 to 25 years girls. Selected sample were from Parbhani city. The research was only represent the status with respect to Parbhani city. Methodology: Population and Sampling: For this investigation the samples was selected from Parbhani city. For the purpose of investigation 40 subjects were selected through random sampling method. Research Design: The investigation plan is made up on the foundation of the Survey research characteristics. Under the investigation plan investigator collected data through unstructured interview method. Tools of the Study: For this study unstructured interview method was used. Conclusions: As per the results and outcomes of this survey the level of Interests is varying between Various Sports Activities amongst Girl Students in Parbhani City. In Chess most of girls & their Parents are scared of the Infection & not confident to send their wards to participate in the Indoor games like Chess. In Table Tennis most of girls & their Parents are scared of the Infection & not confident to send their wards to participate in the Indoor games like Table Tennis. In Badminton most of girls & their Parents are scared of the Infection but some parents are confident to send their wards to participate in the Indoor games like Badminton. In Fencing most of girls & their Parents are scared of the Infection & not confident to send their wards to participate because of unfamiliar towards Fencing.

## **INTRODUCTION:**

In the rural areas like the Parbhani District, there are so many hurdles regarding the sports participation of the younger age girls but since the Covid – 19 pandemic situation occurred the whole scenario has changed drastically through this research researcher tried to explore the real situation after the pandemic situation within city of Parbhani. We tried to reach the parents throughout the city and and asked them questions regarding their wards participation in sports during the last two years.

## **STATEMENT OF THE PROBLEM:**

The researcher was keen to know the status of the interest in Various Sports Activity of girl Students through “A Survey Study on Post Pandemic Challenges with Respect to Sports & Games Participations Amongst the Girls”, with this research problem researcher tried to reveal the level Interests in Various Sports Activity and Fitness Activities amongst girl students.

#### **OBJECTIVE OF THE STUDY:**

1. The main objective of this research was to know the level of interest in Various Sports Activity and Fitness Activities of girl students after the Covid-19 Pandemic Situation.

#### **HYPOTHESIS OF THE STUDY:**

1. The level of participation in Various Sports Activity and may decrease amongst Girl Students after the Covid 19 Pandemic Situation.

#### **LIMITATION OF THE STUDY:**

1. There was no control of investigator on the nourishment of the subjects.
2. Inheritance
3. Communal environment
4. Financial Status.
5. The effects of climate situations were considered as limitations.
6. No inspiration methods were used during Study.
7. The study is limited to these Indoor Sports disciplines: Chess, Table Tennis, Badminton and Fencing.

#### **DELIMITATION OF THE STUDY:**

1. The selected samples for this research were between 18 to 25 years girls.
2. Selected sample were from Parbhani city.
3. The research was only represent the status with respect to Parbhani city.

#### **REVIEWS & LITERATURE:**

Ashley Ying-Ying Wonga, Samuel Ka-Kin Ling et. al.(2020) used a small sample of video footage of some elite footballers were analyzed to track each players' time of close body contact and frequency of infection-risky behaviors to investigate the risk of virus transmission during football games. To investigate the physiological effect of wearing a facemask during exercise, we conducted a controlled laboratory, within-subject, repeated measures study of 23 healthy volunteers of various sporting backgrounds. They underwent graded treadmill walking at 4 km per hour for 6 min with and without wearing a surgical mask in a randomized order with sufficient resting time in between trials. The heart rate and the rate of perceived exertion (RPE) were recorded. In a 90 min match, the average duration of close contact between professional football players was 19 min and each player performed an average of 52 episodes of infection-risky behaviors. The heart rate and RPE of subjects wearing a facemask was 128 beats per minute and 12.7 respectively. In those without a facemask, the results were a heart rate of 124 beats per minute and a RPE of 10.8. This suggests that the infection risk was high for the players, even without spectators. The laboratory study to investigate the physiological effect of wearing a facemask found that it significantly elevated heart rate and perceived exertion. Those participating in exercise need to be aware that facemasks increase the physiological burden of the body, especially in those with multiple underlying comorbidities. Elite athletes, especially those training for the upcoming Olympics, need to balance and reschedule their training regime to balance the risk of deconditioning versus the risk of infection. The multiple infection-control measures imposed by the Hong Kong national team training center was highlighted

to help strike this balance. Amidst a global pandemic affecting millions; staying active is good, but staying safe is paramount.

### METHODOLOGY:

This research is based on the survey research method

- Population and Sampling: For this investigation the samples was selected from Parbhani city. For the purpose of investigation 40 subjects were selected through random sampling method.
- Research Design: The investigation plan is made up on the foundation of the Survey research characteristics. Under the investigation plan investigator collected data through unstructured interview method.
- Tools of the Study: For this study unstructured interview method was used.

### DATA ANALYSIS:

This section shows the statistical data and its analysis in the form of numerical data.

**Table 1**

**statistically demonstrate the Responses on interest in Various Sports Activity and Fitness Activities of girl students**

Sports Disciplines	Population	Extremely interested	Interested Least	Interested	Not Interested
Chess	40	2	8	10	20
Table Tennis	40	4	6	0	30
Badminton	40	12	8	1	19
Fencing	40	1	1	6	32

### CONCLUSIONS:

1. As per the results and outcomes of this survey the level of Interests is varying between Various Sports Activities amongst Girl Students in Parbhani City.
2. In Chess most of girls & their Parents are scared of the Infection & not confident to send their wards to participate in the Indoor games like Chess.
3. In Table Tennis most of girls & their Parents are scared of the Infection & not confident to send their wards to participate in the Indoor games like Table Tennis.
4. In Badminton most of girls & their Parents are scared of the Infection but some parents are confident to send their wards to participate in the Indoor games like Badminton.
5. In Fencing most of girls & their Parents are scared of the Infection & not confident to send their wards to participate because of unfamiliar towards Fencing.

### BIBLIOGRAPHY

1. Ashley Ying-Ying Wonga, Samuel Ka-Kin Ling et. al.(2020) Impact of the COVID-19 pandemic on sports and exercise, Asia-Pacific Journal of Sports Medicine, Arthroscopy, Rehabilitation and Technology Volume 22, October 2020, Pages 39-44

# IMPACT OF COVID -19 PANDEMIC ON SPORTS ACTIVITIES

**Dr. Baliram Dnyanobarao Lad**

Principal College of Physical education Kautha Nanded 431603 Dist. Nanded (Maharashtra)

## INTRODUCTION;

The novel Corona virus disease 2019 (COVID JO) seems to have a major Impact on the life of the people globally. The pandemic has forced many people around the world to self-isolate and stay at homes leaving the streets, markets, gyms, schools and many other working places empty. It seems the whole world is at rest and the earth is closed to deal, with this pandemic outbreak. In all has the possible ways. The COVID-19 pandemic outbreak affected everyone in a sudden and dramatic manner with an unprecedented impact on health and daily life.

The outbreak and spread of the novel corona virus have impacted almost every sector. Sports and entertainment sectors are worst affected as they have lost a significant amount of revenues as all their activities are halted completely. Sports, in particular, will continue to be under some stress in the coming months even after the world starts adapting to live the new normal life.

During such conditions when the whole world is following lockdown and social distancing, it is not possible to conduct sports activities. COVID-19 is not only affecting the educational institutions but also many other organizations and clubs which are the pillars for organizing and supporting such physical activities throughout the globe. It is not only affecting their financial and economic conditions but also many cases of physical and mental stress have been reported worldwide.

## EMOTIONAL RESPONSES OF ELITE ATHLETES

Sports persons are at increased risk of gaining weight and losing their physical efficiency and technical development of their respective games these days. This increases the chances of many physiological, biological, psychological changes and behaviorally aggressive responses leads to stressed easily. Sports can help individuals and society to soften the negative effects of the crisis on their lives through the involvement in sports activities that can contribute to people's health, socialization, education and general sense of well-being.

Sport has always been an activity that brought the community together and promotes social cohesion. Pandemic like COVID 19 have altered the day to day functioning of sports persons across the globe. In what seems like an instant we have gone from training and congregating wherever and whenever we want, to travel restrictions, closed borders, closed training centers, and millions of people living in self-isolation. Teams find themselves in similar circumstances of training and competition interruption wonders when the situation will improve. Timing since COVID-19 started it has affected athletes and sport organizations in various ways. There is understandable uncertainties and anxieties about when competitions will be held. How to maintain fitness and training, and whether competitive sport year,

The applied quarantine regulations and subsequent isolation have affected many elite athletes' ability to practice. Videos from many well-known athletes show that overcoming the challenges, continuing with alternative training and adaptations during the pandemic have been possible. However, a number of potential issues remain to be addressed for elite athletes, one of which being a widespread concern about mental health issues.

While some athletes will be able to build on existing resources, other athletes may experience a negative response over a period of weeks to months. While a certain level of anxiety over the corona virus is completely normal, high levels of anxiety or stress can have a devastating effect on daily life. In this regard, sport psychologists report a higher demand for online psychological counseling and diagnosis of psychological disorders among these athletes during the pandemic, including fear of being infected, anxiety of physical recovery if infected, lack of access to fitness centers, disturbed sleep, eating disorders, compulsive disorder. and family conflicts. Inability to manage stress and lack of proper coping may lead some to experience short or long term depression.

The global outbreak of COVID - 19 has resulted in closure of gyms, stadiums, pools, dance and fitness studios. Physiotherapy centers, parks and playgrounds. Many individuals are therefore not able to actively participate in their regular individual or group sporting or physical activities outside of their homes. Under such conditions. many tend to be less physically active, have longer screen time, irregular sleep patterns as well as worse diets. resulting in weight gain and loss of physical fitness.

Lack of access to exercise and physical activity can also have mental health impacts, which can compound stress or anxiety that many will experience when isolated from normal social life. Possible loss of family or friends due to the impact of virus on one's economic wellbeing and access to nutrition will exacerbate these effects.

For many athletes, the team environment is critical. Research shows that team training not only boosts Performance but lessens the mental agony of athletes. A sudden shift to sole exercise can be frustrating painful and placing significant mental strain on even the most resilient athletes.

## **POSTPONEMENT OF SPORTS EVENTS**

Corona Virus pandemic have led to the abandonment or postponement of major sporting events around the world.

In the present circumstances and based on the on provided by the WHO, the IOC president and the prime minister of Japan have concluded that the Games of the XXXII Olympiad in Tokyo must be rescheduled to a date beyond 2020 but not later than summer 2021 to safeguard the health of the athletes, officials and all the other involved in organizing the Olympic Games and the sport enthusiasts around the world.

The Indian Premier League (IPL), the richest cricket league in the world, was postponed Indefinitely by then Board of Control for Cricket In India (BCCI) in March. Now. the ICC World T20, which is scheduled in October is also likely to postpone to the next year by the International cricket Council (ICC). The suspension and postponement of sporting activities have left the fans disappointed.

## **EMOTIONS OF THE SPECTATORS / FANS**

In March 2020. sports came to a standstill as most countries restricted public gatherings and closed all non-essential industries Indefinitely to prevent the spread of corona virus. The fan's always want to follow their team and to witness live actions and to cheer their favorite players and similarly the players too love to play front of their fans. Because the spectators plays the vital role of all the level of competitions.

The absence of fans from the venue has meant great difficulty for sport broadcasters in capturing the emotional resonance of sport. Fans make a stadium come alive with their antics and

emotions. They are committed to teams, individual athletes, and stadiums in a way that gives them a social identity.

Most sports are played in front of a packed stadium. Now, with social distancing being the need of the hour, the players will not be getting the satisfaction of enthralling the full-house arena as they would be forced to play in front of empty stands. Even if the governments allow spectators, it would not be anywhere close to the full-house. The best that we expect is to see 60% of the capacity being allowed.

### **ECONOMICAL LOSS**

World-class athletes might not face financial Problems, but the cancellation of leagues and competitions that are a source of income will greatly affect many teams around the globe. While teams and coaches might try to find ways to save elite athletes first, lower-level athletes are Prone to more challenges under these conditions. Therefore, governments must consider financial support for affected , metes and teams, not only under the current situation, but also considering prevention strategies for the future. learning fling from the past economic crises caused by previous Pandemics planning, planning for the current situation, and eventual Rotate Prevention strategies would seem to require to safe guard the athletes.

Mobility restrictions and lockdown have struck the sports sector to the core. The professional sports including blurt entire spot industry and its stakeholders are bearing the brunt self employed trainers are no longer able to provide services and fallen under the radar of unemployment.

The closure of schools, universities, gyms, gymnasiums, stadiums etc has negatively affected the athletes' daily training schedule All these training centers provide essential learning atmosphere and opportunities and when these are closed athletes are deprived opportunities to promote their level of performances as well as the economical status of the trainers also affected tremendously.

In the face of COVID-19 many millions of jobs are therefore at risk globally, not only for sports professionals but also for those in related sports goods retail business and sporting services industries connected with leagues and events, which include travel, tourism, infrastructure, transportation, catering and media broadcasting etc. Professional athletes are also under pressure to reschedule their training, while trying to stay fit at home, and they risk losing professional sponsors who may not support them as initially agreed.

### **CONCLUSION :**

*"The moment you give up, is the moment you let someone else sin."*

**Winning** - whether it's in sports, business or life -is more than just what it actually sounds. One can attain success only when they work harder to elevate themselves over the others. Tied in with persistence, is the ability to consistently improve over time. Any skill worth having will take hours and hours of practice to perfect. Perhaps even more crucially, any long-term progress will require countless failures to reach success. Learning in any skill is not always linear. It would be much easier to reach expertise if it is progressed at a steady pace each day. Learning to manage the emotions that come with the pursuit of success is just as important as any other skill.

### **BOOK REFERENCES:**

1. Corsini, A., G.N. Bisciotti, C. Eirale, and P. Volpi. 2020. "Football Cannot Restart Soon during the COVID-19 Emergency! A Critical Perspective from the Italian Experience and a Call for Action." British Journal of Sports Medicine, March 24. doi:10.1136/bjsports-2020-102306. [Crossref], [PubMed], [Google Scholar]
2. Gregory, Sean. 2020. "German Soccer Fans Are Putting Cardboard Cutouts of Themselves in the Stands to Avoid Games in 'Empty' Stadiums." Time April 29. <https://time.com/5828699/soccer-cardboard-cutouts/>. [Google Scholar]
3. World Health Organization. 2020 <http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/3/mental-health-and-psychological-resilience-during-the-covid-19-pandemic> access date: 22-04-2020.
4. Frank A., Fatke B., Frank W., Forsd H., Holzle P. Depression, dependence and prices of the COVID-19- risis. Brain Behav.. Immunity. 2020 doi 10.1016/bbi.2020.04.068. (PMC free article [PubMed] [CrossRef] [Google Scholar])

# YOGA AND MEDITATION FOR HEALTH AND STRESS MANAGEMENT

**Dr. Jadhav Dharamsing Gemsing**

Director of Sports and Physical Education, Shri Renukadevi College, Mahur.

## INTRODUCTION: -

Today yoga has become very popular through-out the world it helps human being to develop his mind and intellect leading to realization of

Ultimate reality particularly in our busy world of today when man is subjected to terrific stress and strain of life yoga can undoubtedly bring peace of harmony. Hence, it has become necessary to reorient our curriculum for young people to include yoga.

Yoga improves physical and mental health. The most benefit of yoga is physical and mental therapy. The aging process which is largely an artificial condition, caused mainly by auto-intoxication or self-poisoning, can be slowed down, we can significantly reduce the catabolic process of cell deterioration of yoga asanas, pranayama and meditation.

Regular practice of asanas, pranayama and meditation can help such diverse ailments such as diabetes, blood pressure, digestive disorder, arthritis, arteriosclerosis, chronic fatigue, asthma, varicose veins and conditions. Laboratory tests have proved the Yoga's increased abilities of consciously controlling autonomic or involuntary function, such as temperatures, heart's beat and blood pressure.

## YOGA FOR STRESS RELIEF:

Yoga is most recognized form of exercise, stretching, aerobic exercise and meditation. The definition of yoga is "to yoke or join together" it integrates the mind and body focusing on balance posture, deep breathing stretching and relaxation

Yoga is an ancient art that is defined as the union of the soul with God. It is the path of personal spiritual development that utilizes meditation to bring enlightenment, self-realization and ultimately the attainment of God and bliss. Originally the ultimate goal of yoga was called samadhi, or self-realization, yoga for stress relief: -

It is a practice of controlling body and mind which originated in India a five thousand years ago. Yoga that is participated all over the world is actually called Hath yoga a component of the wholesome yogic practice which is related to exercise aimed at health and vitality. The whole concept of modern yogic practice revolves around three components.

- 1) Yogic posture or Asana
- 2) Yogic breathing or pranayama
- 3) Yogic meditation or dhyana

## Some pranayama's that help in stress management:

### ANULOMVILOM PRANAYAMA: -

It induces calmness of mind by regulating the flow of prana in the body.

The whole body is nourished with an extra supply of pure oxygen, and the carbon dioxide is more efficiently eliminated.

This pranayama purifies the whole blood system and is helpful to increase the overall health of the body.

**MEDITATION: -**

Stress and tension impact our entire being; our body, mind and spirit. However, we can overcome the effects of stress and manage them by utilizing the beneficial breathing techniques and postures that yoga provides. These techniques can not only alleviate the problems we encounter daily, but can revitalize and nourish the mind, body, and spirit over a prolonged period of time enabling all of us to have long and healthy lives.

Meditation plays a key role in making breath awareness, Om chanting and Om meditation. It helps totally to recognize the brains secretions. In this process head motion makes a pressure on the brain ducks to recirculation the spinal fluids in to the blood stream. The blockage of the blood and spinal fluid at the place of neck is re-circulated with the actions.

**CONCLUSIONS:**

With the above study it is concluded that Yoga and Meditation plays holistic role in making person stress free. It is the natural and easy way to recover various behavioral physical and mental disorders with well managed yogic practices to remain person healthy and stress free. To put it simply yoga and meditation plays crucial role in the reducing some types of stress.

**REFERENCES:**

1. Serber, E(2000). International Journal of Yoga therapy.
2. Suresh Jondhale, Baburao Ghayal, Health Education.
3. Iyenger BKS (2001). Yoga: The Path to Holistic Health. London, England: Dorling Kindersley.



# **“COMPARATIVE STUDY OF STRENGTH (S. B. J. TEST) BETWEEN URBAN AND RURAL SCHOOL STUDENTS: AGED 12 TO 14 YEARS”**

**Dr. Mahesh Vijaykumar Rajenimbalkar**

Physical Director, Lokmanya Tilak Mahavidyalay, Wadawani, Dist. Beed.

## **ABSTRACT:**

The purpose of the present study was to find out the difference in strength (S.B.J. test) between urban and rural school students: aged 12 to 14 years. The sample for the present study consists of 120 male urban and rural school students out of which 60 are urban school students and 60 are rural school students. The school students age range of 12 to 14 years. To find out the Strength the standing broad jump test were used. For this study data have been collected samples from Osmanabad District. It is Strength test (Standing Broad Jump test) selected from fitness component test. The statistical analyses used to test the data are reported as Mean, Standard Deviation, Std. Error Mean and t-Test. For the testing the hypothesis for the difference between various sample means 't' test is used at significance of 0.05 levels. In the present study we found that there is no significant difference in the strength (Standing Broad Jump test) among urban and rural students on the basis of statistical findings.

**KEYWORDS:** strength, urban school students and rural school students.

## **INTRODUCTION:**

The physical fitness has been considered an essential element of everyday life. The ancient people were mainly dependent upon their individual strength for physical survival. In many other activities, good strength is also very important as part of the overall fitness profile. Strength is the capacity of overcoming a certain or acting against it by muscular tension. An urban area is a human settlement with high population density and infrastructure of built environment. Urban areas are created through urbanization and are categorized by urban morphology as cities, towns, conurbations or suburbs. A rural area is a geographic area that is located outside towns and cities. A rural area is an open swath of land that has few homes. A rural area's population density is very low. Agriculture is the primary industry in most rural areas. Most people live or work on farms. Hamlets, villages, towns, and other small settlements are in or surrounded by rural areas. Many factors affect the urban and rural student's fitness i.e. consist of environment, lifestyle, socio economic status, living in urban and rural, cultural influences, health conditions, facilities/ports available, physical education classes, and regular participation in sport or physical training.

## **OBJECTIVES OF THE STUDY:**

1. To compare the strength (S.B.J. test) between urban and rural school students: aged 12 to 14 years.
2. To find out the strength (S.B.J. test) between urban and rural school students: aged 12 to 14 years.
3. To measure the strength (S.B.J. test) between urban and rural school students: aged 12 to 14 years.

## **HYPOTHESIS:**

1. **H<sub>1</sub>**-The research scholar hypothesizes that there will be significant difference in the strength (S.B.J. test) of urban and rural school students: aged 12 to 14 years.

2. **H<sub>2</sub>** -The research scholar hypothesizes that there will be no significant difference in the strength (S.B.J. test) of urban and rural school students: aged 12 to 14 years.

### METHODOLOGY:

The purpose of the present study is to find out the difference in Strength (S.B.J. test) between urban and rural school students. The sample for present study a total 120 students (60 male urban school students and 60 male rural school students) were selected randomly. In this study data is collected from Osmanabad district. The student's age range of 12 to 14 years.

### Variable Selected For The Study:

Sr. No.	Specific Component	Elements tested	Test Items	Measurement Unit's
1	Strength	Explosive Strength of Leg	Standing Broad jump Test	Centimeter

### STATISTICS:

The statistical analyses used to test the data are reported as Mean, Standard Deviation, Std. Error Mean and t-test. For the testing the hypothesis for the difference between various sample means 't' test is used at significance of 0.05 levels.

### ANALYSIS AND INTERPRETATION OF RESULTS:

**Table No. 1**

**Descriptive statistics of mean and Standard Deviation of Urban and Rural students on Strength (standing broad jump test) test score**

Variable	Urban School Students				Rural School Students			
	N	Mean	S.D.	Std. Error Mean	N	Mean	S.D.	Std. Error Mean
Standing Broad Jump Test	60	171.35	18.974	2.450	60	172.77	19.205	2.479

**Table No. 2**

**Independent sample 't' test of Standing Broad Jump Test**

Variable	Mean diff.	DF	"t"	Table of "t" Value	Sig. 2-tailed
Standing Broad Jump Test	-1.417	118	-.406	1.98	.685

For Table no.2 shows that the standing broad jump test there is insignificant difference between rural and urban students.

### DISCUSSION/CONCLUSION:

The mean (S.D) Score of Standing Broad Jump test between urban and rural students are 171.35 (18.974) and 172.77 (19.205) respectively. The urban students Standing Broad Jump Mean is 171.35 and rural students Standing Broad Jump mean is 172.77 the difference between urban and rural students -1.417 was found. The found significant difference at 0.05 level between table of 't' value (1.98) and 't' test (-.406) at 118 degree of freedom. Hence the H<sub>1</sub> Hypothesis rejected and H<sub>2</sub> Hypothesis accepted. In the present study we found that there is no significant difference in the strength (Standing Broad Jump test) among urban and rural students on the basis of statistical findings. In present the result also showed that the both urban students and rural students are same score of explosive Strength (S.B.J. test). Difference between the Urban and Rural Students related to strength (S.B.J. test) is insignificant.

**REFERENCE:**

1. **D.C.AAHPER (1962)** American Association of Health physical Education and Recreation, Youth fitness test Manual Wasigton.
2. **Kansal D. K. (1996)** “Test and Measurement” Delhi: D. V. S. Publication
3. **Sabzar Ahmad Lone (2021)** “A Comparative Study of Health Related Physical Fitness between Rural and Urban Students of Shopian District of Kashmir” Online International Interdisciplinary Research Journal, ISSN 2249-9598, Vol-11, Issue-01 P.211-213
4. **N. Akilan and Shah M. S. (2014)** “Comparison of Speed and Agility between Handball and Volleyball Players” International Journal of Physical Education, Fitness and Sports ISSN: 2277: 5447 | Vol.3. No.1, p.31
5. **M.Baro, R. Limbu and D.Gogoi (2014)** “A Comparative Study of Cardiovascular Endurance Between Government and Private High School Going Boys of Dbrugarh District of Assam” International Journal of Physical Education, Fitness and Sports ISSN: 2277: 5447 | Vol.3.No.3 p.1
6. **B.Ramkumar (2014)** “Comparison of Explosive Power between Male Volleyball and Basketball Players” International Journal of Physical Education, Fitness and Sports ISSN: 2277: 5447 | Vol.3. No.1 p.61
7. **G. K.Tuteja (1978)** “Comparison of physical fitness of Urban and Rural Students,” Completed Research in Health physical Education and recreation 23:182.
8. **H . Boom (1967)** “A comparison of physical Fitness Level of Urban and rural boys,” Completed Research in Health Physical Education and Recreation.

# “THE PROCESS OF STRESS MANAGEMENT AT WORK PLACE THROUGH VIPASSANA MEDITATION”

**Dr. Sanjiv K. Ekambekar**

Asst. Professor, Dept. Of Physical Education, Shri Hawgiswami College, Udgir Dist. Latur

## **ABSTRACT:**

The present research article is an endeavour to explore empirical supports for Vipassana meditation as an effective technique of stress management. Stress management refers to the wide spectrum of techniques and psychotherapies aimed at controlling a person's levels of stress, especially chronic stress, or distress as advocated by Hans Selye (1936,56), rather than positive stress which he calls eustress. Among several available practical stress management techniques, Vipassana is one of India's most ancient meditation techniques, which may help an individual to reduce stress, provide positive feelings of being in control of one's life and promote general well-being.

Though the review of literatures related to stress management and Vipassana meditation will provide empirical supports for the effectiveness of Vipassana meditation in Stress-management upto some extent, but for the generalization and empirical verification of "Vipassana meditation as an effective technique of stress management", further studies should also be conducted in Indian context.

## **INTRODUCTION:**

Stress-management refers to the wide spectrum of techniques and psychotherapies aimed at controlling a person's levels of stress, especially chronic stress, for the purpose of improving day to day functioning of life. Today the term 'stress' refers only to a stress with significant negative consequences, or distress as advocated by Hans Selye (1936, 56). rather than positive stress, which he calls eustress. Hans Selye (1956) described Stress as a non-specific (physiological) response of the body to a demand made upon it.

Most of the psychologists define stress as the physiological and psychological response to a condition that threatens or challenges the individual and requires some form of adaptation or adjustment (Wood & Wood, 1999).

Stress produces numerous symptoms which vary according to persons, situations, and severity. The process of stress management is one of the keys which help the person to achieve a happy and successful life in modern society (PaulSusic, 2013).

Stress management is normally a coping strategy which is defined as an adaptive response to stress, a response intended to eliminate, ameliorate or change the stress producing factors or intended to modify the individual's reaction to a stressful situation in a beneficial way (Newmen&Beehr 1979).

Pestonjee (1989) has stated that effective management of stress involves directing stress for productive purposes, preparing role occupants to understand the nature of stress, helping role occupants to understand their strength and usual styles and equip them to develop approach strategies of coping with stress.

Among several available practical stress management techniques, some are useful for Health practitioners and others are for Self-help, which may help an individual to reduce stress, provide positive feelings of being in control of one's life and promote general well-being.

Because people feel difficulty in managing stress, therefore, psychologists have increasingly turned their attention on meditation to prove it as an effective technique of Stress -management that can be taught through workshop.

Vipassana is one of India's most ancient meditation techniques, which may help an individual to reduce stress, provide positive feelings of being in control of one's life and promote general well-being. It is a Self-help stress management technique, which needs significant attention of researchers working in the area of stress management, today

Vipassana means to see clearly, to observe thoroughly, to investigate penetratingly in various ways, the true nature of things, precisely, as they really are, seeing beyond what is ordinarily observed, not superficial seeing, not seeing mere appearances, but going deeply into every aspect of the things under observation (UKO Lay 2005- Manual of Vipassana. meditation p-5201, thus, Vipassana means insight to see or observe the things as they really are, not as just they seem to be: It is a logical process of mental purification through self. observation and introspection. It is a non-sectarian, scientific, result-oriented technique of truth realization. The technique of Vipassana is a simple, practical way to achieve real peace of mind and to lead a happy and stress free life

### **HISTORICAL BACKGROUND —VIPASSANA MEDITATION:**

Vipassana is one of the world's most ancient meditative techniques. It was practiced 25 centuries ago by Gotama the Buddha, who said he had rediscovered a much older practice. After his enlightenment in 528 BCE, the Buddha spent the remaining 45 years of his life teaching the way out of suffering. Vipassana is the essence of what he taught. The Buddha's teaching is known by the general term Dhamma (Sanskrit: Dharma). For five centuries Vipassana helped millions of people in India, the Buddha's homeland. This era saw the matchless reign of the great Emperor Asoka (273-236 BCE) who united India and initiated a golden age of peace and prosperity. Asoka also sent ambassadors of Dhamma to all the neighboring kingdoms (including what has become Myanmar in modern times), thereby spreading both the practice and the words of the Buddha. After about 500 years the practice of Vipassana had disappeared from India. Fortunately it was maintained by a continuous chain of meditation teachers in the neighboring country of Myanmar (Burma) until the present day. In our time, Vipassana has been reintroduced to India and to people from all over the world by S. N. Goenka, a retired industrialist of Indian heritage who was born in Myanmar. He learned the technique of Vipassana from Sayagyi U Ba Khin, the renowned lay Vipassana teacher who was the first to teach westerners in English. U Ba Khin appointed him to teach Vipassana in 1969.

### **WHAT IS VIPASSANA ?**

Vipassana is a way of self-transformation through self-observation. It focuses on the deep interconnection between mind and body, which can be experienced directly by disciplined attention to the physical sensations that form the life of the body, and that continuously interconnect and condition the life of the mind. It is this observation-based, self-exploratory journey to the common root of mind and body that dissolves mental impurity, resulting in a balanced mind full of love and compassion. Scientific Law of Vipassana Meditation The scientific laws that operate one's thoughts, feelings, judgements and sensations become clear. Through direct experience, the nature of how one grows or regresses, how one produces suffering or frees oneself from suffering is understood. Life becomes characterized by increased awareness, non-delusion, self-control and peace.

### **THE TRADITION**

Since the time of Buddha, Vipassana has been handed down, to the present day, by an unbroken chain of teachers. Although Indian by descent, the current teacher in this chain, Mr. S.N. Goenka, was born and raised in Burma (Myanmar). While living there he had the good fortune to learn Vipassana from his teacher, Sayagyi U Ba Khin who was at the time a high Government official. After receiving training from his teacher for fourteen years, Mr. Goenka settled in India and began teaching Vipassana in 1969. Since then he has taught tens of thousands of people of all races and all religions in both the East and West. In 1982 he began to appoint assistant teachers to help him meet the growing demand for Vipassana courses.

### **VIPASSANA MEDITATION FOR EVERYONE**

By learning how to control the mind, we start to get rid of negative habits and develop good mental qualities instead.

#### **A) If our mind is Peaceful, We**

1. Attract respect from others
2. Don't get angry or feel afraid
3. Make good decisions
4. Don't get confused
5. Make less mistakes

#### **B) If our mind is Calm, We**

1. Become peaceful and happy
2. Are less worried and frustrated
3. Don't get stressed about work or exams
4. Can pay more attention to people you love
5. Find people will like you more

#### **c) If our mind is Concentrated, We**

1. Get less distracted by useless things
2. Find it easier to focus and learn
3. Perform better in sports and games
4. Make better music and art
5. Will be more trustworthy

### **BEGINNING WITH ANAPANA MEDITATION:**

You observe the breath coming in and going out, without allowing any other thoughts. Usually when pleasant thoughts come in the mind, we want something, and with unpleasant thoughts, there is dislike. But when we are simply observing the breath, even for a few moments, there are no negativities polluting the mind. As these moments of purity become longer, the mind gradually becomes cleaner. It is initially at the surface level, but this prepares you to later practise Vipassana meditation, which will clean down to the roots.

### **HOW CAN THE MIND BE IMPROVED?**

The mind can purify itself. A part of the mind is always observing what is happening and it can do the task of improving the mind. If it learns to observe things as they are, then it will understand that when there are negative thoughts or emotions, the mind is distressed. As this observing part of the mind becomes stronger, the reacting parts of the mind become weaker. The mind becomes more pure and the suffering is removed. How can we keep focused when the mind is full of thoughts? That is exactly why we meditate. If the mind was already able to stay focused, you would not need to meditate. The mind keeps wandering – this is its habit. All kinds of thoughts

come, mostly about the past or the future. The important thing is how soon we become aware the mind has wandered. Our job is to keep bringing the mind back to observing the breath.

### **DO WE OBSERVE WHY ONLY THE BREATH?**

Because we want to know the truth about ourselves. By meditating with only pure breath, and nothing else, we start to experience this truth. Our breath is related to our body and also to our mind. We are observing the breath, and in the process, we begin to know our mind. When thoughts come in the mind, the mind reacts to these thoughts, and the breath changes. When we get angry or upset, we notice that the breath becomes harder and faster. As the mind calms down, the breath returns to normal. As we understand the mind through observing the breath, we are able to strengthen our good qualities.

### **WHAT ARE THE QUALITIES OF A PURE MIND?**

A pure mind is full of love, goodwill and compassion for everyone. It does not generate anger, ill-will, hatred or greed. With a pure mind, our thoughts and actions are kind and helpful to ourselves and others.

### **CONCLUSION:**

If this law, if this nature, is merely accepted at the intellectual level, or devotional level, the benefit will be minimal-it may inspire you to practise. But the real benefit accrues through the actual practice. You may call yourself a Hindu, or a Muslim, or a Christian, or a Jain, or a Buddhist. You may call yourself an Indian, or a Pakistani, or a Sri Lankan, or a Burmese, or an American, or a Russian. But the moment you generate negativity in the mind, the law of nature is such that you are bound to become miserable. Nobody can save you from your misery. If you do not generate negativity in your mind, however, you will notice that you are not miserable. A mind that is free of defilements, a pure mind, is again by nature full of love, full of compassion, full of sympathetic joy and full of equanimity.

On the basis of the review of literatures, it can be concluded that the present article will be helpful for the research ers working in the area of stress management Awareness among people can be made through the learning of the technique of Vipassana meditation, so that they could be able to make their lives less stressed and healthy Empirical supports for the effectiveness of Vipassana meditation in stress management could also be drawn by arranging further researches in this area

### **REFERENCES**

1. Ahmad Safia., Ahmjad Hanon., & Sumboo S.S.(1988) Personality study of individuals regularly practicing transcendental meditation technique. Journal of Personality and Clinical Studies, 4(1), 89-92.
2. Aminabhavi Vijayalaxmi A. (1996). Effect of yogic practice on attitudes toward yoga and mental health of adults. Praachi Journal of Psycho-Cultural Dimensions, 12(2), 117-120.
3. Chandiramani, K., Verma, S. K., & Dhar, P. L. (1995). Psychological effects of Vipassana on Tihar Jail inmates. Research Report, Vipassana Research Institute.
4. Chaudhary, L. (1999). Effectiveness of Vipassana meditation as a technique of stress management and reformation among adolescent prisoners. Unpublished dissertation.
5. [www.MeditationNow.org](http://www.MeditationNow.org)

# SOCIAL AWARENESS AND YOGA

**Dr. Hanmante Chandrakala Narayanrao**

Shri Shivaji College Kandhar

Yoga possesses great power to build those values that go a long way in making a person complete. With the help of Yoga, you can tackle any tricky situations that you may face in your daily life. The biggest virtue of Yoga is that the individual is in full command of his own. He is in love with himself as well as others. He is admired by every one for his social values and positive behavior which comes from yoga.

## **DEVELOPMENT OF SOCIAL NORMS:**

We all have a wish to be good & admirable, but it is not easy at all. Sometimes we become so obstinate, demanding and imperative that it is hard to get along with the words like good or admirable. If an individual is able to fight these irritants, he can become less difficult to deal with. Yoga can be really helpful in this regard. The social effects of person's changed behavior upon colleagues, clients, superiors, inferiors, public officers and service specialists could be awesome. Thus, the universally accepted social norms of society can be developed in an individual with the help of yoga.

## **CHANGE IN PERSONALITY:**

Person becomes easier to deal with and even others want to be like him. With these positive qualities, one becomes more admired and desirable individual. When you change your attitude, others also tend to change and respond in the same vein. Yoga accelerates the sense of duty in us and also makes us responsible human beings. Hatha Yoga has such a strong power that after some weeks of practice, everyone notices a change in practitioner's attitude and behavior. In fact the practitioner fails to recognize himself as the change is so big & fast.

## **GET SPIRITUAL LIFE:**

Along with realizing his own self, Yoga helps an individual to understand the issues around him/her. Continuous yoga practice increases self-knowledge of the person. Yoga practices, including breathing and posture exercises, help in attaining and maintaining relaxation, physical and mental health. The person gains spiritual knowledge through Yoga, making his understanding vast about the nature, self and other matters related to society. He is now a more refined and clear minded individual.

## **KNOW YOURSELF:**

Person should have awareness of the processes and happenings going around him. But it is not possible, if one does not know himself/herself. Knowing your self at rest, at peace, and as a being, is a legitimate kind of knowledge, but unfortunately it is lost in the desire of fulfilling our worldly needs. The value of discovering one's own self as it is, rather than what it is going to be or should be is a kind of knowledge which is gained through yoga. Your experience of this world will become nicer and life will become easier. Thus, Yoga has the power not only to increase your physical, but also mental attributes.

## **SOCIAL VALUES:**

A mind that is accepting and focused, a mind that sets itself to a level of excellence and nothing less. How we see our self is how others will see us, whether we realize it or not. Social values are dependent on our personality. Are we have a positive person with a warm glow that



attracts good feeling or are we have a negative cold person who acts as a repellent and pushes people away? As our personal values are our foundation then our social values is our building. How deep and strong our foundations go, is how high and erect the building our place upon it. The great thing about yoga is that it keeps our spine strong and erect. We are tall and straight, we walk with purpose and pose, we are confident and clear. We are full of energy and we have that warm glow, we have control and focus. We are true to others because we are true to us.

### **THE YOGA OF LIFE:**

Most of us are accustomed to activities in the world. Everything that we do is only an activity. Whether we worship God, undertake a journey to a place of worship or visit the holy shrines all these programs come under the category of activity. Man knows nothing but activity. If we do something, it is an activity; if we do not do anything, it is also some sort of a negative activity. Now, most of us, human beings as we are and capable of thinking only in human terms, cannot escape the difficulty of assessing everything in terms of human values. When we turn to religion, when we take to spirituality, mostly we have a business attitude. What will it bring to us? Commercial thinking is so impetuous and insatiable that we cannot exercise our mind except in terms of a give-and-take bargain. Is our austerity, discipline, and prayerful conduct in religion and spirituality the price we pay for a commodity that we purchase from the shop of spirituality? Or has it any other significance?

### **SOCIAL VALUES AND YOGA:**

The social values are dependent on your personality. If your personal values are your foundation then your social values is your building. How deep and strong your foundations go, is how high And erect the building you place upon it. If you are regular performer of yoga then the great thing about yoga is that it keeps your spine strong and erect. Yoga can accelerate the sense of duty and responsibility as human biggest virtue of Yoga is that the individual is in full command of his own. T. Hath Yoga is so strong that after some weeks of practice, an individual is so lost that he/she no longer knows himself/herself and each person notices a change in his bearing and reaction.

### **THE SCIENCE AND ART OF YOGA:**

It has for millennia guided man in his search for truth. Even in his personal social life, Yoga has given him the tools and techniques with which he can find happiness, spiritual realization and social harmony. Various yogic concepts have guided man towards shaping his life and the interpersonal relationships in his social life.

- a) Vasudevakudumbakam
- b) Panchakosha
- c) ChaturvidhaPurushartha
- d) e) ChaturAshrama Panchaklesha
- f) Nishkama Karma Karmasukoushalam
- g) h) Samatvam

### **ROLE OF THE PANCHA YAMAAND PANCHANIYAMA:**

The panchayama and panchaniyama provide a strong moral and ethical foundation for our personal and social life. They guide our attitudes with regard to the right and wrong in our life and in relation to our self, our family unit and the entire social system.

#### **A) Pancha Yama:**

- ahimsa - Non-violence, satya-truthfulness, asteya - non-stealing, bramhachary
- proper, channeling of the creative impulse, aparigraha - non-coveted-ness

#### **B) PanchaNiyama**

soucha - cleanliness, santhosha-contentment, tapa - discipline, swadyaya study of one's-self, ishwarpranidhana- gratitude to the divine self (atman prasadhanam

**CONCLUSION:**

11 Yoga is an integrated way of life in which awareness and consciousness play a great part in guiding our spiritual evolution through life. It poses or huffing and puffing some pranayama or sleeping our way through ar so-called meditation. An "individualist" seeking salvation for only himself, but on the contrary is an "universalist" seeking to live life. The panchayama and panchaniyama provide a strong moral and ethical foundation for our personal and social life

The social values are dependent on your personality. Person should have an awareness of the processes and happenings going around him. Thus we can see that yoga is not just performing some contorsionistic.

**REFERENCES :**

1. Yoga and social life by Dr. AnandBalayogiBhavanani
2. Religion and social values by Swami Krishnanda
3. Chair yoga and pelvic yoga by Kimberlee Bethany Bonura
- 4.Social values and yoga by Elezabeth Andrene

# ROLE OF PHYSICAL EDUCATION PERSONAL FOR MAINTENANCE OF HEALTH & FITNESS

**Dr. D. S. BORKAR**

Associate Professor, Department Of Physical Education and Sports, Dr.Ambedkar College DeekshaBhoomi  
Nagpur-10

## HEALTH :

### THE DEFINITION OF HEALTH

The World Health Organization (WHO) defines health as a state of: “complete physical, mental and social well being, and not merely the absence of disease or infirmity”.

### WHAT MAKES US HEALTHY?

Being free from disease or injury is just one aspect of health. Our overall health can be affected by our physical fitness but also by our mental wellbeing. Exercise can boost endorphins, increase confidence and improve mental health Wellbeing can be promoted by other areas of your life, including:

- Ensuring you have a good work/life balance
- Getting enough sleep
- Having a strong network of friends and family and spending time with them
- Having someone to love and being loved
- Enjoying hobbies and pastimes
- Taking time to relax, having time to yourself
- Owning a pet
- Spending time outdoors

While we all have concerns, worries and issues that we face in daily life, what's important is how we deal with them. Our health is our most valuable wealth. A healthy person is someone free from diseases and can perform physical activities without getting tired. A person's physical fitness measures health and fitness. It can be achieved through proper nutrition and careful eating habits. Nutrition plays a vital role because we are what we eat. Health cannot be ignored because our body needs to be healthy to function correctly. Eating fruits and vegetables boosts one's health. While eating junk food hurts our health. Regular exercises can help us to build a healthy and fit body that would be resistant to diseases. Health is a very important aspect of everyone's life. Nothing is more important to a human being than health and fitness. Healthy and fit people enjoy their lives with great joy and peace. An unhealthy person cannot enjoy life to the fullest. He cannot enjoy eating, watching sports, or other luxuries of life. It has been said by our elders that **health is wealth**. To maintain good health, we must take proper care of hygiene and cleanliness around us. We have to eat healthy and complete food promptly. We should eat green and fresh vegetables, milk, fresh fruit, eggs, etc. Our body needs adequate amounts of protein, minerals, and vitamins daily to stay fit and healthy. With healthy eating and physical activities, we need to maintain hygiene in our home and surrounding areas including our hygiene. Maintenance of physical and mental fitness is very important for a person who wants to succeed in life.

**Fitness**, on the other hand, is defined as a set of attributes that people have the ability to perform physical activity. Fitness is made up of many components, and the following factors should be considered when discussing fitness levels:

### SOME CHARACTERISTICS OF FITNESS

1. **Endurance(Cardiovascular and Cardio-Respiratory):** This is body's ability to use and deliver oxygen to your body.
2. **Stamina (Muscular Endurance):** This is body's ability to store, process, and use energy.
3. **Strength:** This is the ability of our muscles or a muscular unit to apply force.
4. **Flexibility:** The ability to maximize the range of motion of a joint.
5. **Power:** The ability of your muscles to maximize their force in a minimum amount of time.
6. **Speed:** The ability to minimize the amount of time it takes you to accomplish a task or movement.
7. **Coordination:** The ability to combine several different movement patterns in a single distinct movement.
8. **Accuracy:** The ability to control a movement in a given direction or intensity.
9. **Motility:** The ability to minimize the time going from one movement to another.
10. **Balance:** The ability to control the centre of gravity of your body in relation to your support base.

### WHAT'S THE DEFINITION OF FITNESS?

Many definitions of fitness also mention health, as being fit usually does promote a healthy lifestyle. However, fitness is about meeting the needs of the environment and is personal to each individual. For example, an elite athlete would have a high level of fitness, whereas someone who has recently given birth would have different expectations of their body and fitness levels. Fitness Programmes for Older Adults is currently number nine in the Worldwide Survey of Fitness Trends for 2018, recognising the benefits this can bring to our rapidly ageing population, including those with restricted movement. Additionally, some people are naturally active in their job; not only those in the fitness industry, such as personal trainers, fitness instructors, dance teachers and athletes, but also those in careers such as fire fighting, landscape gardening, agricultural work, bike courier. Fitness involves activity of some sort that stimulates various systems of the body and maintains a certain condition within the body. Health, on the other hand, involves every system of the body and is only achieved through a lifestyle that supports health. Fitness can also support health and will improve health if it is part of a **WAY OF LIFE**. Our health is mainly the result of thousands of daily nutritional decisions.

For instance, if people tell that they have neglected to eat properly, ignored the fat content, and ate mostly processed foods, all the exercise in the world couldn't possibly correct the damage done from such a lifestyle. Exercise won't remove the damage from chemicals, or improve immune system damage or weakness from depleted foods. Only sound nutrition can support good health. Of course, you can do for your health. There are many physical activities you can do to stay fit. Understanding these fitness terms can help you make the most of your exercise routine.

### ACTIVITY COUNT

Physical activity is any body movement that works your muscles and requires more energy than resting. Walking, running, dancing, swimming, yoga, and gardening are a few examples of physical activity.

### AEROBIC EXERCISE

Aerobic exercise is activity that moves your large muscles, such as those in your arms and legs. It makes you breathe harder and your heart beat faster. Examples include running, swimming, walking, and biking.

**BASAL METABOLIC RATE**

Basal metabolic rate is the measure of the energy necessary for maintaining basic functions, such as breathing, heart rate, and digestion.

**BODY MASS INDEX**

Body Mass Index (BMI) is an estimate of your body fat. It is calculated from your height and weight. It can tell you whether you are underweight, normal, overweight, or obese.

**COOL DOWN**

Your physical activity session should end by gradually slowing down. You can also cool down by changing to a less vigorous activity, such as moving from jogging to walking. This process allows your body to relax gradually. A cool down can last 5 minutes or more.

**ENERGY BALANCE**

The balance between calories you get from eating and drinking and those you use up through physical activity and body processes like breathing, digesting food, and, in children, growing.

**ENERGY CONSUMED**

Energy is another word for calories. What you eat and drink is "energy in." What you burn through physical activity is "energy out."

**FLEXIBILITY (TRAINING)**

Flexibility training is exercise that stretches and lengthens your muscles. It can help improve your joint flexibility and keep your muscles limber. This can help prevent injuries. Some examples are yoga, tai chi, and pilates.

**HEART RATE**

Heart rate, or pulse, is how many times your heart beats in a period of time — usually a minute. The usual pulse for an adult is 60 to 100 beats per minute after resting for at least 10 minutes.

**MAXIMUM HEART RATE**

The maximum heart rate is the fastest your heart can beat.

**PERSPIRATION**

Perspiration, or sweat, is a clear, salty liquid produced by glands in your skin. It is how your body cools itself. Sweating a lot is normal when it is hot or when you exercise, feel anxious, or have a fever. It can also happen during menopause.

**RESISTANCE/STRENGTH TRAINING**

Resistance training, or strength training, is exercise that firms and tones your muscles. It can improve your bone strength, balance, and coordination. Some examples are pushups, lunges, and bicep curls using dumbbells.

**TARGET HEART RATE**

Your target heart rate is a percentage of your maximum heart rate, which is the fastest your heart can beat. It is based on your age. The activity level that is best for your health uses 50–75 percent of your maximum heart rate. This range is your target heart rate zone.

**WARM UP**

Your physical activity session should start at a slow-to-medium pace to give your body a chance to get ready for more vigorous movement. A warm up should last about 5 to 10 minutes.

**WATER INTAKE**

We all need to drink water. How much you need depends on your size, activity level, and the weather where you live. Keeping track of your water intake helps make sure that you get enough. Your intake includes fluids that you drink, and fluids you get from food.

### **WEIGHT (BODY MASS)**

Your weight is the mass or quantity of your heaviness. It is expressed by units of pounds or kilogram.

### **ROLES AND RESPONSIBILITIES OF A PHYSICAL EDUCATION PERSONAL OR TRAINER**

So, now you know exactly what a physical education personal or trainer is, let's take a look at some of the main personal trainer duties which will be expected to carry out.

#### **1. CONDUCT FITNESS ASSESSMENTS**

When taking on a new client, one of the first roles and responsibilities of a physical education personal is to carry out a fitness assessment. A fitness assessment is simply a short initial consultation with a client to help you get to know their current fitness level, their reasons for getting personal training and what they hope to get out of it.

#### **2. MONITOR CLIENT PROGRESS**

A key physical education personal trainer duty is to monitor your client's progress. There are many ways to monitor progress, from writing things down on paper to inputting data into an app. You should also always refer back to the initial fitness assessment as a way to assess the client's progress compared to when they started.

#### **3. OFFER ADVICE ON NUTRITION AND LIFESTYLE (BUT NOT MEAL PLANS)**

You can advise your client about nutrition if you feel it is relevant to their goals, but you should also be responsible and careful about the type of nutritional advice you give.

#### **4. MAINTAIN AN ONLINE PRESENCE**

In a world where the Internet rules, having an online presence is an essential part of the role of a physical education personal trainer. It is one of the most effective ways to advertise your services, create a brand identity and ultimately gain new clients! Social media is perhaps the easiest way to do this. You can set up an Instagram or Facebook account in a matter of seconds! Some good things to include on your personal training social media pages are transformation photos of clients, client reviews, videos of your sessions, fitness tips and of course, your price list and contact details.

#### **5. ACT AS A POSITIVE ROLE MODEL FOR CLIENTS**

As a physical education personal trainer, you should think of yourself as a role model for your client. Especially if they are new to fitness or struggling with motivation, they likely look to you for inspiration.

#### **6. KEEP UP TO DATE WITH THE LATEST TRENDS IN THE FITNESS INDUSTRY**

As with any job, staying up to date with the latest news, trends and developments in your industry is always beneficial- and the same goes for being a personal trainer. The fitness industry is one of the fastest growing industries, so an important role and responsibility of a physical education personal is to keep up with it all! Social media is a great way to do this, as it is full of fitness accounts, videos, and trends.

#### **7. ATTRACT AND RETAIN CLIENTS**

Most physical education personal offer the initial consultation session for free to attract clients. It is therefore important that this first session is engaging enough to keep your client interested enough to sign up for paid sessions. If you work for a gym, you may also be required to

promote the gym's membership options to your clients. This is an important personal trainer duty that you should look out for on job. As we discussed the role of physical personal to maintain the health and fitness, we can also give some focus of this maintenance by some professional jobs and careers.

### **CAREER PROSPECTS:**

#### **1. Physical Education Teacher:**

Physical education teacher will teach health education and physical education in the schools. Coaching of different games and sports is also the one duties of physical education teacher in schools. Apart from this they have the responsibility to monitoring of students, lunch, hall, attending faculty and parent-teacher conferences, and meeting organizing annual sports etc.

#### **2. Assistant Professor, Associate Professor and Professor:**

In the college or universities can be worked as Assistant Professor, Associate Professor and Professor as per qualified to teach physical education in various specialized area of subjects.

#### **3. Sports Officer, Director of Physical Education and Sports:**

In the college or universities can be worked as Sports Officer, Director of Physical Education and Sports. They are assigned to look after the various developmental aspects in the field of Physical Education and sports, organizing various sports competitions etc.

#### **4. Chiropractor :**

Chiropractors diagnose and treat patients whose health problems are associated with the muscular, nervous and skeletal system, especially the spine. They take the patient's medical history. They can specialize in sports injuries, nutrition etc.

#### **5.Exercise Therapist:**

Exercise therapist provide services that help restore function, improve mobility, relieve pain and prevent or limit permanent physical disabilities of people suffering from injuries or diseases.

#### **6.Occupational Therapist:**

Occupational therapist helps people to improve their ability to perform tasks in their daily living and working environment. They work with individuals who have conditions that are mentally, physically, developmentally or emotionally disabling. They may also known as counsellor.

#### **7.Athletic Trainer:**

Athletic trainers are one of the first health care providers when injuries occur. They are heavily involved in the rehabilitation and recognition of injuries. They often help to prevent injuries by advising on the proper use of equipment and applying protective devices. Athletic trainers works under the supervision of licensed physician and in corporation with other health care providers.

#### **8.Fitness Specialist, personal fitness trainer, fitness director:**

Fitness workers lead, instruct, and motivate individuals or groups in exercise activities, including cardiovascular exercise, strength training, and stretching. They work in commercial and nonprofits health clubs, country clubs, hospitals, universities, resorts, and clients' homes. Increasingly, fitness workers also are found in workplaces, where they organize and direct health and fitness programs for employees of all ages.

#### **9.Recreation worker:**

People spend much of their leisure time participating in a wide variety of organized recreational activities, such as arts and craft, the performing arts, camping, sports, and outdoor adventure activities. Recreation workers plan, organize, and direct these activities in local playgrounds and recreation areas, parks, community centres, religious organizations, camps, theme parks, and tourist attractions.

**10. Inspector of Physical Education in Government Dept. and Private sector.**

**11. Manager /Instructor of Health Club and Fitness centre.**

**12. Sports Commentator**

**13. Police and paramilitary officers**

**14. Officers in Indian defence service**

#### **CONCLUSION :**

In this way we discussed the importance of health and fitness for any individual. Everyone can keep him/her fit and healthy but at particular time, we feel the need of professionals or physical education personal for complete and accurate guide, and for the scientifically advice to carry out the task of exercise to become ourselves healthy and fit and this is the main role of any physical education personal to be played.

#### **REFERENCES :**

1. [www.aplustopper.com](http://www.aplustopper.com)
2. [www.health.harverd.edu](http://www.health.harverd.edu)
3. [www.helpguide.org](http://www.helpguide.org)
4. [www.frontiers.org](http://www.frontiers.org)
5. [www.medlineplus.com](http://www.medlineplus.com)
6. [www.thewisdompost.com](http://www.thewisdompost.com)
7. [www.researchgate.net](http://www.researchgate.net)
8. [www.careerindia.com](http://www.careerindia.com)
9. [www.indiaeducation.net](http://www.indiaeducation.net)
10. [www.medicine.com](http://www.medicine.com)
11. [www.healthline.com](http://www.healthline.com)
12. [www.ncbi.nlm.com](http://www.ncbi.nlm.com)
13. [www.sportsmedtoday.com](http://www.sportsmedtoday.com)
14. Textbooks: The Fitness Mindset – Brian Kene
15. The One Minute Workout – Martin Gibala
16. Complete Food And Nutrition Guide- Robert L.Duyff
17. Get Moving – Shwetambari Shetty
18. The Qualiflower Diet – Radha Thomas



# ASHTANGA YOGA FOR MAINTENANCE OF HEALTH, PHYSICAL FITNESS AND SPIRITUALISM

**Dr. Bharat Haribhau Chapke**

Director of Physical Education and Sports, S. S. Suryabhanji Pawar College, Tq. Purna, Dist. Parbhani-431401. (M.S.) INDIA.

## ABSTRACT

*‘Yoga chitta Vruti Nirodhah’ means to control the senses and the uncontrolled movements of Psycho. Concentration is a main aim here through Yoga. Concentration is a direct mode of consciousness. Yoga is designed to concentrate but this concentration is not full of selfishness. Yoga asks to concentrate on the cosmic energies. This helps one to bind with the cosmic energies easily. Yoga is considered as few postures only these days. But it is not so. Practicing postures and making body stronger and flexible is important to start with the yoga. Yoga needs a greater patience and stamina.*

## Ashtanga Yoga – Eight Limbs of Yoga

### YAMA

Yama is the attitude towards others the world around us these are the initial steps to startup with the Yoga. Yama comprises five parts

1. **Ahimsa or non violence:** This Yama does not only mean not doing harm to others in thought and in deed, but also to practice acts of kindness to their creatures and to one's own self.
2. **Satya or truthfulness:** Satya is the Yama that is about living a truthful life without doing harm to others. To practice Satya, one must think before he speaks and consider the consequence of his action. If the truth could harm others, it might be better to keep silent.
3. **Asteya or non stealing:** This Yama is not only concerned about the non-stealing of material objects but also the stealing of other's ideas and other forms of possession. Using power for selfish motives or telling someone else about confidential information that had been entrusted with is against Asteya.
4. **Bramacharya or non lust:** Bramacharya means to move toward the essential trust or to achieve self control, abstinence or moderation especially regarding to sexual activity. It is about giving in not our ego's excessive desires or taking nothing in excess.
5. **Aparigraha or non possessiveness:** This Yama is about living a life free from greed or taking only what is necessary and do not take advantage of someone or of a situation. It is about using out powers correctly and appropriately and not exploiting others.

### NIYAMA

Niyama is how one treats themselves or their attitude towards themselves. The following are the three important Niyamas:

1. **Saucha or cleanliness:** This Niyama is concerned on both the outer and inner cleanliness. The practice of pranayamas, asanas and yogic cleansing practices detoxify and cleanse the physical body are necessary to achieve inner cleanliness. The mind must also be kept clean or pure. Outer clean environment or surroundings.
2. **Santosha or contentment:** Santosha is to practice humility, modesty and finding contentment.

3. **Tapas or austerity:** This Niyama refers to keeping the body in good condition. Taps is practiced through disciplining the body. Speech and mind like eating only when hungry and maintaining a good posture.

