



# DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY  
Friday 20170317

## National Health Policy

**Why there is not a lot new in National Health Policy; key issues unaddressed (The Indian Express:20170317)**

<http://indianexpress.com/article/explained/why-there-is-not-a-lot-new-in-national-health-policy-key-issues-unaddressed-4572373/>

Coming after 15 years, policy repeats several old ideas, dodges 2015 promise of a Right to Health.

The National Health Policy cleared by the Union Cabinet on Wednesday has fallen short of the promise of its 2015 draft. The policy duplicates portions of the Health section of Finance Minister Arun Jaitley's 2017 Budget speech, reiterates health spend targets set by the High Level Expert Group (HLEG) set up by the erstwhile Planning Commission for the 12th Five Year Plan (which ends on March 31, 2017), and fails to make health a justiciable right in the way the Right to Education 2005 did for school education. India last issued a National Health Policy in 2002.

## No Right to Health

On Thursday, Health Minister J P Nadda told Parliament: "...The Policy proposes raising public health expenditure to 2.5% of the GDP in a time-bound manner. The Policy advocates a progressively incremental assurance-based approach. It envisages providing larger package of assured comprehensive primary health care through the 'Health and Wellness Centres' and denotes important change from very selective to comprehensive primary health care package which includes care for major NCDs [non-communicable diseases], mental health, geriatric health care, palliative care and rehabilitative care services.

“It advocates allocating major proportion (two-thirds or more) of resources to primary care. It aims to ensure availability of 2 beds per 1,000 population distributed in a manner to enable access within golden hour [the first hour after traumatic injury, when the victim is most likely to benefit from emergency treatment]. In order to provide access and financial protection, it proposes free drugs, free diagnostics and free emergency and essential health care services in all public hospitals.”

The Minister’s reference to an “assurance-based approach” abandons a radical change proposed in the draft policy of 2015 — that of a National Health Rights Act aimed at making health a right. Health Ministry officials said the idea was dropped because state governments felt that health infrastructure was not yet at levels at which health could be made an entitlement, and the citizen could theoretically take a government to court for its denial. Diagnostics, drugs and essential health care services are already free in many states.

### Old Targets Restated

Nadda said the 2.5% GDP spend target for Health would be met by 2025. But the HLEG report of 2011, quoted by the 12th Plan document, had set the same target for the Plan that ends at the end of this month.

“Government should increase public expenditure on health from the current level of 1.2 per cent of GDP to at least 2.5 per cent by the end of the Twelfth Plan, and to at least 3 per cent of GDP by 2022. General taxation should be used as the principal source of healthcare financing, not levying sector specific taxes. Specific purpose transfers should be introduced to equalise the levels of per capita public spending on health across different states. Expenditures on primary health care should account for at least 70 per cent of all healthcare expenditure,” the HLEG had recommended.

A health cess was a pathbreaking idea in the Health Ministry’s draft policy; it has now been given a quiet burial, with Nadda maintaining that there is no dearth of funds.

Many of the disease-specific targets announced by the Policy — such as eliminating kala-azar and filariasis by 2017, leprosy by 2018 and measles by 2020 — featured in the Budget. So did the proposed elimination of tuberculosis by 2025, and the action plan to reduce the Infant Mortality Rate to 28 by 2019 and Maternal Mortality Rate to 100 by 2020. The transformation of 1.5 lakh Health Sub Centres into Health and Wellness Centres, announced in the Policy, too had been announced by Jaitley.

### Indian Medicine and Yoga

Where the Policy moves forward is in its emphasis on Indian systems of medicine. “The policy envisages a three-dimensional integration of AYUSH systems encompassing cross referrals, co-location and integrative practices across systems of medicines. This has a huge potential for effective prevention and therapy that is safe and cost-effective. Yoga would be introduced much more widely in schools and work places as part of promotion of good health,” Nadda told Parliament.

Some of the new targets in the policy are to increase life expectancy at birth from 67.5 to 70 by 2025, reduce Total Fertility Rate to 2.1 at the national and sub-national levels by 2025, and to reduce premature mortality from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases by 25% by 2025. To the last end, it proposes universal screening. However, the process to start this in 100 districts was under way long before the Policy roadmap was finalised.

### Silent on Health Governance

As per the new Policy, the National Healthcare Standards Organisation (NHSO) will decide the standards of private and public health institutions, and an empowered tribunal will deal with grievances. The policy, however, keeps clear of one of the most vexed questions of health governance in India — whether Health should continue to be in the State List, or be brought, like Education, in the Concurrent List for better regulation.

With Health in the State List, its regulation lies with states; the Centre can only make model laws to which states can voluntarily subscribe. The Clinical Establishments Act, 2010 has been a non-starter — only four among the big states have adopted it until now, with West Bengal recently unveiling its own Act with much fanfare. The rest have either ignored it, or failed to frame Rules that are stringent enough for its effective implementation.

A national health authority like the NHSO cannot work effectively without Health being on the Concurrent List. Even if the NHSO or any other body sets standards, it will be the state government's job to decide whether those are met by the private sector, with the Centre having little say.

In effect, questions on Health in Parliament will continue to remain unanswered as “Health is a State Subject”.

### **NEW HEALTH POLICY - Focus on preventive healthcare (The Times of India:20170317)**

<http://epaperbeta.timesofindia.com/Article.aspx?eid=31808&articlexml=NEW-HEALTH-POLICY-Focus-on-preventive-healthcare-17032017019036>

### Govt Plans To Integrate AYUSH System In Edu

The national health policy, cleared by the Narendra Modi government on Wednesday, lays accent on preventive healthcare and seeks to engage the private sector as a strategic partner to make services affordable for all citizens with provision of free essential drugs and diagnostic facilities. While the policy lays a framework for screening and treatment of non-communicable diseases like cancer and diabetes, it also talks about integrating AYUSH

system in school education and moving towards wellness care through yoga. The policy also envisages extensive deployment of digital tools for improving efficiency and outcomes.

The policy , which will provide free essential medicines and “assured“ health services to all, aims to reduce out of pocket expenditure, health minister JP Nadda said and asserted that it would “empower“ patients by making healthcare affordable.

“ This policy is patientcentric,“ Nadda said.

He said the new policy , unlike the previous one, stresses on “preventive and promotive“ healthcare and also has a “target oriented“ commitment for elimination of diseases for which an implementation framework has been envisaged.

