



328en29A



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## STRESS AND YOUR HEALTH

**You** have to catch your train at 8.00 a.m., but your auto is in a traffic jam. You just have 20 minutes to travel 5 kms. Your heart beats fast, you are sweating and grinding your teeth, looking frequently at your watch, scolding people, unable to think clearly.

This type of situation is a stressful situation when a pressure is built upon you to reach your destination. The moment you reach the station, board the train and take your seat, you tend to take a long sigh “ah” and then you feel a sort of relief. This relief makes you realize the tension you were in. This kind of tension is often the cause of stress. These days the life has become fast and the pressures are so many that we are in a stressful situation in some or the other way. Also, we are not able to manage our stresses effectively. So one should know what are the sources of stress and how to deal with them. In this lesson, we shall study about the concept of stress, its sources, and reactions to it.



### OBJECTIVES

After studying this lesson, you will be able to:

- explain what is stress;
- list various types of reactions to stress;
- identify and name various sources of stress; and
- explain the effect of stress on health.



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## 29.1 CONCEPT OF STRESS

Stress means pressure and an uneasy experience. The causes of stress may be self, other individuals around you and your environment. Let us study how stress is caused.

**Stresses caused by self:** Suppose you have not studied till the last date of your examination, and suddenly you try to study every thing on the previous day of your exam. You are not able to learn and also you are not confident whether you have covered each topic or not. The tension mounts. What is this situation? You have put yourself in stress.

Stress need not necessarily always be negative. For instance if you are not anxious before any test or examination you will not prepare for it seriously and your performance may not be good. A little bit of stress helps us by motivating to perform well. Thus stress has both positive and negative dimensions. The positive aspect of stress is termed as “**eustress**” meaning stress producing positive results. The negative dimension is called “**distress**”.

**Stresses caused by environment:** Suppose your crop is ripe and ready for harvest, suddenly continuous rain makes you helpless and worried. Your stress is due to nature or environment. The pollution of air and water or crowding is also an example of environmental stress.

**Stresses caused by other persons:** In every way you are due for promotion, but the management of your organization fails to promote you. Here your stress is due to others.

As discussed before, stress need not necessarily always be considered negative. The positive aspect of stress which is termed as “eustress” produces positive results. Badminton players practice for hours together before a match. Practice is stressful but it produces good results. The famous scientist who invented bulb, Thomas Alva Edison, failed more than 1000 times, finally he succeeded. He was experiencing eustress.

The negative dimension of stress or distress often causes unpleasantness and leads to poor performance. Radha is a bright girl, who always used to get good marks. Her marks came down drastically due to her father who comes home drunk and beats her mother. She is worried, tense and cannot concentrate on her studies which resulted in getting low marks in the examination. Radha is the victim of distress.



## INTEXT QUESTIONS 29.1

Give short answers to the following:

1. What is stress?

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2. Name different types of stress.

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## 29.2 REACTIONS TO STRESS

*Shyam, a young unemployed person, is lonely at home most of the time. He often dreams about good things in life and wants to achieve them. But till now he is not able to get a good job. Previously, he had worked in a small company, but left it as there were problems with his boss. Shyam feels depressed, unworthy and irritable most of the time. To overcome loneliness and depression, he has taken to drinking habits.*

*Sita is a good student. She wants to excel in the class. Her parents and teachers expect a lot from her. Due to high fever which she caught during the weekend holiday, she is not able to complete the given assignment on time. As the last date is fast approaching, Sita feels guilty, anxious and is not able to concentrate on the assignment.*

In both of the above examples, changes (physical and mental) can be seen which are caused by stress. The reactions to stress can be classified into the following categories: physiological, affective, cognitive and behavioural. Let us know more about these reactions.

- Physiological Reactions:** These reactions refer to the physical functions of the human body which get affected under stress and do not work in their normal routine. The reactions which commonly occur in an individual in relation to stress are:

- (a) rapid pounding of heart and pulse,



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- (b) muscles becoming tense,
- (c) dryness of the throat or mouth,
- (d) feeling sick in the stomach, (colloquially it is referred to as “butterflies in the stomach”), and
- (e) trembling etc.

Generally, it is the vulnerable and weak bodily system that gets affected by stress first. The resulting symptoms are therefore called *psychosomatic reactions*. For instance, if the respiratory system is weak, stress affects it and that may lead to asthma. Similarly, if the digestive system is vulnerable, it becomes the target for the attack of stress. It usually results in ulcer. Thus, almost all the systems can very well reflect the impact of stress by coming out with various symptoms like blood pressure, wheezing, stomach ache, headache, pain of the joints, stuttering etc.