### ASANA

As asana is a posture which is comfortably held. It is the most well known part of yoga, but it is often misunderstood as well. Asanas are not normal exercises such as calisthenics or gymnastics. Asanas are special exercises which have specific effects on the endocrine glands, joints, muscles, specific nerves and neural plexuses. Thousands of years ago sages used to observe the animals of the forest. They noticed that each animal had certain qualities and that the animals often assumed different poses. By imitating these poses they began to notice important effects on the human body. For example, the peacock is a bird with a powerful digestive system capable of digesting even a poisonous snake. The ancient scholars developed a posture for humans; this is known as Mayura Asanas, imitating that of the peacock, which strengthens the human digestive system. Other postures were also developed which exercise other organs and glands.

### PRANAYAMA

Pranayama is made by two words –Prana + Ayama - where Prana stands for the energy of life, the vital energies and Ayama tells way to master this energy. Pranayama is a procedure, with controls this energy of life. It's in all out flow in our body enables our body to do its daily activities. Entrance of this energy is from breathing organs. So these organs are exercised in such particular way that maximum energy is provided to the body when this energy is available for body, body will perform its best and diseases appeared due to lack of energy will disappear. Concentration on breathing makes the psychological stronger and aimed. When one will be a master of Prana (the life), there is no doubt he will get the happiness. This works as a basic homework to do the best of the yoga and to relieve from all pains by the yogic exercises.

### PRATYAHARA

The word “pratyahara” means “removing indriyas from material objects” Pratyahara is the stage at which an adept learns how to control the “tentacles” of consciousness that are called “indriyas” in Sanskrit. Pratyahara is derived from two Sanskrit words : prati and ahara, with ahara meaning food, or anything taken into ourselves, and prati a preposition meaning away or against, together they mean weaning away from ahara, or simply ingestion. This allows him to achieve the ability to see in subtle and the subtlest layers of multidimensional space, as well as to exit of his material body into them and to settle in them, accustoming him to their subtlety, tenderness and purity. Pratyahara is the fifth limb of Patanjali's Ashtanaga Yoga.

#### Types of Pratyahara

There are two types of Pratyahara – Indriya Pratyahara and Prana Pratyahara; these two further lead to two subsequent types of Pratyahara Krama Pratyahara and Mano Pratyahara.

**Indriya Pratyahara** implies withdrawal of senses, or sensory inputs into out physical being. Since five sense create sensory overload, indriya Pratyahara towards the collection in the mind.

**Prana Pratyahara** suggests withdrawal of Prana (vital energy of the body), as prana is what that drives the senses. To stop the dispersion of prana, we are required to control its flow and harmonize it.

**Karma Pratyahara** implies control of Action, which actually entails not just control of motor organs, but also right action of work.

### DHARMA

One starts doing mediation by concentrating on wordly object. This object may be a sound or a picture. This is the procedure which is used by maximum in the world.

The study of Dharana is the study of concentration of mind. Hence, certain preliminary preparations are necessary. We get various perceptions, through the five sensory organs. The mind usually runs behind such sensory perceptions. To stabilize the mind, attention has to be paid as to how these perceptions can be reduced. The surroundings should be pleasurable to the mind and not troublesome. There should not be any external disturbances. The general chaos, other sounds, strong breeze, different smells, extremely bright light are various disturbances that should be avoided. When these are removed, the causes, which seek the attention of the mind, get reduced. Then one should sit on a comfortable seat in a pose conducive to Dhyana such as Padmasan, Swatikasan or Siddhasan. One should have the practice of sitting firmly, yet comfortably in a particular pose for a longer duration. Otherwise, the mind will get diverted towards the signals from various mussels. The pose should be 'samkay shirogreevam' and the eyes should be fixed on the picture of OM in the front. The picture should be at the eye level and placed under sufficient light. Whenever the eyes try to avert itself beyond the picture, an effort should be made to lock it on the picture again. The mind generally follows the eyesight, so fixing of the gaze will results in locking the mind too. Start the Japa or Om with calm attitude. The way with which the sound of Om is emitted through the mouth should be gradual and effective. The vocal crods or the lungs should not should be learnt from the experts. As the tongue is engaged in the japa of Om, the mind will follow the tongue and will restrict its movement towards Om. The japa is automatically heard by the ears and as such again felt by the mind. Thus, the mind will be firmly kept onto the Om.

### **DHYANA**

Dhyana is the stage of meditation trainings that lead to Samadhi. Mediation is the work of consciousness aimed at the consciousness development along the path to perfection and to the mergence with the creator. Mediation is practiced at three stages of the Patanjali's scheme. At the dharana stage adepts among other than learn how to expand consciousness in the subtlest and the most beautiful that exists in the world of matter.

### **SAMADHI:**

According to Vyasa, a major figures in Hinduism and one of the traditional authors of the Mahabharata, yoga is Samadhi. This is generally interpreted to mean that Smadhi is a state of complete control (samadhana) over the function and distractions of consciousness. Samadhi is described in different ways such as the state of being award of one's Existence without thinking, in a stuate of undifferentiated Beingness of as an altered state of consciousness that characterized by bliss (ananda) and joy (sukha).

Laya Samadhi is a latent (laya), potential level of Samadhi. It begins in deep meditation or trance even with movement, such as dancing.

**Sarvikalpa Samadhi** refersto the initial temporary state of full valued Samadhi. The conscious mind is still active, as is the kalpa, meaning imagination.

**Nirvikalpa Samadhi** is the highest transcendent state of consciousness. In this state there is no ogner mind, duality, or subject object relationship or experiences.

### **REFERENCES:**

1. Iyenger, B. K. S. (2000). *Light on yoga*. New Delhi: Harine Collins Publication.
2. Krishnamurhi, J. (2002). *On meditation*. Chennai: The Theosophical society, 3<sup>rd</sup> edition, Adyar.
3. Sivananda, Swami. (1995). *Practice of Karma Yoga, A divine life society*, Uttar Pradesh: Posivanandnaygar Himalayas.

# **NEED OF YOGA UNDER THE EXPERT GUIDANCE OF YOGA TRAINER AT WORK PLACES AND HOME AFTER COVID-19 LOCKDOWN TO AVOID SEVERAL DISEASES.**

**Dr. Jyoti Motiram Gaikwad**

Director of Physical Education and Sports, Saraswati College Kaij

**Dr. Bacchwar Deepak**

Director of sports, Vasantrao Naik Mahavidyalaya Nanded

## **ABSTRACT.**

### **BACKGROUND:**

The COVID-19 pandemic has turned into a significant reason for pressure and tension around the world. Because of the worldwide lockdown, work, organizations and the financial environment have been seriously impacted. It has created pressure among individuals from all segments of society, particularly to laborers who have been allotted to take into account medical care administration or those compelled to get day by day fundamental things. It is broadly seen that older or those impacted by diabetes, hypertension and other cardiovascular diseases (CVDs) are inclined to COVID-19. According to a continuous overview, the underlying information shows that the previously mentioned uneasiness and stress cause sleep deprivation, and has the impressive potential to debilitate the immune system, the sole security against the infection.

**KEYWORDS:** Insomnia, anxiety, immunity, mental health, COVID-19, Yoga

### **INTRODUCTION-**

First identified in the Chinese city Wuhan in late 2019, COVID-19 has a place with the group of SARS and MERS-CoV. The quantity of contaminated individuals and consequent passings have expanded significantly because of fast popular diseases across the globe. The old and those with fundamental ailments are at an expanded danger of creating COVID-19. Ongoing reports uncover that Covids, like SARS and MERS, are fit for balancing the host safe recognition [1] and making fundamental clinical conditions and debilitate resistant frameworks making them more powerless against diseases [2, 3]. Pharmacological and non-pharmacological safe modulatory mediations, engaged to battle such microorganisms, are being found through heightened experimentation and preliminaries [6]. Since the affirmation of the COVID-19 flare-up as a pandemic by the World Health Organization (WHO), the vulnerability, stress and pre-considered feelings are being circled in web-based media, further fueling the circumstance causing apprehension, tension and stress in networks and medical care laborers the same. To control the transmission of contamination (and frenzy), a few area of interest territories have been secured. These conditions additionally raised the conditions of stress among inhabitants of the pandemic and control districts [7], either because of new circumstances of telecommuting or cutback of paid positions. Medical care laborers with a clinical and para-clinical foundation are additionally at high danger of creating mental pressure, strain, sorrow and post-awful pressure problem [8, 9] and requires rehabilitative treatment to manage the emergency. Customary Indian wellbeing practices, for example, Yoga, Siddha, Ayurveda and homeopathy have been known to forestall, treat and control a few sicknesses [10]. These practices are 5000 years of age and have been referred to in

antiquated Indian writing. Yoga is one of the broadly acknowledged and organized way of life rehearses which advances the reconciliation of the whole self. These practices are known to affect the brain research [11] and resistant framework [12]. The Common Yoga Protocol was proposed by the Indian government for International Yoga Day. This Protocol incorporates every one of the parts of Yoga practice, for example acts (Asanas), breathing strategies (Paranayama) and contemplation (Dhyana) [13]. Yoga has been displayed to apply wellbeing advancing impacts by affecting the neuro-psycho-safe limit through the improvement of mental equilibrium. Hence, the Common Yoga Protocol can be all around took on as a response to change the way of life of each age bunch and to give mental and actual medical advantages during the pandemic episode. Consequently, we advocate the act of the Common Yoga Protocol for hazard decrease of COVID-19, as it could be helpful for the improvement of insusceptibility and to com-bat uneasiness, glucose, hypertension and stress instigated by the pandemic.

#### **OBJECTIVE:**

This review centers around the need of Yoga practice under the expert guidance of Yoga Trainer at work places and at home during the worldwide lockdown because of the COVID-19 pandemic.

#### **METHODS:**

Literature was scanned utilizing PubMed and Google Scholar for COVID-19-related pressure and nervousness at work and society because of the overall lockdown. The inclining comorbidities, viral system of activity and treatment routine were additionally looked. Yoga-based intercession studies and online projects were additionally looked

#### **Pre-existing health conditions increase the mortality rate of COVID-19infection**

Covids have been seen as essential wellsprings of respiratory and gastrointestinal contaminations which embrace flu, respiratory syncytial infection and pneumonias a trigger to cardiovascular diseases (CVDs) [16]. CVD as connected to comorbidities raises the frequency and seriousness of irresistible infections like COVID-19 [17]. The information that has been given here demonstrates the previously mentioned dispute: A review, which revealed the mortality because of COVID-19 and cardiovascular injury, incorporates 416 hospitalized patients of which 57 kicked the bucket. Among them, 10.6% of the patients had a coronary illness, 4.1% experienced cardiovascular breakdown, 5.3% had cerebrovascular infections and basically 20% had heart injury [18]. One more review detailed 187 COVID-19 patients, out of which 43 passed on. 35% of the tainted patients had cardiovascular illnesses (hypertension, coronary illness, or cardiomyopathy) (13). Another study comprised of 44,672 affirmed cases, out of which 1023 (2.3%) kicked the bucket, and out of the complete passings, 10.5% had basic cardiovascular illnesses with COVID-19 side effects [19]. Diabetic patients have an equivalent danger of capitulating to COVID-19 contamination, particularly in nations like India with high prevalence of diabetic populace which inclines them to high danger of COVID-19 and its related complications [20], presenting difficulties for expenses of medical services. Since a rich way of life further builds the danger of sicknesses like COVID-19 [21], diabetes [22] and hypertension, a practical non-pharmacological mediation, for example, Yoga can adequately diminish the danger of CVDs which therefore expands the danger of COVID-19 and related confusions. Yoga can diminish the danger of cardiovascular illnesses and COVID-19 by adjusting weight [23], lipid profile [24], pulse [25] and stress .

**Anxiety and stress due to the COVID-19 pandemic**

There is a widespread uneasiness because of the current COVID-19 pandemic. This saturates through all areas of society. Some oppressed segments of the general public, particularly traveler laborers, are more inclined to the current conditions, in view of its significant effect on their day by day wage work arrangement [18]. Then again, there is a part of society which has seen expanded instances of aggressive behavior at home because of the lockdown [19]. Likewise, a deficiency of defensive cog wheels to deal with COVID-19 patients creates a feeling of dread among bleeding edge laborers which makes them powerless to stress and uneasiness [13]. As working environments have been shut and organizations have been impacted because of a cross country lockdown, the overall uneasiness and stress applies a critical effect on physiological changes in people [14]. These physiological change actions make them more helpless against viral contaminations [15]. It is generally acknowledged that pressure, sleep deprivation and tension can prompt a diminishing in melatonin levels (a characteristic cancer prevention agent) in the human body [16]. Different investigations have exhibited that the melatonin level abatements with age [18]. Accordingly, the old show up more inclined to the COVID-19 infection. Accordingly, expanded melatonin levels may to some degree make up for the age-related danger of COVID-19 contamination. Further, it is appropriate to bring up that the current lockdown has additionally antagonistically impacted the day by day timetable and rest cycle [19], in this manner influencing the circadian beat with a course on the insusceptible framework [20]. This features the significance of self - administrative brain body mediations, for example, an organized every day timetable and Yoga practice

**Current therapies for prevention and treatment of the COVID-19 pandemic**

Currently, various vaccines and drugs are in the clinical trial phase for the prevention and treatment of COVID-19. For example, the drugs hydroxychloroquine (HCQ) [11], remdesivir [12], rotonavir-lopinavir [13] and convalescent plasma therapy are undergoing clinical trials. So far none of these drugs have been proclaimed a final call for the COVID-19 infection. Therefore, high quality multi – centric and omized trials with larger sample sizes are required to evaluate the efficacy of prospective drugs. The aforementioned alternative therapies which can enhance the immunity and prevent the infection are imperative. An interdisciplinary task force under the supervision of Health Ministry AYUSH (Ministry of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy) and Indian Council of Medical Research is planning to conduct an HCQ versus *Ashwagandha* clinical trial to understand the comparative effectiveness of prophylaxis in healthcare workers [44]. Since the lockdown eventually has to be relaxed and the workplaces have to be fully operational with social distancing norms, a good immune system based on cost effective non-pharmacological intervention seems to be a more attractive choice to combat infection.

**Yoga enhances the immune system and psychological development of human beings**

Yoga is generally acknowledged as a likely routine to address passionate, physical and mental characteristics. The model referred to above has exhibited that it assuages the psychological pressure [45] and improves resistance to an illness and can likewise be useful in the current pandemic [46]. Yoga keeps an equilibrium in the autonomic sensory system through upgrading the parasympathetic action and bringing down the thoughtful action else it can bring about a condition of melancholy and stress. The act of Yoga likewise upgrades GABA, the inhibitory synapse framework to some degree by means of the incitement of the vagus nerve [47]. The pressure chemicals (like cortisol) which compromise the resistant framework [48, 49], can be adjusted through Yoga practice due to its consideration of slow breathing practice which further develops the lung limit and respiratory wellbeing for ideal execution and health

[50]. Furthermore, it has been shown that Yoga helps with further developing the blood course to supply the oxygenated blood to numerous organs for smooth ideal capacity [51]. Recent research on medical care experts has shown a huge improvement in close to home achievement, misery, nervousness, stress, seen versatility and sympathy by training of Yoga [52]. Examination on Yoga methods has delivered some fascinating discoveries about their critical job in lessening the degrees of fiery cytokines. This incorporates IL-1, IL 6 and TNF  $\alpha$  which involves hazard decrease for illnesses with fiery part [12]. In spite of innovative work exercises in Yoga, it has not been authoritatively acknowledged as a general wellbeing mediation system in the working environment. Since the working environments and emergency clinics are loaded with consistent tension, stress and dread of contamination and a confined admittance to parks, rec centers and swimming, an in-house Yoga practice gives a solution for an inert way of life and work from home during the current COVID-19 pandemic.

**Table 1- Yoga Schedule under the guidance of Yoga Experts at home during lockdown:**

Asanas	Protocol	Duration
Prayer	To enhance the benefits of practice	2 minutes
Loosening practices	<b>Increases microcirculation :</b>	5 Minutes
	Neck bending	
	Trunk movement (Katishaktivikasak)	
	Knee movement	
Yogasanas (1 minute per Asana)	<b>Standing postures :</b>	15 Minutes
	Tadasana (Palm tree pose)	
	Vkrsasana (Tree posture)	
	Padahastasana (The hands and feet posture)	
	Ardhacakasana (The half wheel posture)	
	Trikonasana (The triangle posture)	
	<b>Sitting postures :</b>	
	Bhadrasana (The firm auspicious posture)	
	Ardhastrasana (The half camel posture)	
	Sasankasana (The hare posture)	
	<b>Ardhastrasana</b>	
	Vakrasana (The spinal twist posture)	
	<b>Prone postures</b>	
	Bhujangasana (The cobra posture)	
	Salabhasana (The locust posture)	
	Makarasana (The crocodile posture)	
	<b>Supine postures</b>	
	Setubandhasana (The bridge posture)	
	<b>Uttanapadasna</b>	
	Ardhahalasana (Half plough posture)	
	Pavanamuktasana (The wind releasing posture)	
	Savasana (The dead body posture)	
Kapalbhati	Forceful exhalation by contracting the abdominal muscles	2 minutes
Pranayama (2 minutes each)	Nadishodhana or Anulomvilom (Alternate nostril breathing)	8 Minutes
	<b>Satali Pranayama</b>	

	Bhramari Pranayama	
	Dhyan in Shambavi Mudra	
Meditation	For stress-free deep relaxation and silencing of the mind.	12 Minutes
Sankalpa	Commitment to be a healthy, happy, peaceful and joyful human being	1 Minutes
Shanti Path	Prayer for happiness, health and peace for all.	1 Minutes

### Yoga protocols to cope with the stressful situation

Different internet based stages, for instance Yoga Scholars PGIMER on Facebook, are giving uninterrupted live meetings which center around an interface among public and medical services laborers. These sessions include specialists from Yoga, science and otherworldly fields to advance the way of thinking of Yoga practice and to give exhibitions of Yoga rehearses, apparently supportive in tension and stress the executives. These web-based stages have been embraced by the Ministry of AYUSH (@Ministry of AYUSH, Government of India). In this unique circumstance, note that Nagarathna et al. have as of late proposed an age-explicit Yoga convention which hypothesizes the restorative impact of Yoga in COVID-19 prevention and the board [13]. They led a review utilizing an eight pronged Yoga breathing strategy which comprises of extremely basic neck muscle unwinding developments and Asana with breathing strategies, including transformation to a seat. There was a significant improvement in the pinnacle expiratory stream rate by >20% inside 30 minutes of the training, and the patients created certainty and decreased frenzy and uneasiness [14]. These modules are accessible on <http://svyasa.edu.in> and have been created with the assistance of specialists in Yoga procedures. A clinical report on these conventions shows interest and recuperation among hospitalized COVID-19 patients in different nations, conveyed as a different distribution [14]. Some Yoga rehearses which are a piece of the Com-mon Yoga Protocol [13] have been depicted to effectively diminish pressure and nervousness levels, and have introduced different advantages too. These practices include: Anulom Vilom Pranayama (substitute nostril breathing), Bhramhari Pranayama and meditation. Practices like Kapalabhati (strong exhalation by getting the muscular strength) have been seen as valuable to sanitize the front facing air sinuses and furthermore help to defeat hack problems which keeps up with the soundness of respiratory plot and lifts insusceptibility. Alongside the previously mentioned Yoga practices, certain Asanas, whenever rehearsed under management, have likewise been displayed to mitigate pressure. This incorporates Sasankasana (rabbit act), Bhujangasana (cobra act), Makrasana (crocodile stance) and Setubandhasana (span act). The vast majority of these constitute a piece of the Common Yoga Protocol rehearsed on International Yoga Day. The act of a portion of these conventions at working environments/workplaces can empower hazard decrease for COVID-19.

### RESULTS:

As the lockdown can't keep going forever and work environments should be useful soon, there is an expanded chance of intermittent contamination. Along these lines, Yoga can give the vital instrument to hazard decrease, improvement of stress and uneasiness and reinforcing of the safe capacity. The internet-based stages give a decent media to Yoga preparing at work places and homes.

### CONCLUSION:

Due to social separating standards, the accessibility of Yoga trainers has become confined. Yoga practice is effectively tried to accomplish diminished nervousness and stress so that further developed rest may emphatically affect resistance. As an outcome, there is a spray in web-based



media, obliging day by day online Yoga meetings which obviously demonstrate helpful in giving available means to accomplish mental just as actual prosperity.

The COVID-19 pandemic has brought about a worldwide closure with individuals turning out to be more helpless against new mental, passionate and actual difficulties as they have been confined to telecommute. The fuel of existing comorbid conditions and further decay in psychological well-being can be tended to by telecommute adjusted Yoga strategies (for example 5 min Y break AYUSH Protocol) by use of online entries and novel Yoga modules. brief Common Yoga Protocol rehearsed on International Day of Yoga is suggested for this. Keeping up with wellbeing due the inaccessibility of medications and antibodies to battle COVID-19 is pivotal. In light of the dog lease proof, Yoga practice can diminish the dangers of comorbid conditions and reinforce the resistant framework by soothing pressure and tension or straightforwardly working on invulnerable markers or both. Yoga can be utilized at home and work environments the same.

## REFERENCES

- [1] Vellingiri B, Jayaramayya K, Iyer M, NarayanasamyA, GovindasamyV, Giridharan B, Ganesan S, VenugopalA, Venkatesan D, Ganesan H, Rajagopalan K. COVID-19: A promising cure for the global panic. *Science of the Total Environment*.2020;138277.
- [2] GuanWJ,LiangWH,ZhaoY,LiangHR,ChenZS,LiYM, Liu XQ, Chen RC, Tang CL, Wang T, Ou CQ. Comorbidity and its impact on 1590 patients with Covid-19 in China:ANationwideAnalysis.*EuropeanRespiratoryJournal*.2020;55(5).
- [3] Toniato E, Ross R, Kritas S. How to reduce the likelihood of coronavirus-19 (CoV-19 or SARS-CoV-2) infection and lung inflammation mediated by IL-1.2020.
- [4] Sanders JM, Monogue ML, Jodlowski TZ, Cutrell JB. Pharmacologic treatments for coronavirus disease 2019 (COVID-19): A review. *Jama*.2020;323(18):1824-36.
- [5] Jayawardena R, SooriyaarachchiP, Chourdakis M, Jee- wandara C, RanasingheP. Enhancing immunity in viral infections, with special emphasis on COVID-19: Areview. *Diabetes & Metabolic Syndrome: Clinical Research &Reviews*. 2020 Apr16.
- [6] Baden LR, Rubin EJ. Covid-19—the search for effective therapy. 2020, Mass MedicalSoc.
- [7] Zhang Y, Ma ZF. Impact of the COVID-19 pandemic on mental health and quality of life among local residents in LiaoningProvince,China:Across-sectionalstudy.*InternationaljournalofEnvironmentalResearchandPublicHealth*. 2020;17(7):2381.
- [8] TanBY,ChewNW, LeeGK, JingM, GohY, YeoLL, Zhang K, ChinHK, AhmadA, KhanFA, ShanmugamGN. Psychological impact of the COVID-19 pandemic on health care workersinSingapore.*AnnalsofInternalMedicine*.2020.
- [9] LaiJ, MaS, WangY, CaiZ, HuJ, WeiN, WuJ, DuH, ChenT, LiR, TanH. Factorsassociatedwithmentalhealthoutcomes among health care workers exposed to coronavirus disease 2019. *JAMA network open*.2020;3(3):e203976.
- [10] Choudhary A, Pathak A, ManickamP, PurohitM, Rajasekhar TD, DhobleP, Sharma A, Suliya J, Apsingekar D, PatilV, Jaiswal A. Effect of Yoga versus Light Exer- cise to Improve Well-Being and Promote Healthy Aging among Older Adults in Central India: A Study Protocolfor a Randomized Controlled Trial. *Geriatrics*.2019;4(4):64
- [11] La Torre G, Raffone A, Peruzzo M, Calabrese L, Coc- chiara RA, D'EgidioV, LeggieriPF, Dorelli B, ZaffinaS, MannocciA. YogaandMindfulnessasaToolforInfluenc- ing Affectivity, Anxiety, Mental Health, and Stress among HealthcareWorkers:ResultsofaSingle-ArmClinicalTrial. *Journal of Clinical Medicine*.2020;9(4):1037.
- [12] FalkenbergR, EisingC, PetersM. Yogaandimmunesystem functioning:Asystematicreviewofrandomizedcontrolled trials.*JournalofBehavioralMedicine*.2018;41(4):467-482.
- [13] Ministry of AYUSH, I., Common Yoga Protocol.2014.
- [14] Zhu H, Rhee JW, Cheng P, WalianyS, Chang A, Witte- les RM, Maecker H, Davis MM, Nguyen PK, Wu SM. Cardiovascular complications in patients with COVID-19: Consequencesofviraltotoxicitiesandhostimmuneresponse. *Current Cardiology Reports*.2020;22:1-9.
- [15] Shereen MA, Khan S, Kazmi A, Bashir N, Siddique R. COVID-19infection:Origin,transmission,andcharacteris- ticsofhumancoronaviruses.*JournalofAdvancedResearch*. 2020 Mar16.
- [16] Madjid M, Miller CC, ZarubaevVV, Marinich IG, KiselevOI, LobzinYV, Filippov AE, Casscells III SW. Influenza epidemics and acute respiratory disease activity are asso- ciated with a surge in autopsy-confirmed coronary heart disease death: Results from 8 years of autopsies in 34 892 subjects. *European Heart Journal*.2007;28(10):1205-10.
- [17] DhainautJF, Claessens YE, Janes J, Nelson DR. Under- lying disorders and their impact on the host response to infection. *Clinical Infectious Diseases*. 2005;41(Supple- ment7):S481-9.

- [18] Wu Z, McGoogan JM. Characteristics of and important lessons from the coronavirus disease 2019 (COVID-19) outbreak in China: Summary of a report of 72 314 cases from the Chinese Center for Disease Control and Prevention. *Jama*. 2020;323(13):1239-42.
- [19] Gautret P, Lagier JC, Parola P, Meddeb L, Mailhe M, Doudier B, Courjon J, Giordanengo V, Vieira VE, Dupont HT, Honore S. Hydroxychloroquine and azithromycin ´ as a treatment of COVID-19: Results of an open-label non-randomized clinical trial. *International Journal of Antimicrobial Agents*. 2020:105949
- [20] Tillu G, Chaturvedi S, Chopra A, Patwardhan B. Public health approach of Ayurveda and Yoga for COVID-19 prophylaxis. *The Journal of Alternative and Complementary Medicine*. 2020;26(5):360-4
- [21] Shree N, Bhonde RR. Can yoga therapy stimulate stem cell trafficking from bone marrow? *Journal of Ayurveda and Integrative Medicine*. 2016;7(3):181-4

# **EFFECT OF YOGA TRAINING PROGRAMME ON BMI & SIT –UPS OF SCHOOL STUDENTS OF NANDED DISTRICT**

**Dr. Kengale B. D.**

Assistant Professor, School of Educational, S.R.T.M. University Nanded.

**Mr. Jotiba Nivrutti Hurdukhe**

Ph.D Scholar, School of Education, S.R.T.M. University Nanded .

## **ABSTRACT**

The finding are compiled by the researcher and provide conclusions and recommendation “Effect of Yoga training programme on selected Elements of Physical Fitness of school student of Nanded District” the research presented was selected by the researcher at the Kedarnath government owned Ashram School in Hadgaon Taluka of Nanded District and all selected student 30 and sampling to 12 and 14 age selected student for this purpose the researcher had fixed the research tools as follows; Physical Fitness test and Yogic seats were taken .

In this the researcher had prepared a Yoga training program. Some of these were taken by the selected Yogas as follows; vijrasana , bhujangasan, halasan, dhanurasan, varstanna, vrishnasana, trichomaasan, padtasaasan, utsavayan, natarajas an Anulom Vilom Pranayam ,Kapalbhati ,Pranayam Parvatsana Shavasan planned a 12 weeks programmer .

Preliminary preparation in 1 to 4 for 10 minutes a week 40 minutes Yogic exercise type, 10 minutes relaxation, 40 minutes yogic exercise type ,15 minutes to 5 to 8 weeks preliminary preparation 9 to 12 week 15 minutes relaxation and 15 minutes its physical strength pre-and post-test was taken

The Sit-ups was fixed This value 0.05 is meaningful when Pre-test and answer testes are conducted on the Physical of Students Differences these factors have been found is the sit-ups of Physical Fitness.

In this, then result of Yoga training is that the individual thinks about health.

## **INTRODUCTION:**

The word yoga is derived from the Sanskrit language yaz. These can be tied together or Co-ordinate combining or focusing your attention on something. That is, this metal has different meaning to use. They also mean cohesion and unity.

In recent times many scientific practitioners and researchers Of Yoga have received scientific meeting. With modern science, the daily life of humans has become mechanical and dynamic. All of this has an impact on human Life and the stress is getting to the beholder so and the publicity is gaining momentum so there is need for Yoga.

In the twenty First Century, eating habits and Stresses led to unhealthy eating disorders while we were living the traditional way of life. that is why Yoga is needed.

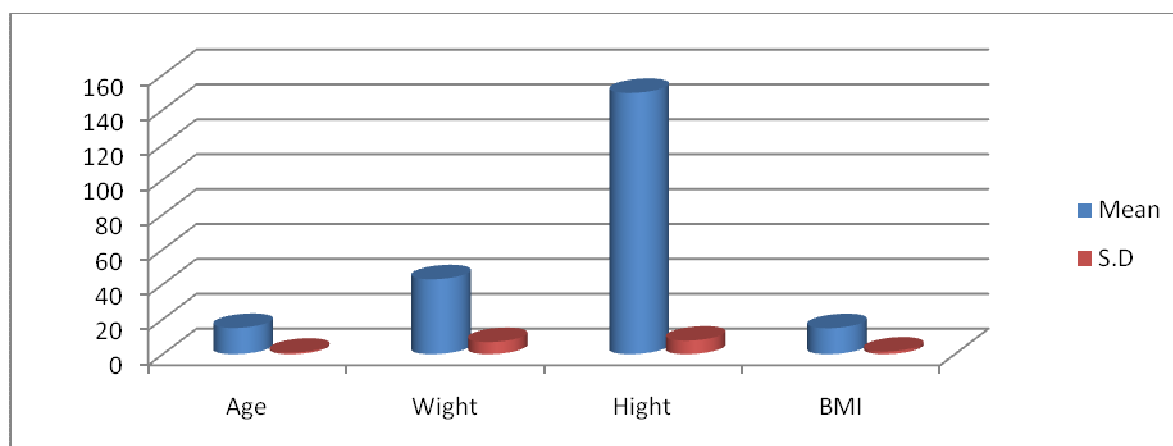
The main objective of the study to measure Effect of Yoga Training Programme on Mental Health & BMI of School Students of Nanded District.

### TABLE SHOWING THE MEAN AND STANDARD DEVIATION OF AGE AND HEIGHT OF SCHOOL STUDENTS

TABLE NO.01

School Student	Unit	Mean	S.D
	Age	15.06	0.86
	Wight	42.93	6.98
	Hight	149.8	7.78
	BMI	14.93	1.53

The average age of this element is the same as that of the students in the government ashram School 15.06 and Standard Deviation 0.86 were found .the median of the weight factors 42.93 and Standard Deviation 6.98 were found.



### COMPARATIVE ANALYSIS OF STI UPS OF SCHOOL STUDENT'S

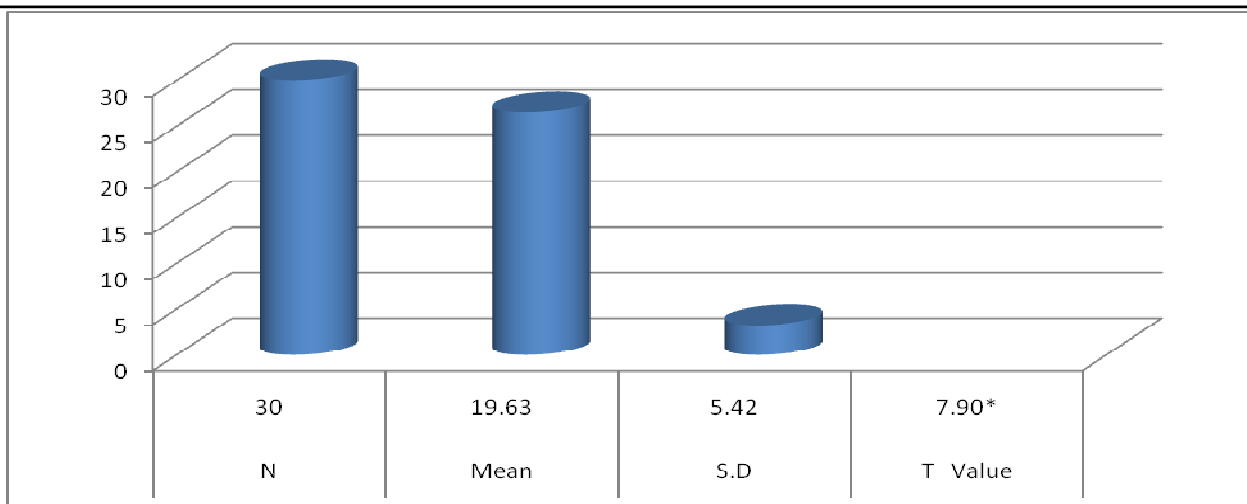
Table No. 2

Sit-ups	Test	N	Mean	S.D	T Value
	Pre-Test	30	19.63	5.42	7.90*
	Post Test	30	26.5	3.22	

Table No: 2 it can be seen from the comparison that the median Standard Deviation of this faction and the t-test result were analyzed by the Sit-ups of Physical Reinforcement of School Student. The median of Pre test School Student's 19.63 and Standard Deviation 5.42

That's it also the median of the answer test is 26.5 and Standard Deviation 3.22 the t-test Value of 7.90 it has come to

This t- Value 0.05 is meaningful at the level of significance general chart lounge Differences in this factor have been found in the Sit-ups of Physical Fitness the result of yoga training is shown in answer test.

**CONCLUSION :**

1. There is no effect of Yogic Training Programme of BMI of school level Students of Nanded.
2. There is Positive effect of Yogic Training Programme of BMI of school level Students of Nanded.

**REFERENCES :**

1. [https://scholar.google.co.in/scholar?q=yogik+program+effect+on+physiology+factors+and+psychological+factors+and+physical+fitness&hl=en&as\\_sdt=0&as\\_vis=1&oi=scholart](https://scholar.google.co.in/scholar?q=yogik+program+effect+on+physiology+factors+and+psychological+factors+and+physical+fitness&hl=en&as_sdt=0&as_vis=1&oi=scholart)
2. <https://www.ncbi.nlm.nih.gov/pubmed/19272856>
3. Physical Education and Sports, 10 th class Handbook
4. Yoga Guru Sunil Singh- 2018 Yoga into Healthy Life Style ISBN:81-288-1839-2H

# YOGA AND MEDITATION FOR HEALTH AND STRESS MANAGEMENT

**Dr. Jadhav Dharamsing Gemsing**

Director of Sports and Physical Education, Shri Renukadevi College, Mahur.

## INTRODUCTION: -

Today yoga has become very popular through-out the world it helps human being to develop his mind and intellect leading to realization of Ultimate reality particularly in our busy world of today when man is subjected to terrific stress and strain of life yoga can undoubtedly bring peace of harmony. Hence, it has become necessary to reorient our curriculum for young people to include yoga. Yoga improves physical and mental health. The most benefit of yoga is physical and mental therapy. The aging process which is largely an artificial condition, caused mainly by auto-intoxication or self-poisoning, can be slowed down, we can significantly reduce the catabolic process of cell deterioration of yoga asanas, pranayama and meditation.

Regular practice of asanas, pranayama and meditation can help such diverse ailments such as diabetes, blood pressure, digestive disorder, arthritis, arteriosclerosis, chronic fatigue, asthma, varicose veins and conditions. Laboratory tests have proved the Yoga's increased abilities of consciously controlling autonomic or involuntary function, such as temperatures, heart's beat and blood pressure.

## YOGA FOR STRESS RELIEF:

Yoga is most recognized form of exercise, stretching, aerobic exercise and meditation. The definition of yoga is 'to yoke or join together' it integrates the mind and body focusing on balance posture, deep breathing stretching and relaxation. Yoga is an ancient art that is defined as the union of the soul with God. It is the path of personal spiritual development that utilizes meditation to bring enlightenment, self-realization and ultimately the attainment of God and bliss. Originally the ultimate goal of yoga was called samadhi, or self-realization. Yoga for stress relief: -

It is a practice of controlling body and mind which originated in India a five thousand years ago. Yoga that is practiced all over the world is actually called Hath yoga a component of the wholesome yogic practice which is related to exercise aimed at health and vitality. The whole concept of modern yogic practice revolves around three components.

- 4) Yogic posture or Asana
- 5) Yogic breathing or pranayama
- 6) Yogic meditation or dhyana

## SOME PRANAYAMA'S THAT HELP IN STRESS MANAGEMENT:

### ANULOMVILOM PRANAYAMA: -

It induces calmness of mind by regulating the flow of prana in the body.

The whole body is nourished with an extra supply of pure oxygen, and the carbon dioxide is more efficiently eliminated.

This pranayama purifies the whole blood system and is helpful to increase the overall health of the body.

## MEDITATION:

Stress and tension impact our entire being; our body, mind and spirit. However, we can overcome the effects of stress and manage them by utilizing the beneficial breathing techniques and postures that yoga provides. These techniques can not only alleviate the problems we encounter daily, but can revitalize and nourish the mind, body, and spirit over a prolonged period of time enabling all of us to have long and healthy lives.

Meditation plays a key role in making breath awareness, Om chanting and Om meditation. It helps totally to recognize the brain's secretions. In this process head motion makes a pressure on the brain ducts to recirculate the spinal fluids in to the blood stream. The blockage of the blood and spinal fluid at the place of neck is re-circulated with the actions.

### **CONCLUSIONS:**

With the above study it is concluded that Yoga and Meditation plays holistic role in making person stress free. It is the natural and easy way to recover various behavioral physical and mental disorders with well managed yogic practices to remain person healthy and stress free. To put it simply yoga and meditation plays crucial role in the reducing some types of stress.

### **REFERENCES:**

1. Serber, E(2000). International Journal of Yoga therapy.
2. Suresh Jondhale, Baburao Ghayal, Health Education.
3. Iyenger BKS (2001). Yoga: The Path to Holistic Health. London, England: Dorling Kindersley.

# ROLE OF PHYSICAL EDUCATION FOR ACHIEVING QUALITY OF LIFE

**Hemant Trimabakrao Shinde**

Director of Physical Education and Sports

Toshniwal Arts, Commerce and Science College, Tq. Sengaon. Dist. Hingoli (M.S.) INDIA.

## ABSTRACT

Physical education starts from very birth of a child. The very moment it comes into being, it begins to cry and move its limbs. Thus is necessary for its very survival. The parents are its first physical instructors. It is they who instructs it how to work, run, jump or leap. In older times, it were they who first taught it how to climb a tree, use bow and arrow, a spear or swim or catch a fish. These were its main physical activities. In olden days, body was considered a distinct entity separate from mind, intellect and spirit. So physical education was only concerned with physical strength, strengthening of muscles and bones and various parts of the body and acquiring somebody skills. Further, it was concerned with acquiring certain arts which were concerned with his survival. It is clearly understood that physical education is not only a physical activity but a process for development of man as a whole. It is not only acquisition of some technical skills but must take into account other aspects which are also important though physical activity is its main role. It develops courage to stand against odds and to face life squarely. It moulds man's personal and group relationship. It is intimately connected with mind. It shows that peace of mind or spiritual developments are very much concerned with physical education. It is now very much connected with biological, sociological, psychological, philosophical, economics, political and cultural aspects of life.

**KEYWORDS:** Physical education, concept, sports, aims, objectives, purpose and quality of life.

## INTRODUCTION:

In the present day society, greatest importance is attached to mental skills or achievements. Physical education is, therefore, likely to be neglected. If there is no mental growth, physical education would turn out to be brute force and very harmful for the human society. However, it cannot be forgotten that vigour and vitality of a nation depends upon physical capability and strength.

2 Man consists of three basic factors – physical, mental and spiritual. If these are considered to be separate entities having no relationship with one another, then naturally development of the body has nothing to do with the other two. In that case it is not necessary to think of physical education having any effect on emotions, ideas, thoughts and feelings.

It is now recognized that sound mind exists in a sound body. If a man does not keep good health, he cannot be mentally alert. His I.Q. is less than others. A man with good physique is morally superior to others and is more social and capable for spiritual evolution. Normally, all good things go together and good or healthy physique is normally not easily liable to insanity, alcohol or drug consumption and leads a long and happy life.

The ideals of truth, beauty and justice seem to be far remote from physique but if there is ill physique, how far can one go. All our observations or activities depend primarily on our sense, though we may be using microscopes or telescopes. There is nothing in the world which does not directly or indirectly depend on physique. Flights or our imagination, our capacity to draw



conclusions or to forecast events or highest flights in spiritually normally depends on our senses and are earth bound.

### **OBJECTIVE OF THE STUDY:**

To know the concept aim, goal, purpose and object of the physical education for maintaining the quality of life.

### **CONCEPT OF PHYSICAL EDUCATION:**

Edward Hitchcock, physical education as understood is a cultivation of power and capabilities of student as will enable him to maintain his bodily condition in the best working order providing at the same time for the greater efficiency of his intellectual and spiritual life.” “Physical education should improve the mass of students and to give them as much health, strength and stamina as possible to enable them to perform the duties that await them after they leave their college” Brownhill and Hagman, “physical education is the accumulation wholesome experiences through large muscle activities that promote growth and development” William, “Physical education is the sum of man’s physical activities selected as to kind and conducted as to outcomes.” Boucher defined “the development of physically, mentally, emotionally and socially fit citizens through the medium of physical activities that have been selected with a view to realizing these outcomes” Boucher 3 and West, “Physical education includes the acquisition and refinement of motor skills, the development and maintenance of fitness for optimal health and well-being, the attainment of knowledge, and the growth of positive attitudes towards physical activity”. Lumpkin, “Physical education is a process through which an individual obtains optimal physical, mental and social skills and fitness through physical activity.” Borrow, “Physical education is an education if and through human movement where many of the educational objectives are achieved by means of big muscle activities involving sports, games, gymnastics, dance and exercise.” According to a document published by the National Plan of Physical Education and Recreation, “Physical education is an education through physical activities for the total personality of the child to its fullness and perfection in body, mind and spirit.”

From the above definitions, it can be inferred that in physical education, the greatest stress is laid on the development of big and strong muscles. The programmes are to be elective and selective. An individual has to participate in these programmes to get any benefit. Physical education should enable effective use of body, mind, intellect and soul. All the activities of a human being – physical, mental, intellectual, social, economic and political are inter – related and physical education helps greatly in the evolution of a „whole man. Physical education is the only process which helps every aspect of life. Physical education is quite natural. It does not come in the way of education.

### **AIM AND GOAL OF PHYSICAL EDUCATION :**

The aim and goal of physical education is very broad-based. It does not touch only its physical well-being. It should benefit the whole individual and he should be in a position to promote well – being of the society. It should increase physical, mental and intellectual capabilities for benefit of the society. It should help him in developing the quality of leadership.

### **PURPOSE OF PHYSICAL EDUCATION :**

Physical education involves the process of acting in a particular way. The purpose is closely linked with its aim and includes determination, courage, bravery, change in behavior and alteration in life style. It is enjoyable and various patterns of exercises fulfill various needs which go on changing in a fast changing world.

### **OBJECTIVES OF PHYSICAL EDUCATION :**

Physical education achieves hygienic, remedial, educative and recreative objectives, improves health, remedies illness and injury, increases knowledge about the movement of the body and an increase in fun and enjoyment and reduction of tension. In the beginning of present century, physical education programmes in addition to organic assumed psychomotor and intellectual character.

Later in 1934, the objectives of physical education were extended to include mental health, mental efficiency, emotional maturity and social and moral character in addition to physical efficiency. In 1965, the American Association for Health, Physical Education and Recreation stated five main objectives of physical education:-

1. To help children move in a skilful and effective manner in all selected activities in which they engage, in the physical education program, and also in those situations that they will experience during their lifetime.
2. To develop an understanding and appreciation of movement in children and youth so that their lives will become more meaningful, purposive and productive.
3. To develop an understanding and appreciation of certain scientific principles concerned with movement that relates to such factors as time, space, force and mass energy relationships.
4. To develop through the medium of games and sports better interpersonal relationships. To develop the various organic systems of the body so they will respond in a healthful way to the increased demands placed on them.

#### REVIEW OF LITERATURE:

**Gharote (2009)** revealed that there are many elements of character which can be developed by physical education. The attitudes, values and our appreciations, individual and social can be changed and brought to a higher pitch. It can teach fair play, sportsmanship, courtesy and self-confidence. This can bring life of an individual to higher level. As a group, qualities of decision – making, communication and leadership are developed. Qualities of self – control, self expression and the equanimity of spirit with which we win or defeat should be improved. **Bouchard and Shepard (2011)** opined that physical education lays stress on the development and improvement of movement skills and game skills. Games, aquatic sports, dance etc. all require skill in movement. These can be acquired by walking, running or jumping etc. either all alone or in groups or using apparatus. Certain skills can be developed by practicing with bats, rackets, balls, ropes and hoops. Some skills as eye and hand coordination to hit or catch a ball are important. 5 Such skills have to be developed independently. **Kumar and Nath (2012)** reported that Physical fitness comprises muscular strength and endurance, flexibility and cardiovascular endurance. An efficient respiratory system and a healthy heart reduces all the risk of diseases and promotes better life. Cardiovascular exercises should be encouraged. Efforts should be made not only to increase the muscular strength but that it could be sustained for a long time. Exercise should increase power, speed, balance, coordination and agility of the body. Singh (2014) analyzed that physical activity has been quite natural to existence. Not only birds and animals but even insects exert themselves physically as otherwise blood cannot run in the nerves properly and life cannot survive. They have to exert themselves physically to provide food and shelters and to protect themselves. Birds have to fly and make nests. Fishes have to swim to find their food and survive. Animals go in search of their food. The carnivorous animals kill other animals to satisfy their appetite. Everyone, a bird, animal or man has to exert itself for safety. **American Association Health (2016)** observed that though search for food, shelter and protection have been vital activities but we cannot overlook that physical activity gives them an opportunity for

play. It gives them entertainment and recreation. Without play, their life would have been quite dull. We have seen birds and animals running, jumping, hopping, climbing, dancing, swimming and even wrestling merely as a source of pleasure. It has also been quite natural for man. An infant, a baby or a child from his very birth engages in physical activity. Man also picked up the arts of running, jumping, throwing, wrestling, climbing, swimming and hunting for his food, shelter, protection and survival. They have run, jumped, climbed and swam in competition for a thousand of years but these were not done in an organized manner and there were no sincere efforts to make developments.

### **PHYSICAL EDUCATION AND QUALITY OF LIFE :**

Quality of life means all aspects of life which makes a man really happy. It means happiness, health, well – being, enjoyment, fun, leisure. Conversely, it includes absence from pain, misery, disease, safety from harm and freedom from oppression. It cannot be denied that a feeling of fitness and that of well – being add to the happiness and well – being of life.

Physical education is not only to look towards the body but a selection has to be made to cater for better human relations to make him friendly, tolerant, generous, adventurous, independent, self-reliant, calm and composed and a sense of equanimity in both victory and defeat, and how to follow command and how to lead. Physical education has been identified with a number of activities include play, exercise, games, sports, athletics, leisure and recreation. Exercise refers to exertion of muscles, limbs, etc. for health's sake. Play means bodily exertion with a view to amusement. Games connotes physical exertion for amusement or competition governed by definite rules. Sports means all these physical activities done for diversion, amusement, pleasure or success. The paramount duty of physical education is to improve the overall quality of life. It embraces all parts of life. Other activities are restricted to their particular field.

### **LITERATURE CITED:**

1. Gharote M. L. (2009). Sports, life and Yoga Krida, Pune: Tantra Magazine.
2. Bouchard, C. and R.J. Shepard. (2011). Physical activity, fitness and health: the model and key concept Ind. J. Phy. Education and health. 12(20):123- 130.
3. Kumar, Y. and R. Nath. (2012). Physical education. New Delhi: APH publication corporation Daryaganj.
4. Singh, Mandeep. (2014). Sports, Health and Physical education, New Delhi: Khel Sahitya Kendra

# ROLE OF YOGA TEACHERS FOR MAINTAINANCE OF HEALTH AND FITNESS

**Dr. Usman Ganni Jainoddin**

Director of Physical Education & Sports. Kai. Vasantrao Kale Senior College. Nanded.

## INTRODUCTION:

Yoga is essentially a spiritual discipline based on an extremely subtle science, which focuses on bringing harmony between mind and body. It is an art and science of healthy living. The word 'Yoga' is derived from the Sanskrit root 'Yuj', meaning 'to join' or 'to yoke' or 'to unite'. As per Yogic scriptures the practice of Yoga leads to the union of individual consciousness with that of the Universal Consciousness, indicating a perfect harmony between the mind and body, Man & Nature. According to modern scientists, everything in the universe is just a manifestation of the same quantum firmament. One who experiences this oneness of existence is said to be in yoga, and is termed as a yogi, having attained to a state of freedom referred to as mukti, nirvana or moksha. Thus the aim of Yoga is Self-realization, to overcome all kinds of sufferings leading to 'the state of liberation' (Moksha) or 'freedom' (Kaivalya). Living with freedom in all walks of life, health and harmony shall be the main objectives of Yoga practice. "Yoga" also refers to an inner science comprising of a variety of methods through which human beings can realize this union and achieve mastery over their destiny. Yoga, being widely considered as an 'immortal cultural outcome' of Indus Saraswati Valley civilization – dating back to 2700 B.C., has proved itself catering to both material and spiritual upliftment of humanity. Basic humane values are the very identity of Yoga Sadhana.

## THE BASICS OF YOGA

Philosophy and practice in all forms of YOGA is embedded in the following eight principles

1. *Yama* Control of the Mind
2. *Niyama* Follow rules
3. *Asana* Postures
4. *Pranayama* Controlled Breathing
5. *Pratyahara* Complete relaxation
6. *Dharana* Attain consciousness of the body
7. *Dhyana* Concentration and Awareness
8. *Samadhi* State of Absolute Awareness

## VARIOUS FORMS OF YOGA PRACTICE

1. #Health yoga: is the path of physical fitness or yoga of postures.
2. #Bhakti Yoga: is the path of the heart or the yoga of devotion.
3. #Dhyana Yoga: is the path of meditation and contemplation
4. #Jnana Yoga : is the path of learning and knowledge
5. #Karma Yoga: is the path of action or selfless service.
6. #Nada Yoga: is the Yoga of inner sound. The sound of the Universe.
7. #Yoga Nidra: is the yoga to achieve perfect sleep

## WHY YOGA?

To make disease & medicine free through a scientific approach on the knowledge base of our great saints & sage and more on yoga.

## YOGA AND HEALTH

1. Yoga views the human body as a composite of mind, body and spirit.
2. " Health is the state of complete physical, mental, spiritual and social wellbeing and not merely the absence of disease or infirmity" (WHO)

## WHY YOGA ?

Yoga is a series of stretches and poses that you do with breathing techniques. It offers the powerful benefits of exercise. And since yoga is gentle, almost anyone can do it, regardless of your age or fitness level.

Yoga is a 5,000-year-old discipline from India. It was developed as a practice to unite the mind and body. There are many branches of yoga. All yoga styles can help balance your body, mind, and spirit, but they achieve it in various ways.

Some yoga styles are intense and vigorous. Others are relaxing and meditative. No matter which type you choose, yoga is a great way to stretch and strengthen your body, focus your mind, and relax your infirmity."

### **YOGA FOR HEALTH**

Yoga is a practice that connects the body, breath, and mind. It uses physical postures, breathing exercises, and meditation to improve overall health. Yoga was developed as a spiritual practice thousands of years ago. Today, most Westerners do yoga for exercise or to reduce stress.

### **HOW YOGA RELATED TO HEALTH**

#### **1. PHYSICAL WELLBEING:**

Yoga Improves blood circulation and over all organ functioning

#### **2. MENTAL WELLBEING:**

Bring down stress, enhances power of relaxation & stamina and bestows greater power of concentration and self control

#### **3. SPIRITUAL WELLBEING:**

Regulation and transformation of blood chemistry through proper synthesization of neuroendocrinal secretions, dispassionate internal vibrations leads one to attain the power to control the mind and to become free from the effect of external forces compelling one to lose to equanimity.

#### **SOCIAL WELLBEING:**

Yoga practitioner become cheerful, enjoys talking to people, shares problems with friends and can realize that there are other also who are sailing in same boat, so that one can easily mix-up in group by happier nature.

### **HOW YOGA WORKS IN OUR BODY – A SCIENTIFIC SCENARIO**

Blood flow & oxygen supply of whole body increases through yoga, thus every part of body gets more energy . Role of yoga in women health and fitness

### **PHYSICAL HEALTH BENEFITS:**

Yoga encompasses various poses/asanas which involve a gradual stretch of muscles that helps to improve flexibility of the various muscle groups of our body. Most Yoga postures are meant to strengthen one's body from the inside out. Apart from enhancing your muscle flexibility, strength and toning your body, Yoga can also help you in weight loss, protection from injuries, improving your body posture, vitality and metabolism. Various studies conducted across the world have shown that regular Yoga practice drastically optimizes body functions like respiration, heart rate, etc., lowers blood pressure, keeps cardiovascular health problems at bay and helps in reducing chronic back pain or joint pain, among other key physical benefits.

### **MENTAL HEALTH BENEFITS:**

Practicing Yoga can positively affect your mood, behaviour and overall mental health in various ways. For students or working professionals, daily Yoga practice brings increased concentration, relaxation and peace of mind, helps to relieve symptoms of anxiety, stress, and so on. One can get amazing levels of mental clarity and calmness only by doing a combination of meditation and Yoga consistently. In the long run, Yoga can even aid anyone to fight depression, maintain a positive self-image and positive outlook towards life in general, and help in developing high willpower and tolerance (towards self and others).

### **PSYCHOLOGICAL HEALTH BENEFITS:**

Yoga is a psychology in itself. Regular Yoga practice makes us feel better and enhances our sense of gratitude and well-being. Besides, Yoga is becoming increasingly accepted as an adjacent therapy to improve quality of life for individuals, as it offers an excellent opportunity to enter into the 'flow state'. Doing regular yoga helps people in achieving mindfulness, develops greater self awareness and tranquility, and catapults our ability to focus and remain happy throughout the day. Needless to say, Yoga is the gateway to better spiritual and emotional health as well!

As a beginner in the world of Yoga, do not get overwhelmed by the plethora of poses, asanas and breathing techniques. And, do not let anyone tell you that not everyone can do Yoga (because that's a myth or an outright lie)! The practice of Yoga is beyond any particular religion (or Yogic mysticism), and should be seen as a way of life.

The popularity of Yoga is currently exploding across the globe, and millions are turning to Yoga in order to live healthier, happier and more fulfilling lives. Investing 30 minutes of your time daily to practice Yoga can be a great investment for your future self. So why are you still waiting? Hit the mat today and start practicing Yoga from home.

#### **OTHERS ROLES OF YOGA IN HEALTH AND FITNESS FITNESS**

1. Surya Namaskar is a complete body exercise. It keeps all internal organs, stomach, intestines, pancreas, spleen, heart and lungs, healthy and strong. Also muscles of external body parts, chest, shoulders, hands, thighs, legs becomes healthy and strong.
2. It makes spine and waist flexible by removing disorders. It improves blood circulation in the body which removes skin diseases.
3. These are the best twelve steps of surya namaskar yoga positions in sequence to burn calories, weight loss and complete health, fitness.

#### **PREVENTION OF DISEASE**

1. Scientific studies have shown that the practice of Yoga has curative abilities and can prevent disease by promoting energy and health. That is why more and more professionals have started using Yoga techniques in patients with different mental and physical symptoms, such as psycho-somatic stresses and different diseases.
2. Our bodies have a tendency to build up and accumulate poisons like uric acid and calcium crystals, just to mention a few. The accumulation of these poisons manifests in diseases and makes our bodies stiff.
3. A regular Yoga practice can cleanse the tissues through muscle stretching and massaging of the internal organs and brings the waste back into circulation so that the lungs, intestines, kidneys, and skin are able to remove toxins in a natural way.

#### **BLOOD PRESSURE**

1. Yoga asana is recommended for the treatment of both high and low blood pressure.
2. Yoga provides exercise to all the organs of the body so as to regulate the overall metabolism rate in the body.
3. There are several causes of high blood pressure like increased stress, anger and anxiety or other mental and cognitive disorders.
4. Yoga helps to free one's mind from the negative thoughts and provides complete rest to the mind and the body. This increases the metabolism of the body and brings the mind at rest. Excessive thinking about something also increases the pressure with which the blood flows in various organs of the body.

#### **GLOWING SKIN AND BEAUTY**

1. There is no specific yoga for beautiful skin. The practice of yoga helps the individual achieve a sense of balance and relaxation in life. Yoga works on physical and mental aspects of the individual. Thus yoga for strength also helps individual's live healthy lives that will show on the skin.

2. The overall improvements in the body of an individual will lead to the improvement in the skin quality as the skin will be well nourished.
3. The same applies to yoga for hair.
4. This is simply because improved circulation of blood will nourish the hair follicles better.