The policy also envisages creation of National Health Care Standards Organisation which will formulate guidelines and protocols for healthcare while there is a provision of establishing a separate empowered tribunal for speedy resolution of disputes and complaints, Nadda said. The policy suggests distribution of family health cards, which can be connected to the public health care facility so that a patient's entire medical history can be digitally accessed. “There will be a periodic measurement of all health institutions --both public and private--as envisaged in the policy. Their quality levels and facilities provided will be checked,“ Nadda said.

The policy also suggests raising public health expenditure to 2.5% of the GDP in a time-bound manner from 1.2% at present.

### **New policy vows more health spending (The Tribune:20170317)**

<http://www.tribuneindia.com/news/nation/new-policy-vows-more-health-spending/378276.html>

Aims raising expenditure to 2.5% of GDP, but silent on health as fundamental right

Eight-year goals

Reducing infant mortality rate from 39 per 1,000 live births today to 28 by 2025

Bringing down under-5 mortality rate from 45 at present to 23 by 2025

Eliminating leprosy by 2028, kala-azar and lymphatic filariasis by 2017, TB by 2025

The new health policy promises to increase public spending on health to 2.5 per cent of the GDP, besides providing assured services in the form of free drugs and diagnostics to consumers across the country. Current public spending on health is 1 pc of the GDP.

Assured services will be defined and notified later by the government, which has set for itself ambitious targets, including reduction in people's out-of-pocket expenditure on health. Health spending annually pushes 60 million Indians into poverty.

Rough estimates suggest per capita expenditure on assured health services would cost Rs 8,000. Though Health Minister JP Nadda today said funds will never be a problem, past experience has been discouraging. India failed to achieve the goal of 2 pc GDP public spending on health in the last National Health Policy envisaged in 2002.

"We will provide funds to boost public spending on health to 2.5 pc of the GDP incrementally up to 2025. This would require central spending to grow from 10 pc today to 15 pc by 2025 and state spending to rise from 20 pc today to 25 pc by 2025," Nadda said when asked how the government will generate resources. The new policy banks on "stronger partnership with private sector".

The policy proposes regular tracking of Disability Adjusted Life Years Index to measure the burden of diseases by major categories until 2020. It also moots a new National Healthcare Standards Organisation to rate medical facilities and a tribunal to adjudicate people's complaints. These proposals will need legislative intervention.

The policy, Nadda said, shifts away from sick care approach of NHP 2002 to preventive health. "Much of this target will be achieved by converting village-level primary health centres into wellness centres and providing therein free screening for hypertension, diabetes, oral, breast and cervix cancers. Universal screening scheme is being rolled out in 100 districts this year. Of the 1.5 lakh primary health centres to be converted into wellness centres, we will take up 22,000 this year," the Minister said.

The policy seeks to issue national health cards to people but doesn't address privacy concerns the proposal raises. Equally, the policy is silent on health as a fundamental right, something its draft had provided.

Nadda said, "It was felt we should commit what we can provide." Health as a justiciable right is seen by government as a tough target.

Health Secretary CK Mishra today noted the need for an ecosystem for the right to health discussion to move forward. "The policy means to create that ecosystem," Mishra said.

The NHP 2017 also drops the proposal of health cess to fund the sector on the lines of education cess. In addition, it recognises, in a first, the need to mainstream Indian systems of medicine. "All allopathic institutions will also now have Ayush centres. We plan to introduce yoga in schools and workplaces," said Nadda in Parliament today.

The Cabinet had approved NHP 2017 yesterday after yearlong consultations.

## **Memory**

### **`Brain zapping boosts short-term memory' (The Times of India:20170317)**

<http://epaperbeta.timesofindia.com/Article.aspx?eid=31808&articlexml=Brain-zapping-boosts-short-term-memory-17032017023008>

Stimulating the brain with electricity may improve short-term working memory, an advance that could help treat people with traumatic brain injury , stroke or epilepsy, a new study has found.

Researchers at Imperial College London found that applying a low voltage current can bring different areas of the brain in sync with one another, enabling people to perform better on tasks involving working memory . They hope the approach could one day be used to bypass damaged areas of the brain and relay signals in people with traumatic brain injury , stroke or epilepsy .

“What we observed is that people performed better when the two waves had the same rhythm and at the same time,” said Ines Ribeiro Violante, a neuroscientist who led the research. In the trial, carried out in collaboration with University College London, the team used a technique called transcranial alternating current stimulation to manipulate the brain's rhythm. The study was published in the journal eLife.

## **Family Planning**

### **Are injectable contraceptives advisable? (The Hindu:20170317)**

<http://www.thehindu.com/opinion/op-ed/are-injectable-contraceptives-advisable/article17484527.ece>

Pregnancy test kits and contraceptives on display at a chemists shop, in New Delhi. This photo is used for illustrative purpose only. File Photo | Photo Credit: V. Sudershan

The government is aiming to control women's fertility rather than uphold their reproductive rights

Sulakshana Nandi

Instead of putting its efforts into improving the delivery of existing contraceptive methods, the government has recently chosen to introduce the injectable contraceptive, depot medroxyprogesterone acetate (DMPA), which is known to have adverse effects on women's health.

The articulation of population as a 'problem' or talking in terms of a 'population explosion' is deeply problematic, for it brings with it the spectre of 'control' and eventually, in a country like ours, control over women's body and fertility. Countries that have achieved lower fertility rates have done so due to economic and social development and improvements in public services, including health services. Simply put, if a family is convinced that their one child or two children will not only survive but be healthy, they won't have more children.

Women, even rural women, today want fewer children. However, they are forced to have more children due to several reasons that range from economic compulsions, lack of negotiating power within the family, to limited access to health services including contraceptive services.

Women's groups and various health groups have been cautioning the government for decades against introducing injectable contraceptives in the public health system.

#### Case against injectables

First, there are concerns regarding the preparedness of the government health system to implement this contraceptive method. DMPA may be easy to administer, but health workers need to be capable of assessment before administering it and of managing side effects that some women may experience. Also, DMPA requires administration once every three months. The Government of India guidelines on the injectable contraceptive mention side effects like menstrual changes, irregular bleeding, prolonged/heavy bleeding, amenorrhea (stopping of menstruation), weight gain, headaches, changes in mood or sex drive, and decrease in bone mineral density. Moreover, studies from Africa have shown that the risk of HIV infection may increase for women who have been administered injectable contraceptives. Second, the government needs to introspect whether existing methods have been made available to people through informed choice, in a safe manner.