**(ii) Affective Reactions:** These reactions are emotional responses. People suffering from stress get affected quickly and manifest symptoms of anxiety, depression, anger, irritability and having poor control over the emotions.

**(iii) Cognitive Reactions :** This category of reactions to stress includes the following:

- (a) poor concentration,
- (b) inability to learn any thing new with same speed and efficiency,
- (c) forgetting,
- (d) inability to take proper decision that too in time,
- (e) confusion,
- (f) gate crashing of ideas, and
- (g) negative or unhealthy thoughts

The physiological, affective, and cognitive reactions are covert in nature. In other words, they take place within the individual but the behavioural reactions are overt which means that they take place outwardly. They include behaviours like:

- (a) crying,
- (b) talking incoherently,
- (c) irrelevant speech,
- (d) hitting, and
- (e) bashing or banging etc.



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## DIVERSE REACTION TO STRESS

Physiological Reactions	Affective Reactions
Rapid heart beat and pulse	Anxiety
Muscles becoming tense	Depression
Dryness of the throat or mouth	Anger
Trembling, Nausea etc.	Frustration, hopelessness and irritability
Cognitive Reactions	Behavioural Reactions
Poor concentration	Crying
Inability to learn anything new	Talking incoherently
Forgetting	Irrelevant speech
Unable to take proper decision	Hitting
Confusion	Over eating
Negative thought	Substance abuse

## Stressors

*Peter is waiting in a room full of fresh graduates to be interviewed for a job in a well reputed company. His academic performance is not outstanding but he hopes to get the job through luck and by his personality. He feels that his parents and his sister must be expecting him to get this high-prestige, high-paying position. He is very nervous. His mouth is dry, his stomach feels tight, his heart is pounding and perspiration has begun to sock through his new suit.*

Stressors are events and situations (such as bus rides or interviews) to which people must react. Let us see some of the common stressors that people experience. These stressors are perceived as mild and motivating for some and moderately or severely stressful for others. They affect well being of people. The common stressors include the following:

1. Boredom, loneliness
2. Frustration
3. Conflicts



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4. Pressures to meet dead lines
5. Competition
6. Increased responsibility
7. Exertion due to travel or any physical/mental work
8. Divorce, separation and death of loved ones
9. Trouble in interpersonal relations such as parents, in-laws, friends, boss, servants etc.
10. Loss of one's self-prestige, image or status
11. Losses in one's profession or studies or business etc.
12. Retirement
13. Lack of freedom and privacy
14. Sexual difficulties and guilt feelings
15. Changes in the financial status
16. Change of residence
17. Payment of loans

Stress reactions are the physical, psychological and behavioural responses (such as nausea, nervousness and fatigue) which people display in the face of stressors.

Mediating factors such as the circumstances in which stressors take place and each person's characteristics, makes people more or less sensitive to stressors.

Every one of us experiences stress in some or the other way at home or at work place. But stress tolerance varies across individuals. We can always reduce the stress. Stress can act as a promoter of self-understanding. We don't actually know what we can do, unless we have to do it. For example, each time we clear a subject in exam, we gain self-confidence that we can also pass through this kind of situation. Sometimes experience of disappointments and failures become blessings in disguise because we realise that we were pursuing the wrong goals or the task came to us so suddenly that we were not ready for it.

With too little stress, we become lazy and with too much stress, we become tense and prone to illness. We should know how to manage and handle stress in some manner so that we can make most out of the situation.



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**Try it Yourself**

(A) Think about and write down the frequently experienced stressors in your life and indicate what type of stress reactions do you show/display?

Stressors	Reactions
_____	_____
_____	_____
_____	_____
_____	_____

**(B) Do it yourself :**

Given below are some items from the revised version of the daily hassles (troubles) and uplifts (pleasures) scale. The respondent is asked to give ratings (on 0-4) of the degree to which each item was a trouble or an uplift that day. Ratings over several days or weeks can give a picture of your stressors and pleasures and may allow for a better understanding of the role of daily hassles.