**REFERENCES**

1. <http://www.yogaabhyas.com/>
2. <http://www.drsohanrajtater.com/articles/article17.pdf>
3. <http://www.anandamarga.org/articles/yoga-health-secrets.htm>
4. <http://www.yahooyoga.com/>
5. <http://www.abc-of-yoga.com/yoga-and-health/yoga-for-women.asp>
6. <http://nccam.nih.gov/health/yoga/introduction.htm>

# ROLE OF PHYSICAL ACTIVITY DURING COVID-19

**Mr. Jondhale S. M.**

Head Dept.of Sports, Dr.Babasaheb Ambedkar Mahavidyalya, Latur

## INTRODUCTION

The COVID-19 pandemic is an unprecedented time all across the world. Worldwide, extensive social distancing policies are put into place, restricting people's daily activities and worldwide pleas from governments asking people to stay safe and stay at home. This of course means that most people will spend much of their time (if not all) at home. These social distancing measures mean that people have far fewer opportunities to be physically active, especially if activities such as walking or cycling as transportation, or taking part in a leisurely activity (e.g. jogging, walking the dog, going to the gym) are being restricted. Furthermore, these drastic measures also make it so much easier to be sedentary at home for long periods of time.<sup>[1]</sup> The impact of this physical inactivity may very likely be seen in many areas such as health and social care and the mental well-being of people all across the globe. Although these social distancing measures are important and needed in a time such as now, our bodies and minds still need physical activity and the many benefits thereof.

### Definition of Physical Activity

Physical Activity (PA) is defined as any bodily movement produced by skeletal muscles that require energy expenditure.<sup>[2]</sup> There are two components to physical activity that need to be considered:

**Aerobic fitness:** this usually includes moderate to vigorous activity that makes you feel a bit warm and causes an increase in your breathing rate, breathing depth and your heart rate.

**Strength and balance:** This is often the forgotten component of physical activity but it is an essential part and has many benefits.

### Physical activity may include:

Active recreation, Sports participation, Cycling, Walking, Play, Dance, Gardening House cleaning, Carrying heavy shopping. During the COVID-19 pandemic it is even more important for all people to be physically active. Even if it is only a short break from sitting at your desk and doing some walking or stretching. Doing something as simple as this will ease muscle strain, relieve mental tension, improve blood circulation, improve muscle activity, create some routine to your day in these unprecedented times.

### Benefits of Physical Activity

There are many benefits of physical activity. These include: Strengthening and maintaining your immune system strength - being less susceptible to infections<sup>[4]</sup>

Reduces high blood pressure, Weight management, Reduces the risk of heart disease, Reduces the risk of diabetes, Reduces the risk of stroke, Reduces the risk of certain cancers, Improves bone and muscle strength, Improves balance, Improves flexibility, Improves fitness, Improves mental health, Reduces the risk of depression, Reduces the risk of cognitive decline, Delays the onset of dementia, Improves overall feeling of well-being, In children physical activity may, support healthy growth and development, reduce the risk of disease in later life help in development of fundamental movement skills

### Physical Activity Guidelines :



The new WHO 2020 Guidelines stress that any amount of physical activity is better than none, even when the recommended thresholds are not met (this is a very positive message for much of the population who currently fall well short of the desirable minimum).

**Important: Any physical activity is better than none!**

A study conducted in 2020 found a significant reduction in the likelihood of developing severe COVID-19 among infected patients who had consistently met the recommended physical activity guidelines in the preceding couple of years. Furthermore, COVID-19 patients who had engaged in less physical activity than recommended had lesser risks of developing severe disease outcomes or dying, than COVID-19 patients who were consistently inactive.<sup>[10]</sup>

During the COVID-19 pandemic, being physically active will be a challenge for all of us but it is critical that we find and plan ways to be active and reduce our sedentary time. Although our movement around our neighbourhood, town, city, country and the world might be restricted, it remains critical that we all move more and sit less.

The Importance of Physical Activity during the COVID-19 Pandemic In light of the current situation worldwide, certain benefits of physical activity may be specifically pertinent to the COVID-19 Pandemic. These benefits are<sup>[11]</sup>:

Physical activity enhances immune function and reduces inflammation therefore it could reduce the severity of infections. Physical activity improves common chronic conditions that increase the risk for severe COVID-19 (i.e. Cardiovascular Disease, Diabetes).

Physical activity is a great stress management tool by reducing symptoms of anxiety and depression.

Physical activity helps bring cortisol levels in balance. Stress and distress (such as during a pandemic) creates an imbalance in cortisol levels and this negatively influences immune function and inflammation.

**Physical (In)Activity during Lockdown**

As already iterated, we are living in unprecedented times and we are learning as we go about the effects and impact of this pandemic. With regards to physical activity and periods of lockdown or restricted and regulated movement, there is some evidence emerging but it is still in the early stages of this pandemic and we won't fully understand the impact of "lock down" for many months.<sup>[12]</sup>

**Implications of Physical Inactivity during COVID-19**

**Health and Social Care**

There are a couple of things to consider when looking at the implications of physical inactivity during COVID-19 on health and social care<sup>[12]</sup>: It is impossible to predict the outcomes currently At best we can try and make educated guesses

There are global variations to consider such as the time frame around going into lockdown and easing of restrictions in countries as well as differences in health and social systems in countries.

***First wave: Population of people who experience COVID-19***

This population of people who experience COVID-19 and recovery from it will still have ongoing needs. They would have had an enforced period of physical inactivity due to the illness. These people will have specific rehabilitation needs. Currently this is the obvious population of people that receives focus and attentions.<sup>[12]</sup>

See also: Role of the Physiotherapist in COVID-19 and Respiratory Management of COVID-19

***Second wave: People with urgent non-COVID-19 conditions***

Although, we are dealing with a pandemic at the moment, people all over the world still need healthcare for their existing mental and physical health conditions. Especially during periods of lockdown, this population will still have ongoing needs in terms of self management of their condition. In a scenario where healthcare services and systems are under stress and resources are limited, it is critical to support people in self-management of their condition. Physical activity (and the benefits thereof) is one important way of supporting this population of people to self-manage their conditions so that they are able to cope effectively with symptoms such as pain, stiffness, fatigue or breathlessness. As physiotherapists we can play a critical role in supporting people to stay active so that they are healthy enough to self-manage their condition during this time.<sup>[12]</sup>

***Third wave: Impact of interrupted care on chronic conditions***

During periods of lockdown, routine healthcare services have been put on hold or paused in many countries around the world. Services such as routine screenings, diagnostics and elective surgeries have been put on hold. This will have an impact on this population of people as many people who have thought that there would have been progress in the diagnosis or management of their condition. Even after healthcare services resume for this population, it may still take some time for services to clear the backlog caused by periods of lockdown. This may have far-reaching effects. Again, physiotherapists can make a difference with this population by advocating physical activity as a way to self-manage their conditions.<sup>[12]</sup>

See also: Physical Activity and Non-Communicable Diseases

**Musculoskeletal Deconditioning**

With decreased physical activity there is the likelihood of musculoskeletal deconditioning.<sup>[21]</sup> During periods of lockdown where many people's daily activity movements are restricted, musculoskeletal deconditioning is likely to happen in most people. In fit and healthy people this will be less noticeable, but in older people, people with diagnosed health conditions or people who were already functioning very close to the functional threshold, musculoskeletal deconditioning will be more pronounced. This musculoskeletal deconditioning may have a significant impact on these vulnerable populations and may potentially increase the risk of injuries related to falls, such as hip fractures.<sup>[22]</sup> This will in turn have implications for health and social care services already under stress.

Ways Physiotherapists can Promote Physical Activity during Lockdown

Encourage people to break their periods of inactivity

Encourage people to engage in aerobic activity on a daily basis - even very short periods of exercise have been reported to have real health benefits<sup>[24]</sup>

Encourage people to engage in strength and balance exercises two to three times a week, Focus on major functional muscle groups Think about and find ways for people to incorporate these exercises every week during lockdown and beyond, By doing this there is the potential to change physical activity behaviour in the long term

Physiotherapists need to focus on effective messaging during lockdown. This may include positive messages about the benefits of physical activity aligned with the concerns that people have during lockdown and pandemic. These may be:

Physical activity during lockdown may improve mental health

Physical activity during lockdown may help in improving sleep patterns.

Physical activity during lockdown helps you stay healthy.

Physical activity during lockdown helps reduce the demand on health systems.

How to Stay Safe while Exercising during COVID-19

Do not exercise if you have a fever, cough or difficulty breathing (symptoms of COVID-19).

Practise social distancing when exercising outdoors and practice good hand hygiene before and after.

If you are not used to physical activity, start slowly with low intensity activities such as walking or low impact exercises for shorter periods of time and gradually build up over time.

Choose the right activity to reduce the risk of injury; the intensity of the exercise should match your fitness levels and health status.<sup>[26]</sup>

#### RESOURCES :-

- World Health Organisation: Healthy at home - Physical Activity
- Combating physical inactivity during the COVID-19 pandemic

#### REFERENCES :-

1. The Conversation. How to stay fit and active at home during the coronavirus self-isolation. Published on 25 March 2020. Available from <https://theconversation.com/how-to-stay-fit-and-active-at-home-during-the-coronavirus-self-isolation-134044> (last accessed 9 May 2020)
2. World Health Organisation. Physical Activity. Available at: <https://www.who.int/dietphysicalactivity/pa/en/> [last accessed 6 April 2020]
3. World Health Organisation. Be Active During COVID-19. Available from <https://www.who.int/news-room/q-a-detail/be-active-during-covid-19> [last accessed 6 April 2020]
4. Nieman DC, Henson DA, Austin MD, et al. Upper respiratory tract infection is reduced in physically fit and active adults. *British Journal of Sports Medicine* 2011;45:987-992.
5. Public Health England. Muscle and bone strengthening and balance activities for general health benefits in adults and older adults. Summary of a rapid evidence review for the UK Chief Medical Officers' update of the physical activity guidelines. Published July 2018. (last accessed 9 May 2020)
6. Victor Tseng. Health Footprint of Pandemic. Published on 30 March 2020. Available from <https://twitter.com/VectorSting/status/1244671755781898241/photo/1>. (last accessed 9 May 2020)
7. World Health Organisation. Be Active during COVID-19. Published on 27 March 2020. Available from <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/be-active-during-covid-19>. (last accessed 9 May 2020)

# कोविड-19 परिस्थितीत आहाराचे महत्त्व

प्रा. डॉ. सचिन सुभाषराव चामले

शारीरिक शिक्षण संचालक, कै.रसिका महाविद्यालय, देवणी जिल्हा -लातूर ( महाराष्ट्र )

## सारांश:

प्रस्तुत संशोधन मध्येकोविड-19 परिस्थितीमध्ये दररोजच्या आहारामध्ये कोण कोणत्यागोष्टीमहत्त्वाच्या आहेत व त्या कशा पद्धतीनेअमलात आणाव्यात याबद्दल माहिती देण्यात आलेली आहे.कोणतेही खाद्यपदार्थ किंवा आहारातील पूरक आहार कोविड-19 संसर्ग रोखू किंवा बरा करू शकत नसला तरी, रोगप्रतिकारक शक्तीला आधार देण्यासाठी निरोगी आहार महत्त्वाचा आहे.फळे आणि भाज्यांसह लोक अन्नातून कोविड-19 पसरू शकतो.याचा सध्या कोणताही पुरावा नाही. ताजी फळे आणि भाज्या हे निरोगी आहाराचा भाग आहेत आणि त्यांच्या सेवनास प्रोत्साहन दिले पाहिजे.त्यातदररोज ताजे आणि प्रक्रिया न केलेले पदार्थसेवन करावेत.दररोजच्या जीवनशैलीत ( 3-4लिटर) पुरेसे पाणी प्यावे. तसेच जीवनशैलीमध्ये बदल करून चरबीयुक्त पदार्थ आणि तेल मध्यम प्रमाणात असणाऱ्या पदार्थांचे सेवन करावे.मीठ आणि साखर कमी सेवन करावे.जास्तीत जास्त प्रमाणात घरात बनवलेले पदार्थ सेवनात वापरावे बाहेरचे खाणे टाळावे. लहान मुलांना स्तनपान देताना कोविड-19 योग्य मार्गदर्शक तत्वांची अंमलबजावणी करावे.व्यक्तिगतपोषण आणि अन्न सुरक्षेवर कोविड-19 चा प्रभाव कमी करण्यासाठी शासनाने व डॉक्टरांनी दिलेल्या शिफारशी अमलात आणाव्यात.

**महत्वाचे शब्द :-**कोविड -19 ची परिस्थिती,आहार,आहाराचे नियोजन.

## प्रस्तावना :-

कोविड-19हा रोग साथीचा रोग आहे.त्याचा पूर्ण मानवजातीला धोका आहे. कोरोनाव्हायरस प्रामुख्याने मानवी श्वसन प्रणालीला प्रभावित करते. (Bogoch II, 2020)सुरुवातीच्या अहवालांमध्ये SARS-CoV-2 नावाच्या संभाव्य कोरोनाव्हायरसच्या उद्रेकाच्या प्रारंभाचा अंदाज होता, ज्यामुळे कोविड-19हा रोग होतो.सध्या सुरू असलेल्या महामारीला जागतिक आरोग्य संघटनेने (WHO) जागतिक सार्वजनिक आरोग्य आणीबाणी म्हणून घोषित केले आहे. (Zhu N, 2020 )प्रतिकूलता आणि लवचिकतेचे पर्यावरणशास्त्र हे दर्शविते की अपुरे पोषण यांसारख्या महत्त्वपूर्ण तणावामुळे आरोग्याशी निगडित दीर्घकाळ टिकणारे परिणाम होऊ शकतात.मानवाला जगण्यासाठी फक्त तीन गोष्टींची आवश्यकता असते हवा पाणी आणि अन्न आहार आणि आरोग्य आहाराने रोग यांचा अत्यंत निकटचा व घनिष्ठ संबंध आहे.आरोग्य हा जीवनाचा आणि आहार हा आरोग्याचा पाया आहे हे म्हणजे आहारच अयोग्य असेल तर आरोग्य तरी कुठून प्राप्त होणार?अन्न हे योग्य प्रकारचे योग्य प्रमाणात योग्य पद्धतीने व योग्य वेळी घेतल्यास सर्व व्याधी सहज काढता येतात म्हणून आहार म्हणजे काय? तो का घ्यावा लागतो? किती व केव्हा कसा घ्यावा? त्याच पद्धतीने सध्या जगभरात कोरोना रोगाने थैमान घातले आहे. तर या कोरोना च्या काळात कोणता आहार घ्यावा हे शास्त्रीय दृष्टिकोनातून माहीत असणे गरजेचे आहे.कोरोना व्हायरसमुळे आपण कठीण काळात जगत आहोत. त्या आव्हानांचा आपल्यावर शारीरिक आणि भावनिक दोन्ही प्रकारे परिणाम होऊ शकतो. जेव्हा तुम्हाला इतरांपासून शारीरिकदृष्ट्या अंतर ठेवावे लागते तेव्हा समान दिनचर्या पाळणे कठीण असते, विशेषतः जर तुम्हाला विषाणूमुळे खरोखर आजारी पडण्याचा धोका जास्त असेल.त्यामुळे आहारात कोणत्या गोष्टींचा वापर करावा व कोणत्या गोष्टी टाळाव्यात हे महत्त्वाचे ठरते.सामाजिक अंतर मार्गदर्शक तत्त्वे आणि

आभासी शिक्षणाचा अर्थ कौटुंबिक दिनचर्यामध्ये मोठा बदल झाला आहे आणि त्यात तुम्ही तुमच्या कुटुंबाला कसे खायला घालता याचा समावेश असू शकतो. चांगले अन्न हे फक्त शरीरासाठीच नाही तर मेंदूसाठीही इंधन असते. हे विशेषतः लहान आणि शालेय वयाच्या मुलांसाठी खरे आहे. दररोज एक निरोगी नाश्ता, दुपारचे जेवण आणि रात्रीचे जेवण तयार करणे हे चांगले राहू शकते. चांगले पोषण हे नेहमीच महत्वाचे असते, परंतु या महामारीच्या काळात ते आणखी महत्वाचे असते कारण पौष्टिक पदार्थांचा संतुलित आहार मजबूत रोगप्रतिकारक शक्तीला मदत करतो.

#### • कोविड-19 परिस्थितीत प्रौढांसाठी पोषण सल्ला -

योग्य पोषण आणि हायड्रेशन आवश्यक आहे. जे लोक संतुलित आहार घेतात ते मजबूत रोगप्रतिकारक प्रणाली आणि दीर्घकालीन आजार आणि संसर्गजन्य रोगांचा धोका कमी करून निरोगी असतात. त्यामुळे तुमच्या शरीराला आवश्यक जीवनसत्त्वे, खनिजे, आहारातील फायबर, प्रथिने आणि अँटिऑक्सिडंट्स मिळवण्यासाठी तुम्ही दररोज विविध प्रकारचे ताजे आणि प्रक्रिया न केलेले अन्न खावे. पुरेसे पाणी प्या. जास्त वजन, लठ्ठपणा, हृदयविकार, स्ट्रोक, मधुमेह आणि विशिष्ट प्रकारच्या कर्करोगाचा धोका लक्षणीयरीत्या कमी करण्यासाठी साखर, चरबीयुक्त पदार्थ आणि मीठ टाळावे.

#### दररोज ताजे आणि प्रक्रिया न केलेले पदार्थ -

1. फळे, भाज्या, शेंगा (उदा. मसूर, सोयाबीनचे), नट आणि संपूर्ण धान्य (उदा. प्रक्रिया न केलेले मका, बाजरी, ओट्स, गहू, तपकिरी तांदूळ किंवा पिष्टमय कंद किंवा बटाटा, याम, तारो किंवा कसावा यांसारखी मुळे) आणि प्राण्यामार्फत मानवास मिळणारे अन्न खा. स्रोत (उदा. मांस, मासे, अंडी आणि दूध).
2. दररोजच्या आहारामध्ये 2 कप फळे (4 सर्व्हिंग), 2.5 कप भाज्या (5 सर्व्हिंग), 180 ग्रॅम धान्य, आणि 160 ग्रॅम मांस आणि सोयाबीन (लाल मांस आठवड्यातून 1-2 वेळा वेळा खाऊ शकता, आणि पांढरे मांस पोल्ट्री (चिकन) आठवड्यातून दोन ते तीन वेळेसवेळा खाऊ शकता).
3. स्नॅक्ससाठी, साखर, चरबी किंवा मीठ जास्त असलेल्या पदार्थांपेक्षा कड्ड्या भाज्या आणि ताजी फळे आहारात वापरावीत.
4. भाज्या आणि फळे जास्त शिजवू नका कारण यामुळे महत्त्वपूर्ण जीवनसत्त्वे नष्ट होऊ शकतात. त्याचा वापर केल्याने आपणास काहीच काही पण फायदा होणार नाही.
5. बंद डब्यातील आहार किंवा वाळलेल्या भाज्या आणि फळे वापरताना, मीठ किंवा साखर न वापरलेले पदार्थांची निवड करावी.

#### दररोज पुरेसे पाणी -

1. पाणी जीवनासाठी आवश्यक आहे. हे रक्तातील पोषक आणि संयुगे वाहून नेते, तुमच्या शरीराचे तापमान नियंत्रित करते, शरीरातील न उपयोगी पदार्थांपासून मुक्त करते आणि शरीरातील सांध्यांना वंगण नाचे काम करते.
2. दररोज 8-10 कप पाणी प्या.
3. पाणी हा सर्वोत्तम पर्याय आहे, परंतु तुम्ही इतर पेये, फळे आणि भाज्यांचे सेवन करू शकता ज्यामध्ये पाणी असते, उदाहरणार्थ लिंबाचा रस (पाण्यात पातळ केलेला आणि गोड न केलेला), चहा आणि कॉफी. परंतु

जास्त प्रमाणात कॅफीन न घेण्याची काळजी घ्या आणि गोड फळांचे रस, सिरप, फळांचे रस एकाग्र, फिजी आणि स्थिर पेये टाळा कारण त्या सर्वांमध्ये साखर असते.

#### चरबीयुक्त पदार्थ आणि तेल मध्यम प्रमाणात खाणे-

1. असंतृप्त चरबीयुक्त पदार्थांचे सेवन करा (उदा. मासे, एवोकॅडो, नट, ऑलिव्ह ऑईल, सोया, कॅनोला, सूर्यफूल आणि कॉर्न ऑइलमध्ये आढळतात)
2. संतृप्त चरबीयुक्त पदार्थांमध्ये टाळावेत (उदा. चरबीयुक्त मांस, लोणी, खोबरेल तेल, मलई, चीज, तूप आणि स्वयंपाकात वापरण्याची डुकराची चरबी).
3. लाल मांसाऐवजी पांढरे मांस (उदा. पोल्ट्री) आणि मासे निवडा, ज्यात सामान्यतः चरबी कमी असते.
4. प्रक्रिया केलेले मांस टाळा कारण त्यात चरबी आणि मीठ जास्त आहे.
5. जेथे शक्य असेल तेथे, दूध आणि दुग्धजन्य पदार्थांच्या कमी चरबीयुक्त किंवा कमी चरबीयुक्त पदार्थांचे पदार्थांची वारंवार निवड करा.
6. औद्योगिकरित्या तयार होणारे ट्रान्स फॅट्स टाळा. हे सहसा प्रक्रिया केलेले अन्न, फास्ट फूड, स्नॅक फूड, तळलेले अन्न, फ्रोजन पिझ्झा, पाई, कुकीज, मार्जरीन आणि स्प्रेडमध्ये आढळतात.

#### मीठ आणि साखर कमी खाणे-

1. अन्न शिजवताना आणि तयार करताना, मीठ आणि उच्च-सोडियम मसाले (उदा. सोया सॉस आणि फिश सॉस) मर्यादित प्रमाणात वापरावेत.
2. तुमचे दैनंदिन मीठ सेवन 5 ग्रॅमपेक्षा कमी (अंदाजे 1 चमचे) मर्यादित करा आणि आयोडीनयुक्त मीठ वापरा.
3. मीठ आणि साखर जास्त असलेले पदार्थ (उदा. स्नॅक्स) टाळा.
4. सॉफ्ट ड्रिंक्स किंवा सोडा आणि साखरेचे प्रमाण जास्त असलेल्या इतर पेयांचे सेवन मर्यादित करा. (उदा. फळांचे रस, फळांचे रस एकाग्रता आणि सिरप, फ्लेवर्ड दूध आणि दही पेय).
5. कुकीज, केक आणि चॉकलेटसारख्या गोड स्नॅक्सऐवजी ताजी फळे निवडा.

#### बाहेरचे खाणे टाळा -

इतर लोकांशी तुमचा संपर्क कमी करण्यासाठी आणि कोविड च्या संपर्कात येण्याची शक्यता कमी करण्यासाठी घरीच खा. आम्ही शिफारस करतो की आपण आणि खोकला किंवा शिंकाणाऱ्या प्रत्येकामध्ये किमान 1 मीटरचे अंतर ठेवा. रेस्टॉरंट आणि कॅफे सारख्या गर्दीच्या सामाजिक सुरक्षित अंतर हे नेहमीच शक्य नसते. संक्रमित लोकांचे थेंब पृष्ठभागावर आणि लोकांच्या हातांवर येऊ शकतात (उदा. ग्राहक आणि कर्मचारी), आणि बरेच लोक ये-जा करतात, हात नियमितपणे धुतले जात आहेत की नाही हे तुम्ही सांगू शकत नाही, आणि पृष्ठभाग पुरेसे जलद स्वच्छ आणि निर्जंतुक केले जाऊ शकत नाही.

#### स्तनपान आणि कोविड -19 मार्गदर्शन -

तुमच्या बाळाच्या दीर्घकालीन आरोग्यासाठी तुम्ही करू शकता अशा सर्वात महत्वाच्या गोष्टींपैकी एक म्हणजे स्तनपान. कारण बहुतेक लहान मुलांसाठी हा पोषणाचा सर्वोत्तम स्रोत आहे. तथापि, कोरोनाव्हायरस साथीच्या आजारादरम्यान मुलांना स्तनपान देताना सावधगिरी बाळगणे देखील महत्वाचे आहे. कोरोनाव्हायरसचा वैयक्तिक संपर्क कमी करण्यासाठी शिफारस केलेल्या चरणांप्रमाणेच काही सावधगिरीची पावले उचलणे, स्तनपान करताना तुमच्या बाळाला निरोगी ठेवण्यास मदत करू शकते.

**व्यक्तिगतपोषण आणि अन्न सुरक्षेवर कोविड-19 चा प्रभाव कमी करण्यासाठी शिफारसी.**

	कोविड-19 महामारी दरम्यान पोषण शिफारशी
<b>वैयक्तिक</b>	<ol style="list-style-type: none"> <li>1.संतुलित जेवण खाण्याचा प्रयत्न करा, अनियमित स्नॅकिंग टाळा.</li> <li>2. लिंबूवर्गीय फळे, गडद हिरव्या पालेभाज्या, नट आणि दुग्धजन्य पदार्थ यासारखे जीवनसत्त्वे A, C, E, B6 आणि B12, झिंक आणि लोह समृद्ध अन्न निवडा.</li> <li>3.व्यायाम (घरगुती व्यायाम), नियमित झोप आणि ध्यान अशी निरोगी जीवनशैली ठेवा.</li> <li>4. धूम्रपान, अल्कोहोल आणि ड्रग्स टाळा.</li> <li>5. पोषण आणि आहाराचे सेवन आणि COVID-19 संबंधी चुकीची माहिती पसरवण्यापासून परावृत्त करा.</li> </ol>

**संदर्भ :-**

1. Bogoch II, W. A.-B. (2020). Pneumonia of unknown etiology in Wuhan, China:. *J.Travel Med.*, 2020;272:1
2. Zhu N, Z. D. (2020 ). A novel coronavirus from patients with pneumonia in China 2019. *N Engl*, 382:727–33.
3. Anton SD, Miller PM. Do negative emotions predict alcohol consumption, saturated fat intake, and physical activity in older adults? *BehavModif*2005;29:677–88
4. Macht M. How emotions affect eating: a five-way model. *Appetite* 2008;50:1–11.
5. Vallianatos M, Azuma AM, Gilliland S, Gottlieb R. Peer reviewed: food access, availability, and affordability in 3 Los Angeles communities, project CAFE, 2004–2006. *Prev Chronic Dis*. 2010;7:1–9
6. Vo TLH, Thiel D. A system dynamics model of the chicken meat supply chain faced with bird flu. University of Nantes: Nantes, France; 2006
7. World Health Organization. Coronavirus disease 2019 (COVID-19): situation report, 51. World Health Organization, Geneva; 2020.
8. Homeland Security Council. National strategy for pandemic influenza: implementation plan. Homeland Security Council, Washington (D.C.); 2006.
9. Gostin L. Public health strategies for pandemic influenza: ethics and the law. *Jama*2006;295:1700–4.
10. <http://www.emro.who.int/nutrition/news/nutrition-advice-for-adults-during-the-covid-19outbreak.html>
11. <https://www.health.state.mn.us/communities/healthyeating/covid19.html>

# करोना महामारी: योग्य आहार आणि योगाचे महत्व

प्रा. डॉ. विठ्ठल डुमनर

शारिरीक शिक्षण आणि क्रीडा विभाग, पु. अ. होळकर महा., राणीसावरगाव ता. गंगाखेड जि. परभणी

मागील दोन वर्षात म्हणजेच २०२० आणि २०२१ मध्ये करोना महामारीने जगभर अक्षरशः थैमान घातले आहे. करोना हा संसर्गजन्य रोग आहे. करोना हा संसर्गजन्य रोग हवेतून विषाणूद्वारे पसरतो. जागतिक आरोग्य संघटनेने या साथीच्या रोगाला जागतिक महामारी म्हणून घोषित केले आहे. करोनाचा प्रादुर्भाव SARS-CoV-2 या विषाणूमुळे होतो. करोनाला कोविड-१९ असेही म्हणतात. करोनाग्रस्त व्यक्तीची पहिली नोंद चीनमधील वूहान शहरात डिसेंबर २०१९ मध्ये झाली. (Wikipedia) कोविड-१९ ची लक्षणे प्रामुख्याने ताप, खोकला, डोकेदुखी, थकवा, चव जाणे, गंध न कळणे इ. या महामारीवर प्रभावी औषध न सापडल्याने जगभर लाखों लोकांचा मृत्यू या रोगामुळे झाला आहे. २०२१ मध्ये कोविड-१९ वर प्रभावी लस सापडल्याने आणि रशिया, अमेरिका, चीन, भारत, पाकिस्तान, श्रीलंका, ऑस्ट्रेलिया इ. देशांनी प्रभावी लसीकरण मोहीम सुरू केल्याने नवीन रुग्ण संख्या वाढण्याचे प्रमाण कमी झाले आहे. करोना काळात खालील बाबींची काळजी घेणे आवश्यक आहे.

## १. स्वच्छ हात धुणे:

किमान ४० सेकंद तरी साबणाचा अथवा हँड वॉश चा वापर करत नियमित हात धुवायला पाहिजे. या काळात हातात हात देऊन अभिवादन करणे टाळले पाहिजे. कुठल्याही पृष्ठभागावर हात टेकवू नये, चुकून टेकवल्यास व्यवस्थित हात धुवून घ्यावे.

## २. हातरुमाल किंवा टिश्यू पेपरचा वापर करणे:

खोकलताना अथवा शिकताना तोंडावर रुमाल धरावा जेणे करून विषाणू दूरवर हवेत पसरणार नाहीत. रुमाल नसल्यास टिश्यू पेपरचा वापर करावा व नंतर तो डस्टबीन मध्ये टाकून द्यावा.

## ३. तोंड, नाक चेहरा, डोळे यांना स्पर्श करू नका:

वारंवार नाक, चेहरा, डोळे, तोंड आदी अवयवांना स्पर्श करू नये. चुकून एखादेवेळी विषाणूजन्य पृष्ठभागावर स्पर्श झालेला असल्यास या अवयवाद्वारे संसर्ग होण्याची दाट शक्यता असते.

## ४. कमीत कमी तीन फुटांचे अंतर व मुखपट्टीचा (मास्कचा) वापर:

महामारीच्या काळात शक्यतो गर्दीच्या ठिकाणी जाणे टाळले पाहिजे. शक्यतो घरीच राहण्यास प्राधान्य द्यायला पाहिजे परंतु अत्यावश्यक कामासाठी बाहेर जावेच लागले तर इतरांपासून किमान तीन फुटांचे सामाजीक अंतर (सोशल डिस्टन्सिंग) ठेवायला पाहिजे.

## ५. आंबट चवीच्या फळांचा आहारात समावेश:

कोरोना व्हायरसच्या विरोधात लढा द्यायचा असेल तर आपली रोगप्रतिकारक क्षमता चांगली असणे अत्यंत गरजेचे आहे. यासाठी आंबट चवीच्या फळांचा आहारात समावेश करणे आवश्यक आहे. यामध्ये व्हिटॅमिन सीचे प्रमाण जास्त असते संतुलित आहार हे निरोगी जगण्याचा एक नियम आहे. निरोगी आणि सदृढ शरीरासाठी नियमितपणे संतुलीत आहार घेणे गरजेचे आहे. सध्या बाहेरचे चमचमीत पदार्थ एक प्रथा तयार झाली आहे. बाहेरचे पदार्थ खाल्ल्याने शरीरावर प्रतिकूल परिणाम होऊ शकतो. अनेक आजार हे केवळ योग्य आहार न घेतल्याने होतात. योग्य आहाराचे सेवन केल्यानेच तसेच व्यायाम अथवा नियमित योगा केल्याने अनेक रोगांना किंवा आजारांना प्रतिकार करणारी रोगप्रतिकारक शक्ती शरीरात निर्माण होते. ज्या कोरोनाने जगभर हाहाकार माजवला त्याच करोनाच्या भीषण साथीतून लाखो लोक बचावल्याचे दिसते. ज्यांची प्रतिकार शक्ती सक्षम होती अशा लोकांना



करोना विरुद्ध यशस्वी लढा देणे शक्य झाले. योग्य आहार म्हणजेच योग्य अन्न घेणे गरजेचे आहे. अन्नाची शास्त्रीय पद्धतीने व्याख्या पुढील प्रमाणे करता येईल, “अन्न हे प्रामुख्याने कर्बोदके, प्रथिने, स्निग्धे, जीवनसत्त्वे, पाणी तसेच अल्पप्रमाणात खनिजे व सेंद्रिय संयुगापासून बनलेले असते.” अन्नामध्ये खनिजे हे मिठाच्या स्वरूपात आणि सेंद्रिय पदार्थ, जीवनसत्त्वे, इमल्सीफायर्स, आम्ल, ॲंटीऑक्सिडंट्स, रंगद्रव्ये, पॉलीफेनॉल किंवा सुगंधके ह्या स्वरूपात आढळतात. [अन्नशास्त्र आणि तंत्रज्ञान] रोगप्रतिकारक शक्ती शरीरात वाढण्यासाठी योग्य प्रकारचा आहार घेणे गरजेचे आहे. महाराष्ट्र टाइम्स च्या ऑनलाईन पोर्टलनुसार, “करोना व्हायरसपासून बचाव करण्यासाठी आहारामध्ये व्हिटॅमिन आणि प्रोटीनचा समावेश असणे गरजेचे आहे. या घटकांचा योग्य प्रमाणात पुरवठा झाल्यास शरीर सुदृढ राहण्यास मदत मिळते. यामुळे आपल्या शरीराची रोगप्रतिकारक शक्ती मजबूत होते. व्हिटॅमिन डी आणि व्हिटॅमिन सी शरीरासाठी अत्यावश्यक आहे.”

करोनाच्या पार्श्वभूमीवर केवळ करोनाबाधित नाहीतर सर्वांनीच प्रक्रिया केलेले अन्नपदार्थ खाणे पूर्णतः टाळले पाहिजे. प्रक्रिया केलेल्या अन्नपदार्थांमध्ये चरबी वाढवणारे घटक असतात. केलेल्या अन्नपदार्थांमध्ये साखर(शुगर) व मीठ यांचे प्रमाण अधिक असते याचा विपरीत परिणाम शरीरातील रोगप्रतिकारक शक्तीवर होतो. भारतात करोनाच्या पहिल्या लाटेदरम्यान मांसाहार करण्याबद्दल अनेक गैरसमज पसरले होते. मांसाहार केल्याने करोना होतो हा अत्यंत चुकीचा समज लोकांनी करून घेतला. वास्तविक मांसाहारी पदार्थ योग्य प्रकारे शिजवून खाल्यास ते आरोग्यासाठी उपयुक्त सिद्ध होऊ शकतात कारण या पदार्थांमध्ये उच्च प्रतीचे प्रथिने असतात जी रोगप्रतिकारक शक्ती वाढवण्यास मदत करतात. करोना महामारी दरम्यान आहारविषयक खालील बाबींची काळजी घेणे गरजेचे आहे.

### १. ताजे अन्न खावे:-

नियमितपणे फळे खावीत. सफरचंद, किवी, संत्रे, केली इ. फळांचे किंवा त्या त्या मौसमातील कोणत्याही फळांचे सेवन आरोग्यासाठी फायदेशीर ठरते. तसेच हिरव्या पालेभाज्या, डाळी, मासे, दूध अंडी, मांस इ. योग्य पद्धतीने खाणे फायदेशीर ठरते.

### २. मुबलक प्रमाणात पाणी प्यावे:-

दररोज भरपूर पाणी प्यावे. रोज साधारणतः ९-१० ग्लास पिणे आवश्यक आहे. तसेच फळांचे ज्यूस आणि लिंबू सरबत सुद्धा आरोग्यास उपयुक्त आहे.

### ३. चरबीयुक्त पदार्थ खाणे टाळावे:-

चरबीयुक्त मांस सेवन करणे टाळावे. रेडमीट(लालमांस) ऐवजी चिकन, व्हाईट मीट किंवा माणसे खाण्यास प्राधान्य देणे गरजेचे आहे. दुधाचे सेवन करणाऱ्याने कमी फॅट असलेले दूध घ्यावे. (lokmatnews.18) फास्टफूड जसे की स्नॅक्स, पिज्जा, भेळ इ. खाणे टाळावे.

अशा प्रकारचे पौष्टिक व सकस आहार घेणे नितांत गरजेचे आहे जेणेकरून करोनासारख्या महामारीशी लढणाऱ्या रोगप्रतिकारक शक्ती आपल्या शरीरात तयार होतील. याच रोगप्रतिकारक शक्ती मुळे करोनाग्रस्त व्यक्ती औषधोपचराला योग्य तो प्रतिसाद देत या जीवघेण्या आजारावर यशस्वीपणे मात करू शकतो. करोना दरम्यानच्या काळात अनेक आहारतज्ज्ञ, वैद्यकीय तज्ञ सुद्धा सकस आहार घेण्याचे आवाहन करत आहाराचे महत्त्व सांगत होते. अशा तज्ञांनी सांगितलेले आहार विषयक नियम करोनाशी लढताना फायदेशीर ठरले.

शारीरिक आरोग्य जपण्यासाठी जसे सकस, समतोल आहार घेणे गरजेचे आहे तितकेच व्यायाम अथवा योगा करणे महत्वाचे आहे. आजच्या धकाधकीच्या जीवनात व्यक्तीला आपल्या आरोग्यासाठी पुरेसा वेळ देणे शक्य होत नाही ज्याचा परिणाम त्यांच्या आरोग्यावर झालेला दिसून येतो. असमतोल आहार तसेच योगा अथवा व्यायाम न केल्याने पाठदुखी, मधुमेह, उच्च रक्तदाब, हृदयरोग, व्यंथत्व, मेंदू-घात, स्तनाचा कर्करोग, संप्रेरकांचे असंतुलन आदी

आजारांना सामोरे जावे लागते. कोरोना रुग्णांना असे आजार असल्यास अशा रुग्णांना या आजारातून बरे होण्यास अडचणी निर्माण झाल्याचे दिसते. अशा गंभीर आजारांमुळे शरीरातील रोग प्रतिकारक शक्ती मंदावते ज्यामुळे कोरोना रुग्ण दगावण्याची शक्यता अधिक असते. म्हणून वरील आजार टाळण्यासाठी समतोल आहाराबरोबर नियमित व्यायाम किंवा योगा करणे गरजेचे आहे. आजच्या धकाधकीच्या जीवनात योगाला अनन्यसाधारण महत्व प्राप्त झाले आहे. योगाचा केवळ अध्यात्माशी संबंध जोडणे पूर्णतः चुकीचे आहे. शारीरिक आणि मानसिक स्वास्थ्य सांभाळावे असेल अशा सर्वांनी योगाकडे गांभीर्याने लक्ष देणे गरजेचे आहे. शारीरिक आणि मानसिक स्वास्थ्य योगामुळे व्यवस्थित राहते याचा अर्थ योग हे व्यक्तीच्या सुखी आणि समृद्ध जीवनाचा एक मार्गच आहे.

योग ही हजारो वर्षांपासून चालत आलेली परंपरा आहे. अनेक प्राचीन धार्मिक ग्रंथात योगाचा उल्लेख आढळतो. भगवान बुद्धांच्या काळात योगाला मोठ्या प्रमाणात प्रसिद्धी मिळाल्याचे दिसून येते. योग आणि बौद्ध धम्म प्राचीन भारताच्या संस्कृतीतून निर्माण झालेल्या परंपरा आहेत असे मानले जाते. योग आणि बौद्ध धम्म एकमेकांना इतके पूरक आहेत की यांचा एकमेकांवर खूप प्रभाव असलेला दिसून येतो. विविध धर्मांचे अभ्यासक डेव्हिड फ्रॉली यांच्या मते, 'शास्त्रीय योग प्रणालीचा विचार करता ही प्रणाली ऋषी पतंजली यांनी योगसूत्रांद्वारे मांडली. पतंजली ऋषींनी मांडलेली प्रणाली ही मोठ्या वैदिक परंपरेचा केवळ एक भाग होता. ऋषी पतंजली यांच्याकडे योग परंपरेचे संस्थापक म्हणून कधीही पाहिले गेले नाही, हे ध्यानात घेतले पाहिजे. योगशास्त्राचे संकलक म्हणूनच त्यांच्याकडे पाहिले जाते. आधीपासून चालत आलेल्या परंपरेचा आधार घेत त्यांनी अष्टांगयोगाचा मार्ग सांगितला. यामध्ये नैतिक शिस्त (यम आणि नियम), आसन, श्वसनद्वारे प्राणशक्तीचे नियमन (प्राणायाम), इंद्रियांचा निग्रह (प्रत्याहार), एकाग्रता (धारणा), ध्यान आणि समाधी यांचा समावेश होतो. योगाकडे पाहण्याचा हा आठ आयाम असलेला दृष्टिकोन बहुतेक हिंदू विचारांच्या संस्थांमध्ये स्वाभाविकपणे दिसून येतो.' पण असे असले तरीही योगाचा कुठल्याही धर्माशी संबंध जोडणे म्हणजे वैचारिक दिवळखोरीच म्हणावे लागेल.

भारताचे विद्यमान पंतप्रधान श्री नरेंद्र मोदी यांनी २०१४ रोजी संयुक्त राष्ट्र सभेत केलेल्या भाषणात २१ जून या दिवशी 'योगा दिवस' साजरा करावा असे सूचित केले होते, त्यानुसार दरवर्षी २१ जून रोजी 'योगा दिवस' साजरा केला जातो. पंतप्रधान मोदी योगाचे महत्व सांगताना त्यांच्या भाषणात म्हणतात, **“Yoga is an invaluable gift of India's ancient tradition. It embodies unity of mind and body; thought and action; restraint and fulfillment; harmony between man and nature; a holistic approach to health and well-being. It is not about exercise but to discover the sense of oneness with yourself, the world and the nature. By changing our lifestyle and creating consciousness, it can help in well being. Let us work towards adopting an International Yoga Day.”** योगाला जागतिक स्तरावर महत्व मिळू लागल्याने भारतीय लोकांमध्ये सुद्धा योगाबद्दल जागरूकता वाढताना दिसत आहे.

योगामुळे शारीरिक स्वास्थ्य तर चांगले राहतेच शिवाय मानसिक व भावनिक पातळीवर देखील योगा कार्य करतो. योगामुळे दैनंदिन जीवनातील तणाव तसेच वेगवेगळ्या प्रकारच्या अडचणी योगाच्या माध्यमातून कमी होण्यास मदत होते. प्राचीन काळात शारीरिक भावना तसेच मनावर नियंत्रण मिळवण्यासाठी अनेक संत नियमितपणे योगा करत व योगा करण्याचा उपदेश करत असत.

कोरोना आजारात योग महत्वाचा ठरत असल्याचे दिसून आले. रोग प्रतिकार क्षमता पांढऱ्या पेशी आणि टी सेलच्या माध्यमातून होते. सकाळच्या ऑनलाईन पोर्टलनुसार या आजारात कोणतेही रामबाण औषध नसल्याने व्यक्तीची रोगप्रतिकारक्षमता हीच महत्वाची ठरते. शरीरात रोग प्रतिकारक्षमता ही पांढऱ्या पेशी, टी सेल यांच्या माध्यमातून होते. पांढऱ्या पेशीची निर्मिती अस्थी मज्जा (बोन मॅरो) व प्लीहा ग्रंथीत तयार होतात. टी सेल या थायमस ग्रंथीत तयार होतात. या निर्मिती केंद्राचे कार्य सुरळीत सुरू राहण्यासाठी शीर्षासन, सर्वांगासन, हलासन,

पादहस्तासन, अर्धवक्रासन, धनुरासन, पवनमुक्तासन आदी आसने उपयुक्त आहेत. सूर्यभेदन व नाडीशोधन हे प्राणायामाचे प्रकार देखील प्रतिकारक्षमता वाढीला मदत करतात. शरीरात सायनसच्या बाजूला अँटीऑक्सिडेंटची निर्मिती होत असते. त्यासाठी ओंकार व भ्रामरी हे प्राणायाम या निर्मितीला चालना देणारे ठरतात. कोरोनाचा विषाणू हा रुग्णाच्या श्वसन संस्थेवर आक्रमण करतो. त्यामुळे रुग्णाची श्वसन संस्था सदृढ असणे आवश्यक आहे. श्वसन संस्था सदृढ ठेवण्यासाठी जलनेती आणि भस्त्रिका केल्याने श्वसन संस्था सुरळीत राहण्यास मदत होते. जी योग आसने पाय वर व डोके खाली ठेवून करायची असतात ती केल्याने श्वसन संस्थेला व्यवस्थित रक्त पुरवठा होतो. उज्जायी प्राणायामाने घसा व थायरॉईडची सदृढता वाढते.

अशा पद्धतीने कोरोना महामारी दरम्यानच्या काळात योगा करण्याने व सकस आहार घेतल्याने कोरोनावर उपचार करणे शक्य होते. नियमित योगा करणारा रुग्ण या आजारातून लवकर बरा होण्याची शक्यता अधिक असते. कोरोना असो अथवा नसो प्रत्येकाने समतोल आहाराबरोबर नियमित योगा करणे गरजेचे आहे. कोरोना महामारीमध्ये सर्वांनीच खासकरून वयोवृद्ध व्यक्ती व लहान बालके यांनी विशेष काळजी घेणे गरजेचे आहे. शासकीय यंत्रणांनी वेळोवेळी घालून दिलेल्या नियमांचे काटेकोरपणे पालन करणे आवश्यक आहे. महामारीच्या काळात गर्दी टाळणे तसेच गर्दीच्या ठिकाणी मास्क वापरून तसेच सामाजिक अंतर ठेवून आपण सजग नागरिक असल्याचे उदाहरण इतरांसमोर ठेवावे जेणेकरून इतरांनाही तसे करण्यास प्रवृत्त करणे शक्य होईल. शासनाचे नियम पाळून सर्वांनी नियमित व्यायाम अथवा योग अभ्यास किंवा योग सरावाला जाणे गरजेचे आहे जेणेकरून या आजारा विरुद्ध लढणे सोपे होईल.

#### संदर्भसूची:-

1. <https://en.wikipedia.org/wiki/COVID-19>
2. <https://lokmat.news18.com/lifestyle/what-to-eat-and-what-to-avoid-amid-coron-pandemic-who-advice-gh-541929.html>
3. <https://maharashtratimes.com/lifestyle-news/health-news/covid-19-prevention-tips-healthy-diet-to-fight-against-coronavirus-in-marathi/articleshow/76734231.cms?story=2>
4. <https://vivekvichar.vkendra.org/2017/06/blog-post.html>
5. <https://www.esakal.com/paschim-maharashtra/solapur/kisan-credit-card-facility-should-be-increased-amarsingh-mane-deshmukh-kgm00>
6. अन्नशास्त्र आणि तंत्रज्ञान. इयत्ता अकरावी. महाराष्ट्र राज्य पाठ्यपुस्तक निर्मिती व अभ्यासक्रम संशोधन मंडळ, पुणे. 2019. पृ.क्र. २

# कोव्हीड १९ च्या काळात योगासनांचा शारीरिक सुदृढता आणि अरोग्यावर होणा-या परिणामाचा विश्लेषणात्मक अभ्यास

प्रा. डॉ. जाधव बी. पी.

ए. सी. एस. कॉलेज शंकरनगर ता. बिलोली जि. नांदेड

सारांश :

कोव्हीड १९ च्या काळात योगासनांचा शारीरिक सुदृढता आणि अरोग्यावर होणा-या परिणामाचा विश्लेषणात्मक अभ्यास या संशोधन निबंधात योगासने किती गरजेचे आहे. हे जाणून घेण्याचा प्रयत्न करण्यात आला. त्यासाठी दुय्यम साधन सामुग्री पद्धतीचा वापर केला आहे. त्यासर्वांचा अभ्यास करून असा निष्कर्ष काढण्यात आला आहे. योगासने हे शारीरिक सुदृढता आणि अरोग्य सुधारण्यासाठी अतिशय उपयुक्त आहे.

**महत्वाचे शब्द :** योगासने, शारीरिक सुदृढता आणि अरोग्य.

**प्रस्तावणा :**

मानवी जिवन हे सुखी झाले शारीरिक कष्ट कमी झाले मानवाला प्रत्येक गोष्ट ही जागेवर मिळू लागली. आय. टी क्षेत्रात नोकरीच्या अनेक संधी निर्माण झाल्या महिला ही पुरुषांच्या खांदयाला खांदा लावून काम करू लागल्या आज सर्व काम हे बौद्धिक क्षमतेवर अवलंबून असलेले आपण पाहू शकतो. सर्वच काम हे एका जागी बसून करावे लागत आहे. या सर्वांचा परिणाम हा मानवी शरीरावर झाला खुप दिवस आरामदायी जिवन जगल्यामुळे त्याचे दुष्परिणाम हळुहळु शरीरावर होण्यास सुरुवात झालेली. आज प्रत्येक दहा स्त्री पुरुषामागे सहा ते सात लोकांना मधुमेह उच्च रक्तदाब मानसिक आजार इ. प्रकारच्या वेगवेगळ्या समस्या आज झालेल्या आपण पाहात आहोत. मानवाला आपले शरीर निरोगी ठेवणे आणि मन प्रसन्न ठेवणे एक अव्हान झाले आहे. यावरचा एक उपाय म्हणजे प्रत्येकाने एक तास किंवा किमाण तीस मिनिटे तरी व्यायम करणे हाच आहे. आज ज्या महामारीच्या काळात आपण जगत आहोत त्याकाळात आपली रोग प्रतिकार शक्ती वाढविण्यासाठी व निरोगी रहाण्यासाठी व्यायाम करणे खुप महत्वाचे आहे परंतु आज जिम व्यायामशाळा स्वीमिंगपुल खेळाची मैदाने सर्वच बंद झाले होते. आता हळुहळु ते सुरु होत आहे. तरी आपण गर्दीच्या ठिकाणी जवून व्यायाम करणे योग्या नाही घरातील सर्वांना व्यायाम करता यावा अगदी मुलांना पासून वृध्दापर्यंत असा असा व्यायाम प्रकार निवडणे गरजेचे आहे योग हा आपल्या गरजांची पूर्तता करणारा व्यायम प्रकार आहे की नाही यावर प्रकाश टाकण्याच्या दृष्टीने सदरच्या संशोधन निबंधात शोध घेण्याचा प्रयत्न केला गेला आहे.

**शारीरिक सुदृढता आणि अरोग्य :**

व्यक्ति विकासासाठी शिक्षण फार महत्वाचे आहे आणि शिक्षणाचा अर्थ व्यक्तिच्या वर्तनामध्ये कायम स्वरूपी विधायक बदल घडून येणे असा आहे. वर्तन म्हणजे शरीर इंद्रियाची कृती होय. शिक्षण ही एक प्रक्रिया आहे की जिच्या मुळे बालकास भावी जीवन यशस्वी रीतीने जगण्याची कला प्राप्त होते. शारीरिक सुदृढतेकडे व आरोग्याकडे लक्ष पुरविणे हे शिक्षणाचे उद्दिष्ट आधुनिक शिक्षण पद्धतीत मान्य झाले आहे.

आपल्या दैनंदिन जीवनातील आरोग्य सुधारण्यासाठी मानवी जीवन चांगले जगण्यासाठी तसेच अकालीन मृत्यू टाळण्यासाठी दररोज व्यायाम करणे खूप महत्वाचे आहे (फ्लेचर १९९६).

काहीजण व्यायाम शाळा, विविध हास्यकल्ब, क्रिडा केंद्रे व विविध शारीरिक उपक्रमांत भाग घेऊन स्वतःची हालचाल क्षमता व शारीरिक सुदृढता वाढवतात. शारीरिक सुदृढतेच्या विकासासाठी शारीरिक व्यायाम व कसरती कराव्या लागतात. यासाठी विविध पद्धती वापरल्या जातात. ही सुदृढता वाढवण्यासाठी विविध उपक्रमांचा वापर करतात (व्यायामशाळा, योगावर्ग, मनोरंजनवर्ग, ऐरोबिक्स, इ.) (डिशमेन, २००२).

कोरोना व्हायरस सारख्या साथीच्या रोगामुळे संपूर्ण जगावर निर्बंध लादण्याची वेळ आली त्यामुळे सर्व शाळा महाविद्यालये मैदाने क्रीडा केंद्रे नृत्य वर्ग सर्वच बंद आहेत. त्यामुळे मुलांची शारीरिक हालचाल बंद झाली आहे. मुले आळशी आणि असक्रिय झाली. मुले शाळेमुळे जे खेळायचे ते सर्व बंद झाले लठ्ठपणा मूलांमध्ये दिसू लागला. शारीरिक सुदृढतेच्या समस्या निर्माण होत आहे. सध्या परिस्थिती किती दिवस राहिल हे सांगता येत नाही. त्यामुळे मुलांना पुरेच्या शारीरिक हालचाली फिजिकल क्टीव्हिटी करण्यासाठी प्रोत्साहित केले पाहिजे त्यासाठीची धोरणे निश्चित करणे आवश्यक आहे (ज्यासीस्को २०२१).

#### योगासने :

सूर्यनमस्काराचा तरूणांच्या शारीरिक सुदृढतेतील लवचिकता या घटकावर होणा-या परिणामाचा अभ्यास केला असता त्या संशोधनामध्ये संशोधकास तरूणांच्या लवचिकतेवर सार्थक परिणाम आढळून आला. त्यात त्यांनी सहा आठवडे तरूणांना सूर्यनमस्कार दिला (जाधव २०२१).

पद्मसाधना योग प्रशिक्षणाचा विद्यार्थीनींच्या आरोग्याधिष्ठित शारीरिक सुदृढता व एकाग्रतेवर होणा-या परिणामांचा अभ्यास या संशोधनात संशोधकाने सहा आठवड्यांचा प्रशिक्षण कार्यक्रम घेतला. त्यात विद्यार्थीनींच्या आरोग्याधिष्ठित शारीरिक सुदृढता व एकाग्रतेवर घटकांवर सार्थक परिणाम झालेला आढळून आला (सकपाळ २०१५).

व्यक्तीच्या हि पडक्टर लवचिकता वाढवीण्यासाठी सूर्यनमस्क उपयुक्त आहे की नाही हे पहाण्यासाठी तरूण फिजीओ थेरेपीक विद्यार्थ्यांना सूर्यनमस्काराचा चार आठवड्यांचा प्रशिक्षण कार्यक्रम दिला व त्याचा त्या विद्यार्थ्यांवर सार्थक परिणाम दिसून आला (अर्पणा २०२०).

योग प्रशिक्षण कार्यक्रमाचा व्यायामपट्ट्या वजन व मेदयावर काय परिणाम होतो हे पहाण्यासाठी सहा आठवड्यांचा प्रशिक्षण कार्यक्रम दिला असता व्यायामपट्ट्या वजन व मेदयांच्यावर सार्थक परिणाम दिसून आला. त्यामुळे सदरचा योग प्रशिक्षण कार्यक्रम हा वजन व मेद कमी करण्यासाठी परिणामकारक आहे असे या प्रशिक्षण कार्यक्रमावरून दिसून येते (वाकचौरे २०१३).

#### समारोप :

या सर्व संशोधनाचा अभ्यास केला असता असा निर्णय घेता येईल की आज कोव्हीड१९ या सारख्या संसर्गजन्या रोगामुळे संपूर्ण जग हे बंद झाले आहे. सर्वजन हे घरात बंद आहेत. यावेळी आपण आपली रोग प्रतीकारक शक्ती वाढवणे ही गरजेचे आहे. त्यासाठी व्यायाम करणे गरजेचे योगासने सर्वांग सुंदर व्यायाम आहे. योगासनाद्वारे आपण शारीरिक सुदृढता व आरोग्य सुधारू शकतो. योगासने हे लहान मोठे वृद्ध असे सर्वजण करू शकतात.

**संदर्भ :**

1. अर्पणा आणि दिकेल (२०२०). इफेक्ट ऑफ सुर्य नमस्कार ऑन हिप□डयकटर फ्लेजिबिलिटी अमॉनग यंग फिजीओ थेरिपी स्टूडेंट्स. इन्टरनॅशनल जर्नल ऑफ हेल्थ सायन्स ऑड रिसर्च १०, (६) २३३ – २३८. २०२०.
2. फ्लेचर, जी. एच. (१९९६). स्टेटमेंट ऑन एक्साइज: बेनिफिट्स □ न्डरिक मेन्डाशनस फॉर फिजिकल □ क्टी व्हीटी प्रोग्राम फॉर ऑल अमेरिकनस. जर्नल ऑफ अमेरिकन हार्ट असोसिएशन यु एस ए.
3. डिशमेन, आर. के. (२००२). डुज एक्साइज इन ओल्डर अडुल्स प्रेडिक्ट प्रोब्लम सोल्विंग? दरोल ऑफ पेर्सोनालीटी एक्साइज सायकोलोजी, हुमन किनेटेक्स, चाम्पा इगन.
4. ज्या सीस्को, जे. (२०२१). द इम्पाक्ट ऑफ कोविड-१९ ऑन फिजिकल □ क्टी व्हीटी ऑफ स्लेच चिल्डरन, जर्नल ऑफ पोने.
5. <https://doi.org/10.1371/journal.pone.0254244>
6. जाधव, बी. पी.<sup>३</sup> २०२१ '.व्यायामशाळेत व्यायाम करणा-या व्यायामपटूंच्या वजन व मेदावर निवडक योगासनाचा होणा-या परिणामाचा अभ्यास. न्यु मान इंटरनॅशनल जर्नल ऑफ मल्टी डिसेपनरीस्टडीज : ८<sup>३</sup> ३'.

# आरोग्य आणि फिटनेस राखण्यासाठी शारीरिक शिक्षणाची भूमिका

श्रीमती सुवर्णा गोवर्धन घोलप

(एम. ए., एम.पी. एड, एम. फिल, पीएच. डी. संशोधक)

## गोष्टवारा:

आधुनिक काळात, शारीरिक शिक्षण हा सर्वात रोमांचक आणि गतिमान विषय आहे. गेल्या 50 वर्षांत हा विषय नाटकीय पणे बदलला आहे. शाळेपासून ते शालेय वातावरणा पर्यंत आणि शालेय वयाच्या मुलांपासून ते सर्व वयोगटातील लोकांपर्यंत विविध क्षेत्रांमध्ये त्याचा विस्तार झाला आहे. पूर्वी, शारीरिक शिक्षण हे सामान्यतः शालेय वेळापत्रकात किंवा काही मुक्त हाताचे व्यायाम, खेळ, शर्यत, रेसिंग, पोहणे इत्यादी शारीरिक क्रिया कलाप समजले जात असे.