#### Drugs body backs sale of emergency contraceptive pills over the counter

##### Gaps in the system

Regular stock-outs of oral contraceptives and condoms, lack of training to the auxiliary nurse midwife or ANMs on intrauterine contraceptive devices (IUCDs), instances of lack of informed consent for post-partum IUCD, and the rampant violation of the guidelines for sterilisation, which in 2014 led to the deaths of 13 women, all reflect gaps in implementing and monitoring such programmes. It is strange that while the existing contraceptive methods are not being provided properly, the government has gone on to introduce a method that raises so many questions and may prove to be more complicated in its implementation. Why didn't the government put all its efforts into promoting male vasectomy, for instance, which is a safer option and less of a problem for women?

By introducing DMPA in the public health programme, the government also has to answer whose interests are actually being served. There are serious concerns that some agencies are pushing this for profit. Experience from the private sector, where these contraceptives had been made available previously, shows that very few women had opted for injectable contraceptives.

The government should have been more cautious in introducing this method. It appears that by introducing injectable contraceptives under the guise of 'expanding the basket of choices', the government actually aims to control women's fertility rather than uphold their reproductive rights.

As told to Anuradha Raman

Sulakshana Nandi is national joint convener, Jan Swasthya Abhiyan (Peoples' Health Movement, India)

RIGHT

This is about expanding the basket of choices. Injectable contraceptives are just an option

Think twice before popping a pill

S.K. Sikdar

The Health Ministry is in the process of introducing injectable contraceptives in the National Family Planning Programme (NFPP), with the aim to expand the basket of choices available to women. Introducing modern methods of family planning is a major part of the reproductive, maternal, newborn, child, and adolescent health (RMNCH+A) strategy to improve maternal and infant health indicators, with a special focus on delaying the first birth and the spacing between births. Including injectable contraceptives in the NFPP will ensure access to preferred contraceptive methods for women.

Stress on quality

Every new programme has to go through a cycle of proper training and capacity-building. Under RMNCH+A, we are trying to ensure that Indian women make an informed choice when they pick a type of family planning or spacing method. After Bilaspur (where 13 women died in a government-run sterilisation camp), we have tried to improve the quality of sterilisation services, a fact that the Supreme Court too appreciated in its 2006 judgment, which set guidelines for female and male sterilisation services on that case. We take quality assurance seriously and are thus in the process of doing away with the camp approach in a phased manner. We have already introduced a permanent cadre of counsellors, to ensure there is information provided to the couple on all the contraceptives available in the basket of choices. Nobody can force this on women in this country, coercion is against the law and the programme is not target-driven. Injectable contraceptives are just an option.



We are trying to change the fact that female sterilisation remains the more popular choice, accounting for over 75% of contraceptive use in India. It disempowers them. Sterilisation should be the last choice and we are trying to ensure that clients understand the consequences of undergoing a sterilisation operation in a language that they understand through our counsellors and service providers.

‘Drug vetted’

As far as the debate around the side effects of the injections is concerned, this drug has been rigorously vetted. The World Health Organisation and most professional bodies have advocated its use. Our programme focuses on telling women about all the choices she has available, depending on her situation. We have post-partum methods, spacing methods for new parents, and the programme aims to help women select the option most suitable for them, depending on their situation in life. There has been concern about the effect of an injectable contraceptive on bone density and it has to be categorically stated that the bone marrow density is reversible. Global data show that the average number of doses a woman takes is around two to four at a stretch, which is sufficient for her to space her next birth, thereby giving her time to recover from the stress of childbirth and a chance for the child to get the attention she needs to grow.

We are also introducing injectable contraceptives in a phased manner. They will first be available only in medical colleges and district hospitals and then move downwards. The Health Ministry took this decision to not compromise on quality. We will only make injectable contraceptives available when we have the capacity to deliver counselling at the health facility. Further, the Ministry is painfully aware that male participation needs to increase. There is a programme specifically designed to increase male participation. Meanwhile, women still need to be offered all the choices that are available.

As told to Vidya Krishnan

S.K. Sikdar is commissioner of the family planning division of the Health Ministry

CENTRE

The real conversation we should be having is about prioritising men’s participation in family planning

Poonam Muttreja

Family planning is a crucial public health programme, directly linked to the health of women, children and families. The government has estimated that if the current unmet need for family planning could be fulfilled within the next five years, India can avert 35,000 maternal deaths and 12 lakh infant deaths.

The real conversation we should be having is about prioritising men’s participation in family planning. We need to stop referring to family planning and sexual and reproductive health

and rights as women's issues. They are as much men's issues, society's issues, moral issues, ethical issues, and issues of social justice and human dignity.

#### Address gender bias

Sustained engagement of men in health and family planning not just as clients of family planning and reproductive health services, but as responsible partners to women is the only way to address the severe gender bias in the programme.

'3000 condoms, 2000 liquor bottles at JNU': This BJP MLA is keeping count

In 2005, the National Family Health Survey-3 (NFHS) revealed that 1% Indian men were opting for sterilisation services. In the last 10 years, this number has gone down to 0.3%. We need more doctors trained in providing vasectomy, more counselling for men instead of addressing only women. Evidence suggests that the involvement of men in family planning has many benefits. It can act as a catalyst towards improving maternal and child health indicators, increasing contraceptive uptake, and enabling women to exercise their autonomy and reproductive rights. However, the acceptance of male methods of contraception is marred by many myths and misconceptions, such as loss of virility and libido.

To address these challenges, a systematic integrated approach with information, education and communication activities for men aimed at dispelling myths and misconceptions could result in a better uptake of contraceptives and an increased shared responsibility towards family planning.

#### New methods, new fears

In 2015, the Ministry of Health and Family Welfare (MoHFW) announced the introduction of three new contraceptive methods — Progestin-only Pills, Centchroman and injectable contraceptives — to the basket of contraceptive choices. However, the introduction of DMPA has led to concern in terms of the possible side effects of the injectable contraceptive and the likelihood of women making uninformed choices.

The Population Foundation of India has advocated strongly with the MoHFW to ensure full preparedness, including the training of service providers, for the roll-out of all new methods. It is critical to address the concerns raised on quality of care and counselling services. The roll-out of injectables must be done by sharing evidence-based information on the benefits and side effects to ensure that a woman makes an informed choice.

Agents of Ishq is a space for healthy, positive conversations about sex. Photo: Special Arrangement

#### Let's talk about sex

There is a direct correlation between the number of contraceptive options available and the willingness of women to use them. Studies indicate that an addition of a contraceptive method leads to an increase of up to 12% in contraceptive usage. Given that NFHS-4 data

show that the use of contraceptives has declined, we must ensure that women and men are provided with more choices of contraception.