**How much was this  
item a trouble for  
you today?**

0 1 2 3 4

Your child (ren)

0 1 2 3 4

Time with family

0 1 2 3 4

Fellow workers

0 1 2 3 4

Your hard work

0 1 2 3 4

Meeting deadlines

0 1 2 3 4

Having enough money

0 1 2 3 4

The weather

0 1 2 3 4

Cooking

0 1 2 3 4

Home entertainment

0 1 2 3 4

Amount of free time

**How much was this  
item pleasure for  
you today?**

0 1 2 3 4

0 1 2 3 4

0 1 2 3 4

0 1 2 3 4

0 1 2 3 4

0 1 2 3 4

0 1 2 3 4

0 1 2 3 4

0 1 2 3 4

0 1 2 3 4

Now you can identify your own stressors and add to the list above. Continue to do the ratings as done previously.

**29.3 SOURCES OF STRESS**

Sources of stress can be classified into four categories, which are as follows: Family, Occupational/Educational, Personal and Environmental. Let us understand these sources in some detail.



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- (1) **Family:** If you are experiencing stress because one of your family members is seriously ill, then the source of your stress is family. The other familial stresses include financial difficulty, quarrel between spouses (husband & wife) etc.
- (2) **Occupational/Educational:** For a student stress may be the examination, stay in hostel etc. A teacher who is not teaching well may add to the stress. Poor pay, over demanding boss, uncooperative co-worker and subordinates, poor working conditions are some of the occupational stressors experienced by the people.
- (3) **Personal:** Personal stresses are many. A personal stress is often caused by feelings of inadequacy, inferiority and insecurity. “My memory is poor,” “I am dark”, “I am fat”, “I am not good looking”, “I cannot speak English well”, “I am not intelligent”, “I am not talented”, “I am poor, I have poor health”, “I am unemployed/under employed”, are some of the thoughts and attitudes making one feel inadequate and insecure and suffer from stresses.
- (4) **Environmental:** Unexpected natural calamities such as fire, famine, earthquake, tsunami, floods etc. are environmental stressors. Crowd, poor sanitation and pollution are also sources of environmental stress.

### Try it Yourself

Identify your stress in various areas and fill up the blanks with your own stressors.

#### Family

- (1) Finance
- (2) Illness of family members
- (3) Discord between family members
- (4) \_\_\_\_\_
- (5) \_\_\_\_\_
- (6) \_\_\_\_\_

#### Occupational/Educational

- (1) Poor pay
- (2) Poor work condition
- (3) \_\_\_\_\_
- (4) \_\_\_\_\_
- (5) \_\_\_\_\_
- (6) \_\_\_\_\_





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**Personal**

- (1) Poor memory
- (2) Worried about physical appearance
- (3) \_\_\_\_\_
- (4) \_\_\_\_\_
- (5) \_\_\_\_\_
- (6) \_\_\_\_\_

**Environmental**

- (1) Pollution
- (2) Crowding
- (3) \_\_\_\_\_
- (4) \_\_\_\_\_
- (5) \_\_\_\_\_

**29.4 STRESS AND HEALTH**

Indications are there that 75% of human diseases are caused by the stress experienced by people. During stressful period, anxiety and nervousness are quite common symptoms. When these become intense, phobia may develop. A phobia refers to irrational fear over an object, person, or an animal or situations. The person feels unduly anxious when he/she comes across a phobic situation and hence always tries to avoid them. Some of the common phobias are:

1. Social phobia—fear of addressing public audience (eg. Stage fear).
2. Claustrophobia—fear of closed places.

Anxiety refers to a vague unpleasant feeling of impending threat and danger. A person with severe anxiety will always be worried, unclear, confused and indecisive. Sometimes excessive anxiety may lead to speech problems like stuttering and stammering. Urinary problems like bed-wetting are commonly seen among children.

**Stress and the Immune System**

In the course of our everyday life, every one of us is exposed to various germs and viruses but we do not fall ill. This is because we have got a protective mechanism inside our body which is called the immune system. But stress can weaken this immune system and this can make us victim of many diseases. If the stress is for a



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shorter period there is not much damage, but if the stress prolongs, it results in serious illnesses such as cancer, heart disease, headache, asthma and peptic ulcer. It is found that individuals under stress are more likely to catch cold than individuals who are not under stress. This is attributed to the fact that intense stress reduces body's immune system, thus making the person easily vulnerable to infections.

## 29.5 STRESS AND HEALTH PROBLEMS

It is an accepted fact that certain cardiac problems like hypertension, angina and heart attacks are caused due to emotional strain the person undergoes. Such emotional stress caused may be due to frustration, intense anger, fear, depression or shock.