## अर्थ आणि व्याख्या:

शारीरिक शिक्षण हे असे शिक्षण आहे जे शारीरिक क्रियाकलापांच्या मदतीने मानवी कार्यक्षमतेत सुधारणा घडवून आणते. शारीरिक क्रियाकलाप साध्या चालण्या पासून ते जॉगिंग, धावणे, उडीमारणे, चढणे, फेकणे, ढकलणे, खेचणे, लाथमारणे, इ. शारीरिक क्रियाकलापां शिवाय शिक्षण हे आत्म्या शिवाय शरीरासारखे आहे. शिक्षणाच्या एकूण रचनेत शारीरिक शिक्षण आणि व्यायामाच्या विविध प्रकारांना योग्य स्थान देण्यात कोणताही वाद नाही. मानवी शिक्षणातील सर्व शिकवणी शारीरिक शिक्षणा पासून सुरू होतात. शारीरिक शिक्षण हे हालचालींचे शिक्षण देखील मानले जाते कारण जीवनाची सुरुवात हालचाली ने होते. सामान्य जीवनात हालचालींचे वैशिष्ट्य असते. मुलाच्या जन्मापासून, आयुष्याच्या शेवट पर्यंत हालचाल सुरू असते.

## प्रस्तावना:

शारीरिक शिक्षण शक्ती, वेग, सहनशक्ती आणि समन्वय क्षमता विकसित करण्याची क्षमता कशी मिळवायची हे शिकवते. इतरांशी सुदृढ सामाजिक संबंधांसाठी आवश्यक असलेल्या सहानुभूती, सहकार्य, मैत्री, सांघिक भावना आणि नियमांचा आदर या सारखे सामाजिक गुण साध्य करण्यावर ही यात भर दिला जातो. तंत्रज्ञानाच्या प्रगतीच्या या युगात शारीरिक शिक्षण आणि खेळ हे आरोग्य, तंदुरुस्ती, निरोगीपणा, जोम आणि सामर्थ्य यासाठी आवश्यक मानले जातात.

शारीरिक शिक्षण ही संकल्पना नवीन नाही. वस्तुस्थिती अशी आहे की त्याची मुळे प्राचीन काळात आहेत. इतिहासाच्या विविध टप्प्यांवर, वेगवेगळ्या लोकांनी 'शारीरिक शिक्षण' या शब्दाशी वेगवेगळे अर्थ जोडले आहेत. सोप्या शब्दात शारीरिक शिक्षण म्हणजे शरीराच्या हालचालींच्या मदतीने शिकणे आणि मानसिक स्तरावर फायदे लक्षात घेणे. याचा सरळ अर्थ शारीरिक हालचालींचा वापर करून आणि सामाजिक फायद्यासाठी फायदा मिळवून देणे असा होतो.

खेळ आणि शारीरिक शिक्षण हे शिकण्याच्या प्रक्रियेचा अविभाज्य भाग आहेत आणि कामगिरीच्या मूल्यमापनात त्यांचा समावेश करणे आवश्यक आहे. शैक्षणिक क्षेत्रात शारीरिक शिक्षण, खेळ आणि खेळांसाठी देशव्यापी पायाभूत सुविधा आवश्यक आहेत. पायाभूत सुविधांमध्ये खेळाचे मैदान, उपकरणे, प्रशिक्षक आणि शारीरिक शिक्षणाचे शिक्षक यांचा समावेश आहे. शहरी भागातील उपलब्ध मोकळ्या जागा खेळाच्या मैदानासाठी वापरता येतील. क्रीडा संस्था आणि वसतिगृहे स्थापन करण्यासाठी प्रयत्न केले पाहिजेत जेथे सामान्य शिक्षणासह क्रीडा क्रिया कलाप आणि क्रीडा – संबंधित अभ्यासावर विशेष लक्ष दिले जाऊ शकते. खेळ आणि खेळात प्रतिभा असलेल्यांना योग्य प्रोत्साहन दिले पाहिजे. स्वदेशी पारंपरिक खेळांवर योग्य लक्ष केंद्रित केले पाहिजे.

**वैयक्तिक शारीरिक शिक्षण:**

शारीरिक शिक्षण शिक्षकांचे नियमित वेळापत्रक असते. विद्यार्थ्यांना व्यायाम शाळेत किंवा शाळेच्या मैदानी मनोरंजन क्षेत्रामध्ये शिकवत नसताना, शिक्षक त्यांच्या कार्यालयात काम करतात किंवा शाळेच्या बैठकांना उपस्थित राहतात. पी. ई. शालेय प्रणालीच्या अन्यवेळा पत्रकानुसार शिक्षकांना उन्हाळ्याच्या आणि सत्राच्या मध्यभागी सुट्ट्यांचा देखील फायदा होतो. शिक्षकांना संघटित खेळांचे प्रशिक्षण देणे यासारख्या इतर गोष्टींचा पाठपुरावा करण्याची संधी देण्यासाठी सहसा ब्रेक पुरेसा असतो.

तर शारीरिक शिक्षण शिक्षक त्यांच्या कार्यालयात बराच वेळ मीटिंग मध्ये आणि पेपरवर्क पूर्ण करण्यात व्यतीत करतात, त्यांच्या अभ्यासक्रमाच्या क्षेत्रात प्रभावी पणे शिकवण्यासाठी त्यांनी मध्यम प्रमाणात शारीरिक तंदुरुस्ती राखली पाहिजे. शारीरिक शिक्षणाच्या शिक्षकांना बऱ्याचदा जड व्यायाम उपकरणे हलवण्याची आणि त्यांची देखभाल करण्याची जबाबदारी दिली जाते आणि त्याशिवाय, जे शिक्षक चांगल्या शारीरिक स्थितीत असतात ते त्यांच्या विद्यार्थ्यांसाठी सकारात्मक रोल मॉडेल म्हणून काम करतात.

इतर जबाबदाऱ्या शारीरिक शिक्षण शिक्षकांनी देखील स्वीकारल्या पाहिजेत ज्या शाळेतील सर्व शिक्षकांदरम्यान नियुक्त केलेल्या कर्तव्ये आहेत जसे की जेवणाची खोली आणि सुट्टीचे पर्यवेक्षण करणे, शाळेनंतरच्या कार्यक्रमांमध्ये भाग घेणे आणि आवश्यक तेव्हा बसकतव्ये पारपाडणे देखील आवश्यक आहे. नियतकालिक प्राध्यापकांच्या बैठका आणि पालक – शिक्षक परिषदा देखील अनिवार्य आहेत.

**आरोग्य आणि फिटनेस राखण्यासाठी वैयक्तिक शारीरिक शिक्षणाचे महत्त्व:****1. भारतातील शारीरिक शिक्षण नैतिक गुण शिकवते:**

शारीरिक शिक्षणाचा पहिला फायदा असा आहे की ते नैतिक गुण शिकवते ज्या विद्यार्थ्यांना या स्पर्धात्मक जगात भरभराट होण्यासाठी आवश्यक आहेत. शारीरिक शिक्षणातून ते शिकतात ते मुख्य नैतिकता म्हणजे चिकाटी आणि कार्यनैतिकता. शारीरिक शिक्षण असो की खेळ, अनेकदा वाद होतात आणि केवळ नैतिकता आणि खेळाडूंची चिकाटी हे वाद कमी करू शकतात.

**2. शारीरिक तंदुरुस्ती:**

निरोगी जीवन शैलीसाठी शारीरिक तंदुरुस्ती हा महत्वाचा घटक आहे. म्हणूनच बहुतेक शाळांमध्ये शारीरिक शिक्षण हा महत्वाचा घटक आहे. जेव्हा विद्यार्थ्यांच्या दैनंदिन पथ्येचा भाग म्हणून नियमित फिटनेस क्रियाकलाप होतात तेव्हा ते तंदुरुस्त आणि निरोगी राहतात. दैनंदिन नियमित शारीरिक हालचाली शरीरात पोषक तत्वांचे चांगले शोषण करण्यास मदत करतात आणि हृदय व रक्तवाहिन्या संबंधी आरोग्य सुधारण्यास आणि स्नायूंची शक्ती विकसित करण्यास मदत करतात.

**3. शैक्षणिक कामगिरीत सुधारणा:**

शारीरिक शिक्षणाचा एक फायदा म्हणजे तो विद्यार्थ्यांच्या शैक्षणिक कामगिरीत सुधारणा करण्यास मदत करतो. शाळांमध्ये विद्यार्थी करत असलेल्या बहुतेक शारीरिक हालचाली उच्चपातळीच्या एकाग्रतेशी संबंधित असतात ज्यामुळे चांगल्या वर्तनास मदत होते. शारीरिक क्रिया कलाप आणि क्रीडा क्रियाकलाप वर्गात शिकलेल्या ज्ञानाला चालना देण्यासाठी मदत करतात.

**4. सामाजिक सुसंवाद:**

वर्गा व्यतिरिक्त, शारीरिक शिक्षण हा एकमेव वेळ आहे जेव्हा विद्यार्थी त्यांच्या वर्गमित्र आणि इतर शाळामित्रांशी भेटू शकतात आणि संवाद साधू शकतात. हे त्यांचे सामाजिक वर्तन सुधारण्यास मदत करते. शारीरिक शिक्षण वर्गा दरम्यान, ते विविध गट क्रियाकलापांद्वारे सहकार्य करण्यास शिकतात आणि एकमेकांपासून तसेच संघाची ओळख करून घेतात. हे सामाजिक उपक्रम विद्यार्थ्यांला उत्तम व्यावसायिक बनवण्यात महत्वाची भूमिका



बजावत आहेत. उदाहरणार्थ, त्यांच्या मध्ये संघ बांधणी, नेतृत्व आणि व्यवस्थापन कौशल्ये प्रस्थापित करण्यासाठी खेळ हा एक उत्तम स्रोत आहे.

### 5. तणाव कमी होतो:

अलीकडे मुलांवर प्रचंड शैक्षणिक दबाव आहे. बहुतांश शाळा मुख्य विषयांना महत्त्व देतात आणि विद्यार्थ्यांवर या विषयांमध्ये चांगली कामगिरी करण्याचा प्रचंड दबाव असतो. शाळेत अनेक तास घालवल्या नंतर ही, त्यांना घरीच गृहपाठ करावे लागते आणि यामुळे त्यांना इतर काही करण्यास कमी वेळ मिळतो. आणि मुले शिक्षणासाठी बरेच तास घालवल्यामुळे, यामुळे खूप मानसिक आणि शारीरिक दबाव येतो. शारीरिक क्रियाकलाप यापैकी काही तणाव आणि चिंतादूर करण्यात मदत करू शकतात. भारतातील शारीरिक शिक्षणामुळे भावनिक लवचिकता आणि स्थिरता देखील मिळते.

### 6. नीरसपणा तोड तो, लक्षकेंद्रित करण्यास मदत करतो:

आपल्या सोबत काय घडते हे आपल्या सर्वांना माहित आहे आपण ब्रेक घेत नाही. त्याचा आपल्या कामावर परिणाम होतो आणि आपले लक्ष कमी होते. लहान मुले देखील या नीरसपणाला बळी पडतात. जर ते पूर्णपणे शैक्षणिक – केंद्रित असतील तर त्यांना एका दिवसात एकापेक्षा जास्त विश्रांतीची आवश्यकता आहे. येथेच शारीरिक शिक्षण चित्रात येते. जेव्हा विद्यार्थी शाळेत शारीरिक क्रियाकलापांमध्ये गुंततात तेव्हा ते एकसुरी पणा मोडून काढू शकतात आणि कंटाळवाणेपणा आणणारी अतिरिक्त उर्जा जाळून टाकू शकतात, ज्यामुळे ते वर्गात चकचकीत होतात तसेच वर्गात लक्ष देऊ शकतात.

### 7. निरोगी राहण्याचे महत्त्व जाणून घ्या:

आपण सर्व इतरांचे निरीक्षण करून शिकतो. त्याच प्रमाणे आपली कृती आणि वागणूक पाहून मुलं शिकतात. त्यांना अशा व्यक्तीची गरज आहे जी एक आदर्श म्हणून काम करू शकेल आणि त्यांना फिट राहण्यासाठी व्यायाम करण्यास मदत करेल. शारीरिक शिक्षण हा त्यांना व्यायामाच्या मूलभूत गोष्टी शिकवण्याचा एक उत्तम मार्ग आहे. आपल्या सर्वांना माहित आहे की शारीरिक शिक्षण विद्यार्थ्यांना व्यायामाची कशी ओळख करून देते आणि जेव्हा ते त्याचा आनंद घेतात तेव्हा ते आयुष्यभर ते करत राहतील. भारतातील शारीरिक शिक्षण हा देखील त्यांना आनंद घेऊ शकतील अशा विविध प्रकारच्या शारीरिक क्रियाकलापांबद्दल जाणून घेण्याचा एक उत्तम मार्ग आहे.

### 8. भारतातील शारीरिक शिक्षणाचे पोषण फायदे:

शारीरिक शिक्षणाच्या मुख्य घटकांपैकी एक म्हणजे पोषण आणि ते नाकारता येणार नाही. शारीरिक शिक्षण वर्गादरम्यान मुले पोषणाचे महत्त्व जाणून घेतात. ते मुख्यपोषण मार्गदर्शक तत्वांबद्दल देखील शिकतात.

### 9. सकारात्मक वर्तनशिका:

एका जुन्या इंग्रजी म्हणीनुसार, "एक निष्क्रिय मेंढू ही सैतानाची कार्यशाळा आहे," आणि ते निष्क्रिय बसलेल्या विद्यार्थ्यांसाठी खरे आहे. वर्गशिक्षण आणि शारीरिक शिक्षण या दोन्ही गोष्टी त्यांना व्यस्त ठेवतात आणि त्यांना भरकटण्यापासून रोखतात. आणि जेव्हा ते शारीरिक क्रियाकलापांमध्ये व्यस्त असतात तेव्हा ते एक संघ म्हणून काम करतात. शारीरिक शिक्षणात गुंतलेले असताना, विद्यार्थी शिक्षणाला महत्त्व देण्यास देखील शिकतील.

### नियमित शारीरिक हालचालींचे फायदे:

- हृदय विकाराचा धोका कमी करणे
- आपले वजन चांगले व्यवस्थापित करणे
- रक्तातील कोलेस्टेरॉलची पातळी कमी करणे
- टाइप 2 मधुमेह आणि काही कर्करोगाचा धोका कमी करणे
- रक्तदाब कमी होणे

- मजबूत हाडे, स्नायू आणि सांधे आहेत आणि ऑस्टिओपोरोसिस विकसित होण्याचा धोका कमी करणे
- तुमचा पडण्याचा धोका कमी असतो.
- हॉस्पिटलायझेशन किंवा बेड विश्रांतीच्या कालावधी पासून चांगले बरे
- बरे -अधिक ऊर्जा, चांगला मूड, अधिक आरामशीर आणि चांगली झोप लागणे

### मनाची निरोगी स्थिती:

अनेक अभ्यासात असे आढळून आले आहे की व्यायामामुळे नैराश्य दूर होते. उदासीनता असलेल्या लोकांना व्यायाम कसा मदत करतो याबद्दल अनेक मते आहेत:

- व्यायामामुळे नकारात्मक विचार रोखू शकतात किंवा दैनंदिन चिंतांपासून तुमचे लक्ष विचलित होऊ शकते.
- इतरांसोबत व्यायाम केल्याने सामाजिक संपर्क वाढण्याची संधी मिळते.
- वाढलेली फिटनेस तुमचा मूड सुधारू शकते आणि तुमची झोपेची पद्धत सुधारू शकते.
- व्यायामामुळे तुमच्या मेंदूतील सेरोटोनिन, एंडोर्फिन आणि स्ट्रेसहार्मोन्स सारख्या रसायनांच्या पातळीत ही बदल होऊ शकतो.

### शारीरिक दृष्ट्या तंदुरुस्त असणे म्हणजे काय?

शारीरिक तंदुरुस्तीची चांगली पातळी राखणे महत्वाचे आहे. तथापि, फिटनेसमध्ये काय समाविष्ट आहे हे ठरवणे कठीण होऊ शकते. तज्ञांनी शारीरिक तंदुरुस्तीची व्याख्या "रोग, थकवा आणि तणाव आणि कमी बैठी वागणूक यांच्या व्यवस्थापनासह इष्टतम कामगिरी, सहनशक्ती आणि शक्तिसह दैनंदिन क्रियाकलाप पारपाडण्याची क्षमता" अशी केली आहे. हे वर्णन पटकन धावणे किंवा जड वजन उचलणे यापलीकडे आहे. महत्वाचे असूनही, हे गुणधर्म केवळ फिटनेसच्या एकल क्षेत्रांना संबोधित करतात.

### शारीरिक तंदुरुस्तीचे तथ्य:

- चांगली शारीरिक तंदुरुस्ती राखल्याने काही परिस्थिती टाळता येऊ शकते.
- व्यायामाने वजन न बदलता शरीराची रचना बदलू शकते.
- खेळाडूंचे हृदय त्यांच्या निवडलेल्या खेळानुसार वेगवेगळे बदल दर्शवतात.
- फायबर हायपरट्रॉफी आणि न्यूरल बदलांमुळे स्नायूंची ताकद वाढते.
- लवचिकता वाढवण्यासाठी स्ट्रेचिंग केल्याने अनेक वैद्यकीय तक्रारी कमी होऊ शकतात.

शारीरिक दृष्ट्या तंदुरुस्त असणे ही व्यक्ती निरोगी असण्याचे प्रत्येक घटक किती चांगल्या प्रकारे काम पूर्ण करते यावर अवलंबून असते. जेव्हा फिटनेस येतो तेव्हा हे खालील घटक विचारात घेतले जातात:

- कार्डिओ रेस्पिरेटरी फिटनेस
- स्नायूंची ताकद
- स्नायूसहन शक्ती
- शरीर रचना
- लवचिकता

### शारीरिक शिक्षण आणि खेळाबाबत गैरसमज:

शारीरिक शिक्षणाबाबत अनेक गैरसमज आहेत. हा शैक्षणिक प्रक्रियेचा एक भाग आहे हे काही लोकांना मान्य नाही. वस्तुस्थिती अशी आहे की, कौशल्य, फिटनेस, कामगिरी आणि आरोग्य हे शारीरिक शिक्षणाचे भाग आहेत. हे शैक्षणिक आणि विकासात्मक मूल्यांना संबोधित करते जे शारीरिक क्रिया कलापांमध्ये सहभागाचे परिणाम आहेत. या उपक्रमांमधील सहभागाने सामाजिक किंवा सहकारीवृत्ती, चांगले चारित्र्य आणि संतुलित व्यक्तिमत्व विकसित होते. तथापि, जेव्हा कोणी शारीरिक शिक्षणाचा हा सर्वांगीण दृष्टिकोन ओळखण्यात अयशस्वी होतो, तेव्हा त्याचा परिणाम अनेक गैरसमजांमध्ये होतो. समाजातील लोक शारीरिक शिक्षणाच्या क्रियाकलापांमध्ये भाग

घेण्याच्या फायद्यां बद्दल एकतर कमी जागरूक आहेत किंवा आधुनिक शैक्षणिक प्रणालीच्या गतीने मागे राहिले आहेत. अशा प्रकारे, समाजातील सुशिक्षित आणि शिस्तबद्ध लोक आपल्याला काय वाटते आणि आधुनिक जगाकडे कसे पाहिले जाते हे समजून घेणे आपल्या सर्वांसाठी महत्वाचे आहे. शारीरिक शिक्षणाशी संबंधित काही सामान्य समज खाली दिले आहेत.

- हे सर्व फक्त शारीरिक प्रशिक्षणा बद्दल आहे.
- फक्त खेळांमधील सहभागा बद्दल आहे.
- ड्रिल करत आहे.
- नाटक आहे.
- गरीब सामाजिक स्थिती आहे.
- नोकरी किंवा करिअरची शक्यता नाही.
- अनुशासन हीनतेकडे नेतो.
- केवळ पैशाचा अपव्यय आहे.
- त्यामुळे विश्रंतीचा कालावधी असतो, शारीरिक किंवा मानसिक कमाई नसते.
- केवळ सोडलेल्या गटाद्वारे घेतले जाते.

#### शारीरिक शिक्षणामध्ये वापरलेली परिभाषा:

1. डाव: हे सहसा एक संघ म्हणून एकत्रित केलेल्या दोन पेक्षा जास्त लोकांद्वारे खेळलेले क्रियाकलाप मानले जाते. उद्दिष्टे, वेळ, जागा, नियम आणि वर्तनाचे मर्यादित स्वरूप आहे, ज्याचा परिणाम म्हणजे विजेता किंवा पराभूत ठरवणे.
2. क्रीडा प्रशिक्षण: खेळाडू किंवा खेळाडूंना चांगल्या कामगिरीसाठी तयार करण्याच्या नियोजित आणि पद्धतशीर प्रक्रियेला, जी वैज्ञानिक तत्वांवर आधारित असते, तिला क्रीडा प्रशिक्षण म्हणतात. हे विशिष्ट फिटनेस आणि क्रीडा विशिष्ट कौशल्ये, तंत्रे आणि डावपेच सुधारते.
3. जिम्नॅस्टिक्स: जिम्नॅस्टिक्स मध्ये उपकरणां शिवाय आणि उपकरणांसह भिन्न व्यायाम समाविष्ट आहेत. या व्यायामामध्ये हात, पाय, हात आणि सोंडेच्या हालचाली तसेच उडीमारण्याच्या हालचाली करणे आणि संतुलन राखणे यांचा समावेश होतो. यात समांतर पट्ट्या, क्षैतिजपट्टी, तुळई, पोमेल घोडा, रिंग इत्यादी विविध प्रकारच्या जिम्नॅस्टिक उपकरणांवर चपळाईचे व्यायाम केले जातात.
4. खेळ: खेळ ही एक व्यापक संज्ञा आहे जी सर्व शारीरिक क्रियाकलाप, वैयक्तिक कौशल्ये, नियमांच्या संचाद्वारे शासित आणि अनेक दास्यधर्मात्मक पणे घेतलेली संस्था म्हणून कार्य करते.
5. भौतिक संस्कृती: काही देशांमध्ये, शारीरिक शिक्षणाला 'शारीरिक संस्कृती' मानले जाते. संस्कृती ही आपल्या सामाजिक श्रद्धा, प्रथा आणि शरीराला मंदिर मानण्याच्या धार्मिक पद्धतीचा समानार्थी आहे. आकाराचे स्नायू विकसित करून शरीर सुंदर बनवण्याच्या संकल्पनेचाही त्यात समावेश आहे. वजन-प्रशिक्षण उपकरणे, आणि तीक्ष्ण आणि उच्चतीव्रतेचे व्यायाम ही काही माध्यमे आहेत जी स्नायूंच्या प्रशिक्षणासाठी वापरली जातात जेणे करून शरीर स्नायुयुक्त आणि सुस्थितीत दिसावे.
6. ड्रिल: ड्रिल मध्ये उभे राहणे, चालणे, लढणे इ. चांगली स्थिती विकसित करणे आणि शरीर आणि मनाला शिस्त लावण्यासाठी विविध प्रकारचे शारीरिक व्यायाम समाविष्ट आहेत. खेळ आणि खेळांमध्ये, ड्रिल ही बीट्स, संगीत किंवा शाब्दिक क्रमाने केलेल्या क्रियाकलापांची पुनरावृत्ती करण्याची प्रक्रिया आहे.
7. आरोग्य शिक्षण: आरोग्य शिक्षणामध्ये रोग, आरोग्य, विश्रंती, झोप, स्वच्छता, प्रदूषण आणि मनोदैहिक विकार याविषयीचे ज्ञान समाविष्ट आहे. निरोगी व्यक्तीही समाजाची संपत्ती असते तर अस्वस्थ व्यक्ती ही जबाबदारी असते.

8. मनोरंजन: मनोरंजनामध्ये खेळणे, गाणे, कॅम्पिंग, हायकिंग, वाचन, बागकाम, नृत्य आणि अनेक आनंद देणाऱ्या क्रियाकलापांचा समावेश होतो. कर्मणुकी द्वारे एखादी व्यक्ती गमावलेली ऊर्जा, जोम आणि चैतन्य परत मिळवू शकते. कठोर परिश्रमानंतर मानसिक तणाव दूर करण्यासाठी आणि थकवादूर करण्यासाठी विविध प्रकारच्या मनोरंजक क्रियाकलापांमध्ये व्यस्त राहू शकते.

#### निष्कर्ष:

अनेक शाळांनी भारतातील शारीरिक शिक्षण हा त्यांच्या शैक्षणिक कार्यक्रमाचा एक आवश्यक भाग बनवला आहे कारण त्यांना माहित आहे की शारीरिक शिक्षण विद्यार्थ्यांच्या जीवनाच्या विकासात महत्त्वाची भूमिका बजावते. हे या वस्तुस्थितीमुळे आहे की जे विद्यार्थी शारीरिक क्रियाकलापांमध्ये भाग घेतात ते त्यांचा सर्ववेळ अभ्यासात घालवणाऱ्या विद्यार्थ्यांपेक्षा नेहमीच आनंदी आणि निरोगी असतात. हे ज्ञात आहे की शारीरिक क्रियाकलाप हृदय आणि मेंदूला अधिक ऑक्सिजन प्रदान करण्यात मदत करतात आणि शरीराला शारीरिक आणि मानसिक आरोग्यामध्ये संतुलन राखण्यास अनुमती देतात.

सर्वसाधारणपणे, फिटनेस म्हणजे वेगवेगळ्या लोकांसाठी वेगवेगळ्या गोष्टी. महत्त्वाचा संदेश असा आहे की कोणताही नियमित व्यायाम करणे एखाद्या व्यक्तीच्या आरोग्यासाठी फायदेशी रठरेल. ते जितके जास्त व्यायाम करतात तितके ते निरोगी दिसतील. एकूणच आरोग्य आणि तंदुरुस्तीसाठी नियमित व्यायाम महत्त्वाचा आहे. प्रतिकार आणि हृदय व रक्तवाहिन्या संबंधी प्रशिक्षण यांचे संयोजन हे अनेक आरोग्य विषयक परिस्थितींना प्रतिबंधकरण्यात मदत करण्यासाठी एक शक्तिशाली साधन आहे. लोक हळूहळू सुरू करू शकतात आणि वर्क आउट्सची वारंवारता किंवा प्रत्येकामध्ये पुनरावृत्ती आणि सेटची संख्या वाढवू शकतात कारण त्यांची फिटनेस पातळी सुधारते.

#### संदर्भ:

1. Baquet, G., Berthoin, S. and Van Praagh, E. (2002) Are intensified physical education sessions able to elicit heart rate at a sufficient level to promote aerobic fitness in adolescents? Research Quarterly for Exercise and Sport, 73, 282–288.
2. Fairclough S. and Stratton G. (2005), "Physical education makes you fit and healthy. Physical education's contribution to young people's physical activity levels' Health Education Research: Theory and Research, Vol-20, Issue-1, pp. 14-23.
3. Medically reviewed by Jake Tipane, CPT — Written by Tim Newman, Medical News Today.
4. NCERT (2020-21), 'Health and Physical Education-XI', New Delhi, India
5. The importance of Physical Education in India, Orchid International School, Bengaluru, Karnataka, India
6. Physical Education Association of the United Kingdom (2004) PEA UK Policy on the Physical Education Curriculum.

# योग अभ्यास आणि शारीरिक शिक्षण

प्रा. कलवले जी.के

क्रिडा विभाग प्रमुख, कर्मयोगी तुळशीराम पवार महाविद्यालय, हडोळी

## प्रस्तावना :

आजकालचे धकाधकीचे जीवन, नव्या पिढीची नवी दृष्टी, बदलता काळ, बदलते विचार, बदलती मने, बदलते जीवन इत्यादींचा विचार केला असता एक गोष्ट निश्चित लक्षात येते, ती म्हणजे जरी शास्त्रीय-तांत्रिक इत्यादी क्षेत्रांत आपण पुढे पाऊल टाकलेले असले तरी जीवनमूल्ये मात्र गमावून बसलो आहोत. त्याचे कारण म्हणजे जीवनाचा अर्थ नीट समजावून न घेता आपण मृगजळाप्रमाणे मिळेल त्यामागे धाव घेत आहोत.

हा व्यक्तिविकास म्हणजे काय मनुष्याच्या शरीराचा, मनाचा आणि बुद्धीचा पूर्ण विकास म्हणजेच व्यक्तिविकास. मनुष्याची शारीरिक, मानसिक, बौद्धिक, नैतिक अशी सर्वांगीण उन्नती होते आणि त्यामुळे व्यक्तिमत्त्व फुलते, त्याच्या वागणुकीत आणि वर्तनात फरक पडून त्यास योग्य ते वळण लागते, आरोग्य आणि मानसिक स्वास्थ्य लाभून बौद्धिक पात्रता वाढते त्यास म्हणतात व्यक्तिविकास. हा व्यक्तिविकास योगाभ्यासाने साध्य होण्यासारखा आहे.

‘योग’ हा शब्द ऐकताच या विषयाचा योग घडण्याऐवजी वियोग बरा वाटू लागतो. याचे कारण त्यात ‘सोपे काय आहे’ हे बघण्याऐवजी अवघड काय आहे हे बघण्याकडे आपला कल असतो आणि मनाला एकदा जी काही गोष्ट अवघड आहे अशी जाणीव झाली म्हणजे मनुष्य त्यापासून परावृत्त होतो. तेव्हा या इथे त्यातील अवघड वा न जमणारा जो भाग आहे तो सोडून देऊन सर्वसाधारणपणे माणसाला आज काय आवश्यक आहे, जमणारे आहे आणि ते योगाभ्यासाने कसे मिळवता येईल, अथवा असा योगाभ्यास कसा अनुसरावा याविषयी मी लिहिणार आहे. अर्थात अशा पद्धतीचा योगाभ्यास करून व त्यात आवड निर्माण झाल्यामुळे प्रगती करून घेण्याची प्रबळ इच्छा झाली तर या लेखाचे सार्थ होईल.

‘योग’ हा समुद्रासारखा अथांग व विशाल आहे. त्याचे अंतिम ध्येय अथवा अंतिम उद्दिष्ट हे नवसिक्त्यास निश्चितच अनाकलनीय आहे. कैवल्यप्राप्ती हे जरी त्याचे अंतिम ध्येय असले तरीही आजच्या पिढीला त्यामागे आताच लागण्याची आवश्यकता नाही किंबहुना योगाभ्यासाविषयी भय वाटते ते यामुळेच. तेव्हा तो भाग बाजूला ठेऊन आताच्या परिस्थितीत मनुष्याला ज्या गोष्टीची आवश्यकता आहे त्याकडे पाहू. म्हणजेच योगरूपी समुद्रकिनाऱ्यावर उभे राहून क्षितीजापीलकडील समुद्र बघण्यापेक्षा येणाऱ्या लाटांची मजा लुटू या।

योग हा आठ अंगानी बनलेला असून त्यास अष्टांग-योग असे म्हणतात. ती आठ अंगे म्हणजे यम, नियम, आसन, प्राणायाम, प्रत्याहार, धारणा, ध्यान व समाधी ही होत. त्यांपैकी यम आणि नियम नैतिक उन्नतीसाठी, आसन, प्राणायाम ही शारीरिक उन्नतीसाठी, प्राणायाम व प्रत्याहार मानसिक उन्नतीसाठी आणि धारणा, ध्यान व समाधी ही आध्यत्मिक उन्नतीसाठी होत.

त्यापैकी आजच्या समाजाला नैतिक, शारीरिक व मानसिक उन्नती निश्चितच हवी आहे. आजची शिक्षण पद्धती ही काहीशी मर्यादित आहे, असे मानण्यास हरकत नाही. आपल्यातील अंतःशक्तीचा अथवा सुप्त गुणांचा विकास होत असेल तरच ते खरे शिक्षण. योगाभ्यासाने शरीरावर आणि मनावर विशिष्ट संस्कार घडून आपल्याला स्वतःच्या कार्यक्षमतेवर पूर्ण जाणीव होते आणि ती पूर्णपणे प्रकट होते. एवढेच नव्हे, तर आपल्यातील कमकुवतपणा अथवा दुर्बलता नष्ट होऊन आतील सुप्त गुण आपोआप प्रकट होतात. आचार, विचार, कृती यांमध्ये शुद्धता, पवित्रता व कलात्मकता येते. तेव्हा शिक्षणातील तो उणेपणा योगाभ्यासाने भरून काढता येतो.

योगासने, प्राणायाम यांनी आजार कमी करता येतात. गंभीर आजारांवर तो उपायही करता येतो. नवीन आजार उद्भवण्याची शक्यता योगासनांनी फारच कमी होतो. तसा उद्धवल्यास त्यावर पुन्हा योगोपचार करणे योग्य ठरते. म्हणजे योगायास थांबवायची जरूरी भासत नाही. पुन्हा सर्व शरीराला, बारीकसारीक भांगाना पुरेपुर व्यायाम मिळतो. वजन घटताना सर्व बाजूंनी सारखेच घटते आणि एवढे करूनही अशक्तपणा येत नाही. यदाकदाचित असा एखादा आजार झालाच तर त्यातून मुक्त होण्यास वा प्रकृती सुधारण्यास फारसा अवधी लागत नाही. याउपर घरबसल्या व्यायाम होतो ते वेगळेच.

### योगाचे शारीरिक शिक्षणात महत्त्व

क्रिडा आणि शारीरिक शिक्षणात योगाचे फार महत्वाचे स्थान आहे हे आपणास खालीप्रमाणे सांगता येईल.

#### • शारीरिक सदृढता –

शारीरिक शिक्षणात खेळाडूंचा सर्वांगिक विकास साधण्याचा प्रयत्न असतो. जर खेळाडूंचा सर्वांगीन विकास करायचा असेल तर शारीरिक शिक्षण किंवा क्रिडा स्पर्धेत चांगले यश प्राप्त करावयाचे असेल तर खेळाडू हा शरीराने तंदुरुस्त असणे महत्वाचे असते आणि खेळाडूचे शरीर तंदुरुस्त हवे असेल तर त्याने योगा, ध्यान, प्राणायाम हे नियमित करणे गरजेचे आहे.

#### • मानसिक आरोग्य –

शारीरिक शिक्षणात किंवा खेळात खेळाडूची मानसिक स्थिती चांगली असणे गरजेचे आहे. कारण की, स्पर्धेत जर खेळावयाचे असेल तर खेळाडूची तो संबंधित खेळात क्रिडा नैपुण्य हे उत्तम प्रकारे दाखवावी लागतात. जर खेळाडूची मानसिकता बरोबर नसेल तर खेळाडू स्वताचे कौशल्य दाखवू शकत नाही. परिणामी त्या खेळास योग्य किंवा चांगले खेळाचे प्रदर्शन करू शकत नाही. जर खेळात किंवा स्पर्धेत यश संपादन करावयाचे असेल तर खेळाडूची मानसिकता त्या खेळास अनुकूल असावे असे वाटत असेल तर त्यासाठी संबंधित खेळाडूने योगा करणे आवश्यक आहे. कारण योगातून खेळाडूची मानसिक स्थिती ही मजबूत होत असते.

#### • शारीरिक आरोग्य –

शारीरिक शिक्षणात खेळाडूच्या शरीरास निरोगी ठेवणे अत्यंत महत्वाचे आहे. शरीरास जर निरोगी ठेवायचे असेल तर शरीरास हालचालीबरोबरच प्रत्येक अवयवाचा एक विशिष्ट व्यायाम देणे गरजेचे आहे. उदा. लांब उडी मारणाऱ्या खेळाडूच्या मांडयाच्या किंवा पायात जास्त ताकत असावी म्हणून या चढणे आणि उतरणे या क्रिया करावयास लावणे आवश्यक आहे. ही क्रिया तो खेळाडू कधी करेल जेव्हा त्याचे आरोग्य हे चांगले असावे लागते आणि आरोग्य सांभाळवायचे असेल तर त्या खेळाडूनी योगा करणे फार आवश्यक आहे.

#### • लवचिकता वाढते –

खेळात लवचिकतेस फार महत्त्व आहे. कारण जिमनॅस्टीक या प्रकारच्या खेळात लवचिकतेला फार महत्त्व असते. कारण या खेळात ज्याची लवचिकता चांगली तो खेळाडू उत्तम प्रकारचे कौशल्य दाखवून स्पर्धेत यश प्राप्त करू शकतो. म्हणून लवचिकता दाखवण्यासाठी किंवा शिकण्यासाठी योगा करणे महत्वाचे आहे.

#### • शारीरिक तंदुरुस्ती –

शारीरिक शिक्षणात कोणत्याही प्रकारच्या हालचाली ह्या होत असतात. अनेक क्रिडा प्रकारात शरीराची हालचाल होणे आवश्यक असते. जर खेळाडूचे शरीर तंदुरुस्त नसेल तर तो खेळाडू व्यवस्थित करू शकत नाही. म्हणूनच असे म्हटले जाते की, तंदुरुस्त शरीरात एक तंदुरुस्त मन वास्तव्य करत असते. म्हणून शरीर जर तंदुरुस्त ठेवायचे असेल तर योगा हे एक प्रकारचे औषध ठरेल.

#### • निर्णय क्षमता वाढते –

शारीरिक शिक्षणात आणि खेळात निर्णय क्षमतेला फार महत्त्व आहे. कारण अनेक खेळांत परिस्थितीनुसार निर्णय हे घ्यावे लागतात. उदा. कबड्डी या खेळात चढाई करताना बचाव करणारा खेळाडू जर समोरून चैन घेऊन आला तर चढाई करणाऱ्या खेळाडूस बचाव करण्यासाठी चैनच्या खालून किंवा चैनच्या वरून जॅम्प मारून जावे हे निर्णय चढाई करणाऱ्या खेळाडूस घ्यावा लागतो. म्हणूनच निर्णय क्षमता जर वाढवायची असेल तर योगा हा नियमित करणे आवश्यक आहे.

- **धाडस –**

शारीरिक शिक्षणात आणि खेळात धाडसाला फार महत्व असते.कारण असे अनेक खेळ आहेत कि,डोळ्यात डोळे विरोधक किंवा प्रतीस्पर्धी खेळाडूच्या नजरेत नजर घालून खेळ खेळावा लागतो.उदा.तायक्वांडो,कुस्ती,बॉक्सिंग अशा प्रकारे अनेक क्रिडा प्रकार सांगता येतील.यासाठी योगा केल्याने शांत डोके होते. आणि खेळाडूचा संयम हा वाढत असतो. त्यासाठी खेळाडूने नियमीत योगासने करणे शारीरिक शिक्षणात फार महत्वाचे आहे.

- **कौशल्याचा विकास –**

खेळाडूस जर आपल्या खेळात नैपुण्य तयार करावयाचे असेल तर त्यास नियमीत संबंधित क्रिडा प्रकाराचा सराव करणे आवश्यक असते कारण सराव केल्याने आपोआपच खेळाडूच्या कौशल्यात वाढ होते. आणि जेव्हा कौशल्यात वाढ होते तेव्हा सहजपणे खेळाडू आपले कसब दाखवू शकतो.यासाठी खेळाडूने नियमीत सरावाबरोबर योगा केला तर खेळाडूच्या क्रिडा कौशल्यात वाढ होण्यास मदत होते.

- **खेळातून संधी –**

खेळ खेळतांना खेळाडूस अनेक प्रकारच्या सवलती या मिळत असतात.उदा.राज्यस्तर/राष्ट्रीय स्तर/आंतर विद्यापीठ स्पर्धेत पदक विजेता खेळाडूस शासकिय/निमशासकिय हमखास नौकरी मिळते आणि पूढील काळात ते त्यांच्या कार्यालयाकडून किंवा कंपनीकडून प्रतिनिधीत्व करण्यास मिळते.त्याचबरोबर शिक्षण चालू असताना जिल्हा,विभाग,राज्य,आंतरमहाविद्यालयीन क्रिडा स्पर्धेत जर पदक विजेत्या खेळाडूस क्रिडा गुण हे मिळतात.हे मिळवण्यासाठी खेळाडूस नियमीत सराव आणि योगासने करणे आवश्यक आहे. यातून शारीरिक शिक्षणाचा विकास होण्यास मदत होते.

- **तणाव दूर होणे –**

खेळ आणि तणाव यांचा फार जवळचा संबंध आहे.त्याला वातावरण,मानसिकता,शारीरिक सदृढता,परीसर,वय असे अनेक घटक तणावास कारणीभूत आहेत. कारण की, एखाद्या खेळाडूची मानसिकता कशी आहे,त्याचे वय किती आहे,तेथिल वातावरण कसे आहे,परीसर कसा आहे याचा तणाव खेळाडूवर होत असतो म्हणून तो दबावाखाली /तणावाखाली खेळत असल्यामुळे चांगले खेळाचे प्रदर्शन करू शकत नाही.परीणामी तणावाचा परीणाम हा खेळावर होत असतो.

जर तणाव दूर करावयाचे असल्यास ध्यान,प्राणायाम,योगा करणे गरजेचे आहे. म्हणूनच एकंदरीत योगा आणि शारीरिक शिक्षण किंवा खेळ यांचा मेळ घालणे गरजेचे आहे.

# खेळाडूंच्या जडणघडणीमध्ये पोषण व आहाराची भूमिका

डॉ. केंगले भिमराव दुंदा

सहाय्यक प्राध्यापक, स्वा.रा.ती.म. विद्यापीठ, नांदेड.

## गोषवारा:

खेळाडूंना खेळ खेळताना आणि दैनंदिन जीवन जगत असताना पोषणाबरोबरच सकस आहाराची गरज असते, चांगले कार्यमान दाखविण्यासाठी सामाजिक, अर्थीक बाबींची जशी आवश्यकता असते त्याचप्रमाणे जर त्यास आहार आणि पोषण या दोन गोष्टी व त्यासंबंधी मार्गदर्शन खेळाडूंना त्यांचे अंतीम ध्येय गाठण्यासाठी मदत करतात. महत्वाचे शब्द: खेळाडू, पोषण, आहार.

## प्रस्तावना:

कोणत्याही खेळाचा विचार केला असता खेळाडूला त्या खेळामध्ये उच्च पातळीवरील कार्यमान देण्यासाठी शारीरिक सुदृढतेबरोबरच कारक सुदृढतेचे घटक विकसीत असणे आवश्यक आहे. हे घटक विकसित करण्यासाठी व्यायामा बरोबरच आहार योग्य प्रमाणात घेणे अत्यंत आवश्यक आहे. आहार आणि पोषण ह्या दोन वेगवेगळ्या गोष्टी आहेत परंतु त्या परस्परांशी संबंधीत आहेत.

अन्न व त्याचा आरोग्याशी संबंध या विषयीचे माहिती देणारे शास्त्र म्हणजे पोषण शास्त्र असेही म्हणता येईल. कारण यामध्ये अन्नघटकांचा मानसाच्या वाढ व विकासावर काय परीणाम होतो हे अभ्यासले जाते. तसेच पोषण तत्वांचा वापर कसा करावा, सुयोग्य वाढ व सुदृढ आरोग्य कसे राखवे यासाठी पोषण शास्त्र मार्गदर्शन करते. पोषणविषयक माहिती व त्याचा वापर याबाबत गेल्या काही वर्षांत संशोधनाचे प्रमाण वाढताना दिसून येत आहे आणि ही बाब खेळाडूंच्या दृष्टीने महत्वपूर्ण आहे.

## पोषणाचा आरोग्याशी संबंध:

- वाढ व विकास- शरीराची योग्य प्रमाणात वाढ व विकास होण्यासाठी योग्य पोषण आवश्यक असते. तर कुपोषणामुळे केवळ शरीराची वाढच नव्हे तर व्यक्तीच्या बौद्धिक क्षमतेवर तसेच आकलन शक्ती, वर्तन यावर विपरीत परीणाम होतात.
- विशिष्ट कमतरता- पोषणविषयक कमतरतेच्या आजारांना कुपोषण प्रत्यक्षरीत्या जबाबदार असते. भारतात झुरणी, सुखा रोग, अंधत्व, बेरीबेरी, गलगंड इ. रोग आढळून येतात. म्हणूनच विशिष्ट पोषण विषयक कमतरता आजारांच्या प्रतिबंधासाठी आणि आरोग्याच्या वाढीसाठी चांगल्या प्रकारचे पोषण अत्यावश्यक ठरते.
- जंतु संसर्गास प्रतिकार- कुपोषणामुळे क्षयरोगासारखा जंतुसंसर्ग फार चटकन होतो. अनेक रोगांच्या तीव्रतेवर तसेच परीणामांवर कुपोषणामुळे वाईट परीणाम पडतो. तसेच जंतुसंसर्गामुळे कुपोषणाची समस्या वाढते कारण जंतुसंसर्गाचा परीणाम व्यक्तीची भूक, तसेच अन्नाचे पचन व शोषण यावर होतो.
- मृत्यु प्रमाण व आजार प्रमाण – कुपोषणाच्या प्रत्यक्ष परीणामांपेक्षाही त्याचे सामाजावरील अप्रत्यक्ष परीणामच जास्त धोकादायक ठरतात. उदा. जास्तीचा सामान्य मृत्यु दर, अनारोग्य दर, अतीपोषण, कमी झालेली आयुर्मर्यादा. कुपोषणाचाच एक प्रकार म्हणजे अतीपोषण. अतीपोषणामुळे स्थूलत्व, लठ्ठपणा, मधुमेह, उच्चरक्तदाब या प्रकारचे विशिष्ट आजार होतात.

## अन्न व अन्नाचे घटक :

खेळाडूंच्या शरीरामध्ये सर्व पेशी सतत काम करत असतात व यासाठी त्यांना उर्जेची गरज असते. पृथ्वीवरील सर्व गोष्टींसाठी उर्जा सूर्याकडून मिळत असते. वनस्पती सूर्यप्रकाश घेऊन हरीत द्रव्यांच्या साहाय्याने आपले अन्न बनवितात व वनस्पतीं पासून मानुस आपली उर्जा मिळवत असतो.

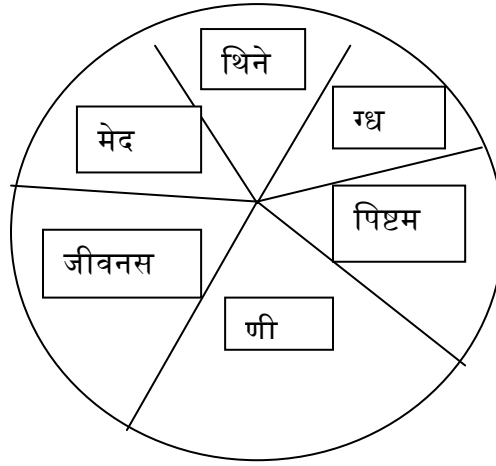
आहारात पिष्टमय पदार्थ, स्निग्ध पदार्थ, जीवनसत्वे, क्षार व पाणी या सहाही घटकांची आवश्यकता असते. व हे वेगवेगळे घटक विशिष्ट प्रमाणात घ्यावे लागतात. हे प्रमाण वयोमान, कामाचे स्वरूप व हवेचे तापमान यावर अवलंबून असते. या सर्व घटकांच्या उर्जेवरून खेळाडूंचे क्रीडाकार्यमान ठरत असते.



प्रत्येक खेळाडूला किमान समतोल आहाराची गरज असते व हा आहार ठरवितांना अन्नाची उर्जा (कलरी) व अन्नघटक प्रमाण ह्या दोन गोष्टी महत्वाच्या असतात. अन्नाची उर्जा किती असावी यासाठी दिवसाला किती उर्जा खर्च होते किंवा वापरली जाते याचा विचार करावा लागतो. १ कि.क. एवढी उर्जा दर तासी व दर कि.ग्र. वजनामागे लागते. (१ कि.क./१ तास/ १ कि.ग्र. वजन) म्हणून शरीर व मन पूर्णपणे विश्रांती घेत असेल तर कि.ग्र. वजनामागे २५ कलरी एवढी उर्जा खर्च पडते. साधारणतः मोठ्या मानसाला दिवसाला २५०० कि.क. एवढे उर्जा असलेले अन्न लागते. शिवाय नेहमीच्या हालचाली, व्यायाम, कार्य, वय, लिंग या प्रमाणे अन्नातील उर्जा किती आहे हे प्रत्येक अन्नघटकाची औष्णिक किंमत व अन्नघटक यावरून ठरविता येते.

अन्नघटक	औष्णिक उर्जा
१ ग्राम पिष्टमय पदार्थ -	४.१ कि.कलरी
२ १ ग्राम प्रथिन पदार्थ -	४.१ कि.कलरी
१ ग्राम स्निग्ध पदार्थ -	९.१ कि.कलरी

तसेच समतोल आहारात नुसत्या गरजेपुरती उर्जा असून उपयोग होत नाही तर अन्नघटकाचे प्रमाणही ठराविक हवे.



अन्नपदार्थात जीवनसत्वे, क्षार व प्रथीनांचे प्रमाण भरपूर असते. उदा. दुध, हिरव्या पालेभाज्या हे अन्नपदार्थ आपल्या शरीराचे जंतुसंसर्ग, आजार आणि अनारोग्यापासून संरक्षण करतात म्हणून त्यास संरक्षक अन्न संबोधतात.

**अन्नघटकाचे शरीरासाठी महत्त्व :**

- पेशींना उर्जा पुरवणे.
- पेशींच्या आवरणाचे काही भाग तयार करण्यासाठी.
- गरजेपेक्षा जास्त पिष्टमय पदार्थ आहारात घेतल्यास जादा साखरेचे रुपांतर ग्लायकोजेन मध्ये होते.
- पेशींचे वेगवेगळे भाग प्रथिनांनी बनलेले असतात.
- शरीराच्या वाढीसाठी.
- झीज भरून काढण्यासाठी.
- शरीरातील सर्व विकरे, अंतःस्राव प्रथिनांनी बनलेले असतात.
- उर्जेसाठी.
- पेशी आवरण तयार करण्यासाठी.
- काही अंतःस्राव तयार करण्यासाठी.
- काही जीवनसत्वे स्निग्ध पदार्थात विरघळणारी असतात.

**निष्कर्ष -**

एकुणच आहार व पोषण या दोन्ही गोष्टींचा विचार केला असता खेळाडूंना शरीराची तंदुरुस्ती योग्य राखण्यासाठी वरील प्रमाणे आपल्या आहारात अन्नातील सर्व घटक योग्य प्रमाणात असणे अत्यंत गरजेचे आहेत.

त्याच बरोबर शरीराची योग्य वाढ व्हावी, रोगांपासून मुक्तता मिळावी, आयुर्मर्यादा वाढावी यासाठी संरक्षक आहाराची गरज या सर्व गोष्टींचे महत्व समजून घेतल्यास खेळाडूंना आपल्या खेळात योग्य कार्यमान साधता येईल. म्हणून पोषण आणि आहार या दोन्ही गोष्टी खेळाडूंच्या जडणघडणीत महत्वपूर्ण भूमिका बजावताना दिसून येतात.

संदर्भ :

1. जोशी, वि. द. शरीरक्रीयाशास्त्र.
2. के. पार्क, सामाजिक आरोग्य परिचर्या, बनारसीदास भानोत पब्लिकेशन.
3. गायकवाड, एस. आरोग्य शिक्षा एवम पर्यावरणीय अध्ययन, विजयश्री प्रकाशन.
4. V.K. Varma, Health and Physical Education .
5. [www.wikipedia.health.org](http://www.wikipedia.health.org).

# माध्यमिक स्तरावरील पारंपारिक शिक्षण व ऑनलाईन शिक्षण एक तुलनात्मक अभ्यास

संशोधक

कदम गणेश पुंडलिकराव

शिक्षणशास्त्र संकुल

स्वा.रा.ती.म.वि.नांदेड.

मार्गदर्शक

प्रा. डॉ. वैजयंता ना.पाटील

शिक्षणशास्त्र संकुल

स्वा.रा.ती.म.वि.नांदेड.

सारांश:-

कोविड-19 ची साथ आणि त्यानंतर लावण्यात आलेल्या लॉकडाउन मुळे देशभरातील शाळा बंद झाल्या आहेत. परिणामी, भारतातील शाळा व्यवस्था पारंपारिक वर्गामधून डिजिटल प्लॅटफॉर्मवर स्थलांतरित झाल्याचे आपण वाचक सर्वजण जाणता. ऑनलाईन शिक्षणाच्या दिशेने घाईत उचलल्या गेल्या अनियोजित पावलांमुळे 'डिजिटल उपलब्धता' नसलेला एक मोठा वर्ग या आभासी वर्गबाहेर फेकला गेलेला आहे. ऑनलाईन शिक्षण मुठभर सुदैवी मुलांनाच मिळत आहे, कारण भारतातील केवळ 24% कुटुंबाकडे स्मार्टफोन्स आहेत. 5 ते 18 या वयोगटातील मुले असलेल्या केवळ 11.5% घरांमध्ये कम्प्युटर आणि इंटरनेट कनेक्शन आहे. मात्र, या सर्वांचे आयुष्य एप्रिलच्या पहिल्या आठवड्यापासून (22 मार्च 2020) घरापुरते संकुचित झाले आहे. सध्या ऑनलाईन शिक्षण घेत असलेल्या 5 ते 18 या वयोगटातील मुलांचा अनुभव जाणून घेण्यासाठी 15 मे ते 17 मे या काळात एक सर्वेक्षण घेण्यात आले. 40 प्रश्नांची एक प्रश्नावली व्हाट्सअप व ई-मेल द्वारे पाठविण्यात आली. 13 राज्यातील 155 विद्यार्थ्यांनी या प्रश्नांची उत्तरे दिली आहेत. आसाम, बिहार, दिल्ली, हरियाणा, झारखंड, कर्नाटक, महाराष्ट्र, मणिपुर, ओडिसा, राजस्थान, तेलंगणा, उत्तर-प्रदेश आणि पश्चिम बंगाल या राज्यांमध्ये हे सर्वेक्षण रॅण्डम पद्धतीने घेण्यात आले.

**मुख्य संज्ञा:-** माध्यमिक स्तर, पारंपारिक शिक्षण, ऑनलाईन शिक्षण.

**प्रस्तावना:-**

'ज्ञानमंदिर' या गोंडस शब्दाचा अर्थ आज कोरोना महामारी मुळे संकुचित झाला आहे. साहस, धाडस, सहानुभूती, वर्ग वातावरण, मित्र-मैत्रिणी, व्यायाम, खेळ, स्पर्धा इत्यादी गुणवैशिष्ट्ये हल्लीच्या दोन वर्षांच्या काळामध्ये नाहीशी झालेली आहेत. कारण अशा कलागुणांना वाव मिळण्यासाठी त्याला पोषक वातावरणाची आवश्यकता असते. लॉकडाऊनमुळे ते वातावरण विद्यार्थ्यांना मिळत नाही. रॅण्डम पद्धतीने 13 राज्यांमधून 155 विद्यार्थ्यांचा सहभाग नोंदवण्यात आला. त्यामध्ये सर्वेक्षणात भाग घेतलेल्या पैकी 87.2% मुले खाजगी शाळांमध्ये जात आहेत. तर केवळ 12.8% मुले सरकारी किंवा अनुदानित शाळांमध्ये जात आहेत. या सर्वेक्षणात पहिली ते बारावी अशा सर्व ईयत्तामधील मुलांनी भाग घेतला आहे. यातील 27% प्राथमिक स्तरावर (पहिली ते पाचवी), 33% उच्च प्राथमिक स्तरावर (सहावी ते आठवी), 21% माध्यमिक स्तरावर (अकरावी व बारावी) शिक्षण घेत आहेत. बहुतेक ठिकाणी आठवड्यातील पाच दिवस ऑनलाईन वर्ग घेतली जात आहेत आणि विद्यार्थी अनेक उपकरणांच्या मदतीने वर्गांना उपस्थित राहत आहेत. 54.3% मुले स्मार्ट फोनच्या माध्यमातून वर्ग ना हजेरी लावत आहेत तर 40% लॅपटॉप व डेस्कटॉप चा वापर करत असल्याचे संशोधनाअंती आढळून आले. टॅब, आयपॅड,

स्मार्टफोन या साधनांचा वापर उपलब्धतेनुसार आलटून पालटून करण्याचे प्रमाण 6% आहे. सर्वेक्षणात भाग घेणाऱ्यांपैकी 47% जणांच्या मते त्यांना ऑनलाईन शिक्षणातून आनंद मिळत आहे. नियमित वर्गाच्या तुलनेत ऑनलाईन वर्गामध्ये एकाग्रता अधिक चांगली होते हे कारण बहुतेकांनी दिले. लवकर उठून शाळेत जाण्यापेक्षा घरातून शिकणे सोयीचे आहे, अशी कारणेही मुलांनी दिल्याचे आढळून आले. वर्ग चालू असताना अन्य अनेक गोष्टी करण्याचे स्वातंत्र्य हे आणखी एक आकर्षण ऑनलाईन शिक्षणाबाबत आहे. जसे की झूम मिटींग चालू असताना ती चालूच ठेवायची व व्हाट्सअप, फेसबुक, इंस्टाग्राम इत्यादी सारख्या सोशल नेटवर्किंग ॲप्सचा वापर करत आहेत. आजच्या काळात आपला पाल्य हातामध्ये मोबाईल घेऊन फक्त शिक्षणच घेत आहे का? या प्रश्नाचे उत्तर मिळणे खूप अवघड झाले आहे कारण विद्यार्थ्यांच्या हातामध्ये मोबाईल दिल्यानंतर ते शिक्षणाबरोबरच इतर गोष्टी करताना दिसून येत आहेत. सध्या कोरोना च्या जागतिक संकटामुळे शाळा बंद आहेत. शाळा सुरू करण्यासारखी परिस्थिती कधी निर्माण होईल, हे आज सांगता येणे कठीण आहे. शाळा सुरू झाल्या तरी, सामाजिक अंतराचे नियम काय असतील आणि ते पाळून शाळा पूर्ववत चालवता येतील का हे सांगता येणे कठीण आहे. सरकारने शाळा ऑनलाईन सुरू करायला परवानगी दिली आहे. अनेक शाळांनी कोणत्या ना कोणत्या पद्धतीचे ऑनलाईन उपक्रम सुरू देखील केले आहेत. पण, या सर्व पद्धतीची पुढील दिशा काय असेल? याचा विचार गांभीर्याने करायला हवा. आपल्याकडे मोबाईल, लॅपटॉप अशी उपकरणे वापरून आपण अनेक गोष्टी साध्य करतो. यांचा वापर करून शाळा किंवा कोणत्याही प्रकारचे शैक्षणिक उपक्रम चालवणे हे आपल्यासाठी पूर्णपणे नवीन आहे. कोरोनामुळे लादल्या गेलेल्या सक्तीच्या सुट्टीमुळे अर्थातच लॉकडाऊनमुळे हे ऑनलाईन माध्यम एकाएकीच आपल्या गळ्यात पडले, पण या ऑनलाईन शिक्षणाची आजची परिस्थिती काय आहे? त्यासाठी कोणते पर्याय उपलब्ध आहेत? ते आज कोणत्या प्रकारे वापरले जात आहेत? सगळ्यांचे भविष्य काय असेल? या प्रश्नांचा उहापोह करताना सर्वजण दिसत आहेत. सर्वात महत्वाचे म्हणजे या ऑनलाईन शिक्षणामुळे विद्यार्थ्यांचे नुकसान होत असल्याचे निदर्शनास आले आहे.