Women should not be bound to use a method due to lack of contraceptive choices, which would be a direct violation of rights. An expansion in the basket of choices is an effort to ensure that family planning doesn't become coercive due to lack of choices, and can cater to the needs of all individuals, keeping in mind affordability and accessibility.

As told to Vidya Krishnan

Poonam Muttreja is executive director of the Population Foundation of India, a not-for-profit organisation working towards gender sensitive policies and programmes for family planning

## **World Sleep Day**

### **Delhiites sleeping less and sleeping badly: doctors (The Hindu:20170317)**

<http://www.thehindu.com/news/cities/Delhi/delhiites-sleeping-less-and-sleeping-badly-doctors/article17488164.ece>

Alarming revelations come ahead of World Sleep Day, observed on March 17; good sleep plays a critical role in overall well-being

Delhiites are sleeping less. This alarming diagnosis by city doctors came on Thursday, the eve of World Sleep Day (WSD). Observed on March 17, the day looks at important sleep-related issues.

Good sleep plays a critical role in overall well-being and protecting one against cardiovascular disease, diabetes and obesity to boosting neurocognitive functions, mental health and longevity, according to doctors.

But what's keeping the Capital awake?

“Stress, the need to stay connected all the time, chasing targets and deadlines, noise pollution, extensive travel time, night shifts and very limited time for self are the a main culprits behind this,” said Vinit Banga, Department of Neurology, Institute of Human and Behaviour and Allied Sciences (IHBAS).

Quality of life

“Delhi has become a 24x7 city. Delhiites are simply not allowing themselves to relax and work towards having a good quality seven to eight hour sleep. We are forcing ourselves to staying awake longer and longer to have a better quality of life, little realising that the quality of life suffers irreversibly if you don’t sleep well,” he said.

Sandeep Nayar, the HOD of Respiratory Medicine, Allergy and Sleep Disorders at BLK Super Speciality Hospital said: “Among the healthy population, stress is the primary culprit that’s keeping the city awake. Delhi youngsters are sleep-deprived these days owing to personal and professional stress. Most importantly, stress is not letting people have quality and undisturbed sleep. A healthy person who manages to sleep uninterrupted for five hours will wake up feeling feel fresh. Keeping television, laptop and other electronic items in the bedroom must be avoided at all cost as these affect sleep. Also, eating right is very important for mental peace.”

## Snoring problem

**APPROXIMATELY 20% OF THE ADULT POPULATION AND 60% OF MEN OVER THE AGE OF 40 SNORE REGULARLY. THOUGH COMMON, IT'S NOT QUITE HARMLESS. MEDICALLY, SNORERS ARE MORE PRONE TO**

- Heart attack
- Sudden death
- Arrhythmia

**PRACTICAL REMEDIES FOR SNORING**


- If snoring is due to any of the conditions listed above, find the cause and treat it
- Sleep on the side as the tongue doesn't block the airway and this prevents snoring. To do so, stitch a ball on the back of your nightshirt to force yourself to sleep on the side
- You can make a special anti-snoring pillow. To do so, make the portion under the neck higher than the portion under the head as this will help prevent snoring
- Lose weight if you're overweight, especially around the belly
- Stop smoking as smoke irritates the nasal mucosa and throat

**CITY DOCTORS LIST CAUSE OF**

- Rise in alcohol consumption
- A 24x7 lifestyle coupled with stress
- A 24x7 lifestyle coupled with stress
- Smoking

• While patients take snoring and other symptoms of OSA lightly, it could be highly dangerous as sleep apnoea could lead to other lifestyle diseases like hypertension

• High-caloric eating leading to obesity. Rising obesity leads to an increase in the neck circumference, which is one of the main reasons for upper airway crowding. This ultimately leads to obstructive sleep apnoea (OSA)



### Sleep disorders

Doctors noted that more and more people in the city, even the world, are battling sleep disorders. In fact, recent studies have shown that the ill-effects of this condition are far more complex and dangerous.

According to Delhi Diabetes Research Centre chairperson Ashok Jhingan: “Sleep apnoea is like a triad. A disturbed sleep pattern leads to disturbed eating pattern which then leads to

health problems. All three cause hypertension, high blood sugar and heart problems. It's a vicious circle."

### Sleep apnoea

"More sleep apnoea leads to more health issues and this leads to joint pain, gallbladder diseases and heart problems. Sleep apnoea is a lifestyle disorder. Change your lifestyle before sleep apnoea changes you," he added.

Several meta-analysis have suggested a close link between patients who suffer from obstructive sleep apnoea (OSA) and hypertension. Sleep apnoea is characterised as a sleep disorder in which a person has disrupted sleep, which leads to snoring and/or shallow breathing.

While sleep apnoea hampers a person's lifestyle and leads to low productivity, it's largely left untreated because of its slow impact. However, recent studies suggest that untreated sleep apnoea could be one of the primary reasons behind an aggravated case of hypertension.

Sleep apnoea is one of the most ignored health conditions. While many are simply unaware, others who are aware of their disorder usually are not informed about the severe consequences of untreated sleep apnoea.

People who let this condition remain unchecked are four times more at the risk of a stroke and three times more at the risk of developing a heart disease. It's also linked to a host of serious health conditions like diabetes, metabolic syndrome, increased weight gain, cardiac arrhythmias, heart attack, heart failure, memory impairment, premature ageing and even sudden death.

K. K. Aggarwal of Indian Medical Association said: "Untreated obstructive apnoea often results in high blood pressure, which can lead to an increase in heart size. This leads to higher risk of heart attacks and strokes."

### Atrial fibrillation

"People with sleep apnoea run the risk of higher chances cardiac arrhythmias, most common of which is atrial fibrillation. Lifestyle habits, which play an important role, can be managed effectively. Alcohol, smoking and some medications increase muscle relaxation, allowing the flesh of the throat to relax and disrupt airflow. Smoking also irritates the nasal passages and throat muscles, causing inflammation of these areas and restricting airflow," he added.

### Difficult to predict

Doctors, however, added that it's difficult to predict the stage at which a disease could become the breeding ground for other diseases. While it's comparatively easy to manage a lifestyle disease by effecting changes in your daily routine, living with co-morbidities is highly challenging. Two things need to be prioritised in such a scenario — limiting high-calorie food and the tendency to obsess and limit food. Youngsters in the city too aren't untouched by sleep-related issues.