Eating disorders can also be caused due to preoccupation with stressful situations. Sleep disorders can also occur due to stress. Such persons have difficulty in going to sleep or experience disturbed sleep or not getting sleep at all (insomnia). A person who is said to frequently experience intense emotions such as anger, jealousy, hatred, fear, panic often complain about ulcers. Intense fear or guilt can also lead some to sexual problems.

The most common stress related health problems are cold and headache. Scientists say that there is no specific medicine for common cold and tension headache. They occur when an individual undergoes stressful experiences. They may vanish under pleasant and happy situations. Pills for killing pain and cold give only temporary relief. Hence, it is necessary to know the root cause of stress for permanent solution for these health problems. For example a student might get headache whenever he is asked to give a test /exam.

Psychosomatic diseases like peptic-ulcer, asthma, essential hypertension (high BP) are also caused by stresses. You would have known that many die due to heart attack at a younger age. Those were Mr. Victims of stress.

The combination of repeated stress and the weakness of particular system leads to psychosomatic diseases. For example, a person gets ulcer, when under stress his stomach (digestive system) becomes weak. These people also do not express their emotions outwardly. For example, if a person gets angry he must show it out in an appropriate way but if he keeps within himself repeatedly, he is likely to get ulcer. He should be asked to learn the proper means and ways of expressing emotions outwardly for maintaining good health.

The above include some of the commonly reported stress related problems. They are experienced by the individual from mild or to moderate levels. A less often occurring, severe disorder is known as post-traumatic stress disorder (PTSD). The symptoms include anxiety, apprehension, chronic tension, sleep disorders like



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insomnia or sleepless nights, nightmares, withdrawal behaviour etc. This disorder occurs when a person experiences severe stress after a traumatic life threatening experience like accidents, being victimized either physically and mentally as in rape or sexual harassment, death of near and dear ones etc.

**Stress Relief:** In many severe cases of experience of intense stress, an individual must consult the psychologist for immediate help or be institutionalized for a certain period of time. Mild to moderate stress can be easily relieved through different way such as: regular physical exercise, relaxation, meditation, thinking positively, seeking social activities which are relaxing and pleasurable or following certain management techniques like time –management, stress reduction programmers etc. Medication such as stress drugs must be used only in severe cases and under medical supervision.



### INTEXT QUESTIONS 29.2

1. Answer the following as either true or false:
  - a) Urinary disorders like bed-wetting occur only due to stress. True/False
  - b) Stuttering and stage fear mainly occurs due to anxiety and nervousness. True/False
  - c) Common cold generally occurs due to reduced immune system that is constantly exposed to stressprone situations. True/False
2. Mention some of the health disorders (both physical and mental) that are caused due to stress.
3. In what way can one overcome everyday stress problems?



### WHAT YOU HAVE LEARNT

- Stress is a kind of internal pressure caused by either internal or external forces. Generally it is because of interaction of both internal and external factors.
- Both low and high levels of stress are not helpful for the highest performance which an individual is capable of, only the moderate level of stress results in peak performance.
- Stress has both positive and negative consequences. If it is positive it is known as “eustress”. The negative stress is known as “distress”.



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- Reactions to stress are physiological, affective, cognitive and behavioural in nature.
- Stress that is experienced at the work place is called occupational stress. It occurs due to factors like discrepancy between individual and organizational goals, poor cooperation, incoordination, unhealthy competition among workers, role ambiguity, role conflict etc.
- Stress occurs in every day living for every one of us. Not all stress reactions lead to disorders.
- Some of the common stressors include boredom, physical exertion, losses, frustrations, conflicts, meeting dead lines, intense noise, etc.
- Some of the symptoms or reactions of stress are muscular tension, body pain, increased heart beat, dizziness, nausea, sweating, inability to relax, depression, distractibility and withdrawal, etc.
- Some of the common stress related disorders are stuttering, stammering, bed-wetting, stage fears, depression, phobia, heart attacks, hysterias.
- Ways to combat stress are to do physical exercise, mediation, doing pleasurable activities, seeking professional help and following stress relieving management programmes like time management, learning to think positively, etc.



**TERMINAL EXERCISE**

1. What do you understand by stress? Give an example.
2. Note down the different reactions to stress.
3. List the sources of stress.
4. Write a short note on the various stressors that you know.



**ANSWER TO INTEXT QUESTIONS**

**29.1**

1. Internal pressure caused by integral or external factors.
2. eustress, distress.

**29.2**

1. (a) False                      (b) True                      (c) True
2. Peptic ulcer, asthma, high B.P., Cold, Upset stomach
3. By exercise, relaxation, time management, positive thinking