### ऑनलाईन शिक्षण प्रणालीची गरज का पडली-

पूर्ण जगाला या महामारीने वेठिला धरले आहे, त्यामुळे मानवी जीवनामध्ये काही गोष्टी अशा आहेत की त्या थांबवून चालत नाही त्यासाठी त्यांना काही मार्ग शोधावा लागतो त्यामध्ये विविध क्षेत्र येतात त्यातील आपणासाठी महत्वाचा असलेला विषय म्हणजे शिक्षण होय. शिक्षण हे कोणत्याही परिस्थितीमध्ये थांबता कामा नये यासाठी महामारी मध्ये देखील ऑनलाईन या शिक्षण प्रणालीचा वापर करून शिक्षण हे थांबू दिले गेले नाही. ऑनलाईन शिक्षण प्रणालीचा वापर करून आपण सध्या परिस्थिती मध्ये शिक्षणाचा आस्वाद घेत आहोत परंतु हे ऑनलाईन पद्धतीने महत्वाचे ठरते व कितपत परिणामकारक ठरते याचा अभ्यास करणे गरजेचे आहे. मार्च 2020 ते जुलै 2020 या काळामध्ये महामारी ने खूप भयंकर रूप धारण केले होते त्यानंतरच्या काळामध्ये यामहा मारीचे स्वरूप लक्षात आल्यानंतर वरील उपाय लक्षात आल्यानंतर आपण शैक्षणिक क्षेत्रामध्ये ऑनलाईन हे कार्य चालू ठेवले. हा पर्याय नसतात तर मार्च दोन हजार वीस ते मे 2021 हा कालावधी पूर्णपणे वाया गेला असता त्यामुळे ऑनलाईन शिक्षण प्रणालीचा पर्याय अवलंबावा लागला.

### साधने-

टी व्ही, मोबाईल, लॅपटॉप, इंटरनेट, कम्प्युटर, टॅब इत्यादींच्या मार्फत ऑनलाईन शिक्षण प्रणाली जीवित आहे. खाजगी साधनाच्या माध्यमातून व थोडीशी आर्थिक बाब स्विकारून शैक्षणिक क्षेत्राची वाटचाल चालूच

राहिलेली दिसून येत आहे. समाजाच्या सर्वच घटकाला शिक्षण प्रणाली परवडणारी आहे किंवा नाही याचा विचार कोणीही सध्या समाजामध्ये करताना दिसत नाही किंवा त्याच्यावर कोणीही आवाज उठवताना दिसत नाही कारण ह्या ऑनलाइन शिक्षण प्रणालीमुळे गरीब व श्रीमंत ही दरी वाढत असल्याचे आपल्या लक्षात येते कारण गरिबांच्या मुलांना साधने उपलब्ध आहेतच याची शाश्वती आपण देऊ शकत नाही परंतु श्रीमंतांच्या पाल्याकडे साधने हमखास आहेत याची मात्र शाश्वती आपण देऊ शकतो.

### शिक्षणाचे मुख्य घटक-

साधारणतः शिक्षणाचे तीन प्रमुख घटक आहेत. अध्यापन (Teaching), अध्ययन (Learning) व मूल्यमापन (Evaluation) या तीन घटकांसाठी शिक्षण प्रक्रिया राबविली जाते. हे तीनही घटक या नव्या ऑनलाइन पद्धतीत कसे आकार घेतील हे पाहणे खूप महत्त्वाचे वाटते.

अध्यापन: शिक्षक वर्गामध्ये जे शिकवतो ते अध्यापन. यामध्ये शिक्षकाचे व्यक्तिगत कौशल्य, वक्तृत्व, विषय मांडण्याची आणि समजावून सांगण्याची कला, शैक्षणिक साधन निर्मिती व सादरीकरण, हेतू कथन, स्पष्टीकरण सांगण्याची कला हे अंतर्भूत असते. अध्ययन: विद्यार्थी स्वतःच्या प्रयत्न आणि आकलनाने शिकतात ते अध्ययन. यामध्ये शिक्षकांनी सांगितलेली अभ्यास सामग्री, वाचणे, संबंधित अध्ययन साधने पाहणे/ अनुभवणे, दिलेला गृहपाठ करणे, स्वाध्याय सोडवणे, प्रोजेक्ट करणे यांचा समावेश असतो. मूल्यमापन: अध्यापन आणि अध्ययनातून विद्यार्थी किती शिकला आहे याची पडताळणी करणे म्हणजे मूल्यमापन होय. यामध्ये गृहपाठाची तपासणी करणे, घटक चाचण्या घेणे, सहामाही परीक्षा घेणे, वार्षिक परीक्षा घेणे यांचा समावेश असतो. अध्यापन, अध्ययन व मूल्यमापन प्रक्रिया ऑफलाईन किंवा पारंपारिक शिक्षणामध्ये व्यवस्थित रीत्या चालत. ऑनलाईन शिक्षणाचा विचार केला असता पारंपारिक पद्धतीने ज्या प्रक्रिया घेतल्या जात होत्या तशाच पद्धतीने सर्व प्रक्रिया पार पडतील याची काळजी घेणे हे ऑनलाईन शिक्षणामध्ये खूप महत्त्वाचे वाटते. ऑनलाईन शिक्षणाचा विचार करताना, हे तीनही घटक ऑनलाईन माध्यमातून पूर्ण करता येतील अशी व्यवस्था किंवा प्रणाली वापरायला हवी. वर्तमान परिस्थिती- वर्तमान परिस्थिती पाहता बहुसंख्य शाळा अथवा प्रशिक्षक फक्त 'अध्यापन' ऑनलाईन करण्यावर भर देत आहेत, असे दिसत आहे. झूम किंवा गूगल मीट सारखे तंत्रज्ञान वापरून शिक्षक आणि विद्यार्थ्यांचे व्हिडिओकॉल सेटप करणे आणि त्यात शिक्षकांनी वर्गात बोलतात, त्याप्रमाणे बोलून शिकवणे अशी सध्याची बहुसंख्य ऑनलाईन वर्गाची परिस्थिती दिसत आहे. काही कल्पक शिक्षक आपल्या लेक्चर चे पावर पॉइंट प्रेझेंटेशन करून ते व्हिडिओ कॉल वर दाखवतात आणि विषय समजावून सांगतात. गुगल मीट, झूम, वेबेक्स इत्यादी ऑप्स च्या माध्यमातून शिक्षक विद्यार्थ्यांना अध्यापन करत असतानाचे वर्तमान चित्र आहे. पारंपारिक शिक्षणामध्ये एखाद्या विषयामध्ये काही अडथळे निर्माण झाले असतील तर प्रश्नांचा शोध घेऊन, समस्येचा शोध घेऊन त्यावर प्रशिक्षण दिले जायचे परंतु या कोरोना महामारी मुळे उद्भवलेल्या परिस्थितीवर ऑनलाईन शिक्षण पद्धतीचा कोणत्याही कमी कालावधी असल्यामुळे देता आले नसल्याचे संशोधकास वाटते. शिक्षकांचे सर्व प्रशिक्षण हे वर्गात शिकवण्याच्या दृष्टीने झालेले असताना आणि वर्गात शिकवण्याचा अनुभव त्यांच्यापाशी असताना अचानक 'ऑनलाईन अध्यापन' करावी लागणे हा त्यांच्यासाठी प्रचंड मोठा बदल आहे यासाठी त्यांचे प्रशिक्षण झालेले नाही. अध्ययनाचा विचार केला तर त्यासाठी आज प्रामुख्याने पारंपरिक साधने आणि पद्धतीत वापरल्या जात आहेत. अध्ययनाचे पारंपरिक साधन म्हणजे पाठ्यपुस्तक आणि पद्धत म्हणजे पुस्तकातले धडे वाचून त्या खालची प्रश्न उत्तर

सोडवणे व त्यावर अध्यापन करणे. खरे तर कोणताही विषय शिकण्यासाठी आजच्या ऑनलाईन जगात प्रचंड मोठ्या प्रमाणावर कोर्सेस उपलब्ध आहेत. युट्युब वरचे व्हिडिओज, विकिपीडिया सारखे माहितीचे संग्रह इथपासून ते अनंत ब्लॉग आणि माहितीचे संकलन करणाऱ्या वेबसाईट्स उपलब्ध आहेत. असे असताना अध्ययनासाठी फक्त पाठ्यपुस्तकावर अवलंबून राहणे हे शिक्षण मर्यादित चाकोरी मध्ये अडकून ठेवण्यासारखे आहे. काही शाळा मध्ये काही शिक्षक अशी साधने वापरायला मुलांना प्रोत्साहन देत आहेत मात्र बहुसंख्य ठिकाणी ऑनलाईन माध्यमांचा प्रभावी वापर करून अध्ययन पाठ्यपुस्तक पलीकडे करण्याचा प्रयत्न होणे गरजेचे आहे. मूल्यमापनाचे पारंपरिक पद्धत म्हणजे वेळोवेळी घेतलेल्या चाचण्या आणि परीक्षा. छोट्या चाचण्यांसाठी ऑनलाईन माध्यमांमध्ये स्पर्धा, सर्वेक्षण किंवा मतचाचणी सारखी तंत्रे वापरता येऊ शकतात किंवा गुगल फॉर्म वापरून मुलांकडून प्रश्नोत्तरे मागवता येऊ शकतात. सध्या मात्र मूल्यमापनासाठी कागद-पेन या पारंपरिक साधनांचा वापर होताना दिसत नाही. शिक्षकांनी प्रश्नोत्तरे स्कॅन करून पाठवणे, त्यांच्या प्रिंट आउट घेऊन विद्यार्थ्यांकडून सोडवून घेणे, विद्यार्थ्यांच्या पर्यंत पोहोचले प्रश्नोत्तरांचे उत्तरे त्यांच्याकडून स्कॅन करून परत शिक्षकांच्या कडे पाठवले जात आहे. यामध्ये विद्यार्थी हा पारंपारिक राहिलेला नाही किंवा पारंपारिक पद्धतीपासून थोडासा दूर जात असल्याचे दिसत आहे. हा बदल योग्य आहे का अयोग्य आहे हा येणारा काळ ठरवेल.

#### आर्थिक-

आर्थिक बोजा- गरीब विद्यार्थ्यांना व पालकांना ऑनलाईन शिक्षण प्रणाली परवडण्यासारखी नाही कारण ऑनलाईन शिक्षण प्रणालीसाठी ॲड्रॉइड मोबाईल टीव्ही लॅपटॉप इत्यादी सारखी साधने लागत आहेत. ही सर्व साधने महागडी आहेत व गरीब पालकांना परवडणारी नाही मुळे गरीब त्यांना शिक्षण हे परवडण्यासारखे नाही त्यामुळे त्यांच्या कुटुंबावर आर्थिक बोजा आर्थिक वरून सामाजिक संकट कुटुंबावर येण्याची जास्त शक्यता आहे. ऑनलाईन शिक्षण प्रणाली ही या साधनांच्या व्यतिरिक्त कोणत्याही साधनाचे वापर करून ती पूर्ण करू शकता येत नाही त्यामुळे ऑनलाईन शिक्षण हे गरिबांची शिक्षण नाही तर श्रीमंतांचीच शिक्षण आहे. शिक्षणासाठी दहा हजार रुपये खर्च करून जरी मोबाईल घेतला तरी पुढे त्याची रिचार्ज, दुरुस्ती गरीबांना परवडण्यासारखे नाही.

#### वयोगट-

शिक्षणाचा विचार केला तर इयत्ता चौथीच्या मुलांच्या हातामध्ये देणे चुकीचे ठरू शकते कारण दहा वर्षे हे मोबाईल लॅपटॉप किंवा इतर इलेक्ट्रिक साधने वापरण्याची वय नाही. त्यामुळे अशा प्रकारची साधने आपण त्यांच्या हातामध्ये देऊन स्वतः त्यांना बिघडण्यास प्रवृत्त करत आहोत. महामारी च्या काळामध्ये आपण त्यांना मोबाईल घेऊन ऑनलाईन शिक्षणाचा लाभ घेण्याचा प्रयत्न करत आहोत परंतु ही परिस्थिती संपल्यानंतर मुलगा ऑनलाईन शिक्षण सोडून युवा मोबाईल सोडून इतर प्रकारचे शिक्षण घेण्यास उत्सुक राहणार नाहीत. त्यांना मोबाईल व इलेक्ट्रॉनिक साधनांची सवय लागलेली असते.

#### शारीरिक समस्या-

टीव्ही, लॅपटॉप, मोबाईल इत्यादींच्या वापरामुळे दृष्टी कमी होते. जास्त वेळ लॅपटॉप किंवा मोबाईल वापरल्याने मानवाची नजर कमी होते, व आयुष्य देखील कमी होते त्यामुळे कमी वयात जास्त समस्या निर्माण होतात. आर्थिक पाठोपाठ शारीरिक इजा देखील ऑनलाईन प्रणालीमुळे आपल्या समोर उभी राहते. त्यामुळे ऑनलाईन शिक्षण प्रणालीचा व आपल्या जीवनाचा संबंध आल्याने इतर घटकाशी काही वाईट परिणाम होणार

नाही याची परिपूर्ण काळजी घेऊन या प्रणालीचा आपल्या जीवनामध्ये वापर करून घेऊन आपल्या प्रगतीच्या दिशेने वाटचाल करणे हे खूप महत्वाचे वाटते.

### ऑनलाईन शिक्षणाचे फायदे-

ऑनलाईन शिक्षणाच्या प्रणालीची अत्यंत प्रभावीपणे अंमलबजावणी झाली तर, त्याचा अनेक स्तरावर फायदा होऊ शकतो. ज्ञानदान साठी किंवा क्षमता विकसनासाठी, शारीरिक वयाच्या पन्नास ते शंभर मुलांना एकाच छताखाली रोज जमवून, त्यांना एकाच पद्धतीचे शिक्षण देणे ही औद्योगिक काळाची गरज होती. केवळ त्याच पद्धतीने शिक्षण देणे त्यांना शक्य होते पण अगदी कोरून येण्यापूर्वी पर्यंत या परिस्थितीत काहीच फरक पडला नव्हता तोरणाच्या या झटक्याने आपण अचानक नव्या पद्धतीला अंगीकारलो आहे. शिक्षणामध्ये तंत्राचा वापर करणे हे योग्य आहे परंतु शिक्षणाबरोबरच व्यायाम, साहस, धाडस, मैत्री, सामाजिक भान या गोष्टी ऑफलाईन शिक्षणामध्ये किंवा पारंपारिक शिक्षणामध्ये आपोआप शिकवल्या जात होत्या, त्या ऑनलाईन शिक्षणामुळे बंद झाले आहेत. भविष्यात या नवे ऑनलाईन शिक्षण पद्धतीत प्रत्येकासाठी व्यक्तिगत शिक्षणाचे नियोजन, शिक्षणाचा मार्ग असू शकतात. वयानुसार आणि व्यक्तिगत क्षमतेनुसार इत या नियोजनामध्ये लवचिकता येऊ शकते. दहा वर्षांचे एक मूल त्याच्या नैसर्गिक क्षमतेनुसार चौथीचे तर दुसरे मूल त्याच्या क्षमतेनुसार सातवी किंवा आठवीचे गणित सोडवू शकते. हे आज घडत नाही पण उद्या कदाचित असे घडू शकेल. आपापल्या क्षमतेनुसार आणि आवडीनुसार आपल्या शिक्षणाचा मार्ग निवडू शकेल व पाहिजे त्या येत व पाहिजे तो कोर्स स्वइच्छेने पूर्ण करू शकेल. शाळा चालविण्यासाठी शाळेच्या इमारती, मैदाने यांचे इन्फ्रास्ट्रक्चर लागते. शहरापासून ते खेड्यापर्यंत प्रत्येक मुलाच्या घराजवळ शाळा हवी असेल तर त्यासाठी लागू शकणारे इन्फ्रास्ट्रक्चरसाठी महाकाय गुंतवणूक करावी लागते. शाळा घराजवळ नसेल तर मुलांच्या वाहतुकीची व्यवस्था आणि त्यासंबंधी इन्फ्रास्ट्रक्चर लागते. वाहतुकी मध्ये मुलांचा जाणारा वेळ आणि त्या दरम्यान च्या साऱ्या सुरक्षिततेचा प्रश्न हा देखील एक मोठी समस्या असते. अत्यंत प्रभावीपणे चालवले गेले ऑनलाईन शिक्षणामुळे या समस्यांचे निराकरण होऊ शकते. शाळांच्या इन्फ्रास्ट्रक्चर मध्ये मोठ्या प्रमाणावर गुंतवणूक न करता, शिक्षण सर्वदूर पोहोचवता येऊ शकते. ऑनलाईन पद्धतीमुळे विद्यार्थ्यांना सकाळी लवकर उठणे, आवरणे, शाळेची तयारी करणे, प्रवास करणे इत्यादी गोष्टींपासून ऑनलाईन शिक्षणामुळे दुजोरा मिळालेला आहे. या गोष्टी विद्यार्थ्यांना आवडतात कारण शाळेत जाऊन फक्त अध्ययन करायचे आहे मग ते घर बसल्या मिळत असेल तर का वाईट, असे विचार मुलांचे बनलेले आहेत. त्यामुळे ऑनलाईन शिक्षण पद्धतीही असा विचार करणाऱ्या विद्यार्थी, पालक व शिक्षक यांना योग्य वाटते. केंद्र सरकारने ई-लर्निंग चा प्रचार व प्रसारासाठी काही लक्षणीय उपक्रम गेल्या काही वर्षांमध्ये सुरू केले आहेत. 'स्वयम्' नावाचे ॲप आणि त्यामागे असलेले शैक्षणिक साहित्य निर्माण करणारे मोठी परिसंस्था सरकारने उभी केली आहे. AICTE, NCERT, NCTE, UGC सारख्या राष्ट्रीय पातळीवरच्या 9 संस्थांमध्ये समन्वय साधून त्यांच्याकडून शैक्षणिक साहित्य स्वयम् या एका व्यासपीठावर उपलब्ध करून दिले आहे. शिवाय शिक्षकाला कोणत्याही विषयावर चा अभ्यासक्रम आणि शैक्षणिक साहित्य तयार करून त्यावर टाकण्याची सुविधा दिली आहे. स्वयम् मधील सर्व अभ्यासक्रम आणि शैक्षणिक साहित्य हे देशातील कोणत्याही विद्यार्थ्याला पूर्णपणे मोफत उपलब्ध आहे. ई-लर्निंगच्या प्रचार-प्रसारसाठी केंद्र सरकारच्या मानव संसाधन विकास खात्याचा हा अत्यंत महत्वाकांक्षी प्रकल्प आहे. याबरोबरच केंद्र सरकारचे माहिती तंत्रज्ञान खाते देशभरातल्या अनेक संस्थांमध्ये ई-लर्निंग संबंधित संशोधन प्रकल्प गेली काही वर्षे

राबवत आहे.केंद्र सरकारने स्थापन केलेल्या राष्ट्रीय मुक्त विद्यालय शिक्षण संस्थाद्वारे अनेक पारंपारिक किंवा व्यावसायिक शिक्षणाचे अभ्यासक्रम ऑनलाईन चालवले जात आहेत. परंतु, शिक्षण व्यवस्थेमधील या अध्ययन, अध्यापन व मूल्यमापन या तीन वाजून पैकी सरकारचा भर प्रामुख्याने अध्ययनावर आहे असे दिसत आहे. सध्या अस्तित्वात असलेल्या शाळा आणि शैक्षणिक संस्थांनी अध्यापनासाठी ऑनलाईन माध्यमांचा वापर कसा करावा यासाठी सरकारी धोरणे आणि भूमिकेमध्ये स्पष्टता दिसत नाही. खासगी आणि सरकारी शाळांमधील शिक्षकांना ऑनलाईन अध्यापन करण्यासाठी उपकरणे कशी उपलब्ध करून द्यावीत, ती वापरण्याचे प्रशिक्षण त्यांना कसे द्यावे या विषयी धोरणे अथवा मार्गदर्शक तत्वे स्पष्टपणे जाहीर झालेले नाहीत. केंद्र सरकार, विविध राज्य सरकार आणि शैक्षणिक संस्था आपापल्या पातळ्यावर एकाच समस्येवर वेगवेगळी उत्तरे शोधत असताना दिसत आहेत.या सर्व प्रयत्नांमध्ये सुसूत्रता आणणे आणि ऑनलाईन शिक्षणासाठी राष्ट्रीय पातळीवर सर्वसमावेशक असा दूरगामी महत्वाचा कार्यक्रम राबवणे गरजेचे आहे.

### कोरोनापूर्वीचे शिक्षण/ ऑफलाईन शिक्षण-

मार्च 2020 ते आज पर्यंत विद्यार्थी व शिक्षक यांच्यावर अक्षरशः संकट निर्माण झाले आहे. कारण ऑनलाईन शिक्षण हे सध्या चालू आहे व आजचे शिक्षण हे उच्च माध्यमिक स्तरापर्यंत तरी उपयोगाचे नाही असे वाटते. या स्तरापर्यंतच्या विद्यार्थ्यांचा वयाचा विचार केला असता यांच्या हातामध्ये ऑनलाईन शिक्षणासाठी उपयोगी असणारे साहित्य यांच्या हातामध्ये द्यायचे वय नसते कारण अशा उपकरणांमुळे या वयातील विद्यार्थी फक्त शिक्षणासाठी उपयोग करतील यावर विश्वास वाटत नाही त्यामुळे या स्तरातील विद्यार्थ्यांचा विचार केला असता अशा विद्यार्थ्यांना अशी उपकरणे हाताळण्यासाठी देणे योग्य वाटणार नाही.सध्याच्या परिस्थितीचा विचार करता 'शाळा बंद असल्या तरी शिक्षण सुरू राहिले पाहिजे'. राज्य शासनाच्या या धोरणानुसारच आज आपण ऑनलाईन एज्युकेशन पद्धतीने शिक्षण प्रक्रिया सुरू उत्तर केली आहे, मात्र याबाबत शिक्षक, विद्यार्थी आणि पालक प्रचंड संभ्रमात आहेत. त्यामुळे खरोखरच ऑनलाईन शिक्षण पद्धती ही पारंपरिक शिक्षण पद्धतीला पर्याय ठरू शकते का यावर विचार करून त्याच्या सकारात्मक आणि नकारात्मक या दोन्ही बाजूंची चर्चा करणे खूपच आवश्यक आहे. कोरोना पूर्वीचे शिक्षण हे पारंपारिक शिक्षण पद्धतीने दिले जायचे, विद्यार्थ्यांचा सर्वांगीण विकास केल्या जायचा परंतु कोरोना नंतरच्या शिक्षण पद्धतीमध्ये खूप मोठ्या प्रमाणामध्ये फरक झालेला दिसून येत आहे.कोरोना पूर्वी शिक्षण हे शाळेत दिले जायचे त्यामुळे शिक्षक व विद्यार्थी यांच्यात चांगल्याप्रकारे आंतरक्रिया होऊन हे चांगले संबंध निर्माण होत होते. त्यांच्यामध्ये एक आदराचे व आपुलकीचे नाते निर्माण होत होते परंतु ऑनलाईन शिक्षण प्रणाली ही एका दिशेने होत आहे असे संशोधकास वाटते.कोरोनाविषाणू ने आपल्या जीवन पद्धतीत आमूलाग्र बदल घडवून आणला आहे. आपल्याला हवे किंवा नको असलेले खूप मोठे बदल आपल्या आयुष्यात होत आहे. वर्क फ्रॉम होम संस्कृती, स्वच्छतेचे नियम, सार्वजनिक ठिकाणी वावरताना चे नियम हे सर्व आपल्या अंगवळणी पडत चालले आहेत. त्यापैकीच एक महत्वाचा बदल म्हणजे ऑनलाईन शिक्षण होय. शिक्षणाचा उद्देश चहूबाजूंनी मिळणारे ज्ञान आत्मसात करणे व त्यातून आपले उत्तम व्यक्तिमत्व घडवणे हा आहे. यासाठी तंत्रज्ञानाचा जेवढा वापर होऊ शकतो तेवढा अन्य कशाचे होऊ शकत नाही. ऑनलाईन शिक्षणामुळे विकासाचे पुढचे पाऊल टाकले जाऊन विद्यार्थी व शिक्षकांसाठी ज्ञानाचे भांडार उघडले गेले आहे. झूम, गुगल मीट, गुगल क्लासरूम काही जण व्हाट्सअप च्या माध्यमातून ऑफलाईन पद्धतीने शिकवण्याची ही प्रक्रिया राबवत आहेत. नवीन काहीतरी मिळणार म्हणून एक



जिज्ञासा, कुतूहल आणि नाविन्यपूर्ण तंत्रज्ञान युक्त पद्धत सुरुवातीला खूप छान व परिस्थितीनुरूप सोयीस्कर देखील मानण्यात आली. कदाचित शिक्षक-विद्यार्थी दोघांनाही ही वर्क फ्रॉम होम ची ऑनलाईन एज्युकेशन पद्धत आवडली असेलही पण डिजिटल शिक्षण कायमस्वरूपी इलाज होऊ शकते का? की आताच्या अडचणीच्या काळात एक पर्यायी उपलब्धता म्हणून स्वीकारली ती एक पद्धत आहे. विद्यार्थ्यांच्या सर्वांगीण विकासासाठी शैक्षणिक विकासाबरोबरच शारीरिक व मानसिक विकास देखील खूप महत्वाचा आहे. तो आपण ऑनलाईन शिक्षणामध्ये देऊ शकतो का? आणि शिक्षकांच्या दृष्टिकोनातून विचार केला तर प्रत्येक शिक्षकाने तंत्रस्त्रेही बनले पाहिजे ही काळाची गरज आहे. या ऑनलाईन पद्धतीमुळे सध्याच्या कालावधीमध्ये जे शिक्षक सेवा संपविण्याच्या दिशेने वाटचाल करत आहेत किंबहुना त्यांच्या वयाच्या मर्यादेनुसार काही दिवसात त्यांची सेवा ही समाप्त होणार आहे आशा शिक्षकांनी तंत्रस्त्रेही होणे गरजेचे आहे का किंवा ते तंत्रस्त्रेही होऊ शकतील परंतु पुढील आयुष्यात त्याचा त्यांना उपयोग काय? असा सहज प्रश्न वाचकांना पडू शकतो. ऑनलाईन शिक्षण पद्धतीचा जर आपण सकारात्मक पद्धतीने विचार केला तर ही पद्धती काही कालावधी पुरती उपयोगी आहे परंतु चिरकाल टिकणारी ही ऑनलाईन पद्धती असू शकत नाही कारण मध्ये विद्यार्थ्यांचा सर्वांगीण विकास साधला जात नाही त्याच बरोबर शारीरिक विकासाकडे दुर्लक्ष केले जाते. सकारात्मक दृष्टीने आपण ऑनलाईन पद्धती कडे पाहिलं तर खालील मुद्दे लक्षात येतील-

- 1) covid-19 चा कोणताही धोका न पत्करता विद्यार्थी व शिक्षक ऑनलाईन संवाद साधू शकले किंबहुना कोरोना या महामारी ने पूर्ण जग थांबले असताना देखील शिक्षण नवीन पद्धतीमुळे चालूच राहिले.
- 2) शिक्षक नवीन नवीन तंत्रज्ञान आत्मसात करून आधुनिक काळातील टेक्नॉलॉजी शिक्षक बनवत आहेत. तंत्रज्ञानाचा वापर करून अध्यापन व अध्ययन क्रिया पार पडताना दिसत आहेत.
- 3) शहरात मिळणारे दर्जेदार शिक्षकांचे उत्तम शिक्षण ग्रामीण भागातील मुलांना पण मिळू लागले. शहरातील शिक्षक व विद्यार्थी यांच्या विषयी कुतूहल असणारे ग्रामीण भागातील विद्यार्थी यांचा शहरातील शिक्षक, विद्यार्थी व संस्कृती यांच्याशी थेट संबंध निर्माण झाला.
- 4) ऑनलाईन शिक्षण हे टीव्ही, लॅपटॉप, मोबाईल, टॅब इत्यादींच्या मार्फत होत असल्याने मुलगा ऑनलाईन अभ्यास करतो आहे कि नाही यावर पालक लक्ष ठेवू लागले.
- 5) कोरोनापूर्वीच्या काळी देखील विद्यार्थी, टीव्ही मोबाईल, लॅपटॉप, टॅब इत्यादींचा वापर हा गेम खेळणे, कार्टून पाहणे, एखादे चित्रपट पाहणे इत्यादींसाठी त्याचा वापर केला जात होता परंतु ऑनलाईन शिक्षण पद्धतीमुळे या सर्व गोष्टींचा वापर शिक्षणासाठी करण्यात येऊ लागला व विद्यार्थी शिक्षणात व्यस्त झाली.
- 6) सहा तास शाळा, त्यात जाण्या येण्यासाठी लागणारा आणि शाळेची तयारी करण्यासाठी लागणारा वेळ, शिवाय अतिरिक्त शिकवणी वर्ग यामध्ये जाणारा वेळ वाचण्यास मदत झाली.
- 7) तंत्रज्ञानाच्या वापरामुळे विद्यार्थ्यांच्या ज्ञानात त्याविषयी गोडी निर्माण होऊ लागली आहे. युट्युब सह इतर यंत्रणांचा अचूकपणे वापर करता येऊ लागला आहे. सर्व असले तरी याचा नकारात्मक बाजूचा देखील विचार करणे अत्यंत आवश्यक आहे. एक शिक्षक जोपर्यंत प्रत्यक्षात समोर बघून शिकवत नाही तोपर्यंत या अध्ययन-अध्यापन प्रक्रियेत सजीवता निर्माण होत नाही. त्यांना प्रत्यक्ष अध्यापन करत असताना त्यांच्याशी साधला जाणारा भावनिक संवाद देखील अध्ययन-अध्यापन प्रक्रियेचा एक भाग असतो हे दुर्लक्षित करून चालणार नाही. शिक्षक व विद्यार्थी यांच्यामध्ये प्रत्यक्ष आंतरक्रिया होणार नाही तोपर्यंत अभ्यासातील समस्या, अडचणी सोडवता येणे शक्य नाही.

नकारात्मक दृष्टीने विचार केल्यास खालील मुद्दे वाचकांच्या देखील लक्षात येतील-

- 1) विद्यार्थ्यांना शिकवण्याच्या चार शैली आहेत. यात बसून, ऐकून, स्पष्ट करून आणि कृतीतून शिकण्याचा समावेश आहे.परंतु विद्यार्थी 90 %अनुभवातून शिकत असतो तो अनुभव या पद्धतीने घेता येत नाही.
- 2) शिक्षक व विद्यार्थी या दोघांमध्ये प्रत्यक्ष संवाद होत नसल्याने अध्ययन-अध्यापन प्रक्रियेत अनेक अडथळे येत आहेत. यातील सर्वात मोठी समस्या म्हणजे शिक्षकांनी केलेले अध्यापन विद्यार्थ्यांना समजते की नाही याचा उलगाडा होत नाही.त्यामुळे शिक्षकांना शिकवण्याची समाधान मिळत नाही.
- 3) या शिक्षण पद्धती साठी लागणारे मोबाईल, संगणक, टॅब, लॅपटॉप ही साधने आहेत. अनेक गरीब पालकांकडे अँड्रॉइड मोबाईल, संगणक, लॅपटॉप, टॅब इत्यादींपैकी कोणतेही साधन नसल्यामुळे मुलांच्या मनात न्यूनगंड तयार होत आहे. ग्रामीण भागात एक फार मोठी समस्या आहे ती वीजेची.विजेच्या समस्येमुळे हे विद्यार्थी ऑनलाईन शिक्षणापासून वंचित राहत आहे व त्यामुळे ग्रामीण व शहरी अशी खूप मोठी दरी समाजामध्ये निर्माण होत आहे.
- 4) सर्वात महत्वाचे म्हणजे नेटवर्क सर्वांकडे उपलब्ध आहेत असे नाही. अनेक भागात इंटरनेटची समस्या असल्यामुळे व्हिडिओ डाऊनलोड करणे ऑनलाईन लिंक ओपन करणे हे शक्य होत नाही. मोबाईल, लॅपटॉप किंवा संगणकासमोर अधिक काळ बसल्यामुळे डोळ्यांचे व कानाचे विकार तसेच पाठ दुखी असे आजार उद्भवू शकतात.
- 5) पूर्वी 30 ते 35 मिनिटांच्या तासात शिक्षक शैक्षणिक साधनांचा उपयोग करून व काही उदाहरणे देऊन अध्यापन करीत असत, व्हिडिओमुळे शिक्षक काटेकोरपणे केवळ विषयावरच बोलतात त्यामुळे रटाळपणा वाढला.विद्यार्थी अधिक काळ ऑनलाईन राहू लागल्यामुळे पालकांची नजर चुकून अध्यापन व्यतिरिक्त इतर आक्षेपाह व्हिडिओज, विंडोज उघडली जाण्याची शक्यता वाढली आहे.
- 6) वर्गमित्र- मैत्रीणींशी भेट होत नसल्याने विद्यार्थी एकलकोंडे होण्याची भीती वाढू लागली आहे.पालकांच्या दृष्टिकोनातून विचार करता दररोज सकाळी ऑनलाईन लेक्चर च्या वेळी मुलांची मानसिकता तयारी त्यांना करावी लागते.कित्येक वेळा विद्यार्थी झोपलेली असतात, विद्यार्थी खरोखरच अध्ययन करतो आहे की नाही हे समजू शकत नाही.
- 7) अनेक शाळांकडे आवश्यक इन्फ्रास्ट्रक्चर उपलब्ध नाही.तासांच्या ऑनलाईन शिक्षणासाठी काही हजार रुपये मोजावे लागत आहेत. याशिवाय ऑनलाईन शिक्षणातील सर्वात घातक प्रकार स्क्रीन टाईम हा आहे.त्यामुळे मेंदूतील चेतापेशी डॅमेज होता असा शास्त्रज्ञांचा अंदाज वर्तविला गेला आहे.त्यातून अँटीजम हा आजार होऊ शकतो.यामुळे मेंदूत बिघाड होत नाही मात्र स्वमग्नता येण्याची शक्यता असते. यामुळे कालावधी पूर्वी पबजी(PUBG)या गेम वरती केंद्र सरकारने बंदी आणली होती व ती बंदी आणण्याची मागणी ही देखील समाजातून करण्यात आली होती.

#### संमिश्र शिक्षण-

ऑनलाईन शिक्षण व्यवस्था ही काळाची गरज आहे.अत्यंत कमी खर्चात प्रत्येक विद्यार्थ्यांपर्यंत पोहोचू शकेल आणि प्रत्येकाला आपापल्या आवड आणि क्षमतेनुसार घेता येईल असे शिक्षण खरोखर महत्वाचे आहे.मात्र, ऑनलाईन शिक्षणाच्या काही महत्वाच्या मर्यादांमुळे पारंपारिक शालेय शिक्षण आणि शाळांना तो संपूर्ण पर्याय ठरेलच असे नाही. संमिश्र शिक्षण पद्धत ही भविष्यातली महत्वाचे शिक्षण पद्धत असेल,जे विषय ऑनलाईन शिकता येणे शक्य आहे त्यांचे अध्यापन-अध्ययन ऑनलाईन होणे,हे विषय ऑनलाईन शिकता येणे शक्य आहे त्यांचे अध्ययन अध्यापन ऑनलाईन होणे व जे विषय प्रत्यक्ष एकत्र येऊन शिकावी लागतात त्यासाठी शाळांसारख्या संस्थांमध्ये

एकत्र येणे अशा दोन्ही पद्धतींचा वापर येणाऱ्या काळात करावा लागेल. त्याचबरोबर मूल्यमापनाच्या पद्धती मध्ये प्रमाणीकरण करून त्या ऑनलाईन पद्धतीने राबवल्या तर देशातल्या कोणालाही कुठूनही हव्यात या अभ्यासक्रमाची परीक्षा देता येणे शक्य होईल. या सर्व एखाद दोन वर्षात घडणाऱ्या गोष्टी नाहीत, वर्षानुवर्षे अनेक सरकारी आणि खासगी संस्थांनी एकमेकांशी समन्वय साधत प्रयत्न केले तर संपूर्णपणे आधुनिक आणि सर्वांना उपलब्ध अशी नवी शिक्षण व्यवस्था आपणास निर्माण करता येऊ शकते.

#### फायदे व तोटे-

1) ऑनलाईन शिक्षण प्रणालीचा एकंदरीत विचार केला तर शैक्षणिक क्षेत्रात याचा फायदा कमी प्रमाणात होतो कारण नववीचा विद्यार्थी दहावीला गेला व परीक्षा न देता पास झाला अशाच प्रकारे अकरावीचा विद्यार्थी बारावीत गेला व कोणतीही परीक्षा न देता बारावी पास देखील झाला. यामध्ये ऑनलाईन शिक्षण प्रणालीचा वापर करण्यात आला व त्यांना एका वर्गातून दुसऱ्या वर्गात क्रमिक करण्यात आले ठिकाणी त्यांच्या ज्ञानामध्ये कोणत्याही प्रकारची वृद्धी किंवा वाढ झाली नाही.

2) गरीब व श्रीमंत ही दरी वाढत चालली आहे व श्रीमंत विद्यार्थी जेवढी साधने जास्त प्रमाणात वापरतील तेवढ्याच प्रमाणात त्यांना गुण सुद्धा जास्त दिले जातात कारण विविध साधनांचा वापर करून ते ऑनलाईन शिक्षण प्रणाली मध्ये सहभागी होत असतात परंतु गरीब विद्यार्थी हे विविध साधनांचा वापर करू शकत नाहीत किंबहुना पाहिजे तीच साधने त्यांना उपलब्ध नसतात त्यामुळे ऑनलाईन शिक्षण प्रणालीच्या माध्यमातून किंवा या प्रणालीच्या अंतर्गत गरीब विद्यार्थ्यांच्या वर हा एक प्रकारे अन्याय होताना दिसून येतो त्यामुळे ही शिक्षणपद्धती गरिबांच्यासाठी नाही असे संशोधकास वाटते.

3) मैदानी खेळ हे मैदानावर जाऊन खेळावे लागतात त्यामुळे सहकार्याची वृत्ती सहानुभूती साहस धाडस अशा प्रकारच्या कलागुणांना वाव मिळतो परंतु त्या खेळाविषयी फक्त आपण सैद्धांतिक किंवा तात्त्विक स्वरूपाची माहिती घेतली असता विद्यार्थ्यांच्या शरीरामध्ये किंवा त्यांच्या मनामध्ये सहानुभूतीची साहसाची व धाडसाची भावनानिर्माण होत नाही.

4) समाजामध्ये वावरत असताना समाजाची प्रतिकृती हा विद्यार्थी बनून समाजामध्ये वावरत असतो परंतु समाजाशी काही संबंध या ऑनलाईन शिक्षण पद्धतीने येऊ न दिल्याने समाजातील बदल व समाजाशी संबंध येत नाही त्यामुळे समाजातील घटकपासून विद्यार्थी वंचित राहतात. ज्या समाजामध्ये आपण वावरतो त्या समाजाचे आपण देणे असतो ही भावना मनामध्ये असली पाहिजे तरच विद्यार्थी समाजाविषयी व समाजातील घटकाविषयी सकारात्मक विचार करू शकतो अन्यथा नकारात्मक विचार घेऊन तो जगत असतो.

5) ऑनलाईन व ऑफलाईन या मध्ये खूप मोठ्या प्रमाणात फरक आहे कारण अशा काही गोष्टी आहेत की त्या प्रत्यक्षात पाहून करावे लागतात. उदा.. प्रयोग शाळेतील प्रयोग. ऑनलाईन च्या माध्यमातून वर्गामध्ये बसून सुद्धा विद्यार्थ्यांना जम्मू-काश्मीरमध्ये सफरचंदाच्या त्या बागेचे वर्णन करण्याऐवजी त्यांना दाखवू शकतो.

#### समारोप:-

प्राथमिक, माध्यमिक, उच्च माध्यमिक, विद्यालयीन व महाविद्यालयीन किंवा विद्यापीठीय स्तरावरील शिक्षणामध्ये कोरोना या महामारी ने धुमाकूळ घातला आहे. आज जेव्हा कोरोनाव्हायरस ने आपण गृहीत धरलेले जग हादरवून टाकले आहे आणि व्यापक प्रमाणावर मानसिक चिंता आणि आज तत्वाची अनिश्चितता निर्माण केली आहे. अशा महत्वपूर्ण टप्प्यावर आपण शिक्षक व शिक्षणतज्ञ म्हणून अत्यंत वाईट पद्धतीने अयशस्वी ठरलो

आहोत.याविषयी मला खेद वाटतो. या गोंधळलेल्या क्षणी शिक्षणाचा अर्थ आणि उद्देश याविषयी पुनर्विचार करणे आहे व जी आपण केवळ ऑनलाईन अध्यापनासाठी योग्य ॲप्स कशी वापरायची जेणेकरून सामाजिक अंतराच्या अडथळ्यांवर विजय मिळवता येईल अशा तांत्रिक प्रश्नांना महत्त्व देताना दिसत आहोत. हे करणे म्हणजे कृत्रिमरित्या सर्वसामान्य परिस्थिती असल्यासारखे दाखवणे आणि आपल्या आयुष्यात मूलभूत पणे काहीही बदललेले नाही असा आव आणण्यासारखे आहे. गरिबी निर्मूलन हा स्वातंत्र्योत्तर भारतापुढील सर्वात लोकप्रिय राजकीय घोषणा ठरली आहे. पण या घोषणेनंतर जे काही थोडेथोडेके साध्य झाले ते पुन्हा या कोरोनामुळे मातीत मिळाले. म्हणूनच पुन्हा एकदा गरीबी विरुद्ध दंड थोपटावे लागणार आहेत. त्यासाठी एक सरकार म्हणून निश्चित धोरण आखावे लागेल, या धोरणामध्ये कमालीची सुस्पष्टता आणि सूक्ष्म नियोजन यांचा समावेश असायला हवा. तरच गरिबी वर्गातील लढाई जिंकता येणे शक्य आहे. कोणाच्या संकटानंतर येणाऱ्या मंदीमध्ये अगदी तळागाळापर्यंत गरिबी झिरपणारा आहे.त्यामुळे त्याची नीट आणि सखोल आकलन होणे गरजेचे आहे. ऑनलाईन शिक्षण पद्धती व पारंपारिक शिक्षण पद्धती या दोन पद्धती मध्ये जमीन-आसमान इतका फरक आहे. ऑनलाईन पद्धतीमध्ये स्मार्टफोन्स, लॅपटॉप, टॅब, आयपॅड किंवा इतर महागडी उपकरणे गरीब विद्यार्थ्यांना व त्यांच्या पालकांना घेणे परवडणारे नाही कारण वर्तमान स्थिती पाहता बेरोजगार, गरीब व रोजंदारी ने काम करणाऱ्या पालकाला आपल्या पाल्याला या महागड्या वस्तू घेणे परवडणारे नाही त्यामुळे गरीब श्रीमंत ही दरी पुन्हा एकदा आपले तोंड वर काढताना दिसून येत आहे. गरीब व श्रीमंत ही दरी या कोरोनामुळे व ऑनलाईन शिक्षण पद्धतीमुळे परत एकदा वर येऊ पाहत आहे. ऑनलाईन शिक्षण पद्धतीही कायमस्वरूपी असणे आवश्यक आहे परंतु त्याचबरोबर तिला जोड म्हणून ऑफलाईन किंवा पारंपारिक शिक्षण पद्धतीची गरज आहे.संमिश्र शिक्षण पद्धती असेल तर वर्तमान परिस्थिती पेक्षा ही जास्त प्रमाणामध्ये प्रगती साधता येऊ शकते.धन्यवाद!

#### संदर्भग्रंथ सूची:-

- 1)माध्यमिक शिक्षण- डॉक्टर कोठारी
- 2) आधुनिक शिक्षण पद्धती- डॉक्टर देशपांडे
- 3) कोरोना: शिक्षणातील संधी का संकट.
- 4) आंतरजाल.
- 5) लोकसत्ता व महाराष्ट्र टाइम्स वृत्तपत्रे.

# “प्लायोमेट्रिक व्यायाम व प्रशिक्षणाचा अथलेटिक्स खेळांमध्ये फेकणे या प्रकारावर होणाऱ्या परिणामाचा अभ्यास”

प्रा. डॉ. चिंते विक्रम व्यंकट

क्रिडा संचालक, दयानंद विधी महाविद्यालय, लातूर.

## प्रास्ताविक:

अथलेटिक्स हे नाव उच्चारल्या बरोबर आपल्या डोळ्यासमोर मोठे भव्य वर्तुळाकार आखलेले क्रीडांगण, स्टेडियम मध्ये बसलेले खेळाडूंना प्रोसाहन देणारे प्रेक्षक, छाती पाठीवर चेस नंबर लावून इकडे तिकडे धावपळ करीत असलेले धावपटू, पिस्तुलाचा हात वरी करून शर्यत सुरु करण्यात सज्ज असलेला स्टार्टर, तसेच मोजमापणी करत असलेला पंच असे दृश्य उभे राहते. अथलेटिक्स स्पर्धेचे ट्रॅक आणि फिल्ड असे दोन प्रकार पडतात ट्रॅक म्हणजे धावपटूसाठी आखलेला मार्ग. यामध्ये धावण्याच्या शर्यती-अडथळ्याच्या शर्यतीत व चालण्याच्या शर्यती घेतल्या जातात. फिल्ड म्हणजे धावपटूच्या आतील मोकळ्या जागेत लांब उडी, उंच उडी, तिहेरी उडी, बांबू उडी, गोळा फेक, थाळी फेक, हातोडा फेक, भाला फेक, या स्पर्धा घेतल्या जातात.

प्लायोमेट्रिक व्यायामामुळे व्यक्तीच्या शारीरिक व कारकक्षमतेचे महत्व, उपयुक्तता त्यांच्या समृद्धीसाठी कसा उपयोग करता येईल यासाठी प्रयत्न केलेली आहे. खेळ व क्रीडा क्षेत्रात उच्च पातळीवर उच्च यश संपादन करण्यासाठी खेळाडूस त्यांच्या विशिष्ट खेळानुसार कौशल्य कार्यमान वाढवण्यासाठी शास्त्रीय प्लायोमेट्रिक प्रशिक्षणाचा वापर करावा लागतो. प्रशिक्षण सत्र हे पूर्ण शास्त्रावर आधारित असते. खेळाडूची प्रगतीही त्याच्या कौशल्य क्षमतेवर अवलंबून असते. शारीरिक बांधणीही पाच तत्वावर अवलंबून असते. शक्ती, सहनशीलता, लवचिकता, मोटार अबिलिटी व समन्वय क्षमता. प्रत्येक खेळासाठी वेगवेगळ्या कार्यक्षमतेची व कौशल्याची आवश्यकता असते.

## प्लायोमेट्रिक व्यायाम व प्रशिक्षण:

फेकणे या प्रकारासाठी प्लायोमेट्रिक प्रशिक्षण हे पुढील प्रकारे असते. कमरेपासून वरील भागाकरिता पुढील व्यायामाचा समावेश असतो. प्लायोमेट्रिक पुशअप्स, बारट्विस्ट, हरीजेंटल स्विंग, मेडिसन बॉल च्या साहाय्याने स्टॅंडिंग बॅकवर्ड थ्रो , चेस्ट पास, सीटउप थ्रो व ओव्हर हेड थ्रो. यामुळे बाहेरील दाभा विरुद्ध स्नायूंमध्ये जलद प्रतिसाद करण्याच्या शमतेचा विकास होतो. स्नायू मज्जा संस्थेची (Neuro-Muscular system) प्रतिक्रिया शमता (Reactive ability) आणि मज्जा संस्थेची उद्दीपित होण्याची शमता (Excitability) वाढविणे तसेच इससेंट्रीक (Eccentric) स्नायू आकुंचन आणि कोनसेंट्रिक (Concentric) स्नायू आकुंचना दरम्यानचा आवश्यक कालावधी कमी करणे हे प्लायो मॅट्रिक परीक्षण कार्यक्रमाचे मुख्य ध्येय व हेतु आहे यांत्रिक शरीरक्रिया मज्जा संस्था आणि स्नायू मज्जा संस्था यावर नियंत्रण करणाऱ्या यंत्र क्रियांचा प्लायोमेट्रिक परीक्षणात समावेश होतो. तीव्रता अवधी वारंवारता आणि पूनर्भरण यात आवश्यकतेप्रमाणे योग्य बदल करून प्लायोमेट्रिक परीक्षण कार्यक्रम सुधारता येतो.

फेकणे या प्रकारासाठी प्लायोमेट्रिक व्यायामाचे वेगवेगळे प्रकार:

**ड्रॉप पुशअप:** या प्लायोमेट्रिक व्यायामामुळे शरीराच्या वरील भागातील हाताच्या दंडाच्या स्नायूंमध्ये जलद प्रतिसाद करण्याच्या क्षमतेचा विकास होतो. या व्यायामामुळे फेकी प्रकारातील खेळाडूंना स्नायूंची ताकद वाढून त्यांच्या फेकीमध्ये सुधारणा होते.

**सुरुवातीची स्थिती:**

पुशप मारण्याच्या स्थितीत तोंड जमिनीकडे पाय जमिनीवर व दोन्ही हात लाकडी बॉक्स वर ठेवून दोन्ही हातावर शरीराचा तोल राहिल आशा स्थितीत यावे. दोन्ही हातात एक फूट इतके अंतर ठेवावे दोन्ही हाताच्या पंजाने लाकडी बॉक्स ला दाब देऊन हात कोपऱ्यातून वाकून छाती दोन्ही बॉक्स च्यमध्ये ठेवून पुश अप्स काढावे. एक हात लाकडी बॉक्स वर दुसरा हात बॉक्स च्या खालील बाजूस ठेवून पुश-अप्स काढणे व परत दोन्ही हात लाकडी बॉक्स वर ठेवून पुश अप्स काढावे.

**प्लयोमॅट्रिक बार टिव्हस्ट:**

या प्लयोमॅट्रिक व्यायामासाठी वेटलिफ्टिंग चा बरचा उपयोग करण्यात येतो वीस ते पंचवीस पाउंड वजनाचे वेट वापरले जाते या व्यायामामुळे मस्क्युलर पावर डेव्हलप होते व फेकणे या प्रकारातील खेळाडूंच्या कमरेपासून वरील भागाची बाहेरील दाबा विरुद्ध स्नायूंमध्ये जलद प्रतिसाद करण्याच्या क्षमतेचा विकास होतो. हा व्यायाम ट्रॅक & फिल्ड साठी अतिशय उपयुक्त आहे.

**सुरुवातीची स्थिती:**

दोन्ही पायामध्ये सुरक्षित अंतर घेऊन पाय गुडघ्यापासून थोडेसे वाकवावे. वजनी बार खांद्यावर समांतर सरळ ठेवावे दोन्ही हात बार च्या वरती कोपऱ्यात न वाकवता ठेवावे. बार हा आपल्या मानेच्या मध्ये दोन्ही बाजू समान लांब असावा.

वजनी बार खांद्यावर घेऊन दोन्ही हात बार वर न वाकवता सरळ ठेवावे. गुडघ्यात थोडे पाय वाकून बार शहीत कमरेपासून वरील भाग डावीकडे पूर्ण वळवावे दोन्ही पाय जमिनीवर घट्ट रोवून ठेवावे व पूर्व स्थितीत यावे परत बार घेऊन पूर्वस्थितीत यावे. असे डावीकडे व उजवीकडे टिव्हस्ट करत दहा आवर्तने जलदपणे पूर्ण करून घ्यावे. या व्यायामामुळे फेकणे या प्रकारातील खेळाडूंच्या Torso muscle power वाढतो. व सर्व फेकीच्या प्रक्रियेत चपळपणा येतो.

**मेडिसिन बोल ओव्हर हेड थ्रो:**

ओव्हर हेड थ्रो या व्यायामासाठी नऊ ते सोळा पाउंड वजनाचे मेडिसिन बोल वापरण्यात येते. या व्यायामामुळे कंबरेच्या वरील भागाची ताकद वाढते. कमरेची व हाताच्या स्नायूची जलद थ्रो करण्याच्या शक्तीत स्फोटक वाढ होते. हा व्यायाम मैदानी स्पर्धेतील फील्ड इव्हेंट साठी उपयुक्त असा आहे. गोळाफेक, थाळीफेक, हातोडाफेक व भालाफेक खेळाडूंना अतिशय उपयुक्त ठरतो.

**सुरुवातीची स्थिती:**

खेळाडू दोन्ही हातात मेडिसिन बॉल घेऊन दोन्ही पायात किमान एक फुटाचा अंतर घेऊन थांबेल पाय गुडघ्यातून थोडेसे खाली वाकवेल, बोल आपल्या डोक्यावर दोन्ही हाताने धरेल हात थोडेसे कोपऱ्यातून वाकलेल्या स्थितीत असतील.

खेळाडू वरील स्थितीमध्ये थांबून दोन्ही हात कोपऱ्यातून संपूर्ण मागील बाजूस वाकवेल, पायाचे गुडघे जास्तीत जास्त पुढील बाजूस वाकून संपूर्ण शरीर मागील बाजूस वाकवेल व बॉल संपूर्ण ताकतीने डोक्याच्या वरून हवेत फेकेल. संपूर्ण शरीर एकदम सरळ अवस्थेत येईल व पाय सरळ होऊन फेक होईल ही क्रिया अतिशय जलद करण्यात येईल अशाप्रकारे प्लयोमॅट्रिक ओवर हेड थ्रो व्यायाम प्रकाराची दहा आवर्तने खेळाडूने अतिशय जलद गतीने करावे.

**स्कॉट जंप:**

या प्लयोमॅट्रिक व्यायामाच्या प्रशिक्षणामुळे फेकणे या प्रकारातील गोळा फेक खेळाडूंच्या बॅलेन्स या स्कीम मध्ये फरक पडतो व फेकीच्या वेळेस होणाऱ्या यामध्ये सुधारणा करण्यात महत्त्वाची मदत होते कमरेच्या खाली

दोन्ही पायाच्या स्नायूंची ताकद वाढते हा व्यायाम मैदानी खेळातील लांब उडी, उंच उडी, थाळी फेक, गोळा फेक भालाफेक व हॅमर थ्रो साठी उपयुक्त असा ठरतो.

#### सुरुवातीची स्थिती:

खेळाडू आपले सर्व शरीर दिले सोडून आपले दोन्ही हात मानेच्या मागे घेईल. गुडघ्यातून अर्थ बैठकी प्रमाणे वाकेल. दोन्ही पायात दोन फुटाचे अंतर ठेवले. खेळाडू च्या समोर थांब्याच्या ठिकाणी एक लांब लाईन मारलेली असेल.

#### कृती:

वरील स्थितीमध्ये खेळाडू उभे राहतील. दोन्ही पायाने जमिनीला दाब देऊन पुढील बाजूला पूर्ण ताकदीने उडी मारतील. उडी मारते वेळेस दोन्ही पाय ताठ होतील, व हवेतून जमिनीवर उडी मारल्यास झाल्यास पूर्वीच्या स्थितीत येतील. अशा प्रकारे 10 उड्या खेळाडू मारतील सर्व खेळाडूंची शेवटची स्कॉटजम्प मारायची संपल्यास सर्व खेळाडूंचे आंतर तपासून त्यांना योग्य सूचना देण्यात येईल.

#### लेग टोस:

याप प्लयोमेट्रिक व्यायामाचा परीक्षणामुळे खेळाडूचा संपूर्ण शरीराचा स्नायूंची ताकद लवचिकता व गोळाफेक खेळातील फेकीच्या कौशल्यामध्ये वाढ होते. या व्यायामासाठी मेडिसिन बोल नऊ ते सोळा पाऊंड वजनाचे वापरण्यात येते. या व्यायामासाठी होरिझॉन्टल क्रॉस बार चे वापर करण्यात येते. हा व्यायाम मैदानी स्पर्धा साठी फुटबॉल, जिम्नॅस्टिक आणि इतर जलद खेळासाठी अत्यंत उपयुक्त असा ठरतो.

#### सुरुवातीची स्थिती:

खेळाडू आपले दोन्ही हात होरिझॉन्टल क्रॉस बारला धरून थांबेल. मेडिसिन बोल त्याच्या दोन्ही पाया समोर ठेवलेले असेल संपूर्ण शरीर एकदम सरळ असेल.