## Sleeping patterns

Samir Parikh of the Department of Mental Health and Behavioural Sciences at Fortis Healthcare added: “For a majority of teenagers today, waking up in time every morning has become one of the biggest hurdles. Despite being aware that their bodies need at least seven to nine hours of sleep per day, many students forego precious hours of sleep. They exhibit erratic sleeping patterns and get less sleep due to late night chats on their mobiles, checking their handsets in the middle of the night, spending time on social media, watching movies or using laptops to browse the Internet late into the night.”

## Alzheimer's Disease

### Brain talk: Spot Alzheimer's a decade early (The Asian Age:20170317)

<http://www.asianage.com/life/health/170317/brain-talk-spot-alzheimers-a-decade-early.html>

Changes in speech style occur several years before serious mental health decline happens.

It may be possible to predict if someone is at risk more than a decade before being diagnosed with Alzheimer's disease.

It may be possible to predict if someone is at risk more than a decade before being diagnosed with Alzheimer's disease.

Recent research has shown that rambling and long-winded anecdotes could be an early sign of Alzheimer's disease. Subtle changes in speech style occur years before the more serious mental decline takes hold. The scientists behind the work say it may be possible to detect these changes and predict if someone is at risk more than a decade before meeting the threshold for an Alzheimer's diagnosis.

The symptoms that show subtle changes early on are labelled as mild cognitive impairment. For an accurate prediction, it is better to consider some risk factors and circumstances linked to dementia. They are:

Age, Alcohol dependence, Genetics: Someone with a family history of dementia is at higher risk, Smoking: Nicotine in blood vessels may cause hypertension, leading to early onset of dementia, Increased lipids, or hyperlipidemia, Diabetes: Those with chronic diabetes are at higher risk, Mental illnesses such as depression and anxiety, Hypothyroidism: A disorder in

which the thyroid gland does not produce enough thyroid hormone, Sedentary lifestyle and History of stroke.

Generally, the subtle signs are forgetting what one used to remember easily. Recent memory - what one remembers in the past 48 hours — is the first casualty. But remote memory — what happened in the long past — is not affected. Family members of the patient will start seeing the difference. The patients themselves, however, are not much aware of their forgetfulness.

Other early symptoms include forgetting the place where one kept personal stuff, such as spectacles, keys or money; inability to calculate quickly, and forgetting things to be bought from the market.

There are other signs of Alzheimer's that have nothing to do with memory loss. Many functions of the brain get disturbed and memory is just one of them.

There is disturbance in thinking, comprehension, calculation, speaking and judgement. The patients are unable to think clearly or take decisions quickly and properly. Calculation is a skill that enables people to 'read between the lines', which Alzheimer's disease patients cannot do.

Overall, cognitive functions fall to such a level that it starts interfering in dressing up, eating, personal hygiene and taking care of personal belongings.

Dementia is categorised into two types: Early onset that begins before 65 years, and late onset that begins after 65 years. The prevalence, incidence and severity increase with age and equally affect both male and female. In India, with the geriatric population increasing, incidence and prevalence too are rising. But it is a myth that dementia is a normal ageing process and nothing can be done to prevent it. It is difficult to judge the exact prevalence of dementia in India because of this myth. People notice dementia only after it has reached a severe level. Family members often go for treatment of associated symptoms or behaviour abnormalities such as depression, without knowing it was dementia all along. The recent research findings will help doctors deal with Alzheimer's patients in a better way, though doctors are already aware of all the factors.

It may be possible to predict if someone is at risk more than a decade before being diagnosed with Alzheimer's disease

According to doctors, people notice dementia only after it has reached a severe level

It is a myth that dementia is a normal ageing process and nothing can be done to prevent it

Subtle signs of dementia are forgetting what one used to remember easily

(The author is consultant psychiatrist at Sir Ganga Ram Hospital, New Delhi)

## Stress

### Eating fruits and vegetables may lower women's stress risk (Medical News Today:20170317)

<http://www.medicalnewstoday.com/articles/316414.php>

New research provides yet another reason to include fruits and vegetables in the diet, after finding that eating up to seven servings per day can lower the risk of psychological stress for middle-aged women.

Researchers say that moderate intake of fruits and vegetables could lower the risk of stress, especially among women.

According to the American Psychological Association, around three quarters of adults in the United States report experiencing at least one symptom of stress over the past month, including irritability, anger, nervousness, anxiety, and depression.

Not only can stress take its toll on mental health, it can also have negative implications for physical health. A recent study reported by Medical News Today, for example, revealed how chronic stress can increase the risk of obesity, while other studies have linked stress to high blood pressure, heart disease, and diabetes.

Of course, it is not always possible to escape stress; whether it is down to money worries, work demands, or family problems, all of us experience stress at some point in our lives.

The new study, however, suggests that simply including more fruits and vegetables in the diet may help to lower the risk of stress, particularly for women.

First study author Binh Nguyen, a Ph.D. student at the University of Sydney in Australia, and colleagues recently reported their findings in BMJ Open.

The researchers came to their conclusion after conducting an analysis of 60,404 men and women aged 45 and older, all of whom were a part of the Sax Institute's 45 and Up Study - a large-scale study of more than 267,000 adults from Australia.

The fruit and vegetable intake of each adult was assessed between 2006 and 2008 and again in 2010. At both time points, the psychological distress of participants was measured using the Kessler Psychological Distress Scale - a 10-item questionnaire that assesses symptoms of anxiety and depression.

Moderate fruit and veg intake reduced women's stress risk by 23 percent



Overall, the researchers found that adults who consumed three to four servings of fruits and vegetables daily were 12 percent less likely to experience stress than those who consumed zero to one serving daily.

Eating five to seven servings of fruits and vegetables each day was associated with a 14 percent lower risk of stress, compared with adults who consumed zero to four servings a day.

However, when looking at the results by sex, the researchers found that the link between fruit and vegetable intake and reduced stress was much stronger for women.

Women who ate five to seven servings of fruits and vegetables each day had a 23 percent lower risk of stress, compared with women who consumed zero to one serving per day.

Women who consumed two servings of fruits daily had a 16 percent lower risk of stress than women who consumed zero to one serving, while eating three to four servings of vegetables daily was linked to an 18 percent lower stress risk.

Eating more than seven servings of fruits and vegetables each day was not associated with lower stress risk, the team reports.

The researchers say that while their findings support current guidelines that recommend fruit and vegetable consumption as part of a healthful diet, further research is needed to better determine how these foods might impact stress.

The authors write: "Fruit and vegetable consumption may help reduce the prevalence of psychological distress among middle-aged and older adults. However, the association between fruit and vegetable consumption and the incidence of psychological distress requires further investigation and possibly, a longer follow-up time."

## **Heart Disease**

**Immune cell may turn heart inflammation into heart failure (Medical News Today:20170317)**

<http://www.medicalnewstoday.com/articles/316391.php>

Heart inflammation, or myocarditis, is a disorder usually caused by an infection reaching the heart. Although the condition is rare, it can sometimes lead to dilated cardiomyopathy - a leading cause of heart failure in younger adults. New research helps to explain why this

happens in some cases and not others, by examining an immune cell that appears to cause heart failure in mice.

New research shows how heart inflammation can progress into heart failure in mice.

Myocarditis occurs when an infection has reached the heart. During an infection, the body's immune system produces disease-fighting cells - but in heart inflammation, these cells enter the heart and can damage its muscle.

The condition is not often diagnosed; it rarely causes severe symptoms and detecting it requires a heart biopsy - a rather invasive procedure of moderate risk.

In some cases, myocarditis progresses into inflammatory dilated cardiomyopathy (DCMi) - a disorder in which the heart's muscle dilates, weakens, and can no longer properly pump blood. In the United States, DCMi is one of the leading causes of heart failure among younger adults, with a prevalence of between 300 and 400 patients per million U.S. adults.

New research, led by Dr. Daniela Cihakova from the Johns Hopkins University School of Medicine in Baltimore, MD - set out to understand why in some cases the heart heals from the inflammation, while in others it progresses into DCMi.

As the authors of the new paper mention, previous studies have pointed to the role of eosinophils - a specific type of immune cell - in the development of heart disease. As Dr. Cihakova explains, the new research "provide[s] more details about how these immune system cells may lead to deterioration of heart muscle function in mice in a way that lets us draw some parallels to human disease processes."

The findings were published in The Journal of Experimental Medicine.

Studying the role of eosinophils in heart failure

Dr. Cihakova and colleagues genetically modified a group of mice to have a deficiency of eosinophils. They then induced myocarditis in this group, using a technique called experimental autoimmune myocarditis. In this procedure, mice receive a peptide from their heart muscle cells, which makes the body's immune system attack the heart.

The researchers also induced myocarditis in another group of normal mice, with a healthy level of eosinophils. After 21 days, the scientists measured the inflammation in the hearts of both groups of mice.

They also analyzed the hearts for fibrosis or scar tissue - both signs of dying heart muscles in mammals. Scar tissue is also present in cases of DCMi.

The scientists found similarly acute inflammation in both groups.

However, when the scientists examined the groups for signs of heart failure, they found drastic differences between the eosinophil-deficient group and the normal group.

The mice with normal levels of eosinophils went on to develop heart failure, whereas the mice with eosinophil deficiency displayed no signs of heart malfunction.

The team also found scar tissue in both groups to a similar degree. However, the normal mice had DCMi, while the eosinophil-deficient ones were not affected.

The role of eosinophils confirmed by second experiment

To see if they could replicate their findings, the team designed an additional experiment in which they genetically modified mice to have an excess of an eosinophil-producing protein called IL5.

The IL5-excessive mice developed more inflammation and more scar tissue in the heart's upper chambers (or atria) compared with normal mice.

Mice with excessive IL5 protein also had more heart-infiltrating cells. As much as 60 percent of these cells were eosinophils in the IL5-excessive mice, compared with only 3 percent in the normal mice.

Additionally, the researchers examined the mice's hearts 45 days after the experiment and found severe DCMi in the mice with too much IL5 protein.

Finally, to account for the possibility that it is the IL5 protein and not the eosinophils that drive DCMi development, the team genetically modified eosinophil-deficient mice to have an excess of the protein.

The researchers found no reduction in the heart function of these IL5-excessive, eosinophil-deficient mice, compared with normal mice. This confirms that it is the immune cells, not the protein, that causes DCMi.

Eosinophil-made protein increases likelihood of post-myocarditis DCMi

In an attempt to understand exactly how eosinophils are responsible for DCMi, the researchers investigated further and managed to isolate a protein called IL4, which is produced by eosinophils.

Using yet another mouse model, Dr. Cihakova and team established that it is indeed the IL4 that facilitates the development of DCMi, and which is triggered by eosinophils.

"The take-home message is that inflammation severity does not necessarily determine long-term disease progression, but specific infiltrating cell types - eosinophils, in this case - do."

Dr. Daniela Cihakova

The study's senior author points out that their study is the first one to investigate the role of eosinophils in the onset of heart inflammation, and in its development from inflammation to DCMi.

Nicola Diny, a Ph.D. student in the Bloomberg School of Public Health and the study's first author, also comments on the findings:

"Our studies show that the presence of eosinophils in the heart makes mice more likely to get DCMi following myocarditis. And if there are a lot of eosinophils, the mice develop even more severe heart failure," Diny says. "It will be important to test if the same is true in patients. That way, we may be able to intervene early and prevent DCMi."

The researchers hope that their study will help to develop IL4-targeting medicines that could one day treat people with myocarditis, thus potentially halting its progression into DCMi.

## **Obesity**

**Can whole-body vibration stave off obesity and diabetes? (Medical News Today:20170317)**

<http://www.medicalnewstoday.com/articles/316383.php>

An intriguing study, published this week in the journal Endocrinology, compares the benefits of whole-body vibration with regular exercise. Could this innovative intervention help to stave off obesity and diabetes? Preliminary findings suggest that it could.

Whole-body vibration could offer a new approach to treating obesity and diabetes.

It is difficult to ignore the obesity crisis currently sweeping across the United States and the rest of the West. As the Centers for Disease Control and Prevention (CDC) write: "Obesity is common, serious, and costly."

More than a third of U.S. adults are obese and, in some states, over 35 percent of adults fall into the obese category.

It is now well documented that obesity brings with it a range of negative health consequences, not least of which is diabetes.

One of the best ways to combat obesity is physical activity, but many people struggle to exercise regularly for a number of reasons. Anything that can either replace or add to the benefits of exercise could be hugely beneficial for a large proportion of the population.

A team of researchers from Augusta University in Georgia, led by Meghan E. McGee-Lawrence, set out to investigate a potential alternative to exercise - whole-body vibration (WBV).