#### कृती:

वरील स्थितीमध्ये खेळाडू उभा राहिल दुसरा एक खेळाडू मेडिसिन बोल त्याच्या दोन्ही पायाच्या घोट्याजवळ ठेवेल, खेळाडू हॉरिझॉन्टल बारला हाताने घट्ट पकडून दोन्ही पायाने मेडिसिन बोल उचलेल, पाय एकदम सरळ असतील. बोल दोन्ही पायात घट्ट पकडून दोन्ही पाय सरळ वरती कमरेचा समांतर उचलेल परत दोन्ही पाय बोल सहित खाली घेईल पण पाय जमिनीला टेकणार नाही. वरील- खाली असा मेडिसिन बोल दोन्ही पायात धरून ते प्लयोमेट्रिक लेग टोस ह्या व्यायामाचा प्रशिक्षण घेईल.

#### संदर्भ सूची

1. Gambetta, v1977Plyometric Training Athletes h(5)15-17
2. Lier.(1991)Plyometric Training Load for youth & beginners Track technique 101,3211-3123
3. OtteR.A.(1990)Effect of isotonic & Plyometric Training on upper body power of 9th& 10th grade male completed research in health physical education recreatronand
4. Dance washington DC AAHPERD13 (3) 22-24.

# योगाचे मानवी जीवनात महत्व ..

प्रा. डॉ. सतिश गंगाराम ससाणे

समाजशास्त्र विभाग प्रमुख महात्मा फुले महाविद्यालय, अहमदपूर.

प्रस्तावना :-

भारतदेश हा संताची महान तपस्वी लोकांची भूमी म्हणून ओळखले जाते. 'योग' हा भारत भूमीला मिळालेला वारसा असून ती देशाची एक महत्वाची ठेव आहे असे म्हटल्यास वावगे ठरणार नाही. मानवी जीवन धावपळीचे, ताण तनावाचे विविध रोगानी ग्रासलेल्या मानव जातीला 'करा योग रहा निरोग' हा मंत्र अगदी संजीवनी समान आहे. शारीरिक व मानसिक आरोग्य प्राप्त करून देणारी योग शक्ती मानवी आरोग्याला लागलेल्या रोगाच्या ग्रहणाला दूर सारू शकते. मानवी शरीर पंचतत्त्वानी बनलेले आहे. यामध्ये जल, वायू, पृथ्वी, अग्नी आकाश या तत्वांचा समावेश आहे. या पंचतत्वांच्या संतलनामुळे हे शरीर स्वस्थ राहते. योगाचे महत्व सांगायचे झाले तर योग म्हणजे सुख शांती समाधानाने जगण्याची मानवी कला आहे. जीवनाला संयम आणि शिस्त लावणारे ते एक शास्त्र आहे. त्यामुळे संत आणि महापुरुषांनी योगाचा नेहमी पुरस्कार केला आहे तथागता पासून राष्ट्रसंत तुकडोजी महाराजांनी आपल्या आपल्या तत्वज्ञानात योगाचे महत्व विशद केले आहे. तुकडोजी महाराजांनी आपल्या ग्रामगीतेत योगाच्या व्यायामाचे महत्व आधोरिखित केले आहे. योगाचा मानवी जीवनाशी इतका निगडीत संबंध आहे. योगामुळे जीवन अधिक संपन्न समृद्ध व सुसंस्कृत बनलेले आहे. योग ही संकल्पना भारतामध्ये प्देशराचीन काळापासून आलेली आहे. मानवामध्ये असलेली ईश्वरीय चेतना जगविण्याचा एकमेव मार्ग आहे मानवी जीवनात योगाचे महत्व अधोरिखित करण्यात आले आपण आज परदेशात ही योगाचे महत्व पटले आहे. भारतीय संस्कृतीचा हा अनमोल वारसा सातासमुद्रा पार पोहचलेला आहे म्हणून आज जग २१ जून आंतराष्ट्रीय योग दिन म्हणून साजरा करत आहे व जगातील प्रत्येक व्यक्तीने योग करणे ही काळाची गरज झाली आहे. आशा पद्धतीने आपण योग म्हणजे काय पाहू. योग म्हणजे काय योग हा शब्द संस्कृत भाषेतील 'युज' शब्दापासून बनला आहे ज्याचा अर्थ आत्म्याच परमात्म्यात विलीन होणे होतो योग म्हणजे किंवा योगासन म्हणजे शरीराचा व्यायाम नसून योग हा मानवी मन आणि आत्माक्षमना जाणून घेण्या विज्ञानाचा भाग आहे योग म्हणजे निव्वळ व्यायाम आणि आसन नव्हे तर योग हा भावनात्मक समतोल आणि त्या आनाद आनंद तत्वाला स्पर्श करत अध्यात्मिक प्रगतीतील सर्व शक्यतांची ओळख करून देणारे शास्त्र आहे. योगाचे मानवी जीवनात महत्व. सध्याच्या आधुनिक आणि धावपळीच्या जीवना मध्ये आपण काम करतो परंतु आपल्या शरीराकडे लक्ष देण्या करता पुरेसा वेळ मिळत नाही त्यामुळे आपल्या शरीरावरून आपले दुर्लक्ष होते त्यामुळे योगाचे आपल्या आयुष्यामध्ये खूप महत्वाचे स्थान आहे. रोज योगा केल्याने आपल्या जीवनामध्ये ताणतनाव नाहिसा होतो. त्या सोबत मानवाचे शरीर निरोगी राहते माणसाच्या हाड मांसपेशी वजन कमी होऊन लढूपणा नाहिसा होतो. शरीर दणकट राहते शरीर सर्व रोगापासून वंचित राहते योगामुळे रक्तदाब यासारख्या समस्यांना हिंसा होतात शरीरामध्ये ऊर्जा निर्माण होते योगा करणे हे आपल्या जीवनासाठी खूप महत्वाचे आहे. योगाचे एक वैशिष्ट्य हे आहे की तुम्ही युवक असा की वयोवृद्ध निरोगी असा की आजारी योगाभ्यास सर्वांसाठी लाभदायक आहे. आणि तो सर्वांना प्रगती पथाकडे घेऊन जातो वय परतवे आपली आसनांची समज अधिक परिपक्व होऊ लागते मग आपण शारीरिक असनांसोबत अंतर्गत सुक्ष्मतेवर अधिक कार्य करू लागतो. भोग आपल्यासाठी कधीही नवीन नव्हता आपण हे सर्व अगदी बालपणा पासून करत आलो आहोत मग पाठीचा कणा मजबुत करणारे पचनशक्ती वाढवणारे योग प्रत्येकाच्या जीवनाची आदर्श दिशा ठरवण्यासाठी सहाय्य करायला महत्व करते.

सारांश:- मन करारे प्रसन्न सर्व सिद्धीचे कारण हे संत वचन अंगिकारून जीवन जगण्याचा एकमेव मार्ग म्हणजे योगाला मानवी जीवनात अंगिकारून मन आणि आरोग्य सुदृढ बनून निरोगीमय जीवन जगण्याचा आविष्कार करून घेणे होय.

संदर्भ ग्रंथ :-

- 1) इंटरनेट,
- 2) विविध साप्ताहिके
- 3) मासिके



# "पुणे शहर उच्च माध्यमिक शाळेतील ३० ते ४० वयोगटातील पुरुष व महिला शिक्षकांच्या शरीर संघटनेचा अभ्यास."

प्रा. पल्लवी योगेश तरडे

श्री सिद्धिविनायक महिला महाविद्यालय, कर्वेनगर पुणे. ५२, पी. एच. डी. विद्यार्थी, स्वामी रामानंद तीर्थ मराठवाडा विद्यापीठ, नांदेड.

## गोषवारा

पुणे शहर हे विद्येचे माहेरघर म्हणून संपूर्ण जगात ओळखले जाते. शिक्षणाच्याविविध सोयी असणाऱ्या या शहरात भारतातील नव्हे तर इतर देशातील लोकही येथे शिक्षण घ्यायला येतात. त्यामुळे या शहरात अनेक मोठमोठ्या शाळा व महाविद्यालये दिसून येतात. प्रत्येक शाळा व महाविद्यालयात अनेक विषय व शारीरिक शिक्षण शिकविले जाते. शालेय स्तरावरील विद्यार्थ्यांच्या बौद्धिक पातळीत वाढ झालेली असते. त्यामुळे त्यांना शिकविणारे शिक्षक हे त्यांचा आदर्श असतात. शिक्षकांचा विद्यार्थ्यांच्या व्यक्तिमत्त्व विकासावर परिणाम होत असतो. त्यामुळे शिक्षक शारीरिक शिक्षणाबद्दल उदासिन असतील तर विद्यार्थ्यांच्या आदर्श कसा घेतील? बहुतेक शाळेतील विषय शिक्षक हे शारीरिक शिक्षणाबद्दल उदासिन दिसतात. इतर विषयांप्रमाणे ते शारीरिक शिक्षण विषयाला महत्त्व देत नाहीत. तसेच त्यांच्या विद्यार्थ्यांनाही खेळण्यास अधिक प्रवृत्त करीत नाहीत. इतर विषय शिक्षकांची ही शारीरिक शिक्षणाबद्दलची उदासिनता दूर करण्यासाठी व शिक्षकांना निरोगी राहण्यास प्रवृत्त करण्यासाठी प्रयत्न केला आहे. शिक्षकांना स्वतःच्या शरीराचे वजन, स्नायूंचे वजन, हाडांचे वजन, पाण्याचे प्रमाण, चरबीचे प्रमाण व कॅलरीज इत्यादी घटकांची माहिती मिळेल व त्यानुसार कोणता आहार घ्यावा किती व्यायाम करावा याबद्दल ते जागृत होतील. जेव्हा शिक्षक स्वतःचे शरीर निरोगी ठेवण्याबाबत जागृत होतील तेव्हा सगळे जग निरोगी राहण्यास प्रवृत्त होईल हाच उद्देश आहे.

मुख्य शब्द: शरीर संघटन, शरीरातील चरबी, शारीरिक हालचाल व आहार.

## शरीर संघटन-

शारीरिक सुदृढता यातील शरीर संघटन हा अतिशय महत्त्वाचा घटक आहे. मानवी शरीर हे दोन घटकांमध्ये विभागले जाते. अ) चरबीरहित वजनामध्ये शरीरातील चरबी नसणाऱ्या उतींचा म्हणजे हाडे, पाणी, स्नायू, जोडपेशी, पेशी अवयव आणि दात यांचा समावेश होतो. ब) चरबीयुक्त वजनामध्ये १) आवश्यक चरबी व २) अनावश्यक चरबी यांचा समावेश असतो.

## प्रस्तावना

रानटी अवस्थेपासून शारीरिक शिक्षणातील हालचालींशी मानवाचा संबंध आहे. मानवाने जसजसे शोध लावले तसतसे जीवन समृद्ध होत गेले. शोधातून अनेक यंत्रांची निर्मिती झाली व मानवाचे जीवन साचेबंद झाले. त्याची सहज होणारी हालचाल मर्यादित झाली आणि त्यात व्यायामाची गरज भासू लागली. भौगोलिक, राजकीय सामाजिक स्थिती यांचा शारीरिक शिक्षणाच्या संकल्पनांवर परिणाम झाला व शिक्षणाची उद्दिष्टे बदलली. शारीरिक शिक्षणाची उद्दिष्टे बदलण्यामागे मानवाची प्रगती, साचेबंद जीवन यागोष्टी कारणीभूत आहेत. सध्याचे युग हे जलद आहे असे म्हणत असलो तरी मानवाच्या हालचालींमध्ये स्थिरता आली आहे व त्यामुळे मानवी शरीराचा लठ्ठपणा वाढत आहे. तर एकीकडे उपासमारीमुळे कुपोषणास अनेक व्यक्ती बळी पडत आहेत. या स्पर्धेच्या युगात टिकून राहायचे असेल तर व्यक्तीला स्वतःच्या आरोग्याकडे लक्ष देणे आवश्यक बनले आहे. निरोगी राहण्यासाठी योग्य आहार, नियमित व्यायाम, स्वच्छता, नेहमी आनंदी राहणे या गोष्टी महत्त्वाच्या भूमिका बजावतात. सध्या निरोगी राहण्यासाठी व्यायामाचे अनेक प्रकार आपल्याला जाहिराती व पेपरमधून ऐकायला व वाचायला मिळतात. उदा. योगा, जिम, मसाज, स्विमिंग क्लास, एरोबिक्स इत्यादी प्रकार असतात. हे करण्याआधी

व्यक्तीला स्वतःला कोणता आजार आहे किंवा काय झाले आहे व स्वतःच्याशरीराची पातळी ओळखणे गरजेचे आहे. त्यासाठी शरीरातील चरबीचे प्रमाण व इतर घटकांचे प्रमाण किती आहे याची माहिती घेणे व असणे आवश्यक असते. चरबीचे प्रमाण योग्य राखणे गरजेचे आहे. केवळ चरबीचे नाही तर इतर घटक उदा. वजन, पाण्याचे प्रमाण, स्नायूंचे प्रमाण हाडांचे वजन इ. घटक शरीरात योग्य प्रमाणात असणे आवश्यक असते. लिंग, वय, अनुवंशिकता, चयापचय क्षमता, आहारवहालचालींची पातळी इ. घटकांचा शरीर संघटनेवर चांगला व वाईट परिणाम होत असतो. रक्तदाब, पक्षाघात, अतिताण येणे, प्रतिकार शक्ती कमी होणे, त्वचेचे रोग, मुत्राशयाचे आजार, झोप न येणे, श्वास घेता न येणे, हाडे व सांध्याचे आजार होण्याची दाट संभाव्यता असते. वरील आजाराबरोबर अतिरिक्त चरबीमुळे शरीराची साधी हालचाल करण्यासाठी अवघड व जास्त शक्ती वापरावी लागते. त्याबरोबर या व्यक्तीमध्ये स्नायूंची ताकद, हृदयाभिसरण दमदारपणा, लवचिकता या शारीरिक सुदृढता घटकांची कमतरता असल्याने अशा व्यक्तींना सामान्य माणसाप्रमाणे हालचाल करता येत नाही. त्यामुळे या व्यक्तींनी नियमित व्यायाम व आहारावर नियंत्रण ठेवले तर शरीरातील अनावश्यक चरबीचे प्रमाण कमी करून, योग्य चरबीचे प्रमाण नियंत्रित ठेवण्यासाठी प्रयत्न करणे आवश्यक आहे. त्याचप्रमाणे शरीरातील चरबीचे प्रमाण कमी असणाऱ्या लोकांनाही अनेक विकारांना लागते. हे लोक मुख्यतः अशक्त असतात. त्यामुळे सामान्य लोकांप्रमाणे हालचाल हे करू शकत नाहीत. चरबीचे प्रमाण कमी असणाऱ्या व्यक्तींना योग्य व नियमित व्यायाम केला तर शरीरात आवश्यक असणाऱ्या चरबीचे प्रमाण वाढून ते शरीराने सुधृढ होऊ शकतील व स्वतःचे शरीर संघटन योग्य प्रमाणात ठेवू शकतील.

#### अभ्यासाचे उद्दिष्ट्य

- शिक्षकांच्या शरीर संघटनविविध घटकांचे तनिता शरीर संघटन मॉनिटर बी. सी. ५३२ चा वापर करून मापन करणे. (शरीराचे वजन, चरबीचे प्रमाण, अवयवांभोवतीच्या चरबीचे प्रमाण, स्नायूंचे वजन, पाण्याचे प्रमाण, हाडांचे वजन, कॅलरीज ईचे मापन करणे.)
- शिक्षकांच्या शरीर संघटनविविध घटकांच्या मापनाचा तनिता शरीर संघटन मॉनिटर बी. सी. ५३२ मानांकाबरोबर तुलनात्मक अभ्यास करणे.
- शिक्षकांच्या शरीर संघटनेच्या विविध घटकांच्या प्रमाणाचा विश्लेषणात्मक अभ्यास करणे.

#### संशोधन साधने

तनिता शरीर संघटन मॉनिटर बी. सी. ५३२ (Tanita Body Composition Monitor BC 532) ही मशीन वजनकाढ्याप्रमाणे असते. या मशीनमध्ये सेन्सरसू असतात. व्यक्तींचे वय, उंची, लिंग यांची माहिती मॉनिटरमध्ये फीड करून व्यक्तीला मॉनिटरवर उभे राहिले असता शरीराचे वजन, चरबीचे प्रमाण, पाण्याचे प्रमाण, पोटातील स्नायूंचे प्रमाण, स्नायूंचे प्रमाण, हाडांचे वजन, चयापचय क्षमता आवश्यक कॅलरीजचे प्रमाण व चयापचय क्षमतेचे वय एवढ्या शरीरसंघटन घटकांची माहिती या एकाच मॉनिटरद्वारे त्वरीत मिळते. त्यामुळे शरीर संघटन मोजण्याची ही एक नवीन साधी, सोपी व कमी वेळ लागणारी कसोटी आहे. शरीर संघटन घटकांचे योग्य प्रमाण पुढील प्रमाणे.

**तक्ता क्र. १**  
**तनिता शरीर संघटन मॉनिटर बी. सी. ५३२विविध घटक व मानके**

क्र.	शरीर संघटनघटक	(पुरुष) मानके (स्त्री)	
१.	वजन पाण्याचे प्रमाण पोटातील चरबीचे प्रमाण	उंचीप्रमाणे	उंचीप्रमाणे
२.	चरबीचे प्रमाण	८ ते २०%	२१ ते ३०%
३.	पाण्याचे प्रमाण	५० ते ६५ %	४५ ते ६०%
४.	पोटातील चरबीचे प्रमाण	१ ते २	१ ते २
५	हाडांचे वजन		
	पुरुष		स्त्री
	शरीराचे वजन	हाडांचे वजन	शरीराचे वजन
	६५ कि. ग्रॅ.	२.६६ कि. ग्रॅ.	५० कि. ग्रॅ.
	६५ ते ९५ कि. ग्रॅ.	३.२९ कि. ग्रॅ.	५० ते ७५ कि. ग्रॅ.
	९५ कि. ग्रॅ. वर	४.६६ कि. ग्रॅ.	७५ कि. ग्रॅ. वर

**संशोधन पद्धती**

वर्णनात्मक संशोधन पद्धतीतील हि सर्वेक्षण पद्धती असून पुणे शहरातील सदाशिव पेठ विभागातील ८ उच्च माध्यमिक शाळांमधून ३० ते ४० वयोगटातील ८२ शिक्षकांची (पुरुष व महिला) असंभाव्यतेवर आधारित नमुना निवड पद्धतीने निवड करून, प्रत्यक्ष मापन घेऊन माहिती संकलित करण्यात आली. माहितीचे विश्लेषण करण्यासाठी मध्यमान, प्रमाण विचलन, सहसंबंध गुणांक व टक्केवारी या संख्याशास्त्रीय साधनांचा वापर करण्यात आला.

**निष्कर्ष -**

शिक्षकांच्याशरीर संघटनेच्या विविध घटकांची टक्केवारी आणि प्रमाण					
एकूण शिक्षक पुरुष स्त्री	चरबीचे प्रमाण	पाण्याचे प्रमाण	पोटातील चरबीचे प्रमाण	हाडांचे वजन	शरीर संघटन
१००.००%	२१.९५%	९२.६८%	९.७५%	६३.४१%	२.४३%
८२	१८	७६	८	५२	२

**तक्ता क्र. २- ३० ते ४० वयोगटातील शिक्षकांच्याशरीर संघटनेच्या विविध घटकांची टक्केवारी आणि प्रमाण**

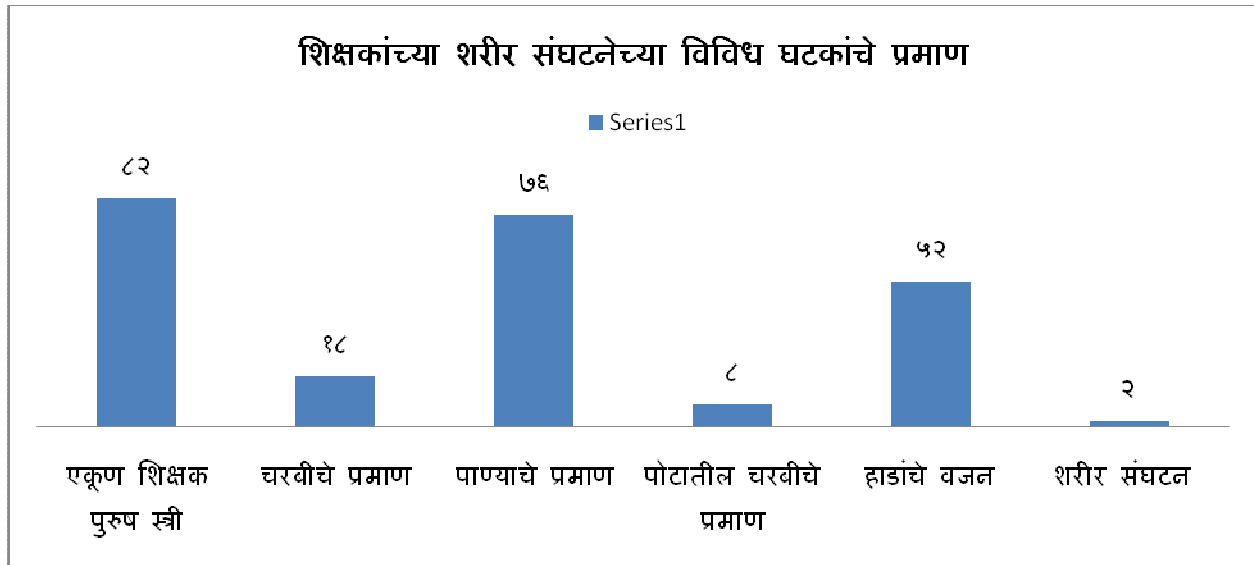
१) पुणे शहरातील उच्च माध्यमिक शाळेतील ३० ते ४० वयोगटातीलस्त्री व पुरुष शिक्षकांच्या शरीर संघटनेतील शरीराच्या चरबी याघटकांच्या प्रमाणाची तनिता मानांकाबरोबर तुलना केली असता२१.९५% (१८) शिक्षकांच्या शरीरातील चरबीचे प्रमाण योग्यआढळून आले.

२) पुणे शहरातील उच्च माध्यमिक शाळेतील ३० ते ४० वयोगटातीलस्त्रीव पुरुष शिक्षकांच्या शरीर संघटनेतील शरीरातील पाण्याचेप्रमाण या घटकांच्या प्रमाणाची तनिता मानांकाबरोबर तुलना केलीअसता ९२.६८% (७६) शिक्षकांच्या शरीरातील पाण्याचे प्रमाण योग्यआढळूनआले.

३) पुणे शहरातील उच्च माध्यमिक शाळेतील ३० ते ४० वयोगटातीलस्त्रीव पुरुष शिक्षकांच्या शरीर संघटनेतील शरीराच्या पोटातील चरबीयाघटकांच्या प्रमाणाची तनिता मानांकाबरोबर तुलना केली असता९.७५% (८) एवढ्या कमी शिक्षकांच्या पोटातील चरबीचे प्रमाण योग्यआढळले.

४) पुणे शहरातील उच्च माध्यमिक शाळेतील ३० ते ४० वयोगटातील स्त्रीवपुरुष शिक्षकांच्या शरीर संघटनेतील हाडांच्या वजनाची तनिता मानांकाबरोबर तुलना केली असता फक्त ६३.४१% (५२) शिक्षकांच्या शरीरातील हाडांचे वजन प्रमाण योग्य आढळले.

५) पुणे शहरातील उच्च माध्यमिक शाळेतील ३० ते ४० वयोगटातील स्त्रीवपुरुष शिक्षकांच्या शरीर संघटनेतील सर्व घटकांची (शरीरातील चरबी, पाण्याचे प्रमाण, पोटातील चरबी व हाडांचे वजन) तनिता मानांकाबरोबर तुलना केली असता पुणे शहरमाध्यमिक शाळेतील ३० ते ४० वयोगटातील स्त्री व पुरुष यांमधून फक्त २.४३% (२) शिक्षकांची शरीर संघटना योग्य प्रमाणात आढळून.



आलेख क्र.१- ३० ते ४० वयोगटातील शिक्षकांच्या शरीर संघटनेतील विविध घटकांच्या प्रमाणाचे विश्लेषण

संदर्भ –

१. श्रीपाल आ. जर्दे. (१९८८). *शारीरिक शिक्षण व इतिहास*. प्रकाशन कोल्हापूर. पृष्ठ क्र. ५२.
२. माधुरी वाकचौरे आणि मिलींद कांबळे. (२००८). *शारीरिक शिक्षण*. इनसाईट पब्लिकेशन, नाशिक.
३. Fahey D. Thomas (2005). *Fit & Well*. 6<sup>th</sup> Ed. Graw Hill Publication. P.168
४. आहरे शरद शंकर. (२००९). *शारीरिक शिक्षण मापन व मूल्यमापन*. डायमंड पब्लिकेशन, पुणे.
५. Tanita Body Fat Analyzer BC 532. *BC Chart Eng*. PDF. Retrieved, March 22, 2010, From- <http://www.tanita.com/>.
६. डॉ. च. प. कदम. (१९९९). *शैक्षणिक संख्याशास्त्र*. नूतन प्रकाशन .पुणे.

## नांदेड जिल्ह्यातील निवडक खेळातील १४ ते १६ वर्षे वयोगटातील खेळाडूंचे व्यक्तिमत्त्वया घटकाचा तुलनात्मक अभ्यास.

धनंजय शामसुंदर सिरसाट

संशोधक विद्यार्थी

शिक्षणशास्त्र संकुल

स्वा.रा.ती.म. विद्यापीठ नांदेड.

प्रा. डॉ. बी.डी.केंगले

मार्गदर्शक

शिक्षणशास्त्र संकुल

स्वा.रा.ती.म. विद्यापीठ नांदेड.

### प्रस्तावना:

व्यक्तिमत्त्व म्हणजे काय हे समजण्यापूर्वी व्यक्तिमत्त्व आणि व्यक्तिमत्त्व या दोन शब्दांच्या अर्थातील फरक लक्षात घेतला पाहिजे. व्यक्तिमत्त्व ही निसर्गाची देणगी आहे. प्रत्येक सजीव प्राण्याला व्यक्तिमत्त्व असते. कुत्र्या मांजरांनाही व्यक्तिमत्त्व असते, पण मानवेतर प्राण्यांच्या बाबतीत व्यक्तिमत्त्व हा शब्द वापरता येणार नाही. मनुष्य प्राण्यांच्या विकसनशील व्यक्तिमत्त्वाचे रूप प्राप्त होत असते. अर्थात व्यक्तिमत्त्व हा शब्द मनुष्य प्राण्यांच्या बाबतीत लागू होतो. मनुष्याच्या व्यक्तिमत्त्वाला व्यक्तिमत्त्वाचे रूप कसे प्राप्त होते हे व्यक्तिमत्त्वाचा व्यापक अर्थ लक्षात घेतल्यास सहज समजू शकते.

वरील व्याख्यांवरून असे स्पष्ट होते की, व्यक्तिमत्त्व हे व्यक्तीच्या कोणत्याही एका शारीरिक, मानसिक गुणधर्मात सामावलेले नसून ते संघात स्वरूपी आहे. या संघात स्वरूपी घटकामध्ये केवळ सुसंगतपणे व सातत्याने दिसून येणाऱ्या शारीरिक, मानसिक, सामाजिक, गुणधर्मांचा समावेश होतो. ए – हवी शांत असणाऱ्या व्यक्तीने विशिष्ट प्रसंगी जगदंबेचा अवतार धारण केला तर त्या एका प्रसंगाच्या वर्तनावरून त्या व्यक्तीला रागीट व्यक्ती म्हणता येणार नाही. सुसंगतपणे सातत्याने रागावणारी व्यक्ती रागीट व्यक्तिमत्त्वाची आहे असे म्हणता येईल. व्यक्तीचे व्यक्तिमत्त्व ज्या गुणधर्मांवरून स्पष्ट होते या गुणधर्मांचा अविष्कार सामान्यतः सामाजिक वर्तनामध्ये दिसून येत असल्यामुळे व्यक्तिमत्त्व या कल्पनेस प्रामुख्याने सामाजिक संदर्भ पडतो. हा प्रभाव शरीर रचना तद्वतच वर्तन विशेषातून घडतो. म्हणून वर्तनाच्या मुळाशी कल, अभिरुची, अभिवृत्ती, कृतीक्षमता इ. गोष्टी असतातच. म्हणून व्यक्तिमत्त्व हे या सर्वांच्या संघात होय.

**मुख्य शब्द :** नांदेड जिल्हा, कबड्डी, खो-खो, हॉलीबॉल, बास्केटबॉल, खेळाडू व व्यक्तिमत्त्व.

### संशोधनाची उद्दिष्ट्ये :

1. नांदेड जिल्ह्यातील निवडक खेळातील १४ ते १६ वर्षे वयोगटातील खेळाडूंच्या व्यक्तिमत्त्व या घटकाचे मोजमाप करणे.
2. नांदेड जिल्ह्यातील निवडक खेळातील १४ ते १६ वर्षे वयोगटातील खेळाडूंच्या व्यक्तिमत्त्व या घटकांची तुलना करणे.

### संशोधन परिकल्पना :

नांदेड जिल्ह्यातील निवडक खेळातील १४ ते १६ वयोगटातील खेळाडूंच्या व्यक्तिमत्त्व या घटकात सार्थ फरक आढळून येईल.

### संशोधन पद्धती:

प्रस्तुत संशोधनामध्ये संशोधकाने खो-खो, कबड्डी, व्हॉलीबॉल, बास्केटबॉल खेळातील विचार करण्यात आला होता. ३०० ही जनसंख्या होती. प्रस्तुत संशोधनात नांदेड जिल्ह्यातील आंतर शालेय क्रिडा

स्पर्धेतील खेळाडूचा विचार करण्यात आला आहे. त्यामध्ये संशोधकाने चार क्रिडा प्रकाराच्या खेळाचा समावेश करण्यात आला होतो. त्यामध्ये कबड्डी, खो-खो, व्हॉलीबॉल, बास्केटबॉल, या खेळातील प्रत्येकी ५० खेळाडूचा विचार करण्यात आला होता. नांदेड जिल्ह्यातील आंतर शालेय क्रिडा स्पर्धेतील खो-खो, कबड्डी, व्हॉलीबॉल, बास्केटबॉल, मुले असे एकूण २४ संघ प्रत्येकी १२ खेळाडू याप्रमाणे २८८ खेळाडू पैकी लॉटरी पद्धतीने एकूण २०० खेळाडू सदरिल संशोधनासाठी निवड करण्यात आली.

**माहिती विश्लेषणाची संख्याशास्त्रीय साधने :**

प्रस्तुत संशोधनात मध्यमान, प्रमाण विचलन, एफ. मुल्य व बहुविध तुलना या सांख्यिकीय तंत्राचा अवलंब करण्यात आला आहे. हे माहिती विश्लेषण पुढील प्रकरण चार मध्ये विश्लेषण केले आहे. वर्गीकृत माहितीचे तत्काळ आकलन व्हावे या हेतूने स्तंभअलेखाद्वारे दर्शविण्यात आले आहे. कोस्टक, आलेख इ. चा वापर करण्यात आला.

**तक्ता क्र. १**

**१४ ते १६ वयोगटातील खेळाडूचे व्यक्तिमत्व या घटकाचे मध्यमान व प्रमाण विचलन दर्शविणारा तक्ता**

मानसिक आरोग्य	खेळाडू संख्या	मध्यमान	प्रमाण विचलन
खो-खो	50	31.38	3.80
कबड्डी	50	30.84	3.78
व्हॉलीबॉल	50	29.36	4.80
बास्केटबॉल	50	29.92	4.39

तक्ता क्र. १ नुसार विविध खेळातील खेळाडूच्या व्यक्तिमत्व घटकाचे मध्यमान व प्रमाण विचलनाचे वर्णनात्मक सांख्यिकीय विश्लेषण दिले आहे.

1. 14 ते 16 वयोगटातील खेळाडूचे मानसिक व्यक्तिमत्व मध्यमान ३१.३८ असून प्रमाण विचलन ३.८० ऐवढे होते.
2. कबड्डी खेळातील खेळाडूचे व्यक्तिमत्व घटकाचे मध्यमान ३०.८४ असून प्रमाण विचलन ३.७८ ऐवढे होते.
3. व्हॉलीबॉल खेळातील खेळाडूचे व्यक्तिमत्व मध्यमान २९.३६ असून प्रमाण विचलन ४.८० ऐवढे होते.=
4. बास्केटबॉल खेळातील खेळाडूचे व्यक्तिमत्व मध्यमान २९.९२ असून प्रमाण विचलन ४.३९ ऐवढे होते.

**तक्ता क्र. २**

**गटातील तुलना – व्यक्तिमत्व**

घटक	वर्गाची बेरीज	स्वाधिनता मात्रा	वर्गाचे मध्यमान	एफ. मुल्य
गटातील	123.17	3	41.05	2.30
गटाअंतर्गत	3489.70	196	17.80	

तक्त्या क्र. २ नुसार विविध खेळातील खेळाडूचे तुलना केली असता. एफ मुल्य २.३० आहे. हे एफ. मुल्य 0.05 या सार्थकता स्तरावर सार्थक आहे. यावरून असे लक्षात येते की व्यक्तिमत्व घटकांच्या चाचणीचे सरासरी कार्यमानात संख्याशास्त्रीय दृष्ट्या फरक फरक आढळून आला नाही.

**निष्कर्ष :**

1. १४ ते १६ वर्षे वयोगटातील खेळाडूंच्या व्यक्तिमत्व या घटकांची तुलना केली असता, विविध खेळामध्ये संख्याशास्त्रीय दृष्ट्या फरक आढळून आला नाही.
2. या वरून असे लक्षात येते की, १४ ते १६ वर्षे वयोगटातील खो-खो, कबड्डी, व्हॉलीबॉल व बास्केटबॉल खेळाडूंच्या व्यक्तिमत्व या घटकांची तुलना केली असता, विविध खेळा मधील खेळाडूंच्या व्यक्तिमत्वा मध्ये फरक नाही.

**संदर्भ सूची :**

1. <https://sarvkahimarathi.in/personality-development-tips-in-marathi/>
2. <https://marathi.popxo.com/article/tips-for-personality-development-in-marathi/>
3. <https://www.marathimati.com/2021/12/vyaktimatva-vikas.html>
4. <https://www.artofliving.org/in-mr/program/personality-development>
5. तनपुरे विश्वंभर श्रीराम ( २००५ ) , मराठवाड्यातील अॅथलेटिक खेळाडूंच्या व्यक्तिमत्त्वावरील तांत्रिक कौशल्याचा होणाऱ्या परिणाम: एक चिकित्सक अभ्यास , अप्रकाशित ( शारीरिक शिक्षण ) पीएच . डी . शोधप्रबंध
6. बूथ ( १ ९ ६१ ) , पूर्वीच्या सिद्धांताच्या समर्थनासाठी खेळाडूंच्या व्यक्तिमत्त्वाचा एक अभ्यास , अप्रकाशित शोधप्रबंध
7. शारीरिक शिक्षण सेट /ोट : शिवाजी नगर पुणे , प्रथम आवृत्ती स्प्टेंबर २०११ पृष्ठ क्रमांक : १.३ , १.४ प्रकाशक : प्रगती बुक्स , प्रा.लि. अभ्युदय प्रगती १३१२
8. शारीरिक शिक्षणाचे सैद्धांतिक , ऐतिहासिक आणि सामाजिक पैलु ( २००० ) प्रा.मोह कुमार खडकीकर , प्रकाशन - हर्षद पब्लीकेशा , हर्षद भवा , जंगमवाडी नांदेड पृष्ठ क्रमांक : ४२ , ४३
9. लेखक : गो.दि. वाखारकर , शारीरिक शिक्षणाची तत्वे व मनोरंजन - प्रकाशन - चंद्रशेखर आगाशे , कॉलेज , पूणेपृष्ठक्रमांक : ३७, ३८, ३९

# निरोगी व तंदुरुस्त राहण्यासाठी योगा उपयुक्त

प्रा. मुंडे दत्ता रामकिशन

शारीरिक शिक्षण संचालक, उज्ज्वल ग्रामीण महाविद्यालय, घोणसी ता.जळकोट जि.लातूर

## प्रस्तावना

मानवाच्या सर्वांगीण विकासासाठी अनेक देशात विविध योजना राबविल्या गेल्या व आजही राबविल्या जात आहेत. यात शिक्षण व शारीरिक शिक्षण क्षेत्रामध्ये विविध संशोधने होत आहेत. शारीरिक शिक्षणाचा विचार करता शारीरिक शिक्षणाच्या माध्यमातून सर्वांगीण म्हणजेच शारीरिक, मानसिक, भावनिक, सामाजिक, आरोग्य, व्यक्तिमत्त्व व्यावसायिक विकास असा विचार केला जातो. हा विकास शारीरिक शिक्षणातून करण्यासाठी अनेक योजना कार्यक्रम, प्रशिक्षण पद्धती, खेळ, शिबीरे इत्यादी माध्यमातून शारीरिक क्रियांच्या अनुषंगाने करण्याचा प्रयत्न केला जातो. यासाठीच निरोगी व तंदुरुस्त राहण्यासाठी योगासनाचे क्षेत्रही व्यापक बनत चाललेले दिसते. यातूनच पाश्चिमात्य देशातील संशोधनामुळे पाश्चिमात्य खेळ, व्यायाम प्रकार, प्रशिक्षण पद्धती अधिकाधिक लोकप्रिय होत आहेत. विकसित देशात हे सर्व कार्यक्रम शारीरिक क्षमता, कारक क्षमता तसेच आरोग्याशी संबंधीत निरोगी राहण्यासाठी उपयुक्त आहेत असे सिद्ध झाल्याने ते लोकप्रिय होत आहेत. परंतु याचा फायदा विशिष्ट वर्गालाच होत असल्याचे दिसत आहे. कारण पाश्चिमात्य खेळ उदा: फुटबॉल, बॅडमिंटन, लॉन टेनीस, क्रिकेट इत्यादी व्यायाम प्रकार उदा: जिममधील व्यायाम, एरोबिक एक्सरसाईजेस इत्यादी अत्याधुनिक प्रशिक्षण पद्धती व त्यासाठी लागणारी आधुनिक साहित्य साधने इत्यादी प्रकार शारीरिक आरोग्यासाठी राबविण्यात येतात. हे सर्व फायदे विशिष्ट क्लास (Class) कडून Mass पर्यंत पोहोचविण्यासाठी अनेक समस्यांना सामोरे जावे लागते. उदा: आर्थिक बाब, महागडे साहित्य, साधने, प्रशिक्षणासाठी सुयोग्य प्रशिक्षक, सुसज्ज मैदाने, मैदानाच्या देखभालीचा खर्च, महागडी उपकरणे व साहित्य इत्यादी अनेक बाबी उपलब्ध होऊ शकत नसल्याने ग्रामीण तसेच शहरी भागातही सर्वांच्या आरोग्यासाठी निरोगी व तंदुरुस्त राहण्यासाठी ही संकल्पना साध्य होऊ शकत नाही. यासाठी पारंपरिक व देशी खेळांवर संशोधने होऊन त्यांची उपयुक्तता समाजापर्यंत पोहचली पाहिजे. यासाठीच संशोधकाने योगासनाचा उपयोग शारीरिक आरोग्यासही कसा होतो हे पाहण्याचे ठरविले.

आसने हे अष्टांग योग साधनेतील अत्यंत लोकप्रिय असे अंग आहे. ते इतके लोकप्रिय झाले आहे की, योगसाधना म्हणजेच योगासन साधना असा समज रूढ झाला आहे. वास्तविक पंतजली कृत अष्टांग योग साधनेमध्ये यम निर्णयानंतर योगासने येतात; परंतु हठयोगात मात्र त्याचा क्रम राहिला आहे. आसन केल्यामुळे स्थिरता, आरोग्य व शरीराला हलकेपणा येतो.

## व्याख्या:



“विशिष्ट पद्धतीने आणि विशिष्ट हेतूने अंतिम स्थितीत स्थिर (शारीरिक व मानसिक स्तरावर) होण्यासाठी शरीराच्या विविध भागांची केलेली सुनियंत्रित अशी हालचाल म्हणजे आसन होय.”

“शरीर व मनाच्या स्थिरीकरणासाठी केलेली शरीराची विशिष्ट स्थिती म्हणजे आसन होय.”

योगासनाचा मूळ उद्देश आहे. हालचाल नाही आणि स्थिरता आणि शारीरिक आणि मानसिक स्तरावर साधावयाची आहे. म्हणजे ही केवळ शारीरिक हालचाल नसून ती मनोकायिक प्रक्रिया आहे. यातील प्रत्येक हालचाल ही सुनियंत्रितपणे करावयाची असते. म्हणजे शरीर आणि मनाने संयुक्तपणे त्या हालचाली करून शरीरातील निरनिराळे अवयव आणि संस्था यामध्ये एक प्रकारची शिस्त निर्माण करावयाची आहे. हे सर्व जाणिवपूर्वक करावयाचे असते. पतंजली मुनींनी योगसुत्रात आसनाबद्दल असे म्हटले आहे. आसनाची अंतिम स्थिती ही स्थिर व सुखकारक असली पाहिजे. हे प्रयत्नपूर्वक शैथिल्य निर्माण करून साध्य केले पाहिजे. त्यामुळे सर्व प्रकारचे विरोध नाहीसे होतात.

### आसनाची आवश्यकता, महत्त्व व परिणाम

1. आसनामुळे सर्व संस्था आणि मन यामध्ये सत्कार्य आणि संतुलन निर्माण करण्यासाठी
2. रक्ताभिसरणाची क्रिया कार्यक्षम करून शरीरातील सर्व अवयवांना युक्त रक्ताचा पुरवठा करून वापरलेल्या रक्ताचा निचरा करण्यास मदत होते.
3. मनाची सजगता वाढविण्यासाठी
4. मणक्यांची लवचिकता वाढविण्यासाठी
5. साध्यांची हालचाल वाढविण्यासाठी
6. स्नायूंची प्रतिक्षिप्तता () कार्यक्षम करण्यासाठी
7. काम करण्याचा उत्साह वाढतो.

### योगासनाची तत्त्वे

1. योगिक प्रक्रियांचा अभ्यास शिथिलकरणाने थोडा वेळ श्वासोश्वास करून संथ, मंद आणि लयबद्ध झाल्यानंतर प्रार्थना म्हणून करावा.
2. योगासने करीत असताना काही विशिष्ट परिस्थिती सोडून श्वासरोधन करू नये. सामान्य श्वास जाणीवपूर्वक चालू ठेवावा. श्वासावर नियंत्रण लादू नये. आसनामधील हालचाली ह्या संथ लयबद्ध, झटके न देता सावकाश कराव्यात.
3. आसने करीत असताना किंवा आसनांची अंतिम स्थिती प्राप्त झाल्यानंतर शरीरांतर्गत होणा-या संवेदनाबाबत सतत सजग असावे.
4. योगासने दम येण्यासाठी किंवा घाम येण्यासाठी नाहीत. तेव्हा मधूनमधून लघूश्वसन करणे, योगासने ही केवळ शारीरिक क्रिया नसून ती मनोकायिक प्रक्रिया आहे.
5. जरूरत असेल तेथे आवश्यक त्या शुद्धीक्रिया अगोदरच कराव्यात.
6. योगासन अभ्यासात नियमितपणा आणि सातत्य आवश्यक आहे.
7. योगासने व्यायाम विरोधी नाहीत. व्यायाम पद्धतीला पूरक आहेत.

8. योगासने कोणती करता त्यापेक्षा कशी करता यावर त्याचा परिणाम अवलंबून असतो.
9. योगासने शक्यतो डोळे झाकून करावीत. इतरांशी तुलना करू नये.

#### सारांश:

योगासनाने शारीरिक तंदुरुस्तीची क्षमता, निरोगी स्थिरता, भावनिक शांतता येते. -हृदयविकार, रक्तदाब, मधुमेह, लठ्ठपणा, वातविकार, बद्धकोष्ठता, दमा, सायरिका, सर्दी, डोळे दुखी, गॅसेस, ॲसिडीटी, मानसिक दौर्बल्य केवळ वीस मिनिटांच्या योगासन अभ्यासाने बरे होतात.

1. सूर्यनमस्कार- बांधेसुद्ध शरीर होते. 2. शिर्षासन-दृष्टी, स्मरणशक्ती, हृत्तीरोग बरा होतो. 3. सर्वांगासन- वीर्यपात थांबतो, दमा बरा होतो, प्रजोत्पत्ती करिता उत्तम. 4. भुजंगासन, शलभासन, धनुरासन- गर्भाशयाचे विकार बरे होतात. पाठीचा कणा सशक्त होतो. 5. हलासन-मधुमेह, लठ्ठपणा, वाताचे विकार बरे होतात. 6. मत्स्यासन-दमा, पोट व कमरेतील विकार बरे होतात. 7. पाश्चिमोत्तानासन-उंची वाढते. 8. अर्धमत्स्येन्द्रासन-दमा, पाठीचा कणा 9. मयुरासन-यकृत, मधुमेह व बद्धकोष्ठतेवर उत्तम 10. पवन मुक्तासन-गॅसेस, ॲसिडीटी दूर होतो.

#### संदर्भ

1. स.प. निंबाळकर-आरोग्यासाठी योग
2. अयंगर बी.के., ए योगदीपिका, ओरिएंट लि. मुंबई
3. चारुलता रोजेकर-देशमुख-दैनंदिन योगाभ्यास
4. श्री.विश्वास मंडलीक-योगसिद्धांत, चैतन्य प्रकाशन, नाशिक

# कोरोना परिस्थितीत आहाराचे महत्व

सचिन गोविंदराव चौधरी

उदगीर

मानसाच्या दैनंदिन जीवनामध्ये तस बघायला गेलो तर आहार हा महत्वाचा भाग आहे. कारण शरीरातील सगळ्या हलचाली सरळ चालण्यासाठी आहार हा महत्वपूर्ण भाग आपल्या जीवनामध्ये आहे. पण सद्याला "कोरोना" या रोगाने संपूर्ण जगातल्या लोकांची झोप उडवली आहे आणि या रोगापासून वाचण्यासाठी आपण आपल्या आहारामध्ये बदल आणणे महत्वाचे झाले आहे. आपल्या शरीरावर होणाऱ्या सर्व जीवाणू विषाणू च्या रोगापासून वाचण्यासाठी आपण घेत असलेला आहार खूप महत्वाचा आहे. आपण घेत असलेला आहार हा कसा असावा, त्यामध्ये व्हिट्यामिन सी, व्हिट्यामिन डी, कार्बोदके या जीवनसत्वाचा पुरवठा होईल अशाच आहाराचा उपयोग शरीरासाठी अत्यावश्यक आहे. आपल्या आहारामध्ये मोसमी फळे खाण्यावर भर द्यावा. कारण आपली रोगप्रतिकारशक्ती वाढवण्यासाठी मोसमी फळांचा खूप महत्वाचा भाग आहे. उदा : कि.वी., टरबूज, जांब, पपई इ. या सर्वासोबत तुळशीच्या पानांचा काढा, लिंबूपाणी सारखे प्येय ही रोगप्रतिकारशक्ती वाढवण्यासाठी महत्वाचे आहेत. त्याचसोबत प्रोटीन खनिजांचा शरीराला पुरवठा होणेही गरजेचे आहे. त्यासाठी योग्य आहार आणि आपल्या आहारामध्ये आपण काय खावे आणि काय खाऊ नये हे ही तितकेच महत्वाचे आहे. सद्याच्या परिस्थितीमध्ये प्रक्रिया केलेले अन्नपदार्थ खाणे टाळलेले बरे. कारण प्रक्रिया केलेल्या अन्नपदार्थांमध्ये जास्त प्रमाणात फॅट्स, साखर तसेच मीठ असते यामुळे आपल्या रोगप्रतिकारशक्ती कमजोर होते आणि कोरोना होण्याचे प्रमाण वाढते. त्यासाठी सद्याच्या जीवनामध्ये आपण आपल्या आरोग्याकडे बारकाईने लक्ष देणे खूप महत्वाचे आहे. आपल्या दररोजच्या आहारामध्ये सर्व गोष्टी असाव्यात म्हणजे मानसाचे शरीर पण चांगल्या प्रकारे कार्य करतो व निरोगी राहतो. कोरोना काळात हळदीच्या दुधाचे सेवन दिवसातून दोन वेळा करावे. हळदीचे दूध पिण्यापूर्वी तसचं प्यायल्यानंतर लगेचच अन्नपदार्थ खाऊ नये. तसे केल्याने शरीरावर विपरीत परिणाम होतात व आपली रोगप्रतिकारशक्ती मंदावते व कोरोना होण्याची शक्यता नाकारता येत नाही.

कोरोना आणि आहार या दोघांचे संबंध सद्याला खूप महत्वाचे झाले आहे. कोरोनाला हरवण्यासाठी आपण आहाराकडे कानाडोळा करून चालणार नाही. आपण कोरोना या रोगावर मात करण्यासाठी एक चांगला "डायट प्लॅन" करणे अती महत्वाचे आहे. त्यामध्ये शेंगदाणे, बादाम, आक्रोड, काळे खजूर खाल्यासही रोगप्रतिकारशक्ती वाढते. सुक्या मेव्यातही क्षार, प्रथिने, फॅटी एसिड असतात. आहारात जीवनसत्व क, अ, ई आणि अँटी ऑक्सीडेंट, पॉलीफिनॉल आणि महत्वाचे क्षार या सर्व घटकांचा समावेश आपल्या आहारामध्ये असणे महत्वाचे आहे. आरोग्य निरोगी राहण्यासाठी फक्त आहारच पुरेसा नाही. कोरोनासारख्या व दुसऱ्या कुठल्याही आजारावर नियंत्रण ठेवण्यासाठी मानसाला पुरेशी झोप महत्वाची असते. पुरेशी झोप न झाल्यासही आपली रोगप्रतिकारशक्ती कमी होते व कुठलाही आजार लवकर होण्याची शक्यता असते. त्यासोबतच शरीराची योग्य हलचाल व रोज प्राणायाम, योगासने हे ही केल्याने मानसाची रोगप्रतिकारशक्ती वाढण्यास मदत होते म्हणून व्यायाम, प्राणायाम, योग, खेळ या सर्व गोष्टींचे योग्य नियोजन करून आपण कोरोनाला हरवू शकतो.

आपण करत असलेल्या लंच आणि डिनरमध्ये प्रोटीन कार्बोदकेयुक्त आहार तुम्ही सामील केला पाहिजे. याशिवाय या प्रमाणात सॅच्युरेटेड फॅट देखील शामिल करावे जसे कि तूप यामुळे तुम्हाला अन्न पचवण्यास मदत मिळेल. प्रोटीन डायटमध्ये दाळीचा समावेश आवश्यक करावा. खास करून मुग दाळीचा समावेश करावा कारण मुग दाळ पचायला सोपी असते. लंच आणि डिनर देखील महत्वाचा आहार आहे. ते वेळेवर घेणेही खूप महत्वाचे आहे. तसे केल्याने तुमची रोगप्रतिकारशक्ती वाढण्यास मदत होते. जर तुम्हाला कोरोनामधून लवकर बरे व्हायचे असेल तर "जड अन्न" अजिबात खावू नका, जास्त प्रमाणात अन्न खाल्याने जडपणा वाटतो, अस्वस्थ वाटतो आणि माणूस घाबरून जातो. म्हणूनच ही गोष्ट अवर्जून लक्षात ठेवावी व अतीप्रमाणात भोजन घेऊ नये. आहारामध्ये फक्त सेमी सॉलीड म्हणजेच हलके अन्न घ्या आणि खाल्यानंतर थोडेसे चाललेले बरे त्यामुळे अन्न पचायला मदत होते. पचन सहज होण्यासाठी आवश्यक असणारे सर्व घटक पाण्यामध्ये असतात. म्हणून शरीर डायट्रेटेड ठेवणे खूप महत्वाचे असते. त्यासाठी सतत पाणी पीत रहा, अधून मधून नारळपाणी घ्या, ज्यूस प्या त्यात मोसंबीचे ज्यूस चांगले. कारण त्यामध्ये वीट्यामिन सी चे प्रमाण जास्त असते. कोरोनातून बरे होण्यासाठी व कोरोना न होण्यासाठी आहार महत्वाचे तर आहेच पण हेल्दी आहार खूप महत्वाचे आहे व एक चांगला डायट प्लॅन बनवून त्यानुसार आहार घेणे खूप चांगले आहे.

### कॅलरीजचे प्रमाण वाढवा

शरीरात असलेल्या विषाणूशी लढताना, भरपूर ऊर्जा वापरली जाते, ज्यामुळे आपल्याला थकवा जाणवतो. फॉर्ममध्ये परत येण्यासाठी यावेळी आपल्या आहारात कॅलरी-दाट पदार्थ समाविष्ट करणे आवश्यक आहे. बाजरी, ओट्स, तांदूळ आणि बटाटा, रताळे यांसारख्या पिष्टमय भाज्या यांसारख्या संपूर्ण धान्याचा समावेश केल्याने कॅलरी वाढण्यास मदत होते आणि तुम्हाला ऊर्जा मिळते.

### प्रथिने

पेशींच्या वाढीसाठी आणि पुनरुत्पादनासाठी प्रथिने हे एक महत्वाचे पोषक तत्व आहे. हा जीवनाचा मुख्य भाग आहे आणि जलद पुनर्प्राप्तीसाठी आपल्या शरीराला आवश्यक आहे. जेव्हा कोविड-19 चा त्रास होतो तेव्हा उच्च प्रथिनेयुक्त आहार घेण्याची गरज आहे. दररोज 75-100 ग्रॅम प्रथिने घेणे आवश्यक आहे. त्यामुळे मसूर, शेंगा, दूध आणि दुग्धजन्य पदार्थ, सोया, नट, बिया, मांस, चिकन, मासे आणि अंडी यांसारखे अधिक पदार्थ घाला.

### जीवनसत्त्वे आणि खनिजे

ताजी फळे आणि भाज्या रोगप्रतिकारक शक्ती वाढवणारे, अँटिऑक्सिडंट्स, जीवनसत्त्वे आणि खनिजे यांनी भरलेले असतात. जलद पुनर्प्राप्तीसाठी आणि तुमची रोगप्रतिकारक शक्ती मजबूत करण्यासाठी हे तुमच्या आहारात एक उत्कृष्ट जोड असू शकतात. एका दिवसात फळे आणि भाज्यांचे 5 भाग घ्या. लिंबूवर्गीय फळांमध्ये व्हिटॅमिन सी असते, जे ऍन्टीबॉडीज तयार करण्यास आणि संसर्गाशी लढण्यास मदत करते, तर हिरव्या आणि मूळ भाज्या रोगप्रतिकारक शक्ती मजबूत करण्यास मदत करतात. तसेच, पुरेशा प्रमाणात व्हिटॅमिन डी मिळविण्यासाठी काही वेळ घराबाहेर घालवा.

### द्रवपदार्थ

पाणी हे जीवनासाठी आवश्यक घटक आहे कारण ते रक्तातील पोषक द्रव्ये वाहून नेते, शरीराचे तापमान नियंत्रित करते आणि शरीरातील विषारी पदार्थ बाहेर टाकते. याशिवाय, संसर्गामुळे शरीर निर्जलीकरण होऊ शकते. दररोज किमान 2-3 लिटर पाणी पिण्याचा प्रयत्न करा. तुम्ही हर्बल कॉकोकेशन, नारळ पाणी, दूध आणि ताजे रस देखील घेऊ शकता. पॅक केलेला रस, कॅफिन आणि फिजी पेये टाळा. तुम्ही घेत असलेली सर्व औषधे आणि

मल्टीव्हिटामिन्स सोबतच, कोविड-19 मधून बरे होत असताना तुमच्या आहारात सकस आहाराचा समावेश करणे तितकेच महत्वाचे आहे. एक संतुलित आणि पौष्टिक आहार, विशेषतः जेव्हा तुम्ही कोविड-19 ने आजारी असाल आणि तुमच्या

### रोगप्रतिकार प्रणाली

प्राणघातक विषाणूमुळे धक्का बसला आहे त्यामुळे अंतर्गत शक्ती निर्माण करण्यात आणि जलद पुनर्प्राप्तीमध्ये मदत होऊ शकते. आपल्या सर्वांना माहित आहे की हा विषाणू किती संसर्गजन्य आहे आणि योग्य वेळी काळजी न घेतल्यास लक्षणे किती वेगाने तीव्र होऊ शकतात. संसर्गाशी लढा देण्यासाठी आणि ते तुमच्या फुफ्फुसांमध्ये पसरण्यापासून रोखण्यासाठी, तुमच्या शरीराला नैसर्गिकरित्या अधिक ऊर्जा आणि द्रवपदार्थांची आवश्यकता असते, म्हणून पोषक तत्वांनी युक्त अन्नपदार्थांनी स्वतःला चालना देणे महत्वाचे आहे.

### 1. फळे आणि भाज्यांचे सेवन चालू ठेवा

लॉकडाऊनमध्ये ताज्या भाज्या खरेदी करणे, साठवणे आणि शिजवणे हे आव्हानात्मक असू शकते, विशेषतः जेव्हा पालकांना घराबाहेर सहली मर्यादित करण्याचा सल्ला दिला जातो. परंतु जेथे शक्य असेल तेथे, मुलांना त्यांच्या आहारात भरपूर फळे आणि भाज्या मिळत असल्याचे सुनिश्चित करणे महत्वाचे आहे. जेव्हा जेव्हा ताजे उत्पादन घेणे शक्य असेल तेव्हा तसे करा. ताज्या खाण्याबरोबरच, फळे आणि भाज्या शक्य तेथे गोठवल्या जाऊ शकतात आणि त्यातील बहुतेक पोषक आणि चव टिकवून ठेवतात. सूप, स्ट्यू किंवा इतर पदार्थांचे मोठे बॅच शिजवण्यासाठी ताज्या भाज्या वापरल्याने त्या जास्त काळ टिकतील आणि काही दिवस जेवणाचे पर्याय उपलब्ध होतील. हे शक्य असेल तेथे गोठवले जाऊ शकते आणि नंतर त्वरीत गरम केले जाऊ शकते.