### Investigating WBV

WBV involves standing, sitting, or lying on a machine with a vibrating platform. As the machine vibrates, it transmits energy through the body, resulting in muscles contracting and relaxing many times per second.

First tested for its therapeutic benefits in the late 19th century, WBV has been studied for use in a range of situations. For instance, the European Space Agency is investigating it as a potential way to maintain muscle mass on long space flights.

Over recent years, WBV has also been assessed for use in a number of medical conditions. For example, a study in 2009 concluded that WBV might be beneficial for increasing muscle strength in the knees of females with osteoarthritis. Another study from the same year showed that WBV improved cardiorespiratory fitness and muscle strength in older adults. Similarly, an investigation in older adults found that WBV could help to improve balance.

The current project set out to understand whether WBV could mimic the benefits of regular exercise on muscle and bone. McGee-Lawrence and her team studied the effect in a mouse model.

### Obesity, diabetes, and WBV

Five-week-old male mice were used in the study: half were normal mice, and the rest were genetically unresponsive to leptin. Leptin is a hormone that helps to generate a sense of fullness; animals without a leptin response are predisposed to overeating and are therefore more likely to develop obesity and diabetes.

Both types of mice were split into three experimental groups:

WBV group - 20 minutes per day

treadmill exercise group - 45 minutes of walking daily

sedentary - no exercise

For the first week, the mice were allowed to get used to their equipment. Then, a 12-week exercise regimen began. They were weighed each week.

At the end of the trial, the genetically obese, diabetic mice showed similar benefits from both treadmill exercise and WBV. The obese mice gained less weight following WBV and exercise than the obese mice in the sedentary group, although they were still heavier than the normal mice.

Both exercise and WBV increased muscle mass and improved insulin sensitivity in the obese mice.

"Our study is the first to show that whole-body vibration may be just as effective as exercise at combatting some of the negative consequences of obesity and diabetes. While WBV did not fully address the defects in bone mass of the obese mice in our study, it did increase global bone formation, suggesting longer-term treatments could hold promise for preventing bone loss as well."

Meghan E. McGee-Lawrence, Ph.D.

Although WBV is not intended to entirely replace exercise, it could play an important role for individuals who either cannot exercise or cannot exercise enough. However, although the results are encouraging, they should be reinterpreted with caution; as McGee-Lawrence says, "because our study was conducted in mice, this idea needs to be rigorously tested in humans to see if the results would be applicable to people."

## **Lung Cancer**

**Metastatic lung cancer: Symptoms, diagnosis, and treatment (Medical News Today:20170317)**

<http://www.medicalnewstoday.com/articles/316384.php>

While cancer may develop in one area of the body, it has the ability to spread to other areas. When cancer spreads in this way, it is said to have metastasized, and is known as metastatic cancer.

Metastatic cancers are associated with the primary (or original) cancer. For example, lung cancer that spreads to the liver is called metastatic lung cancer, rather than liver cancer.

Metastatic tumors are very common in later stages of lung cancer, typically called stage 4 lung cancer, or advanced lung cancer.

Contents of this article:

Metastatic cancer vs. second primary cancer

Causes

Symptoms

Diagnosis

## Treatment

Metastatic cancer vs. second primary cancerlung cancer diagram

Metastatic lung cancer may spread to the bones, brain, or liver.

Metastatic cancers are associated with the primary cancer, rather than the site of metastasis. This is because when they are examined under a microscope, the cancer cells are shown to retain the features of the primary cancer.

This is also how doctors are able to distinguish between a metastatic cancer and a second primary cancer.

Second primary cancers are not metastases, but new cancers that are unrelated to the first type of cancer.

Second primary cancers are rare. Usually when someone with cancer is told they have cancer again, it means that the first primary cancer has returned. In lung cancer patients, for example, this means that the cancer has returned to the same part of the same lung after treatment. This is called recurrent lung cancer.

If cancer develops in the lung that was previously unaffected, it is usually considered to be a metastatic tumor rather a primary cancer that has returned.

Where does lung cancer spread to?

If lung cancer spreads, it typically spreads to certain areas such as:

adrenal glands

bones

brain

liver

lymph nodes

In rare cases, it may spread to other areas of the body including the stomach, intestines, pancreas, and kidney.

## Causes

Lung cancer occurs when healthy cells mutate during the cell division process to become cancer cells. These cancer cells continue to multiply until they eventually form a tumor on the lung.

As the tumor grows, it requires more space in the body and so begins to spread to other parts of the body. This spread is the start of metastatic lung cancer.

The cancer cells spread by growing directly into nearby tissue, or by breaking away from the primary tumor and traveling through the bloodstream or lymphatic system.

#### Growing directly into nearby tissue

The tumor pushes on the healthy tissue nearby, forcing itself to break through. As it continues to grow, the cancer blocks small blood vessels in the area.

This leads to a reduction in the supply of blood and oxygen to the healthy tissue. Without blood and oxygen, the normal tissue begins to die off, allowing the cancer to spread further.

#### Traveling through the bloodstream or lymphatic system

In order to spread via blood or lymph, cells from the tumor must break away.

Healthy cells contain substances called adhesion molecules that allow them to stick together. Research suggests that cancer cells no longer adhere to normal tissue structures.

In addition, scientists have discovered cancer cells secrete substances called exosomes, which may stimulate them to move. Research is ongoing into the role these exosomes play in the spread of cancers.

Cancer cells that travel through the bloodstream can eventually get stuck in a small blood vessel. Those that survive move through the wall of this blood vessel into nearby tissue. Here they may grow and form a new tumor.

Cells that travel through the lymph vessels can also get stuck. If the cells are not destroyed by the lymph glands, they form tumors in the lymph nodes.

#### Symptoms lady holds both hands under ribs

Common symptoms of cancer of the liver may be sickness, reduced appetite, and pain under the right ribs.

The symptoms of metastatic lung cancer are related to the area to which it spreads. However, the associated symptoms can be quite general and may be related to other issues. It is important to note that metastatic cancer does not always cause symptoms.

Some common symptoms related to the site of the metastatic lung cancer are:

**Adrenal glands:** Cancer that spreads to the adrenals does not usually cause symptoms. However, the level of adrenal hormones may drop, leading to weakness and tiredness.

**Bones:** Up to 40 percent of patients with advanced lung cancer develop bone metastases. Pain is the main symptom. The risk of fractures also increases.

**Brain:** Between 20 and 40 percent of patients with non-small-cell lung cancer, which is a type of lung cancer accounting for 85 percent of lung cancers, develop brain metastases. Headaches, confusion, tiredness, nausea, and weakness are symptoms.