### 2. ताजे उत्पादन उपलब्ध नसल्यास निरोगी वाळलेल्या किंवा कॅन केलेला पर्याय बदला

ताजे उत्पादन हा नेहमीच सर्वोत्तम पर्याय असतो, परंतु जेव्हा ते उपलब्ध नसते तेव्हा भरपूर आरोग्यदायी पर्याय असतात जे साठवणे आणि तयार करणे सोपे असते. कॅन केलेला सोयाबीन आणि चणे, जे भरपूर प्रमाणात पोषक द्रव्ये प्रदान करतात, महिने किंवा वर्षांपर्यंत साठवले जाऊ शकतात आणि अनेक प्रकारे जेवणात समाविष्ट केले जाऊ शकतात. सार्डिन, मॅकेरल आणि सॅल्मन सारख्या कॅन केलेला तेलकट मासे प्रथिने, ओमेगा 3 फॅटी ऍसिड्स आणि जीवनसत्त्वे आणि खनिजे समृद्ध असतात. हे सॅंडविच, सॅलड किंवा पास्ता डिशमध्ये थंड वापरले जाऊ शकतात किंवा उबदार जेवणाचा भाग म्हणून शिजवले जाऊ शकतात. टोमॅटोसारख्या कॅन केलेला भाज्यांमध्ये ताज्या उत्पादनांपेक्षा कमी प्रमाणात जीवनसत्त्वे असतात, परंतु जेव्हा ताजे उत्पादन किंवा गोठवलेल्या भाज्या मिळणे कठीण असते तेव्हा ते एक उत्तम पर्याय आहेत. वाळलेल्या सोयाबीन, कडधान्ये आणि मसूर, स्प्लिट मटार, तांदूळ, कुसकुस किंवा क्विनोआ यांसारखे सुके पदार्थ देखील पौष्टिक, दीर्घकाळ टिकणारे पर्याय आहेत जे चवदार, परवडणारे आणि भरणारे आहेत. दूध किंवा पाण्याने शिजवलेले रोल केलेले ओट्स नाश्यासाठी उत्कृष्ट पर्याय म्हणून काम करू शकतात आणि दही, चिरलेली फळे किंवा मनुका घालून मसालेदार केले जाऊ शकतात.

### 3. निरोगी स्नॅक्सचा साठा तयार करा

मुले सतत चालू ठेवण्यासाठी दिवसभरात एक किंवा दोन वेळा नाश्ता खाणे आवश्यक आहे. मुलांना मिठाई किंवा खारट स्नॅक्स देण्यापेक्षा, नट, चीज, दही (शक्यतो गोड न केलेले), चिरलेली किंवा सुकामेवा, उकडलेली अंडी किंवा स्थानिक पातळीवर उपलब्ध इतर आरोग्यदायी पर्याय जसे की आरोग्यदायी पर्याय निवडा. हे पदार्थ पौष्टिक, अधिक भरणारे आहेत आणि आयुष्यभर टिकणाऱ्या निरोगी खाण्याच्या सवयी तयार करण्यात मदत करतात.

#### 4. उच्च प्रक्रिया केलेले पदार्थ मर्यादित करा

ताजे उत्पादन वापरणे नेहमीच शक्य नसले तरी, तुमच्या शॉपिंग बास्केटमध्ये उच्च प्रक्रिया केलेल्या पदार्थांचे प्रमाण मर्यादित करण्याचा प्रयत्न करा. खाण्यासाठी तयार जेवण, पॅकेज केलेले स्नॅक्स आणि मिष्टान्नांमध्ये अनेकदा संतृप्त चरबी, साखर आणि मीठ जास्त असते. तुम्ही प्रक्रिया केलेले पदार्थ खरेदी करत असल्यास, लेबल पहा आणि यापैकी कमी पदार्थ असलेले आरोग्यदायी पर्याय निवडण्याचा प्रयत्न करा. साखरयुक्त पेये टाळण्याचा प्रयत्न करा आणि त्याऐवजी भरपूर पाणी प्या. लिंबू, लिंबू, काकडीचे तुकडे किंवा बेरी यांसारखी फळे किंवा भाज्या पाण्यात टाकणे हा चवीला अतिरिक्त टिव्हस्ट जोडण्याचा उत्तम मार्ग आहे.

#### 5. स्वयंपाक करणे आणि खाणे हे तुमच्या कौटुंबिक दिनचर्येचा मजेदार आणि अर्थपूर्ण भाग बनवा

स्वयंपाक करणे आणि एकत्र खाणे हा निरोगी दिनचर्या तयार करण्याचा, कौटुंबिक बंध मजबूत करण्याचा आणि मजा करण्याचा उत्तम मार्ग आहे. तुम्ही जिथेही करू शकता, तुमच्या मुलांना अन्न तयार करण्यात सहभागी करा - लहान मुले अन्नपदार्थ धुण्यास किंवा वर्गीकरण करण्यात मदत करू शकतात तर मोठी मुले अधिक जटिल कामे करू शकतात आणि टेबल सेट करण्यात मदत करू शकतात. कुटुंब म्हणून जेवणाच्या ठराविक वेळेवर टिकून राहण्याचा शक्य तितका प्रयत्न करा. अशा संरचना आणि दिनचर्या या तणावपूर्ण परिस्थितीत मुलांची चिंता कमी करण्यास मदत करू शकतात. कोरोनाव्हायरसमुळे कमकुवत रोगप्रतिकारक शक्ती असलेल्या व्यक्तींमध्ये, वृद्ध लोकांमध्ये आणि मधुमेह, कर्करोग, फुफुसाचा जुनाट आजार आणि हृदय व रक्तवाहिन्यासंबंधी रोग यासारख्या दीर्घकालीन परिस्थिती असलेल्या लोकांमध्ये अधिक गंभीर लक्षणे दिसू शकतात. या आजाराचा सामना करण्यासाठी आणि लक्षणे व्यवस्थापित करण्यात मदत करण्यासाठी योग्य पोषण आणि हायड्रेशन महत्वाचे आहे. एक संतुलित आहार रोगप्रतिकारक प्रणालीचे कार्य अनुकूल करू शकतो, चयापचय सुधारू शकतो आणि COVID-19 शी संबंधित तीव्र लक्षणांच्या विकासास प्रतिबंध करण्यास मदत करू शकतो.

शरीराला आवश्यक जीवनसत्त्वे, खनिजे, आहारातील फायबर, प्रथिने आणि ॲंटीऑक्सिडंट्स प्रदान करण्यासाठी, दररोज ताजे आणि प्रक्रिया न केलेले पदार्थ असलेले आहाराचे पालन करण्याची शिफारस केली जाते. विषाणूला पराभूत करण्यासाठी योग्य आहार शरीर योग्य स्थितीत असल्याची खात्री करेल ! तथापि, आहार व्यवस्थापन मार्गदर्शक तत्वांव्यतिरिक्त – विषाणूचा प्रसार रोखण्यासाठी अन्न सुरक्षा व्यवस्थापन आणि स्मार्ट अन्न पद्धती महत्वाच्या आहेत.

**तुमच्या दैनंदिन दिनचर्येत काही सुधारणा जे चांगल्या पुनर्प्राप्तीमध्ये मदत करू शकतात:**

#### प्रथिनेयुक्त आहार

स्नायूंचे नुकसान टाळण्यासाठी आणि चयापचय कार्ये राखण्यासाठी पुरेसे प्रथिने घेणे आवश्यक आहे. स्नायू कमी झाल्यामुळे अशक्तपणा, थकवा आणि दैनंदिन क्रियाकलाप करण्यास असमर्थता येऊ शकते. प्रथिनांची कमतरता ही रोगप्रतिकारक शक्तीच्या कमतरतेशी देखील जोडलेली असते आणि त्यामुळे लक्षणे बिघडू शकतात आणि परिणामी पुनर्प्राप्ती कालावधी वाढू शकतो. प्रत्येक जेवणात प्रथिनेयुक्त अन्नाचा एक भाग समाविष्ट करण्याचा प्रयत्न करा. शाकाहारी लोक डाळी, डाळ, सोया, दूध आणि दुधाचे पदार्थ, नट आणि बिया यांचा 2-3 सर्व्हिंग/दिवस समावेश करू शकतात. तसेच बेसन, सत्तू, खिचडी, शेंगदाणे, पनीर, दही आणि मशरूम हे चांगले पर्याय आहेत. मांसाहारी लोक त्यांच्या आहारात अंडी, चिकन आणि मासे यांसारख्या पातळ मांसासोबत या सर्वांचा समावेश करू शकतात. भरपूर फळे आणि भाज्या खा, ज्यात भरपूर जीवनसत्त्वे आणि खनिजे तसेच फायबर असतात. फ्रोजन किंवा कॅन केलेला फळे आणि भाज्यांमध्ये जीवनसत्त्वे आणि खनिजे देखील असतात, जरी या उत्पादनांच्या प्रक्रियेत काहीवेळा साखर, मीठ किंवा संरक्षक यांसारखे घटक जोडले जातात. लेबले वाचण्याची खात्री करा जेणेकरून तुम्ही

तुमच्यासाठी आणि तुमच्या कुटुंबासाठी काय सर्वोत्तम आहे ते निवडू शकता. संपूर्ण धान्य, नट आणि ऑलिव्ह, तीळ, शेंगदाणे किंवा असंतृप्त फॅटी एसिड्स समृद्ध इतर तेलांमध्ये समृद्ध चरबीयुक्त आहार घ्या. हे पदार्थ तुमच्या रोगप्रतिकारक शक्तीला मदत करतात.

जेव्हा आपण तणावग्रस्त असतो तेव्हा आरामदायी अन्न मिळवण्याचा मोह होतो आणि हे काही वेळाने ठीक आहे. परंतु ही सवय लावू नका कारण यापैकी बरेच पदार्थ जसे की मॅक आणि चीज, पिझ्झा आणि बर्गर आणि फ्राईजमध्ये चरबी, साखर आणि मीठ जास्त असते. खाद्यपदार्थांची लेवले वाचा जेणेकरून तुम्ही खरेदी करत असलेल्या, तुमच्या कुटुंबाला सेवा देत असलेल्या आणि खात असलेल्या पदार्थांच्या पौष्टिक मूल्यांबद्दल तुम्हाला माहिती मिळू शकेल. पाणी नियमित प्या. चांगले हायड्रेटेड राहणे देखील आपल्या रोगप्रतिकार प्रणालीला मदत करते. रिकाम्या कॅलरी कमी करण्यासाठी साखर-गोड पेयांऐवजी साध्या पाण्याने चिकटून रहा. कोणत्याही व्यक्तीची आहार योजना त्यांच्या पोषणविषयक गरजा, सवयी आणि त्यांना काय खायला आवडते यांनुसार बनवले जाते. कोविडने ग्रस्त असलेल्या काही रुग्णांना कमी सोडियमची आवश्यकता असू शकते, काहींना कमी कर्बोदकांची आवश्यकता असू शकते, काहींना अधिक प्रथिने आवश्यक असू शकतात. सरासरी, कोविड पॉझिटिव्ह रुग्ण ज्यांना प्रथिनांची गरज असते त्यांनी दररोज 75 ते 100 ग्रॅम सेवन करण्याचे लक्ष्य ठेवले पाहिजे. प्रथिनांच्या चांगल्या स्रोतांमध्ये अंडी, मांस, कॉटेज चीज, मासे, दही आणि प्रोटीन शेक यांचा समावेश होतो. ज्यांना खाण्यासारखे वाटत नाही किंवा उर्जा खूप कमी आहे त्यांच्यासाठी पोषक दाट अन्न हा एक स्पष्ट पर्याय असावा. चीज, लोणी, मार्जरीन, आंबट मलई, एवोकॅडो यासारख्या चरबी आणि कर्बोदकांमध्ये असलेल्या अन्नपदार्थांचा समावेश करा. कोविड दरम्यान ताप किंवा जुलाब झाल्यास रुग्णांना पाणी आणि इलेक्ट्रोलाइट्स कमी होतात. शरीर भरून काढण्यासाठी पाणी किंवा ओआरएसचे सेवन करणे आवश्यक आहे. इतर पर्यायांमध्ये चिकन मटनाचा रस्सा, रस, इलेक्ट्रोलाइट पेये आणि मधासह चहा यांचा समावेश आहे. दररोज किमान तीन लिटर पाण्याचा वापर पुरेसा आहे. जास्त पाणी पिण्याने मूत्रसंसर्ग दूर ठेवण्यास देखील मदत होते. चहासोबत मध घसा शांत करण्यास मदत करते आणि द्रव वापर नियंत्रित ठेवते. एखाद्याला वारंवार उलट्या होत असल्यास, ते नारळ पाणी किंवा स्पोर्ट्स ड्रिंक वापरून पाहू शकतात.

# कोविड-19 : सांसर्गिक महामारी

प्रा. डॉ. खुशाल पांडुरंग वाघमारे

शारीरिक शिक्षण विभागप्रमुख, उज्ज्वल ग्रामीण महाविद्यालय, घोणसी, ता.जळकोट जि.लातूर

## प्रस्तावना

आपण लहानपणापासून 'आरोग्य हीच संपत्ती' हा सुविचार नेहमी ऐकलो आहोत. पण या सुविचाराचे महत्त्व आम्हाला 2020 मध्ये कळाले. एक सूक्ष्म परंतु घातक विषाणू म्हणजे कोरोना व्हायरस. असे म्हणतात की, नशीब एकदाच दार ठोठावते पण दुर्दैव हे तोपर्यंत दार ठोठावते जोपर्यंत आपण उघडत नाही. अशीच दस्तक देऊन आपल्या देशावरच नव्हे तर जगावर आलेले संकट म्हणजे कोविड-19 ही महामारी होय.

सर्व जगाला भेडसावणारा, बंदिस्त करून सोडलेला रोग म्हणजे कोरोना व्हायरस. कोरोना विषाणू (Covid-19) या नावाने ओळखला जात असून या विषाणूची निर्मिती 2019 च्या डिसेंबर महिन्यात चीनच्या वुहान प्रांतामध्ये झाली. चीनमध्ये कोरोना व्हायरसचा पहिला रुग्ण आढळला तेव्हापासून 20 मार्च 2020 पर्यंत जगभरात कोविड 19 मुळे लाखो मृत्यूची नोंद झाली आहे. भारतासह 180 हून अधिक देशातून विषाणूची बाधा झाल्याची घटना उघडकीस आली. जगभरात लॉकडाऊन, कर्फ्यू, मोठ्या प्रमाणात विमानतळावरील स्क्रीनिंग, विलगीकरण आणि सामाजिक अंतर पाळले जात आहे.

कोरोना व्हायरस गरीब-श्रीमंत, उच्च-नीच, हिंदू-मुस्लिम, शीख, ईसाई असा कुठलाही भेदभाव करत नाही. संस्कृती, धर्म, व्यवसाय, आर्थिक स्थिती आणि प्रसिद्धी याबाबतीत तरी माणसामाणसात फार तफावत असली तरी आपण एकाच पातळीवर आहोत याची जाणीव कोरोना व्हायरसने आपल्याला नक्कीच करून दिली आहे. आपले स्वास्थ्य किती महत्त्वाचे आहे आणि आपण त्याची किती काळजी करतो याची जाणीव आपल्याला या कोरोना व्हायरसमुळे झाली.

कोरोना व्हायरस विरुद्ध लढण्यासाठी दिवस-रात्र पोलीस, सैनिक, डॉक्टर, नर्स, सफाई कर्मचारी प्रयत्न करत आहेत. हे सर्व कोरोना काळातील योद्धा आहेत. सुरुवातीच्या काळात भारत सरकारने संपूर्ण लॉकडाऊन जाहीर केला. सर्वजण आपापल्या घरामध्ये सुरक्षित रहावे हाच त्यामागचा उद्देश होता. कोरोना योद्ध्यांनी त्या काळात याचे काम जबाबदारीने केले.

सर्व डॉक्टर, नर्स हॉस्पिटलमध्ये कोरोना रुग्णांची सेवा करत होते. आरोग्य कर्मचारी सर्व कोरोनाबाधित रुग्णांना योग्य औषधोपचार व सुविधा उपलब्ध करून देत होते. पोलीस सर्व लोकांना आपापल्या घरी सुरक्षित राहण्यासाठी वेळोवेळी सूचना करत होते. खरोखरच आपल्याला या रोगाला संपवायचे असेल तर आपण सरकारच्या नियमांचे पालन करणे गरजेचे आहे.

कोरोना विषाणू काय आहे?

कोरोना व्हायरस हा विषाणूचा (व्हायरसचा) एक मोठा गट आहे. ज्याच्या प्रादुर्भावाने सौम्य सर्दी ते सार्स (SARS) आणि मेर्स (MERS) सारखे गंभीर श्वसनाचे रोग होतात. सार्सचा प्रादुर्भाव करणा-या कोरोना व्हायरस आणि सार्स-सी.ओ.व्ही. 2 (SARS-Cov-2) मध्ये बरीच समानता आहे.

पुष्कळसे कोरोना व्हायरस झुनोटिक (पशुजन्य) असतात. म्हणजे ते प्राण्यांपासून मानवात संक्रमित होतात. सार्स कोरोना व्हायरस ह्या प्राणी विषाणूने एका अनिश्चित प्राण्यापासून (बहुधा वटवाघळापासून) दुस-याय प्राण्यांना (उदमांजर/Civetcat) आणि 2002 मध्ये दक्षिण चीनच्या ग्वांगडोंग प्रांतातील मानवांना संक्रमण केल्याचे



मानले जाते. तर 2021 मध्ये सौदी अरेबियात मर्स कोरोना व्हायरसचे ड्रॉमेडरी उंटाकडून मानवांना संक्रमण झाले. SARS Cov-2 देखील वाघळापासून संक्रमित झाल्याचा पुरावा आहे.

अमेरिकेतील टेक्सास विद्यापीठ आणि नॅशनल इन्स्टिट्यूट ऑफ हेल्थ यु.एस. च्या संशोधकांनी SARS Cov-2 च्या स्पाईक प्रोटीनचे श्री डी मानसचित्र तयार केले आहे. ह्यामुळे विषाणूच्या मानवी पेशीला जोडून आत शिरकाव करण्याच्या पद्धती समजण्यास मदत होईल. तसेच ह्या प्रोटीन्सची रचना समजल्याने विषाणू विरोधी लस व औषध बनवता येतील. संशोधकानुसार नवीन कोरोना व्हायरस आणि वाघळांच्या कोरोना व्हायरसमध्ये 98 टक्के साम्य आहे. ह्या शोधाचे निकाल सायन्स या संशोधन जनरलमध्ये प्रकाशित केले आहेत.

यात असेही आढळून आले की, सार्स कोरोना व्हायरस सारखेच कोविड-19 प्रोटीनचे मानवी पेशींना जुडणारे रिसेप्टर समान आहेत. त्यांना एजियोटेन्सीन, कन्व्हर्टिंग एन्झाईम 2 (ACE-2) म्हणतात. ह्या संवेदी/रिसेप्टर्सद्वारे कोरोना व्हायरस मानवी पेशीत प्रवेश करतात. नवीन कोरोना व्हायरसच्या स्पाईक प्रोटीन्सची मानवी पेशींना जोडण्याची क्षमता सार्स (SARS) पेक्षा 10 ते 20 पट अधिक आहे.

### कोरोना व्हायरसची लक्षणे

जागतिक आरोग्य संघटनेने कोविड-19 ला महामारीचा रोग म्हणून घोषित केले. ताप येणे, खोकला येणे, घसा बसणे, सर्दी, नाक गळणे, थंडी वाजणे, श्वास घेताना त्रास होणे, छातीत दुखणे, बोलता न येणे ही लक्षणे अशी असू शकतात. एखाद्या व्यक्तीस त्याची लागण झाल्यास त्याची लक्षणे दिसून येण्यासाठी पाच ते सहा दिवस लागतात किंवा 14 दिवसही लागू शकतात.

गंभीर स्थितीमध्ये निमोनिया तसेच फुफ्फुस, यकृत, -हृदय, घसा, मेंदू असे शरीराचे अनेक अवयव निकामी होतात आणि मृत्यू होतो. पण सर्दी, ताप, खोकला या लक्षणावरून आपल्याला कोरोना झालेला आहे की दुसरा कोणता आजार आहे हे ओळखणे ही फार कठीण आहे. हे ओळखण्यासाठी आपल्याला टेस्ट करावी लागेल.

### हा आजार कसा पसरतो?

प्रथमतः संसर्ग झालेल्या लोकांच्या श्वसनाच्या उत्सर्जनातून हा आजार पसरतो. एखाद्या व्यक्तीने विषाणूने दूषित अशा पृष्ठभागाला वा वस्तूला स्पर्श केल्यास आणि तद्नंतर स्वतःच्या तोंड, नाक व डोळ्यांना स्पर्श केल्यास त्याला या आजाराचा प्रादुर्भाव होतो.

### हा आजार कोणाला होऊ शकतो?

कोविड-19 मुळे विविध वयोगटातील व्यक्तींना संसर्ग होऊ शकत असला तरी चीन आणि दक्षिण कोरियातील रोग नियंत्रण प्रतिबंध केंद्रानी केलेल्या विश्लेषणाच्या अहवालानुसार कोविड-19 मुळे वय वर्षे 80 पेक्षा जास्त असणा-या व्यक्तींच्या जीवाला अधिक धोका संभवतो. -हृदयरोग आणि मधुमेह अशा पूर्ववर्ती वैद्यकीय अवस्था असणा-या आणि विषाणूच्या रोगाला बळी पडलेल्या व्यक्तींचा मृत्यूदर अधिक आहे. सेवानिवृत्त व्यक्तींमध्येही हा दर अधिक सापडला आहे.

### कोरोना होऊ नये म्हणून घ्यावयाची काळजी

1. गरम पाणी प्यावे.
2. थंड पदार्थ खाऊ नये.
3. सार्वजनिक ठिकाणी जाऊ नये.
4. सर्दी, खोकला झालेल्या रूग्णापासून दूर राहणे त्याच्यापासून एक मीटर अंतर ठेवणे.
5. हस्तांदोलन केल्यानंतर आपले हात साबणाने स्वच्छ धुणे.
6. घराबाहेर पडणे टाळणे.
7. मास्कचा वापर करणे.
8. प्रतिकार शक्ती वाढेल अशा अन्नपदार्थांचे सेवन करणे.
9. खोकलताना किंवा शिंकताना नाकावर तोंडावर रुमाल धरणे.

कोरोना व्हायरसने संपूर्ण जगाला खूप नुकसान, हानी पोहोचवलेली आहे. पण या व्हायरसमुळे काही चांगल्या गोष्टी पण झाल्या आहेत. संपूर्ण जगात लॉकडाऊन असल्याने तब्बल 70 वर्षांनी जगातील हवा शुद्ध झाली आहे. जागतिक तापमानात घट झाली आहे. एका अर्थाने सर्व प्रदूषण कमी झाले आहे.

नोकरीसाठी, व्यवसायासाठी घराबाहेर पडून मुंबई, पुणे यासारख्या शहरामध्ये मुले कामासाठी बाहेर निघून गेलेली आहेत. त्या मुलांना आपल्या आई-वडिलांना भेटायला सुद्धा वेळ नव्हता पण या कोरोनामुळे हीच मुले आपल्या कुटुंबाला आई-वडिलांना वेळ देऊ शकली. हा रोग आटोक्यात आणण्यासाठी आपण एक दुस-याचे सहकार्य केले पाहिजे.

भारत सरकारद्वारे 'आरोग्य सेतू' हे डिजिटल सेवा पुरविणारे मोबाईल ॲप्लिकेशन विकसित करण्यात आले आहे. हे ॲप्लिकेशन कोविड-19 संबंधित आरोग्य सेवा भारताच्या नागरिकांपर्यंत पोहोचविण्याच्या उद्देशाने बनविले आहे.

### आरोग्य सेतूची प्रमुख वैशिष्ट्ये

1. ब्लूटूथ वापरून ॲटोमॅटिक कॉन्टॅक्ट ट्रेसिंग करणे.
2. आयसीएमआर(ICMR) च्या मार्गदर्शक तत्वानुसार स्वयं-मूल्यांकन चाचणी करता येते.
3. कोविड-19 संबंधित सर्व माहिती, सूचना व सर्वोत्तम आचार पद्धती याची माहिती दिली जाते.
4. ई-पास चे संकलन केले जाते.
5. टेलिमेडिसीन व व्हिडिओद्वारे सल्लामसलतीची सुविधा

आरोग्य सेतू ॲपमधील कॉन्टॅक्ट ट्रेसिंग या वैशिष्ट्यांद्वारे जी व्यक्ती कोविड-19 पॉझिटिव्ह ठरली आहे. अशा व्यक्तीच्या संपर्कात जर मागील 14 दिवसात तुम्ही आला असाल तर हे ॲप तुमच्या संपर्काची नूतनता आणि निकटतेच्या आधारावर तुमच्या संक्रमणाची जोखीम कॅल्क्युलेट करते आणि होम स्क्रीनवर त्याप्रमाणे करावयाची समर्पक कृती दर्शविते.

आरोग्य सेतू ॲपच्या होम स्क्रीनवर असलेले चार रंग संक्रमणाची जोखीम स्पष्ट करतात. त्यामध्ये-

- हिरवा रंग - संक्रमणाची जोखीम कमी असल्याचे दर्शवितात.
- पिवळा रंग - संक्रमणाची जोखीम मध्यम असल्याचे दर्शवितात
- नारंगी रंग - संक्रमणाची जोखीम उत्तम असल्याचे दर्शवितात.
- लाल रंग - कोविड-19 पॉझिटिव्ह असल्याचे दर्शवितात.

आरोग्य सेतू ॲप सध्या 12 भारतीय भाषांमध्ये उपलब्ध आहे. ते ॲंड्राइड (Android), आयओएस (IOS) व केएआयओएस (KAiOS) या प्लॅटफॉर्मवर चालते. जागतिक आरोग्य संघटनेनुसार जगातील 216 देशांमध्ये कोविड-19 संक्रमित झाला आहे. या 216 देशांमध्ये सर्वाधिक प्रादुर्भाव युएसएमध्ये असून त्याच्या बरोबर भारत, ब्राझील व रशियन महासंघ या देशांमध्ये कोविड-19 चे सर्वाधिक संक्रमण झाले आहे.

### लस म्हणजे काय?

अनेकदा लस, लसीकरण किंवा व्हॅक्सीनेशन हे शब्द आपण वाचतो. टीव्हीवर याच्या जाहिरातीही पाहत असतो. पण लस म्हणजे नक्की काय याविषयी शास्त्रीय माहिती आपल्याला नसते. ब-याचदा आपण बघतो की, उन्हात जर एखादा दिवस खूप फिरलो तर लगेच डोकेदुखी, अंगदुखी इत्यादीचा त्रास होतो. आपण त्याला ऊन बाधले असे म्हणतो. पण जर रोज उन्हात जायला लागलो तर मात्र उन्हाचा तेवढा त्रास होत नाही. नेहमी घरचेच वॉटरबॅगचे पाणी पिणारा मुलगा बाहेरचे पाणी प्यायला तर त्याच्या पोटात दुखते, संडास लागते. शरीराला एखाद्या गोष्टीची सवय झाली तर नंतर त्रास होत नाही. असे साध्या भाषेत म्हणता येईल. पण शरीराला जीवजंतूची सवय होते का? सवय म्हणण्यापेक्षा जीवजंतूचा अनुभव येतो असे म्हणता येईल. एकदा अनुभव पाठीशी असला म्हणजे शरीर दुस-यांदा त्या जीवजंतूशी चांगला लढा देऊ शकते. एकदा गोवर झाल्यावर सहसा परत होत नाही ते याचमुळे हे का होते हे लक्षात घेणे महत्वाचे आहे. शरीरात रोगप्रतिकारशक्ती दोन प्रकारे निर्माण होते. जंतू शरीरात

शिरल्यानंतर त्यांच्यातील प्रथिन किंवा कर्बोदक घटकासाठी शरीरात प्रतिकार करणारी द्रव्ये (ॲंटीबॉडीज) तयार होतात किंवा जंतूंना मारण्यासाठी पेशींचे प्रशिक्षण होते. या दोन्ही मार्गांनी जीवजंतू पुढच्यावेळी आले तर त्यांना मारून टाकता येते. पण प्रत्येक वेळी आधी जीवजंतूचा शरीरात प्रवेश करून घेऊन रोगाला सामोरे जाणे परवडण्याजोगे नसते. यासाठी शास्त्रज्ञ जंतूंना अर्धमृत (Attenuate) करतात किंवा पूर्णपणे मारतात. असे अर्धमृत किंवा मृत जंतू शरीरात गेल्यावर रोग निर्माण करू शकत नाहीत पण त्यांच्या विरुद्ध प्रतिकार करणारी द्रव्ये आणि प्रशिक्षित पेशी तयार होतात. लसी अशाच अर्धमृत किंवा मृत जंतू किंवा त्यांच्यातील घटकापासून बनवलेल्या असतात. लस देण्याच्या क्रियेला लसीकरण म्हणतात. 5000 वर्षांपूर्वी चिनी लोक देवी रोग होऊ नये म्हणून लसीकरण करत. अशी वैद्यक इतिहासात नोंद आहे. पहिले शास्त्रोक्त लसीकरण करण्याचा मान एडवर्ड जेत्तरकडे जातो. त्याने 1796 मध्ये देवी रोगाचा प्रतिबंध करण्यासाठी लसीकरण केले.

आज आपल्याकडे क्षयरोग, गोवर, घटसर्प, डांग्या खोकला, धनुर्वात, पोलिओ, कॉलरा, रेबीज, विषमज्वर, कावीळ तसेच गालफुगी इत्यादी रोगावर प्रतिबंधक लसी उपलब्ध आहेत. लसीकरणामुळे बऱ्याच गंभीर रोगाचा प्रतिबंध करू शकलो आहोत.

### कोविड-19 वरील लस

भारतामध्ये दोन प्रकारची लसींना मान्यता प्राप्त व तयार झाली आहे.

1. Covaxin
2. Covishield

कोव्हिक्सिन ही लस तयार करणारी संस्था भारत बायोटेक इंडियन कौन्सिल ऑफ मेडिकल रिसर्च तर कोव्हिशिल्ड ही लस तयार करणारी संस्था सिरम इन्स्टिट्यूट (ऑक्सफर्ड-एस्ट्राझेनेका यांच्या सहकार्याने) आहे.

Pfizer ही लस तयार करणारी संस्था असून फायझर बायोएनटेक व लसीचा वापर अमेरिका, ब्रिटन, युरोपीय समुदाय देशात करण्यात आला आहे.

Sputnik-S ही लस तयार करणारी संस्था आर-फार्म आणि बायन्नोफार्म व लसीचा वापर रशिया देशात करण्यात आला आहे.

**“शासकीय नियम पाळा**

**सकारात्मक राहा**

**व्यायाम करा व योग्य आहार घ्या**

**प्रतिकारशक्ती वाढवा**

**प्रार्थनामय जीवन जगा”**

**“State Home, Stay Safe”**

**॥मी माझा, माझ्या कुटुंबाचा व महाराष्ट्र राज्याचा रक्षक॥**

# योग शिक्षण व मानवी आरोग्य

डॉ. तातेराव केंद्रे

संभाजीराव केंद्रे महाविद्यालय, लातूर .

योगासन हि एक संज्ञा आहे जी त्याच्या अरुंद परिभाषेत योगामध्ये बसलेल्या आसनांचे वर्णन करते ज्यायोगे ध्यान करण्यासाठी वापरल्या जातात, जसे सुखासन (सुलभ पोझ ) सारख्या मुलभूत क्रास-पाय असलेले स्थान हा शब्द ९९ व्या शतकात संस्कृत, योग, अर्थ, “संच” आणि आसन या शब्दापासून उगम झाला आहे.

आधुनिक वापरात, योगासन – किंवा थोडक्यात आसन केवळ बसलेल्या आसनांच्या नव्हे तर योगाच्या विविध योगाचे वर्णन करण्यासाठी केला जातो. योगासनामध्ये आज इतरांमध्ये पोझेस, इन्व्हर्टेड पवित्र समाविष्ट आहेत . एक आसन हा एक शरीराचा आसन आहे. जो मूलतः आणि अद्याप बसलेला ध्यान ठरू शकतो असा एक सामान्य शब्द आहे, आणि नंतर हठ योग आणि व्यायाम म्हणून आधुनिक योगात वाढविला गेला आहे, कोणत्याही प्रकारच्या स्थितीत, एकत्र बसणे, उभे करणे, उलटे करणे, फिरविणे आणि समतोल पोझेस, पतंजली योग सूत्र म्हणून “आसन” स्थिर आणि आरामदायक आहे. पतंजलीने आपल्या सिस्टीमच्या आठ अंगांपैकी एक म्हणून विस्तारित काळ बसण्याची क्षमता नमूद केली आहे. आसनांना इंग्रजीमध्ये योग पोझेस किंवा आसन देखील म्हणतात.

आसनांचा उगम भारतात झाला. ५००० वर्षांपूर्वी उत्तर भारतातील सिंधू- संस्कृतीत योगाची प्रथा सुरु झाली होती. हे प्रथम ऋग्वेदात नमूद केले गेले आहे, ग्रंथाचा संग्रह ज्यामध्ये विधी, मंत्र आणि गाणी आहेत ज्यात प्रामुख्याने ब्राह्मण, वैदिक, पुजारी वापरत असत. योग हळूहळू ब्राह्मणांनी विकसित केला ज्यांनी अखेरीस २०० हून अधिक धर्मग्रंथ असलेल्या उपनिषदा मधील त्यांच्या पद्धती आणि विश्वासाचे दस्तऐवजीकरण केले.

वेदातील योग एक जोखड काही आरंभिक लेखनात, योग प्रामुख्याने मरणा संदर्भात वर्णन करताना आणि स्वर्गात देवस्थानांकडे जात असताना आणि अस्तित्वाच्या उच्च शक्तींकडे वर्णन केला जात आहे. वैदिक काळात वैदिक पुजारी सामान्यतः स्व-शिस्तबद्ध असत आणि त्याएवजी कोणत्याही भोग टाळत असत त्यांनी यज्ञ म्हणून ओळखले जाणारे असे बलिदान केले.

इ.स. पूर्व तिसऱ्या शतकात जैन, हिंदू आणि बौद्ध लिखाणासारखा इतर धर्मात “योग” हा शब्द सामान्य झाला. महायान बौद्ध धर्मात, आध्यात्मिक आणि ध्यानधारणा या दोहोसाठी योगाभ्यास योगाचर म्हणून ओळखला जात असे ज्यामध्ये ध्यान करण्याच्या आठ महत्वपूर्ण धरणांचा समावेश होता .

५ व्या शतकात योग, ध्यान आणि धार्मिक वापरासाठी होता, परंतु कसरत करण्याचा प्रकार म्हणून नव्हे. त्याच वेळी जैन, बौद्ध आणि हिंदूमध्ये हि संकल्पना आणखी प्रस्थापित झाली. योगाच्या पहिल्या आवृत्त्या अध्यात्मिक अभ्यासासाठी होती आणि बऱ्याच मुलभूत मूल्यांच्या भोवती फिरत होती. १९४७ मध्ये भारताला स्वतंत्र्य येईपर्यंत योगाच्या अभ्यासाला शक्तिशाली कुटुंब, संस्था आणि उपक्रमांनी मोठ्या प्रमाणात प्रोत्साहन दिले.

## ● योगाचे फायदे :-

1) योग तुमची लवचिकता वाढविते –

बरेच लोक योगास प्रारंभ करतात आणि योगाच्या अभ्यासाचा हा नक्कीच एक चांगला फायदा आहे. शरीराची हालचाल वाढविण्यास मदत करतात. मज्ज संस्थेत स्नायुंना सौम्य, प्रभावी ताणून सोडण्यास परवानगी देते. यामुळे अस्थिबंधन आणि कंडराला इजा करण्याचा धोका कमी होतो.

**2) योगा आपल्याला सामर्थ्य वाढविण्यास मदत करते –**

बरेच लोक याकडे दुर्लक्ष करतात, लवचिकतेसाठी केवळ योगाचे फायदे पाहून, योग शरीराच्या वजनास आधार देणाऱ्या स्नायुंना बळकट करण्यास मदत करतो आणि यामुळे कार्यात्मक सामर्थ्य वाढते. कोर सामर्थ्य वाढविण्यासाठी देखील हे विलक्षण आहे.

**3) योगाने तुमची मुद्रा सुधारते –**

कोणत्याही स्नायूंचे असंतुली, घट्ट क्षेत्रे वाढविणे आणि कमकुवत भाग बळकट करणे यावर योगास मदत होऊ शकते.

**4) योग आपले सांधे निरोगी ठेवण्यास मदत करतो –**

योग सांध्याच्या सभोवतालच्या स्नायुंना स्थिर करेल आणि सांध्यांना त्यांच्या संपूर्ण हालचालीमध्ये हलवून, योगासकांना चांगले संयुक्त आरोग्यास प्रोत्साहित करण्यास मदत होते. सांध्याच्या हालचालीमुळे सायनोव्हीयल फ्लुइडचा प्रवाह सुधारतो, ज्यामुळे हाडांची गुळगुळीत आणि निरोगी हालचाल होऊ शकते. सायनोव्हीयल फ्लुइड संयुक्त कुर्चाला ताजे ऑक्सिजन आणि पोषकद्रव्ये सुध्दा वितरीत करते, जी पुनर्संचलित करण्यास आणि निरोगी ठेवण्यास मदत करते.

**5) योगामुळेशक्तिशाली मानसिकता तयार होते –**

योग म्हणजे मन, शरीर आणि श्वास एकत्र करणे. असे केल्याने ते आपल्याला सध्याच्या क्षणी आणते. माइंड फुलनेस आरोग्याच्या संपूर्ण स्थितीसाठी फायदे सिद्ध केले आहेत. विशेषतः रोगप्रतिकारक शक्ती मजबूत करण्यासाठी, सामाजिक संबंध सुधारण्यासाठी आणि नैराश्य, चिंता आणि न्युरोटीझम कमी करण्यासाठी माइंड फिलनेस पद्धती दर्शिल्या आहेत.

**6) योगामुळे ताण कमी होतो –**

योगामुळे लक्षकेंद्रित होण्यास मदत होते. केंद्रीकरण करणे आणि श्वास घेणे हि सर्व ताण कमी करण्यास मदत करते आणि एक व्यस्त आधुनिक जीवनशैलीची एक उत्तम विषाद असू शकते. वाढीव क्रियाकलाप पातळी आणि व्यायामाच्या सकारात्मक परिणामासह, योगामुळे विश्रांती आणि शारीरिक ताणतणाव कमी करण्यास मदत होते.

**7) योगामुळे रक्तदाब कमी होतो –**

उच्च रक्तदाब असणे हि गंभीर बाब आहे जे हृदयविकाराचा झटका आणि स्ट्रोक या दोहोंच्या वाढीच्या जोखमीशी संबंधित आहे. उच्च रक्तदाब कारणी ठरणारे तणाव कमी करण्याबरोबरच योगाभ्यासाच्या अनेक बाबींचा विचार केला जातो कि ते थेट रक्तदाब सुधारते. योगाचा विश्रांती आणि खोल श्वास घेतल्यानंतर सराव संपल्यानंतरही उच्च रक्तदाब कमी होतो.

**8) योगाने श्वासोच्छ्वास सुधारतो –**

योगिक श्वास घेण्याच्या पद्धतीचा आधार प्राणायाम किंवा योगी श्वास घेणाऱ्या तंत्रात असतो. श्वास घेण्यास खूप फायदेशीर योग मानला जातो योगासने श्वास घेण्यास कसलाही त्रास होत नाही.

**● योगासनाचे प्रकार – खालीलप्रमाणे आहेत**

## ◆ विपरीत शयनस्थितीतील आसने.

- १) भुजंगासन
- २) शलभासन
- ३) धनुरासन
- ४) नौकासन

## ◆ शयनस्थितीतील आसने.

- १) द्विपाद व उत्तरासन
- २) विपरीत करणी
- ३) सर्वांगासन
- ४) मत्स्यासन
- ५) हलासन
- ६) नौकासन
- ७) पवनमुक्तासन
- ८) श्वासन

## ◆ बैठक स्थितीतील आसने

- १) पद्मासन
- २) आकर्ण धनुरासन
- ३) वक्रासन
- ४) वज्रासन
- ५) पश्चिमोत्तासन

## ◆ दंडस्थितीतील आसने

- १) वृक्षासन
- २) वीरासन
- ३) तिकोनासन
- ४) शीर्षासन

# कोविड -19 महामारी दरम्यान निरोगी खाणे

श्रीमती सुवर्णा गोवर्धन घोलप

(एम. ए., एम.पी. एड, एम. फिल, पीएच. डी. संशोधक)

प्रा. डॉ. छाया कोटे

(बी. ए., बीपी. एड., एम.पी. एड, एम. फिल, पीएच. डी. मार्गदर्शक)

## गोषवारा:

कोरोना व्हायरस मुळे आपण कठीण काळात जगत आहोत. ती आव्हाने आपल्यावर शारीरिक आणि भावनिक दोन्ही प्रकारे परिणाम करू शकतात. जेव्हा तुम्हाला इतरांपासून शारीरिक दृष्ट्या अंतर ठेवावे लागते तेव्हा समान दिनचर्या पाळणे कठीण असते, विशेषतः जर तुम्हाला विषाणू मुळे खरोखर आजारी पडण्याचा धोका जास्त असेल. त्यामुळे जेवण बनवणे हे एक विशेष आव्हान बनते.

## प्रस्तावना:

चीनच्या हुबेई प्रांताची राजधानी वुहान येथे डिसेंबर 2019 मध्ये नवीन उद्रेक पहिल्यांदा नोंदवला गेला आणि तेव्हा पासून तो जागतिक स्तरावर पसरला आणि तो जागतिक महामारीत बदलला. रोगाच्या सामान्य लक्षणांमध्ये ताप, खोकला आणि श्वास लागणे यांचा समावेश होतो, तर इतर लक्षणांमध्ये थकवा, स्नायूदुखणे, अतिसार, घसाखवखवणे, वास कमी होणे आणि ओटीपोटात दुखणे यांचा समावेश असू शकतो. साधारण पणे, संसर्ग झाल्या पासून लक्षणे दिसू लागे पर्यंतचा कालावधी दोन ते चौदा दिवसांचा असू शकतो. बहुतेक प्रकरणांमध्ये सौम्य लक्षणे दिसतात, तर काही रुग्णांमध्ये व्हायरल न्यूमोनिया आणि बहु-अवयव निकामी होण्याची भीती असते. 12 एप्रिल 2021 पर्यंत, 185 देशांमध्ये 13,58,69,704 हून अधिक प्रकरणे नोंदवली गेली आहेत, परिणामी 29,35,271 हून अधिक मृत्यू झाले आहेत. 7,72,84,566 हून अधिक लोक बरे झाले आहेत. सर्व संक्रमित रुग्णांपैकी सुमारे 2% मरण पावले आहेत.

हा विषाणू मुख्यतः जवळच्या संपर्कात असताना खोकला, शिंकणे किंवा तोंडातून थुंकल्याने पसरतो. हे थेंब किंवा दंवचे थेंब श्वासात घेतले जाऊ शकतात आणि आसपासच्या जमिनीवर किंवा पृष्ठभागावर पडू शकतात आणि लोक दूषित पृष्ठ भागाला त्यांच्या हातांनी स्पर्श करून आणि नंतर त्यांच्या चेहऱ्यावर लावल्याने संसर्ग होऊ शकतो. हे विषाणू या दूषित पृष्ठभागावर ७२ तासांपर्यंत जिवंत राहू शकतात. लक्षणे दिसू लागल्यानंतर पहिल्या तीन दिवसांत हा विषाणू सर्वाधिक सांसर्गिक असतो, परंतु लक्षणे दिसण्यापूर्वी आणि नंतर रोगाच्या काळात ही तो अत्यंत संसर्गजन्य असतो. निदानाची मानक पद्धत ही अनुनासिक नमुन्यांची रिव्हर्स ट्रान्सक्रिप्शन पॉलिमरेजचे नरिअॅक्शन (RT-PCR) आहे.

वारंवार साबणाने हात धुणे, इतरांशी शारीरिक संपर्क (विशेषतः लक्षणे असलेल्या लोकांकडून), खोकताना किंवा शिंकताना रुमाल वापरणे. अचानक शिंका आल्यास आणि रुमाल जवळ नसल्यास, कोपरहाताच्या आतील बाजूस पकडणे, न धुतलेले हात चेहऱ्यापासून दूर ठेवण्यास शिंकणे आणि अशा उपायांचा वापर केल्यास विषाणूचा प्रसार रोखण्यास मदत होते. ज्यांना विषाणूचा संसर्ग झाल्याचा संशय आहे किंवा सौम्य लक्षणे दिसत आहेत आणि त्यांची काळजी घेणार्या किंवा त्यांच्या संपर्कात आलेल्यांसाठी मास्कची शिफारस केली जाते. रुग्णाच्या लक्षणांवर आधारित उपचार, प्रतिकारशक्ती वाढवणे, अलग ठेवणे आणि काही प्रायोगिक उपाय उपचार म्हणून वापरले जातात.

रोग कसा पसरतो या बद्दल काही तपशील निश्चित केले गेले आहेत. वर्ल्ड हेल्थ ऑर्गनायझेशन आणि यू एस सेंटर फॉर डिजीज कंट्रोल अँड प्रिव्हेंशन (CDC) नुसार, हा विषाणू प्रामुख्याने दोन लोकांमधील जवळच्या संपर्कातून तसेच खोकणे, शिकणे किंवा बोलण्याच्या थेंबाद्वारे पसरतो. सर्वात जवळचा संपर्क 1 मीटर किंवा 3 फूट मानला जातो. सिंगापूरमधील संशोधनात असे आढळून आले आहे की, खोकताना किंवा शिकताना तुम्ही रुमाल किंवा मास्क न वापरल्यास कोरोना व्हायरस 2019 (कोविड-19) विषाणू हवेतून 15 फुटांपर्यंत पसरू शकतो. हा विषाणू जवळच्या लोकांच्या तोंडात किंवा नाकात प्रवेश करतो आणि श्वासाद्वारे फुफ्फुसात पसरतो. प्राथमिक अभ्यासा नुसार, कोरोना व्हायरस रोग 2019 (कोविड-19) विषाणूने संक्रमित लोकांची संख्या दर 6 ते 7 दिवसांनी दुप्पट होते आणि त्याचा मूळ पुनरुत्पादन दर (R0) 2.2 - 2.7 असल्याचे मानले जात होते, परंतु 7 एप्रिल 2020 रोजी प्रकाशित झाले होते. अभ्यासानुसार, वुहान मध्ये महामारीच्या सुरुवातीच्या काळात प्रत्येक 2.2 ते 3.3 दिवसांनी संक्रमित लोकांची संख्या दुप्पट झाली.

जेव्हा एखादी व्यक्ती दूषित पृष्ठभागाला स्पर्श केल्यानंतर त्याच हाताने डोळा, नाक किंवा तोंडाला स्पर्श करते तेव्हा त्या व्यक्तीला संसर्ग होतो, ज्याला फोमेट्रान्स मिशन म्हणतात. संसर्ग झालेल्या व्यक्तीच्या विष्टेतून विषाणू पसरण्याची चिंता असली तरी, धोका कमी मानला जातो. जेव्हा लक्षणे दिसतात तेव्हा विषाणू सर्वात जास्त संसर्गजन्य असतो, परंतु एखाद्या व्यक्तीस लक्षणे नसताना आणि ते येण्यापूर्वी विषाणूचा प्रसार करणे शक्य आहे, परंतु धोका कमी मानला जातो. युरोपियन सेंटर फॉर डिजीज प्रिव्हेंशन अँड कंट्रोल (ECDC) नुसार, हा रोग किती सहज पसरतो हे पूर्णपणे स्पष्ट नसले तरी, एक व्यक्ती सहसा दोन ते तीन लोकांना संक्रमित करते.

#### निदान:

17 जानेवारी 2020 रोजी, जागतिक आरोग्य संघटनेने SARS-COV-2 साठी अनेक RNA चाचणी निकष प्रकाशित केले आणि कोरोना संसर्गाची पुष्टी करण्यासाठी रिअल-टाइम रिव्हर्स ट्रान्सक्रिप्शन पॉलिमरेझचे नरिएक्शन (RT-PCR) चाचणी प्रमाणित केली. ही चाचणी सामान्यतः अनुनासिक नमुने किंवा घशातील लाळेच्या नमुन्यांवर केली जाते. चीनी शास्त्रज्ञांना विषाणूच्या नमुन्याचे विश्लेषण केल्यानंतर कोरोना व्हायरसचे अनुवांशिक गुण सूत्र मिळवण्यात यश आले आहे. जगभरातील संशोधकांना त्यांची स्वतःची रिव्हर्स ट्रान्सक्रिप्शन पॉलिमरेझचे नरिएक्शन (RT-PCR) चाचणी किट विकसित करण्यात मदत करण्याच्या उद्देशाने हे संशोधन चीनी शास्त्रज्ञांनी प्रकाशित केले आहे. 7 एप्रिल 2020 रोजी, भारतातील कोरोनाचा वाढता प्रादुर्भाव लक्षात घेता, नॅशनल इन्स्टिट्यूट ऑफ व्हायरोलॉजीने एच एल एल लाइफ केअर लिमिटेडने विकसित केलेल्या रॅपिड अँटी बॉडी ब्लड टेस्ट किटला प्राथमिक चाचणी म्हणून मान्यता दिली. 15 ते 20 मिनिटांत होणाऱ्या या चाचणीच्या मदतीने कोरोनाचा प्रादुर्भाव कुठे वाढत आहे, याचा अभ्यास करणे उपयुक्त ठरणार आहे. चीन मधील अनुभव असा आहे की या जलद प्रति पिंड रक्त चाचणीची अचूकता केवळ 60 ते 70% आहे. एखाद्या रुग्णाला अँटीबॉडी रक्त तपासणीत संसर्ग झाल्याचे आढळल्यास, त्यांना जागतिक आरोग्य संघटनेने प्रमाणित केलेली आर टी-पीसी आर चाचणी केली जाईल.

#### कोविड -१९ आणि आहार:

कोविड-19 महामारीमुळे आपल्या दैनंदिन जीवनात बरेच बदल होत आहेत. आम्ही सोशल डिस्टन्सिंग पाळत आहोत, घरी राहत आहोत आणि रेस्टॉरंट मध्ये जेवण करू शकत नाही. घरी राहण्याच्या या काळात अस्वास्थ्य कर खाण्याच्या सवयी लावणे सोपे असू शकते, परंतु थोडासा विचार आणि तयारी करून, निरोगी आहार राखणे हे एक काम आहे असे नाही. चांगले पोषण हे नेहमीच महत्वाचे असते, परंतु या महामारीच्या काळात ते आणखी महत्वाचे ठरते. कारण पौष्टिक पदार्थांचा संतुलित आहार मजबूत रोग प्रतिकारक शक्तीला मदत करतो. जेव्हा किराणा खरेदीसाठी जाण्याची वेळ येते, तेव्हा थोडेसे नियोजन केल्याने तुम्हाला स्टोअर मध्ये लवकर येण्यास आणि बाहेर पडण्यास मदत होऊ शकते.



तुम्हाला सुपर मार्केट मध्ये इतरांच्या आसपास राहण्याचा धोका पत्करायचा नसल्यास, ऑनलाइन अन्न खरेदी करणे आणि ते वितरित करणे हा दुसरा पर्याय आहे, जे काही स्थानिक सुपर मार्केट ऑफर करत आहेत. आपल्यास भोवताली विविध समुदाय-समर्थित कृषी प्रणाली देखील आहेत, जेथे लहान शेतकरी थेट ग्राहकांना आणि घरापर्यंत पोचविलेल्या अन्न बॉक्स द्वारे विकतात. तुमच्या कुटुंबासाठी शक्यतितेका जे अन्न मिळवताना स्थानिक शेतकऱ्यांना मदत करण्याचा हा एक उत्तम मार्ग आहे.

भरपूर फळे आणि भाज्या आहारात घेणे योग्य ठरेल, ज्यात भरपूर जीवन सत्त्वे आणि खनिजे तसेच फायबर असतात. गोठवलेले किंवा कॅन केलेल्या फळे आणि भाजी पाल्यांमध्ये जीवनसत्त्वे आणि खनिजे देखील असतात, जरी या उत्पादनांच्या प्रक्रियेत काही वेळा साखर, मीठ किंवा संरक्षक या सारखे घटक जोडले जातात. लेबल वाचून खात्री करा जेणे करून तुम्ही तुमच्यासाठी आणि तुमच्या कुटुंबासाठी काय सर्वोत्तम आहे ते निवडू शकता. जेव्हा आपण तणाव ग्रस्त असतो तेव्हा समाधान कारक अन्न मिळवण्याचा मोह होतो आणि हे काही काळासाठी ठीक आहे. परंतु ही सवय लावू नका कारण यापैकी बरेच पदार्थ जसे की मॅक आणि चीज, पिझ्झा आणि बर्गर आणि फ्राईज मध्ये चरबी, साखर आणि मीठ जास्त असते.

येथे काही सूचना आहेत ज्या तुम्हाला आणि तुमच्या कुटुंबाला शारीरिक आणि मानसिक दोन्ही प्रकारे आधार देऊ शकतात:

- भरपूर फळे आणि भाज्या, पातळ प्रथिने आणि संपूर्ण धान्ये असलेले पौष्टिक जेवण खाण्याचा सर्वोत्तम प्रयत्न करा. ते पदार्थ तणावाच्या काळात तुमचे शरीर आणि मन निरोगी ठेवण्यास मदत करू शकतात.
- साखर, कॅफिन आणि अल्कोहोल यांसारख्या चिंता वाढवणारे पदार्थ कमी करा.
- लहान लहान क्षणांचा आनंद घेणे महत्वाचे आहे, परंतु अति उत्साही होणे टाळा. साखर, कॅफिन आणि अल्कोहोलचा अति प्रमाणात वापर मर्यादित करण्याचा प्रयत्न करा. जास्त प्रमाणात सेवन केल्याने चिंता वाढू शकते किंवा आळशी पणा येऊ शकतो.
- "स्वराघात अल्पोपाहार" करण्याची इच्छा वाटत असेल, तर तुमची लालसा ओळखा, नंतर दोन किंवा तीन खोल श्वास घ्या आणि स्वतःला विचारा की तुम्हाला खरोखर भूक लागली आहे किंवा वेळ घालवत आहात.
- दैनंदिन वेळापत्रक आणि दिनचर्या केल्याने चिंता कमी होऊ शकते आणि तुम्हाला स्थिर राहण्यास मदत होते. हे जेवणालाही लागू होते! नेहमीच्या जेवणाच्या वेळी खाण्याचा प्रयत्न करा आणि त्या दरम्यान स्नॅक्स उपहाराचे पदार्थ खाणे टाळा.
- तुम्ही इतर लोकांसोबत घरी राहत असल्यास, दररोज किमान एक जेवण एकत्र खाण्याचा प्रयत्न करा. हे एकाकीपणाच्या भावना कमी करण्यात मदत करू शकते आणि तुम्हाला सजग आहार घेण्यास मदत करू शकते. एकत्र स्वयंपाक केल्याने तुम्हाला इतरांशी संपर्क साधण्यात आणि तणाव कमी करण्यात मदत होऊ शकते.

### सुरक्षित किराणा खरेदी:

तुम्ही किराणा माल खरेदी करत असताना देखील तुम्ही कोरोना व्हायरसचा प्रसार कमी करण्यात मदत करू शकता. काही मूलभूत मार्गदर्शक तत्वांचे पालन करून, तुम्ही सुरक्षित पणे आणि कार्यक्षमतेने खरेदी करू शकता, स्वतःचे आणि इतरांचे संरक्षण करू शकता. पुढची योजना करणे, व्हायरसच्या संपर्कात येण्यावर मर्यादा घालणे आणि तुम्हाला जे हवे आहे तेच खरेदी करणे ही मुख्य गोष्ट आहे – जर खरेदीदारांनी साठा केला नाही तर सगळ्यांना पुरेसे अन्न उपलब्ध होण्यास मदत होते.

- स्टोअरमध्ये आपला वेळ मर्यादित करण्यासाठी पुढे विचार करा. एक किंवा अधिक आठवड्यांसाठी जेवण आणि उपहाराच्या वस्तूंची योजना बनवा. एखादी वस्तू तात्पुरती संपुष्टात आल्यास विचलित न होता शांत राहा –त्याला वस्तूला पर्याय असू शकतो.
- तुमच्या खरेदी सूचीमध्ये निरोगी पदार्थांचा समावेश करा जे दीर्घकाळ टिकू शकते. त्या पदार्थांमध्ये गाजर, सलगम, बटाटे, बीट्स, कांदे, कोबी, सफरचंद, खरबूज, संत्री, द्राक्ष, लिंबू आणि लिंबू तसेच गोठलेली फळे आणि भाज्या यांचा समावेश असू शकेल.
- घरातील फक्त एका सदस्याला खरेदीसाठी पाठविणे योग्य ठरू शकेल, जर शक्य असल्यास अतिरिक्त सदस्य सोबत आणणे टाळावे.
- खरेदी करताना चेहरा झाकण्यासाठी शक्यतो कापड वापरणे योग्य असेल. तसेच, आणि तुम्ही जेथे खरेदी खरण्यासाठी जात त्या ठिकाणी हात स्वच्छ करण्यासाठी स्वच्छता गृह उपलब्ध असतात आणि जर ते उपलब्ध असल्यास त्यांचा वापर करण्याचा प्रयत्न करा. दुकानातून बाहेर पडल्या नंतर आणि किराणा सामान ठेवल्यानंतर हात धुण्यास विसरू नका.
- खरेदी करताना इतर दुकानदार आणि किराणा दुकानातील कर्मचार्यां पासून किमान 6 फूट अंतर ठेवण्याचा प्रयत्न करा .
- खरेदी करीत असतांना तुम्हाला ज्या वस्तू खरेदी करायचे आहे त्याच वस्तूंना स्पर्श करा.

#### मनः स्थिती आणि ऊर्जा पातळी वाढवण्यासाठी अन्नः

- प्रत्येक मुख्य जेवणात संपूर्ण धान्य, जसे की अख्खा भाकरी आणि तपकिरी तांदूळ यांचा समावेश करणे आरोग्यास योग्य असेल.
- जेवणा दरम्यान फळे, शेंगदाणे आणि दही यांसारखे पदार्थ जेवणा सोबत घेणे चांगले असते.
- विविध प्रकारच्या भाज्या आणि फळे तुमच्या शरीराला उत्तम प्रकारे कार्य करण्यास मदत करू शकतात.
- ओमेगा सारखे तेल हे फॅटी माशांमध्ये आढळतात ज्यात टिन युक्त मासे (उदा. सॅल्मन) असतात.
- व्यायाम आणि व्हिटॅमिन डी साठी तुम्ही दररोज घराबाहेर पडता याची खात्री करा. सूर्य प्रकाश नसताना ही हे महत्वाचे ठरू शकते.

आहार तज्ज्ञांच्या माहिती नुसार कोरोना व्हायरस पासून बचाव करण्यासाठी आहारामध्ये व्हिटॅमिन आणि प्रोटीन चा समावेश असणे गरजेचे आहे. या घटकांचा योग्य प्रमाणात पुरवठा झाल्यास शरीर सुदृढ राहण्यास मदत मिळते. यामुळे आपल्या शरीराची रोग प्रतिकारक शक्ती मजबूत होते. व्हिटॅमिन डी आणि व्हिटॅमिन सी शरीरासाठी अत्यावश्यक आहेत. जीवनसत्त्वांचा पुरवठा होईल अशाच खाद्य पदार्थांचे सेवन करा. महामारीच्या काळात आरोग्याची देखभाल करताना कोणताही हलगर्जी पणा करू नये.

योग्य प्रमाणात प्रोटीन आणि खनिजांचा शरीराला पुरवठा झाला पाहिजे. व्हिटॅमिन सी, व्हिटॅमिन डी, बीटा कॅरेटीन हे घटक असलेल्या फळभाज्या, फळांचा आपल्या आहारात समावेश करा. मशरूम, टोमॅटो, शिमलामिरची, ब्रोकली द्वारे तुम्हाला पौष्टिक घटकांचा पुरवठा होईल. पोटाच्या समस्या निर्माण होणार नाहीत, याची काळजी घ्यावी.

सध्याच्या परिस्थितीमध्ये प्रक्रिया केलेले अन्न पदार्थ खाणे टाळावे. प्रक्रिया केलेल्या अन्न पदार्थांमध्ये जास्त प्रमाणात फॅट्स, साखर तसंच मीठ असते. असे पदार्थ विकत घेण्यापूर्वी पाकिटावरील माहिती तपासून घ्यावी. तसंच पौष्टिक पदार्थांचे विकत घ्यावे. प्रक्रिया केलेले अन्न पदार्थ शरीरासाठी हानिकारक असतात. यामुळे आपल्या रोग प्रतिकारक शक्तीवर परिणाम होतो.

सर्दी, खोकल्याचा त्रास कमी करण्यासाठी तुम्ही नियमित हळदीच्या दुधाचे ही सेवन करू शकता. शक्य असल्यास दिवसातून दोन वेळा हळदीचे दूधप्यावे. दूध पिण्यापूर्वी तसंच प्यायल्या नंतर लगेचच अन्य पदार्थ खाऊ नका. तसंच तुळस, दालचिनी, काळीमिरी, आले आणि काळे मनुके एकत्र घ्या आणि त्याचा काढा तयार करा. या काढ्याची चव अतिशय तिखट वाटल्यासगूळ किंवा लिंबूरस त्यामध्ये मिक्स करू शकता.

शेंगदाणे, बदाम, अक्रोड, काळे खजूर खाल्ल्यास ही रोग प्रतिकार शक्ती वाढते. सुकामेव्यातही प्रथिने, क्षार, फॅटी ॲसिड असतात. सोबतच आहारामध्ये दही, लिंबू पाणी, लसूण चटणीचा समावेश करावा. आहारात प्रथिने, जीवनसत्त्व क, जीवनसत्त्व अ, जीवनसत्त्व ई आणि ॲंटीॲक्सिडेंट, पॉलिफिनॉल आणि महत्वाचे क्षार या सर्व घटकांचा समावेश असणं आवश्यक आहे.

आरोग्य निरोगी राहण्यासाठी केवळ पौष्टिक आहाराचे सेवन करणं पुरेस नाही. आजारां पासून दूर राहण्यासाठी पुरेशी झोप घेणे आणि व्यायाम करणे देखील गरजेचं आहे. या सर्व गोष्टींचे योग्य नियोजन केल्यास शरीर निरोगी राहील. करोना व्हायरसच्या वाढत्या प्रादुर्भावा दरम्यान या सर्वगोष्टी लक्षात ठेवल्या तर हा प्राणघातक विषाणू तुमच्या आसपास ही फिरणार नाही.

### संपूर्ण कुटुंबासाठी निरोगी खाणे:

सामाजिक अंतर मार्गदर्शक तत्त्वे आणि आभासी शिक्षणाचा अर्थ कौटुंबिक दिनचर्यामध्ये मोठा बदल झाला आहे आणि त्यात तुम्ही तुमच्या कुटुंबाला कसे खायला घालता याचा समावेश असू शकतो. चांगले अन्न हे फक्त शरीरासाठीच नाही तर मेंदूसाठी ही चांगल्या प्रकारचे इंधन असू शकते. हे विशेषतः लहान आणि शालेय वयाच्या मुलांसाठी परिपूर्ण असे आहे. दररोज एक आरोग्याला पोषक नाश्ता, दुपारचे जेवण आणि रात्रीचे जेवण तयार करणे हे अवघड वाटू शकते, परंतु एका वेळी एक पाऊल टाकणे आणि प्रगतीवर लक्ष केंद्रित करणे हे चांगल्या गोष्टी साठी मदत करू शकते.

### स्तन पान आणि COVID-19 मार्गदर्शन:

आपल्या बाळाच्या दीर्घ कालीन आरोग्यासाठी आई करू शकते अशा सर्वात महत्वाच्या गोष्टींपैकी एक म्हणजे स्तनपान. कारण बहुतेक लहान मुलांसाठी हा पोषणाचा सर्वोत्तम स्रोत आहे. तथापि, कोरोना व्हायरस साथीच्या आजारा दरम्यान मुलांना स्तनपान देताना सावधगिरी बाळगणे देखील महत्वाचे आहे. कोरोना व्हायरसचा वैयक्तिक संपर्क कमी करण्यासाठी शिफारस केलेल्या चरणां प्रमाणेच काही सावधगिरीची पावले उचलणे, स्तन पान करताना आपल्या बाळाला निरोगी ठेवण्यास मदत करू शकते.

### शेतकी / कृषी बाजारात खरेदी करताना सुरक्षित रहा:

शेतकी / कृषी बाजार हे स्थानिक पातळीवर पिकवलेल्या फळे आणि भाजी पाल्यांचे चांगले स्रोत आहेत. शेतकी/ कृषी बाजारात खरेदी करणे हे किराणा दुकानात सुरक्षित पणे खरेदी करण्या सारखेच आहे. खरेदी करताना खालील सूचनांचा विचार करा:

- तुम्हाला आजारी वाटत असेल तर घरीच रहा.
- तुम्ही आणि इतरांमध्ये 6 अंतर फूट ठेवा, सामाजिक अंतराच्या मार्गदर्शक तत्त्वांचे पालन करा.
- तुमच्या सभोवतालच्या लोकांचे संरक्षण करण्यात मदत करण्यासाठी फेस मास्क घाला.
- शक्य असल्यास, तुमच्या कुटुंबातील एक्सपोजर कमी करण्यात मदत करण्यासाठी कुटुंबातील फक्त एक सदस्य बाजारात जा.
- आपले हात वारंवार धुवा आणि स्वच्छ करा. बऱ्याच शेतकी बाजारांमध्ये साफसफाईची केंद्रे आहेत – त्यांचा लाभ घेणे ही चांगली कल्पना आहे.
- जोपर्यंत विक्रेत्याकडून उत्पादने किंवा वस्तू तुमच्या हाती येत नाहीत तोपर्यंत त्यांना स्पर्श करू नका.

- पैसे मोजण्याचे काम कमी करण्यासाठी लहान बिले आणा.
- धीरधरा. खरेदी साठी थोडा जास्त वेळ लागू शकतो.
- पुन्हा वापरता येण्या योग्या पिशव्यांवरील बाजारातील आवश्यकता तपासा. त्यांना परवानगी असल्यास, प्रत्येक शॉपिंग ट्रिप दरम्यान त्यांना मशीनने धुवा.
- तुमच्या बाजारामध्ये दर्शविण्यात आलेल्या प्रत्येक सूचना आणि चिन्हाचे अनुसरण करा.

#### निष्कर्ष:

कोविड-19 रुग्णांसाठी आणि हळूहळू बरे होत असलेल्यांसाठी चांगले पोषण आवश्यक आहे. वास्तविक, कोविड-19 दरम्यान शरीर खूप कमकुवत होते. लक्षणे दिसू लागल्या नंतर ही त्या व्यक्तीला अनेक दिवस बरे वाटत नाही. अशा प्रकारे, त्वरीत बरे होण्यासाठी योग्य प्रकारचा आहार घेणे खूप महत्वाचे आहे. कोरोना विषाणूचा संसर्ग रोखण्यासाठी केवळ लस पुरेशी नाही, तर त्यासाठी सकस आहार ही आवश्यक आहे. असे मानले जाते की ज्यांची प्रतिकार शक्ती कमकुवत आहे त्यांना संसर्ग होण्याची शक्यता जास्त असते. त्यामुळे ज्यांना संसर्ग होत आहे त्यांनी सकस आहाराची निवड करावी. हे रोगप्रतिकार शक्ती मजबूत करते आणि कोविड नंतरच्या समस्यांमध्ये आराम देखील देते.

#### संदर्भ:

1. COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)". ArcGIS. Johns Hopkins University.
2. Perlman, Stanley. "Another Decade, Another Coronavirus". The New England Journal of Medicine. 382(8): 760–762.
3. Boseley, Sarah (January 30, 2020). "WHO declares coronavirus a global health emergency". The Guardian.
4. "देशातील 'या' सहा राज्यांत कोरोनाचे 65 टक्के रुग्ण; दक्षिण आणि पश्चिम भारतात सर्वाधिक प्रभाव". 17 एप्रिल 2020 रोजी पाहिले.
5. Dey, Sushmi. "Vital test to cover all symptomatic cases in hotspots now".
6. 'Importance of Healthy Eating During Covid-19', <https://www.dpvhealth.org.au/news-events/news-posts/importance-of-healthy-eating-during-covid-19/>
7. 'The importance of maintaining a healthy diet during the COVID-19 pandemic', Mount Nittany Health.
8. हर्षदशीरशेकर, 'Diet For Corona Protection कोरोनाला दूर ठेवायचंय? मग आहारातून हे पदार्थ कमी करा', महाराष्ट्र टाइम्स
9. 'Healthy Eating During the COVID-19 Pandemic', Minnesota Department of Health

# खेल एवं शारीरिक क्रिया के दौरान जैवरासायनिक परिवर्तन

डॉ. संतोष बाबुराव कोकीळ

क्रीडा संचालक, श्री शिवाजी महाविद्यालय परभणी

प्रस्थावना:

विज्ञान के इस आधुनिक एवं तकनीकी युगमें खेल एवं शारीरिक शिक्षाके विषयों के विकासमें निरंतरता बनी हुई है। जिसके कारण इन दोनों क्षेत्रोंमें विज्ञान पूर्ण रूपसे समाहित हो चुका है। जिसे खेल विज्ञान स्पोर्ट्स सायन्सेस के नामसे जाना जाता है। खिलाड़ी के शारीरिक क्षमता में बढ़ोतरी के कारण एवं कौशल्य सुधार के लिए स्पोर्ट्स सायन्स का बहुत महत्व है। इसमें अध्ययन स्वरूपसे Sports pedagogy, Sports Psychology, Sports Biomcanics, Sports Psychology Sports Training & Sports Biochemistry जैव रसायन विज्ञान का उपयोग होता है। खेल और शारीरिक क्रिया के दौरान जैवरसायन (Biochemistry) परिवर्तन आदि का अध्ययन कर खिलाड़ी की विशिष्ट एवं सामान्य तथ्यों का पता लगाया जाता है। खेल फिजियो लॉजिस्ट मूलरूपसे रसायन से सम्बन्धित क्षेत्र में कार्य करता है।

उद्देश:

जैवरसायन का सम्बन्ध खेलोकी विभिन्न प्रतियोगितायो में निम्न स्तरसे उच्चस्तर खेल प्रदर्शन में महत्वपूर्ण योगदान से है। व्यायाम और प्रशिक्षण से खिलाड़ीके शरीर तंत्रोंके विभिन्न अंगोंमें जैवरसायनिक परिवर्तन होता है। जो की समय-समय पर खिलाड़ी के खेल प्रदर्शन को प्रभावीत करता है, एक खिलाड़ी एवं गैर खिलाड़ी की शरीर रचनात्मक क्षमताओं अंतर पाया जाता है। जैव रसायन का परिवर्तन मांस पेशी, संचलन प्रक्रिया, कंकालतंत्र, श्वसनतंत्र, हृदयतंत्र, न्युरॉनतंत्र, विभिन्न उत्तक, पोषणतंत्र, पचनतंत्र आदिसे जैवरसायनिक परिवर्तन का प्रभावी होता है। या कोनसे रसायनिक तत्त्व इन तंत्र में कार्य करते है। जो खेल क'ीयाओ को प्रभावीत करते है। यह अध्ययन हेतु है।

## 1) मांसपेशीय जैवरसायनिक परिवर्तन

मांसपेशियों में 75 % पाणी और 25 % ठोस पदार्थकी मात्रा रहती है। मांसपेशीया में 80 % प्रोटीन और 20 % अन्य अवयव रहते है। इन ठोस पदार्थों में कोर्बोहाईड्रेट भी पाये जाते है। अन्य जल, एल्कोहाल, और इथर में मांस पेशीय उत्तको द्वारा निष्कर्षित होते है। इन निष्कर्षित पदार्थोंमें नाइट्रोजन युक्त ओर नाइट्रोजन रहित पदार्थ होते है। प्रोटीन मांसपेशीकी सुक्ष्म रचना मायोकाई लबिल और सार कोप्लाज्म द्रव्य में पाई जाती है। ये प्रोटीन मायोसीन एक्टीन, ट्रोपोयोसीन, मायोजन, मायोग्लोब्यु लिन, ट्रोपोनिन एक्टीनीन आदि होते है। प्राटिन के रसायनिक विखण्ड जसे मांसपिशी द्वारा ऊर्जा उत्पादित की जाती है। और ग्लोईकोजन ऑक्सीजन, प्रोटीमीनिन, कैल्शियम, एसीटाईलकीलीन, कार्बनडाय ऑक्साईड, लौकटीक ऐसीडनि मांस पिशीयों में पाये जाते है। इन जैवरसायने से जो व्यक्ती केदैनिक कियाकलाप और खिलाड़ी खेल कौशल्य प्रदर्शन के दौरान उपयोग में लाई जाती है। मांसपेशीया, मापसेशिया रेखा सेबनी होती है, इन में दो प्रकार की होती है। 1) मंदस्फुरण मांस पेशी और 2) तीव्र 'स्फुरण मांस पेशी। इन में एक्टीन और मायोसीन प्राटीन होते है। इन की हालचल कैल्शियम ओर एसीटाईल कोलीन आयतन मंद एवं तीव्र'तापर

आनेते निर्भर करता है। एवं शिथालन लॉकटीन एसीड के जाम होने पर निर्भर करता है। मंदस्फुरण मासपेशी वाला खिलाडी दिर्घ अंतर धावक होता है। तो तीव्र स्फुरण मासपेशीवाला खिलाडी 100, 200, 400 मीटर एवं रिले धावक खिलाडी होता है। यह केवल जैवरसायन के माध्यम से समजना सहज हो गया है।

## 2) कंकालतंत्र

मानव कंकाल शरीर की आन्तरिक संरचना होती है। कंकाल शरीर को एक निश्चित आकार एवं आकृति प्रदान करता है। शारीरिक ढांचा कंकाल का बना होता है। इन में 206 प्रकारकी हड्डियाँ होती है। शरीरमें कंकालके बहुत से भाग लिब्वर (डर्शीशी) का कार्य करते है। कंकाल की मज्जागुहा वसा एकत्रित करने का कार्य करती है, जैवरसायनिक दृष्टीसे कंकालकी हाड्डियो अधिक मात्रा मे कैल्शियम और फॉस्फोरस संचित रहता है जो आवश्यकता पडने पर समय-समय पर शरीर को उपलब्ध होता है। कंकालकी अस्थिया जो तन्तु ओर मैट्रिक्सकी बनी है। इसके मैट्रिक्समे कैल्शियम और मॅग्नीशियम के लवण पाये जाते है। कैल्शियम एवं मॅग्नीशियम रसायन के कारण अस्थियाँ कठोर होती है। अतःकंकालकी अस्थियो मे कैल्शियनम, फॉस्फोरस मॅग्नीशियम, ग्लाइको प्राटिन, कोल्ड्रियोसाईट, इलास्टिन, पेरीकोण्ड्रियम, सायनोव्हीयल, यह रसायन पाये जाते है। जो अस्थियो को मजबुत, लचिला एवं कठोर बनाने मे मदत करते है। इनमे कमी के कारण शारीरिक क'ीया एवं खेल कौशल्य प्रभावित होते है। इसका सिधा सम्बध खिलाडी के खेल पदर्शन पर होता है। खेल प्रदर्शन का स्तर कम होता है इन रसायनिक तत्त्व की कमी आहार से पुर्णकर खेल कौशल्य मे परीवर्तन कीया जाता है।

## 3) जैव ऊर्जा विज्ञान रसायनिक परीतर्वन

मनुष्यके शारीरिक व्यायाम हेतु प्रत्यक्ष अप्रत्यक्ष रूपसे मास पेशियों द्वारा कार्य करने की आवश्यकता पडती है। प्रत्येक शारीरिक को व्यायाम को ऊर्जा की आवश्यकता होती है। जो भोज्यतत्त्वोसे प्राप्त होती है। किसी भी कार्य को करने की क्षमता को ऊर्जा के रूपमें परीभाषित की या है। व्यायाम के समय ऊर्जा की पुर्ती शरीर द्वारागहण किये गये विभिन्न रासायनिक भोज्य तत्त्वोसे की जाती है। मुख्यरूपसे कार्ब'ोहाईड्रेट वसा, प्रोटीन यह भोज्य तत्त्व है। यह ऊर्जा ए.टि.पी. के रूप मे प्राप्त होती है। कार्बोहाइड्रेट मेग्लुकोज, ग्लाइकोजन, शर्करा, इन्सुलिन ऑक्टीक अम्लय हजैव रसायन पाच जाते है। जबकी वसा मेवसीय अम्ल, ग्लाईसीरॉल, ट्राइग्लोसराईड, स्टीथरीकअम्ल, औलिकअम्ल, पालमैटिकअम्ल, हाईड्रोजन, कार्बनऑक्सीजन, यह पाये जाते है। तो प्रोटीन कार्बन, ऑक्सीजन, हाइड्रोजन, नाइट्रोजन, अमीनो अम्ल, पायरूविक अम्ल यह पाये जाते है। इन तीनों भोग्यत त्तो के रासायनिक तत्त्वो का रासयनिक विखण्डन से उत्पादित ऊर्जा का उपयोग ऑक्सीजन तंत्र मे एटीपी ऊर्जाका रूपांतर होता है। कार्ब'ोहायड्रेट द्वारा 55 % वसा द्वारा 30 % प्रोटीन द्वारा 15 % ऊर्जा प्राप्त होती है। व्यायाम खेल क'ीयोंके समय प्रथम कार्ब'ोहाईड्रेट ऊर्जा प्रदान करता है। वसा उसके उपरांत ऊर्जा शरीरको प्रदान करता है। जब यह दोनों तत्त्वो ऊर्जा प्रदान करना बंद करते उस समथ प्रोटीन ऊर्जा प्रदान करता है। कॉब'ोहाईड्रेट लैन्टीक अम्ल तंत्र द्वारा वसा ऑक्सीजन तंत्र द्वारा तो प्रोटीन ऑक्सीतंत्र द्वारा एटीपी के रूप मे ऊर्जा प्रदान करता है। रासायनिक प्रकिया का उपयोग कर खिलाडी को विभिन्न खेलो विभिन्न प्रकार की ऊर्जा का प्रदान करने मे मदत होती है। उससे यह पता लगता है की खिलाडी के खेल प्रदर्शन बढोतरी है तो उपयोग मे लाया जाता

है। यह जैव ऊर्जा रसायनिक परिवर्तन से खेल खिलाडी के उच्चस्तर प्रदर्शन में कमीयों को दूरकीया जात सकता है। इस का महत्व अधिक है।

#### 4) न्युरोन की क्रिया

न्युरोन की क्रियाओं में होने वाली जैवरासायनिक गतिविधियाँ या न्युरॉन तंत्र में पाये जाने वाला रसायन न्युरॉनतंत्रिका तंत्र की एक रचनात्मक इकाई है जिसके द्वारा ऐच्छिक और अनैच्छिक दोनों प्रकार की क्रियायें की जाती हैं। इस तंत्र का मुख्य कार्य शरीरके विभिन्न तंत्रिकाओं द्वारा संदेश भेजने का काम किया जाता है। इस तंत्रद्वारा सूचना मस्तिष्क को जाती है उत्तेजित होने के पश्चात उत्तेजनाओं को एक स्थानसे दूसरी स्थानपर लेजाते की शक्ति इसमें होती है। न्युरोनतंत्रीक कोशिकाके माध्यसे कार्य करती कोशिकाओं में मुख्यतः तीन भाग होते हैं। कोशिका कार्य, अक्षतन्तु और पार्श्वतन्तु मस्तीक के मूलचार भाग होते हैं। बडामस्तीक, छोटा मस्तीक, अक्षतन्तु और पार्श्वतन्तु इन क्रियाओं के समय कौशिकाकाय, रसायनिक क्रिया कर मी हौण्डिन मेन्युक्लिक एसिडप्रोटीन, कोशिका द्रव यह होते हैं। अक्षतन्तु में एन्डाप्लाज्मा टर्मिनल, एसिटाईल कोलीन, प्रोटीन, कोशिक द्रव रसायन पाये जाते हैं, न्युरोन जब कार्य करतात बजिन रसायनिक गति विधियों के माध्यम से कार्य होता है, रसायन एकजोल्डाडम द्रव, पोटेशियम, एनायन, फास्फेट आयन, सल्फेट आयन, सोडीयम आयन, एसिटाईल, कोलेनस्टिरेज, हाइड्रोलाइज्ड ऑक्सीजन, हाइड्रॉक्साईड, एसिटाईल, कोलीन, कोलेनस्टिरेज, सारकोलै, कौलिथियनम, मॅग्रीशियम, यह रसायन न्युरॉनकी क'ीयायो में पाये जाते हैं। खिलाडी की विचार करने क्षमता खेलेके द्वारा देखना और अध्ययन करना आवश्यक होता है। खेल कौशल्य इस तरहके है। की कुच्छको मतिष्कको देरीसे प्रसीदान देने पडता है। लेकिन कुच्छ क'ीया यों को सकंटो कार्य करना पडता है। इस कारण न्युरॉन रासायनिक प्रक्रिया का अध्ययन करना आवश्यक होता है।

#### 5) श्वसनतंत्र की अदान-प्रदान प्रक्रियाओं होने वाले जैवरासायनिक परिवर्तन:

श्वसनतंत्रके मुख्य अंगनाक, स्वरयंत्र श्वसननलिका, वायुकोश, फेफड़े आदि शामिल हैं। शरीर के सभी भागोंमें ऑक्सीजन गैसा पहुचाना और कार्बनडाई ऑक्साईड को बाहर निकालना यह आदान – प्रदान इस तंत्र का मुख्य कार्य है। साधारणतः स्वस्थ मनुष्य एक मिनट में 16 से 20 बार तक सांस लेता है। यह श्वसन दो भागोंमें होता है। 1) बाह्य श्वसन, और अतःश्वसन जो श्वसन श्वसन नलिका और वायु कोश से होता है। उसे बाह्यश्वसन कहते हैं। और सूक्ष्मश्वसन नलिका ओर कोशिकाओं होने वाला श्वसन अतःश्वसन कहलाता है। बाह्यश्वसन के समय श्वसन नलिका में ऑक्सिजन 104 % होती है। ओर कार्बनडाई ऑक्साईड 100 % होता है। तभी वायुकोश में ऑक्सीजन 100 % और कार्बनडाई ऑक्साईड 104 % होता है। वायु गुणधर्म के अनुसार वायु की आदान-प्रदान होती है और अतःश्वसन सूक्ष्म श्वसन नलिका और कोशिकाओं में होता है। इस प्रक्रिया से सूक्ष्म श्वसननलिकाओं में ऑक्सिजन 104 % होता है और कार्बनडाई ऑक्साईड 100 % होता है। तभी कोशिकाओं में ऑक्सीजन 100 % कार्बनडाई ऑक्साईड 100 % होता है। इसी कारण वायुकी आदान-प्रदान क्रिया होती है। इस प्रकार शरीर के विभिन्न तंत्रोंको और कोशिकाओं को ऑक्सिजन पहुचाने का कार्य श्वसनतंत्र द्वारा किया जाता है। इसी प्रक्रिया में जैवरासायनिक रसायन ऑक्सिजन, कार्बनडाई

ऑक्साईड ग्लूकोन, अमीनोअम्ल वसीयअम्ल, साइटोप्लाडम पाणी ग्लाइकोलिसीस, पाइरूविकअम्ल, प्युरीन, पिरिमिडी, फैटीअम्ल, साइट्रिकअम्ल यह रासायनिक क्रिया होने के उपरांत ऊर्जा उत्पन्न होती है।

#### 6) हृदय तंत्र में होने वाले जैवरासायनिक परिवर्तन:

हृदय तंत्र शरीरका मुख्य भाग है जो आपने हृदय द्वारा सभी शरीर को रक्त पहुंचानेका कार्य करता है। मनुष्य में हृदय के कुल चार हृदय कक्ष होते हैं। दायाे आलिंद बाय आलिंद महागिरा, निला, महाधमनी फुफुस धमनी रक्तके मुख्य धमण्या अर्धचंद्रकार कपाट, मिट्टल कपाट यह हृदयतंत्र की भाग है। संकुचन क्रिया के वजहसे वह अशुद्ध रक्तफुफुस धमनी की ओर से फुफुस में लेजाते हैं। ऑक्सीजन और कार्बनडाई ऑक्साईड का आदन-प्रदान होता है इस वजहसे रक्त शुद्ध हो जाता है। उसी के साथ रक्त बाये आलिंदमें आ जाता है। बाये आलिंद से महाधमनी और उसकी अनेक शाखाओं में रक्त प्रवाहीत हो जाता है। शरीर की उपरी एवं निचली भागो में प्रवाहीत हो जाता है। इस हृदय चक्रक्रिया के समय जो जैवरासायनिक परिवर्तन होते हैं। वह यह ऑक्सिजन, कार्बनडाई ऑक्साईड, कोलेस्ट्रॉल, लेक्टिकअॅसिड हिमोग्लोबीन, प्रोटीन, कोशिका द्रव यह रसायन मुख्य रूप से पाये जाते हैं।

#### 7) पाचनतंत्र में पाये जाने वाले जैवरसायन:

पाचनतंत्र के मुख गुहाँ, गॅसनी, आमाशय, छोटीआंत - बड़ीआंत, मलाराय और मुलद्वार यह मुख्य अंग हैं। सहायक अंगपाचन गॅंथियो में लार गॅंथिय कृतविताशय यह है। इसी तंत्र का मुख्य कार्य अन्न गॅहण कर शरीर कार्यके लिए ऊर्जा निर्माण करना है। अन्न व्यक्ती काबॅोहाईड्रेट्स, वसा, प्रोटीन, खनिज लवण, विटामीन और जल के स्वरूपमें विभिन्न अन्न घटको द्वारा गॅहण किया जाता है। मुखसे दांतोद्वारा चबाकर सूक्ष्म कणोंमें विभिन्न किया जाता है। उससे लार मिलता है। गॅासनाली का से होते हुये वह आमाशय में प्रवेश करता है। वहा से जठर में जठर सद्द्वारा मिलकर वह छोटी आंत और बड़ी आंत से होते हुए मलाशय और अंतमें मलद्वार शरीर से बाहर निकाला जाता है। पाचन वह क्रिया है जिसमें भोजन को यांत्रिकीय और रासायनिक रूपसे छोटे छोटे घटको में विभाजीत कर दिया जाता है। ताकी उन्हें उदाहरण के लिए रक्त धारामें अवशोषित किया जा सके। पाचन एक प्रकारकी अपचय क्रिया है। जिसमें आहार के बड़े अणुओंको छोटे-छोटे अणुओंमें बदल दिया जाता है। इस क्रिया के लिए जोर सायन उपयोग में लाये जाते हैं, वह हाइड्रोक्लोरिक अम्ल, टायलिन, एजादम, आम्लिकरस, मेटाप्रोटीन, प्रोटियोजेज, ऐाइलेज, लायपंज अग्र व्याशयरस, ऐमिनोअमल, सिकॅेटिन, मॅग्नेशियम, कैल्शियम हाइड्रोजन, सल्फाइड कार्बोहाइड्रेट, स्टार्च, डेक्सीट्रिन नाइयट्रोजन फास्फोरस यह जैवरसायन द्वारा अन्नपाचन की प्रक्रिया पूर्ण होती है।

#### निष्कर्ष :

विज्ञान के इस अधुनिक युगमें शारीरिक क्रिया एवं खेल क्रिया में खिलाडी के कौशल्य प्रदर्शन एवं शारीरिक क्षमता ओ को बढ़ाने हेतु शरीरके तंत्र का रासायनिक अध्ययन महत्वपूर्ण होता है। इस अध्ययन के उपरांत शारीरिक शिक्षक और प्रशिक्षक को खिलाडी की शारीरिक कमियों को दूरकर के कौशल्य प्रदर्शन बढ़ाने में मदद होती है। जैसे मासपेशीय में उचीत और अधिक कार्य के लिए महत्वपूर्ण जैवरसायन कैल्शियम, ऐसीटाईल कोलीन यह है उसी प्रकार लैक्टिक ऐॅसीडको कम करने की प्रक्रिया को बढ़ाना है।



कंकालतंत्र में कैल्शियम और फॉस्फोरस यह रसायन हाडीयों की मजबूती के लिए महत्वपूर्ण होता है। श्वसन तंत्र में ऑक्सिजन एवं कार्बनडाईऑक्साईड आदान-प्रदान क्रिया शारीरिक क्रिया में सामान्य क'ीयाओं के आपेक्षा अधिक मात्रा में होती है। इसके फल स्वरूप खिलाडी की सहनशिलता बढ़ती है। ऑक्सिजन वहन शरीर में अधिक होणे के कारण, शरीर सभी तंत्र योग्य कार्य करते है। और खिलाडी प्रदर्शन योग्य करता है। खिलाडी की शरीर क्रियाओं के दौरान हृदय गति बढ़ती है और हिमोग्लोबीन एवं ऑक्सिजन की मात्रा रक्त में बढ़ती है। शरीर को रक्ती अधिक मात्रासे पहुंचानी का कार्य होता है। कार्य करने के शक्ती बढ़ती है। योग्य आहार के कारण अन्न पाचन की प्रक्रिया शारीरिक क्रिया के कारण योग्य मात्रासे सही समय पर होती है। इसके कारण शरीर को जैव ऊर्जा ए. डी. पी. के रूपमें प्राप्त होती है। इन जैवरासायनिक परिवर्तन का अध्ययन से शरीर तंत्रकी कमियों को दूर कर प्रदर्शन एवं शारीरिक क्षमताओं को बढ़ाने मदत होती है। उच्च खेल प्रदर्शन के लिए खिलाडी तैयार करने में शारीरिक शिक्षक, प्रशिक्षक दिशा प्राप्त होती है।

संदर्भ सूची:

1. Fromm, Herbert J.; Hargrove, Mark (2012), Essentials of Biochemistry, Springer, IBSB 978-3-64219623-2.
2. Widmaier, E.P., Raff, H., Strang. K.T. Vander's Human Physiology, 11th Edition, McGraw-Hill, 2009.
3. Marieb, E.N. Essentials of Human Anatomy and Physiology, 10th Edition, Benjamin Cummings, 2012.
4. Human Anatomy And Physiology for Health Science Students Singh B., CBS Pulications
5. Anatomy & Physiology, Dr. Tanpure Vishwambhar Shriram
6. Human Anatomy and Physiology, Dr. Anant Prakash Gupta, Sumit Prakashan.

# विद्यार्थ्यांमध्ये अनुलोम विलोम प्राणायामाचा स्मृती, धारणा क्षमतेवर होणाऱ्या परिणामकारकतेचा अभ्यास

सौ. क्रांती संदेश क्षीरसागर

शारीरिक शिक्षण संचालक, महात्मा गांधी शिक्षण मंडळ, कला विज्ञान व वाणिज्य महाविद्यालय, चोपडा जि. जळगाव

## सारांश :

प्रस्तुत संशोधनात विद्यार्थ्यांमध्ये अनुलोम विलोम प्राणायामाचा स्मृती, धारणाक्षमतेवर होणाऱ्या परिणामकारकतेचा अभ्यास केला असून संशोधनात 5 वीच्या वर्गात शिकणारे 100 विद्यार्थी निवडले. माहिती संकलन करण्यासाठी स्वयंनिर्मित चाचणीचे विकसन करण्यात आले होते. माहितीचे विश्लेषण व अन्वयार्थ लावण्यासाठी मध्यमान, प्रमाणविचलन, 't' मूल्य या संख्याशास्त्रीय परिमाणांचा अवलंब केला आहे.

## निष्कर्ष:

प्रायोगिक गटाच्या विद्यार्थ्यांना अनुलोम विलोम प्राणायामाचा साधनेचा प्रक्रिया केल्यानंतर अधिक स्मृती, धारणवर प्रभाव पडतो.

## प्रास्ताविक :

दैनंदिन जीवनात माणसाची जीवन हे गतिमान झालेले असून अनेक बाबतीत माणसांवर प्रचंड ताण येत आहे औद्योगिकीकरणामुळे माणसाच्या जीवनामध्ये मोठ्या प्रमाणात बदल घडून त्याचे जीवनातील दिनचर्या, आहार या मध्ये बदल झाला आहे. स्वतःच्या व्यक्तिगत फायद्यासाठी तो आपल्या व्यक्तिगत शरीराकडे अजिबात लक्ष देत नाही. तो जहाँ आहे तो संपूर्णपणे विसरून गेला आहे. आपल्या आरोग्याविषयी त्याला थोडीशी ही काळजी वाटत नाही. आपल्या उत्तम आरोग्यासाठी चे वेळ देण्यासाठी मनुष्य स्वतःहून तयार होत नाही. परिणामी त्याला अनेक गोष्टींना सामोरे जावे लागते. झोपेच्या गोळ्या घेऊन झोपतात, पोट साफ होत नाही म्हणून औषधे घेतात, मानसिक ताण कमी करण्यासाठी विविध व्यसन लावून घेतात या सगळ्यांचा दुष्परिणाम म्हणून दिवसेंदिवस माणसाचं आयुष्य व्याधिग्रस्त व कमी होत चाललेलं आहे. या सर्वांमधून तो स्वतःला वाचवू शकतो. दैनंदिन जीवनातील फक्त अर्धा तास जर नेहमीत आरोग्यासाठी दिला तर सगळ्या व्याधींपासून मुक्ती मिळू शकते. मानसिक ताण तणावाच्या जगात योग व विविध असणे हा एक आशेचा सोपा किरण आज जगाने मान्य केला असून मनुष्य मात्र त्याकडे स्वतः पाहून लक्ष देण्यासाठी तयार नाही.

भगवान आदिनाथांनी (शिव) विशद केलेले योग तत्वज्ञान अति प्राचीन आहे. मेक्सिकोतील उत्खननात सापडलेल्या योगासनांच्या शिल्पकृतीवरून योगशास्त्र हे ख्रिस्तपूर्व 3500 वर्षांपूर्वीपासून प्रचलित होते. आजच्या विज्ञान तंत्रज्ञान युगातील विश्वमानवाच्या जीवनातील अधोगती रोखण्याचे सामर्थ्य हे योगशास्त्रात आहे. स्वामी विवेकानंदाच्या मतानुसार, प्रत्येक आत्मा ब्रह्मस्वरूपच असल्यामुळे त्या अनन्य ब्रह्मस्वरूपच- देवत्वाचं प्रकटीकरण करण्यासाठी बाह्य व आंतरिक प्रकृतीवर नियंत्रण मिळविण्याचे योग हे सक्षम माध्यम आहे. योग आणि प्राणायाम यांचा उपयुक्ततेमुळे या विषयाचा आज मानवी जीवनामध्ये समावेश झाला असून योगामुळे माणसाचा आरोग्य सुदृढ राहते. पतंजली या

योगशास्त्राचे दर्शनिक मानले जाते विविध योगासनांमुळे रोग निवारणात मदत होते असाच प्रभाव हा उच्चरक्तदाबासाठी देखील उपयुक्त ठरतात.

योगासनातील विविध आसने मनुष्याच्या रक्तदाब कमी होणाऱ्यासाठी अत्यंत उपयुक्त मानले जातात प्राणायामाचा अभ्यास केल्यावर मनाची चंचलता दूर होते आणि त्याच बरोबर मनावरचा ताण दूर करण्यासाठी योगासन अत्यंत उपयुक्त मानले जाते आजकाल सर्वच जण या योगासना वर भर देत असतांना अशा उच्च रक्तदाब असलेल्या व्यक्तींच्या साठी योगासनाची उपयुक्तता सिद्ध करणे ही प्रस्तुत संशोधनाचा विषय संशोधकांनी हाती घेतलेला आहे.

विशेषत उच्च रक्तदाब कमी रक्तदाब रक्तातील घटक नाडीच्या ठोक्यांची संख्या याबाबत योग्य योगासनातील विविध आसनाची उपयोग पाहता येण्यासाठी प्रस्तुत संशोधना विचार संशोधकांनी केले असून यात सुधारणा करता येईल का या सर्व प्रश्नांची उत्तरे शोधण्यासाठी संशोधनाचे कार्य हाती घेण्यात आलेले आहे. योग शास्त्रातील योगासन व प्राणायाम यामुळे रक्तदाब व रक्तातील निवडक घटकांवर होणारा परिणाम होतो का याचा शोध घेण्यासाठी प्रस्तुत संशोधन कार्य हाती घेतले आहे.

#### संशोधनाचे महत्त्व :-

संशोधनाचे महत्त्व पुढील प्रमाणे सांगता येईल.

दिवसभराच्या कामाच्या धावपळीमुळे शेवटी तुम्हाला गळून गेल्यासारखे वाटते का ? सतत दिवसभर काम करत राहिल्याने तुम्ही फार थकून जाता. तुमच्यात काही जाण उत्साही राहता. दिवसभराच्या कामाच्या रगाडयातून तुम्ही मध्येच दहा मिनिटांचा वेळ काढून मार्गदर्शित ध्यान जरी केलेत तरी त्याचा तुम्हाला खूप फायदा होईल. तुमच्यात परत उत्साह संचारेल आणि हातात घेतलेले काम तुम्ही तत्परतेने पुरे कराल. विद्यार्थ्यांच्या प्रगतीमध्ये ज्या बाबींचा अनुभव त्याने पूर्वी घेतलेला आहे. त्या आठवणे, स्मरणात राहणे व नवीन परिस्थितीमध्ये त्यांचा वावर करता येणे हे विद्यार्थ्यांच्या दृष्टीने महत्त्वपूर्ण असतात. आपल्या लक्ष्यापर्यंत पोहोचण्यासाठी विचारांमध्ये शक्तींची गरज असते. मनाच्या अस्वस्थ अवस्थेत निर्माण होणारे विचार किमान शक्तीचे असतात. त्यामुळे ते आपापल्या लक्ष्यापर्यंत पोहोचत नाहीत. तथापि मन शांत असलेल्या स्थितीत विचार मोठी शक्ती मिळवितात आणि सर्व इच्छा नाट्यपूर्ण रितीने प्रत्यक्षात येतात. आजच्या माध्यमिक स्तरावरील विद्यार्थ्यांमध्ये या सर्व बाबी दिसून येतात का? यासाठी स्मरण अधिक राहण्यासाठी अनुलोम विलोम प्राणायामाचा उपयोग होईल का यासाठी सदर संशोधनातून त्याचा पडताळा घेण्यात येणार आहे. यासाठी प्रस्तुत संशोधनाचे महत्त्व आहे.

#### समस्या विधान:

माध्यमिक स्तरावरील इयत्ता 5 वी च्या विद्यार्थ्यांमध्ये अनुलोम विलोम प्राणायामाचा स्मृती,धारणाक्षमतेवर होणाऱ्या परिणामकारकतेचा अभ्यास करणे.

#### संशोधनाची उद्दिष्टे :-

1. माध्यमिक स्तरावरील इयत्ता 5 वी च्या विद्यार्थ्यांमध्ये स्मृती,धारणा पूर्व चाचणीच्या आधारे शोध घेणे.
2. माध्यमिक स्तरावरील इयत्ता 5 वी च्या मुली व मुले मध्ये स्मृती,धारणा पूर्व चाचणीच्या आधारे तुलनात्मक अभ्यास करणे.
3. माध्यमिक स्तरावरील इयत्ता 5 वी च्या ग्रामीण व शहरी विद्यार्थ्यांमध्ये स्मृती,धारणा पूर्व चाचणीच्या आधारे तुलनात्मक अभ्यास करणे.

4. माध्यमिक स्तरावरील इयत्ता 5 वी च्या विद्यार्थ्यांमध्ये अनुलोम विलोम प्राणायामाचा साधनेचा प्रक्रिया केल्यानंतर स्मृती, धारणा उत्तर चाचणीच्या आधारे शोध घेणे.

#### परिकल्पना :-

प्रस्तुत संशोधनासाठी शून्य परिकल्पना मांडल्या आहेत त्या पुढीलप्रमाणे :-

1. माध्यमिक स्तरावरील इयत्ता 5 वी च्या ग्रामीण व शहरी विद्यार्थ्यांमध्ये स्मृती, धारणा पूर्व चाचणीच्या चाचणीच्या मध्यमान गुणाकांत सार्थ फरक आढळून येत नाही.
2. माध्यमिक स्तरावरील इयत्ता 5 वी च्या मुली व मुले विद्यार्थ्यांमध्ये स्मृती, धारणा पूर्व चाचणीच्या मध्यमान गुणाकांत सार्थ फरक आढळून येत नाही.
3. माध्यमिक स्तरावरील इयत्ता 5 वी च्या विद्यार्थ्यांमध्ये अनुलोम विलोम प्राणायामाचा साधनेचा प्रक्रिया केल्यानंतर स्मृती, धारणा पूर्व व उत्तर चाचणीच्या मध्यमान गुणाकांत सार्थ फरक आढळून येत नाही.
4. माध्यमिक स्तरावरील इयत्ता 5 वी च्या ग्रामीण व शहरी विद्यार्थ्यांमध्ये स्मृती, धारणा उत्तर चाचणीच्या चाचणीच्या मध्यमान गुणाकांत सार्थ फरक आढळून येत नाही.

#### पद्धती –

माध्यमिक स्तरावरील इयत्ता 5 वी च्या विद्यार्थ्यांमध्ये अनुलोम विलोम प्राणायामाचा स्मृती, धारणाक्षमतेवर होणाऱ्या परिणामकारकतेचा अभ्यास समस्या लक्षात आल्यानंतर प्रायोगिक व नियंत्रित गटातील विद्यार्थ्यां संदर्भात प्रायोगिक गट व नियंत्रित गटासाठी प्रायोगिक पद्धतीचा वापर करून समान गट अभिकल्पाची निवड करण्यात आली.

#### न्यादर्श –

प्रस्तुत संशोधनात संभाव्यतेवर आधारित सुगम नमुना निवड पद्धतीमधील 100 विद्यार्थ्यांची निवड केली तर 50 विद्यार्थी प्रायोगिक व 50 विद्यार्थी नियंत्रित गटातील नमुना निश्चित करण्यात आला यासाठी समान गट अभिकल्पाचा वापर केला.

#### संख्याशास्त्रीय परिमाणे –

प्रस्तुत संशोधनात संकलित केलेल्या माहितीचा अन्वयार्थ लावण्यासाठी मध्यमान, प्रमाणविचलन, 't' मूल्य या संख्याशास्त्रीय परिमाणाचा अवलंब केला आहे.

#### माहिती विश्लेषण व अन्वयार्थ :

##### परिकल्पना परिक्षण

1. प्रायोगिक व नियंत्रित गटातील विद्यार्थ्यांच्या स्मृती, धारणेच्या पूर्व चाचणीच्या मध्यमान गुणाकांत सार्थ फरक आढळून येत नाही.

या परिकल्पनेच्या परीक्षणासाठी प्रायोगिक व नियंत्रित गटातील विद्यार्थ्यांच्या पूर्व चाचणीच्या स्मृती, धारणेचे मध्यमान (M), प्रमाणविचलन (SD) आणि मध्यमानाची तुलना करण्यासाठी 't' मूल्य काढलेले आहे. ते पुढील तक्त्यात दर्शविले आहे.

तक्ता क्र. 1

प्रायोगिक व नियंत्रित गटातील विद्यार्थ्यांच्या पुर्व चाचणीच्या स्मृती, धारणेचे मध्यमान (M), प्रमाणविचलन (SD) आणि मध्यमानाची तुलना करण्यासाठी 't' मूल्य काढलेले आहे.

पुर्व चाचणी	संख्या	मध्यमान	प्रमाण विचलन	नमुना 't' मूल्य	't' मूल्य (प्राप्त)	त्याग/स्वीकार
नियंत्रित गट	50	21.22	6.63	2.00	1.47	स्वीकार
प्रायोगिक गट	50	20.43	7.01			

#### निरीक्षण –

वरील कोष्टकावरून स्वाधीनता मात्रा (df) 98 साठी 0.05 सार्थकता स्तरावर संख्याशास्त्रीय टेबल नुसार नमुना 't' मूल्य 2.00 आहे व प्राप्त 't' मूल्य 1.47 आहे, तर नियंत्रित व प्रायोगिक गटाचे मध्यमान अनुक्रमे हे 21.22 व 20.43 आहे. तर नियंत्रित व प्रायोगिक गटाचे प्रमाणविचलन हे अनुक्रमे 6.63 व 7.01 आहे.

#### अर्थनिर्वचन:-

प्राप्त 't' मूल्य 1.47 असून ते नमुना 't' 2.00 मूल्यापेक्षा कमी आहे. म्हणून शून्य परिकल्पनेचा स्वीकार करावा लागेल. म्हणजेच प्रायोगिक व नियंत्रित गटातील विद्यार्थ्यांच्या मध्यमान गुणाकांत सार्थ फरक आढळून येत नाही. दोन्ही मध्यमानातील आलेला फरक हा केवळ संयोगाने आलेला आहे असे म्हणावे लागेल.

#### निष्कर्ष: -

प्रायोगिक व नियंत्रित गटातील विद्यार्थ्यांच्या स्मृती, धारणेच्या मध्यमान गुणाकांत सार्थ फरक नाही. यावरून असे म्हणता येईल की, प्रायोगिक व नियंत्रित गटातील विद्यार्थ्यांच्या स्मृती, धारणा सारखी आहे.

**2 नियंत्रित गटातील विद्यार्थ्यांच्या स्मृती ,धारणेच्या पूर्व व उत्तर चाचणीतील संपादणूकीच्या मध्यमान गुणाकांत सार्थक फरक आढळून येत नाही.**

तक्ता क्र. 2 नियंत्रित गटातील विद्यार्थ्यांच्या स्मृती, धारणेच्या पूर्व व उत्तर चाचणीतील मध्यमान (M), प्रमाणविचलन (SD), मध्यमानाच्या फरकाची प्रमाणत्रुटी (SED) आणि 't' मूल्य.

नियंत्रित गट	संख्या	मध्यमान	प्रमाण विचलन	नमुना 't' मूल्य	't' मूल्य (प्राप्त)	त्याग/स्वीकार
पूर्व	50	21.22	6.63	2.00	1.76	स्वीकार
उत्तर	50	22.43	6.88			

#### निरीक्षण –

वरील कोष्टकावरून स्वाधीनता मात्रा (df) 98 साठी 0.05 सार्थकता स्तरावर संख्याशास्त्रीय टेबल नुसार नमुना 't' मूल्य 2.00 आहे व प्राप्त 't' मूल्य 1.76 आहे, तर नियंत्रित गटातील विद्यार्थ्यांच्या पूर्व व

उत्तर चाचणीचे मध्यमान अनुक्रमे हे 21.22 व 22.43 आहे. तर प्रमाणविचलन हे अनुक्रमे 6.63 व 6.88 आहे.

#### अर्थनिर्वचन:-

प्राप्त 't' मूल्य 1.76 असून ते नमुना 2.00 't' मूल्यापेक्षा कमी आहे. म्हणून शून्य परिकल्पनेचा स्वीकार करावा लागेल. म्हणजेच इयत्ता 5 वीच्या नियंत्रित गटातील विद्यार्थ्यांच्या पूर्व व उत्तर चाचणीतील मध्यमान गुणांकांत सार्थक फरक आढळून येत नाही. दोन्ही मध्यमानातील आलेला फरक हा केवळ संयोगाने आलेला आहे असे म्हणावे लागेल.

#### निष्कर्ष:-

इयत्ता 5 वीच्या नियंत्रित गटातील विद्यार्थ्यांच्या स्मृती ,धारणेच्या पूर्व व उत्तर चाचणीतील संपादनूकीच्या मध्यमान गुणांकांत सार्थक फरक नाही. यावरून असे म्हणता येईल की, विद्यार्थ्यांच्या स्मृती ,धारणेत फरक पडत नाही.

**3.प्रायोगिक गटातील विद्यार्थ्यांच्या स्मृती ,धारणेच्या पूर्व व उत्तर चाचणीतील मध्यमान गुणांकांत सार्थक फरक आढळून येत नाही.**

तक्ता क्र. 3 प्रायोगिक गटातील विद्यार्थ्यांच्या स्मृती ,धारणेच्या पूर्व व उत्तर

चाचणीतील मध्यमान (M), प्रमाणविचलन (SD) आणि 't' मूल्य.

नियंत्रित गट	संख्या	मध्यमान	प्रमाण विचलन	नमुना 't' मूल्य	't' मूल्य (प्राप्त)	त्याग/स्वीकार
पूर्व	50	20.43	7.01	2.00	4.20	त्याग
उत्तर	50	27.48	11.72			

#### निरीक्षण व अर्थनिर्वचन:

स्वाधीनता मात्रा (df) 98 साठी 0.05 सार्थकता स्तरावर संख्याशास्त्रीय टेबल नुसार नमुना 't' मूल्य अनुक्रमे 2.00 आहे व प्राप्त 't' मूल्य 4.20 असून ते नमुना 't' मूल्यापेक्षा अधिक आहे. म्हणून शून्य परिकल्पनेचा त्याग करावा लागेल.यावरून असे दिसून येते की, प्रायोगिक गटातील विद्यार्थ्यांच्या स्मृती ,धारणेच्या पूर्व व उत्तर चाचणीतील मध्यमान गुणांकांत सार्थक फरक आढळून येतो. दोन्ही गटांच्या मध्यमानातील फरक 0.05 सार्थकता स्तरांवर सार्थक असल्याने तो न्यादर्शाच्या चढउतरामुळे पडलेला नसून वास्तविक आहे.

#### निष्कर्ष:

प्रायोगिक गटाच्या विद्यार्थ्यांच्या स्मृती ,धारणेच्या उत्तर चाचणीतील मध्यमान (27.48) हे पूर्व चाचणीच्या मध्यमानापेक्षा (20.43) अधिक आहे. यावरून असे म्हणता येईल की, प्रायोगिक गटाच्या विद्यार्थ्यांच्या स्मृती ,धारणेत फरक पडतो.

**4 प्रायोगिक गट व नियंत्रित गटाच्या विद्यार्थ्यांच्या स्मृती ,धारणेच्या उत्तर चाचणीतील मध्यमान गुणांकांत सार्थक फरक आढळून येत नाही.**

तक्ता क्र. 4 प्रायोगिक गटाला व नियंत्रित गटाच्या विद्यार्थ्यांच्या स्मृती ,धारणेच्या उत्तर चाचणीतील मध्यमान (M),प्रमाणविचलन (SD)आणि 't' मूल्य.

उत्तर गट	संख्या	मध्यमान	प्रमाण विचलन	नमुना 't' मूल्य	't' मूल्य (प्राप्त)	त्याग/स्वीकार
प्रायोगिक गट	50	22.43	6.88	2.00	3.42	त्याग
नियंत्रित गट	50	27.48	11.72			

\*0.05 स्तरांवर असार्थ

#### निरीक्षण व अर्थनिर्वचन:

स्वाधीनता मात्रा (df) 98 साठी 0.05 सार्थकता स्तरावर संख्याशास्त्रीय टेबल नुसार नमुना 't' मूल्य अनुक्रमे 2.00 आहे व प्राप्त 't' मूल्य 3.42 असून ते नमुना 't' मूल्यापेक्षा अधिक आहे. म्हणून शून्य परिकल्पनेचा त्याग करावा लागेल. यावरून असे दिसून येते की, प्रायोगिक गट व नियंत्रित गटाच्या विद्यार्थ्यांना स्मृती ,धारणेच्या उत्तर चाचणीतील मध्यमान गुणांकात सार्थ फरक आढळून येतो.दोन्ही गटांच्या मध्यमानातील फरक 0.05 सार्थकता स्तरांवर सार्थ असल्याने तो न्यादर्शाच्या चढउतरामुळे पडलेला नसून वास्तविक आहे.

#### निष्कर्ष:

प्रायोगिक गटाच्या विद्यार्थ्यांना स्मृती ,धारणेच्या उत्तर चाचणीचे मध्यमान (27.48) हे नियंत्रित गटाच्या स्मृती ,धारणेच्या उत्तर चाचणीचे मध्यमानापेक्षा (22.43) अधिक आहे. यावरून असे म्हणता येईल की, प्रायोगिक गटाच्या विद्यार्थ्यांच्या अनुलोम विलोम प्राणायामाचा साधनेचा प्रक्रिया केल्यानंतर अधिक स्मृती ,धारणवर प्रभाव पडतो.

#### संदर्भ सूची -

1. कदम, चा.प. (2005). शैक्षणिक संख्याशास्त्र (प्रथम आवृत्ती). पुणे: नूतन प्रकाशन.
2. करंदीकर आणि मंगरूळकर. (2002). उदयोन्मुख भारतीय समाजातील शिक्षण (व्दितीय आवृत्ती). कोल्हापूर: फडके प्रकाशन.
3. कुंडले, म. बा. (1996). शैक्षणिक तत्त्वज्ञान आणि शैक्षणिक समाजशास्त्र (आठवी आवृत्ती). पुणे: श्रीविद्या प्रकाशन.
4. कुलकर्णी, डी. आर. (2008). प्रगत शैक्षणिक मानसशास्त्र (प्रथम आवृत्ती). नागपूर: विद्या प्रकाशन.
5. नागदेवते, प्र. कि. (2010). शैक्षणिक व मानसिक मापन (प्रथम आवृत्ती). पुणे: विद्या प्रकाशन.
6. घोरमोडे, यु. के. आणि घोरमोडे, कला (2010). शैक्षणिक मार्गदर्शन आणि समुपदेशन (प्रथम आवृत्ती). नागपूर: विद्याप्रकाशन.
7. घोरमोडे, यु. के. आणि घोरमोडे, क. (2007). भारतातील शैक्षणिक आयोग व समित्या (प्रथम आवृत्ती). नागपूर: विद्याप्रकाशन.
8. दुनाखे, अरविंद. (2005). शैक्षणिक व व्यावसायिक मार्गदर्शन आणि समुपदेशन (प्रथम आवृत्ती). पुणे: नित्यनूतन प्रकाशन.
9. नरवणे, मीनल. (2006). भारतातील शैक्षणिक आयोग व समित्या (प्रथम आवृत्ती). पुणे: नित्यनूतन प्रकाशन.
10. पंडित, ब. बी. व मोरे, लता. (2010). शिक्षणशास्त्र संशोधनात संख्याशास्त्रीय परीक्षिकांचा उपयोग (प्रथम आवृत्ती). नागपूर: पिंपळापुरे अँड कं. पब्लिशर्स.
11. पंडित, ब. बी., पाटील, नलिनी., मोरे, लता. (2009). शिक्षक शिक्षण (प्रथम आवृत्ती). नागपूर: पिंपळापुरे अँड कं.पब्लिशर्स आणि कंपनी.
12. पंडित, र.वी. (2006). शैक्षणिक मानसशास्त्र (प्रथम आवृत्ती). नागपूर: पिंपळापुरे कं. पब्लिशर्स.
13. पंडित, ब. बि. (2005). शिक्षणातील संशोधन (संख्यात्मक व गुणात्मक) (प्रथम आवृत्ती). पुणे: नित्यनूतन प्रकाशन.
14. पाटील, अ. (2008). मानसशास्त्रीय चाचण्या (प्रथम आवृत्ती). पुणे: डायमंड पब्लिकेशन्स.