Liver: Loss of appetite, nausea after eating, or pain under the right ribs can indicate cancer in the liver. Jaundice, a yellowing of the skin and whites of the eyes, is another symptom.

Lymph nodes: Enlarged lymph nodes, which are located in the armpit, neck, and stomach, can suggest the cancer has spread. Although, these nodes also swell during other types of illness.

## Diagnosis

Testing for metastases involves checking areas where lung cancer typically spreads to. Other areas may be investigated for metastases dependent on symptoms and results of initial tests.

Diagnostic tests include:

blood tests

bone scans

X-rays

CT scans

MRI scans

ultrasounds

## Prevention

Man breaks cigarette in half

The best way to reduce the risk of lung cancer is to quit smoking.

Simply having cancer or a history of cancer is a risk factor for metastases, and doctors cannot predict who will develop metastatic cancer. So, preventing metastatic lung cancer means preventing or promptly treating primary lung cancer.

Certain risk factors that predispose people to lung cancer, such as genetics, are unavoidable. However, other factors can be avoided.

Quitting smoking is the most important preventive measure that can be taken to reduce the risk of developing primary lung cancer.

Avoiding secondhand tobacco smoke and contact with certain materials, such as asbestos and radon, also reduces risk.

## Screening for lung cancer

Screening techniques are available to people who are at an increased risk of lung cancer. Early detection means a treatment program can be put in place before the cancer progresses, or spreads to other areas of the body.

People who are 55 or older, have a family history of lung cancer, smoke, or are former smokers may wish to discuss lung cancer screening options with their doctor.

## Treatment

Metastatic lung cancer treatment focuses on controlling cancer growth and relieving symptoms. Treatment options used depend on the type of lung cancer, the location of the metastases, treatments carried out in the past, and general health.

Options include:

Chemotherapy or biological therapy: This is usually offered if the cancer has spread to more than one area of the body.

Radiotherapy: May be used if the cancer has spread to just one area.

Laser therapy: Used to burn away part of a tumor, which may be blocking an airway.

Other medications: These are offered to address specific symptoms. Examples include steroids, muscle relaxants, and pain killers.

## Outlook

Not all lung cancers spread. However, once cancer has spread to other organs, the National Cancer Institute advise that it is not curable. At this stage, people are treated in order to control their symptoms and try to prolong their life.

According to the American Cancer Society, 26 percent of people diagnosed with a late-stage lung cancer that has metastasized to other areas of the body, live for at least one year after diagnosis. The 5-year survival rate is 4 percent.

## Coping

People who are told that their metastatic lung cancer cannot be controlled are advised to discuss end-of-life care with both a doctor and loved ones.

Intense emotions such as anger, anxiety, confusion, and grief are common reactions for people with cancer. It can be helpful to:

seek support from friends and family

join a cancer support group

attend counseling

talk to a doctor or nurse regarding any queries on diagnosis or treatment

## When to see a doctor

If someone has been diagnosed with primary lung cancer, they should make sure to attend all scheduled appointments and treatments with their doctor or other healthcare provider.

If new symptoms develop and persist for more than a few days, it is important to discuss these with a doctor.

## **Pregnancy**

### **Common screening tests unsuitable for predicting preterm births (Medical News Today:20170317)**

<http://www.medicalnewstoday.com/articles/316350.php>

Preterm birth causes a significant number of infant deaths both in the United States and worldwide. A new study investigates the accuracy of two methods for predicting preterm birth in first-time mothers.

Premature birth is thought to be the leading cause of neonatal death worldwide.

Preterm birth - defined as the birth of a baby before reaching the usual 37 weeks of pregnancy - affects 1 in 10 deliveries in the U.S., according to the Centers for Disease Control and Prevention (CDC).

Worldwide, approximately 15 million children are born prematurely every year, and preterm births are the number one cause of death among children younger than 5 years old.

Healthcare professionals can predict the probability of a spontaneous birth based on the mother's previous pregnancies, but prediction for women who have not been pregnant before is difficult.

However, some previous studies have suggested that a routine ultrasound examination of the cervix may help to anticipate preterm births.

The cervix is the outer, lower part of the uterus that dilates and becomes more narrow during labor, and the previous research has shown that a shorter cervix could predict a premature birth.

Additionally, some researchers have proposed that levels of fetal fibronectin - a protein that "glues" the amniotic sac to the inside of the uterus - may also help to predict premature births.

New research published in JAMA investigates the accuracy of these two methods. The study was led by Dr. Uma Reddy, of the Pregnancy and Perinatology Branch at the Eunice Kennedy Shriver National Institute of Child Health and Human Development.

The results 'do not support routine use of these tests'

The research studied spontaneous preterm birth, which happens naturally, rather than induced or cesarean delivery.

Dr. Reddy and team examined data on 9,410 women across eight research centers in the U.S., between October 2010 and May 2014. The women were pregnant with a single fetus and were enrolled in the Nulliparous Pregnancy Outcomes Study: Monitoring Mothers-to-Be - a

study that set out to provide better care for first-time mothers and identify and prevent preterm pregnancies.

These women had their cervical length measured using an ultrasound test at 16 to 22 weeks into their pregnancy, as well as at 22 to 31 weeks of pregnancy.

The participants also took a fibronectin test at 6 to 14 weeks, 16 to 22 weeks, and 22 to 30 weeks.

Overall, both of these tests identified only a very small number of the women who ultimately gave birth prematurely.

Among the women who took the ultrasound test at 16 to 22 weeks, only 8 percent of those who delivered prematurely had a short cervix - which is defined as smaller than 25 millimeters.

At 22 to 31 weeks, little over 23 percent of the women who gave birth prematurely had a short cervix.

As for the fibronectin levels, tests revealed that at 16 to 22 weeks of pregnancy, just over 7 percent of the women who had a preterm birth had increased fibronectin - defined as 50 nanograms per milliliter or higher - and at 22 to 30 weeks, just over 8 percent of women who gave birth prematurely showed high levels of fibronectin.

"These findings do not support routine use of these tests in such women," the authors conclude, as the methods did not serve to predict enough preterm births.

"These methods of assessing women in their first pregnancy do not identify most of those who will later go on to have a spontaneous preterm delivery. There is a need to develop better screening tests that can be performed early in pregnancy."

Dr. Uma Reddy, senior author

[http://epaper.jagran.com/ePaperArticle/17-mar-2017-edition-National-page\\_14-176-13321-262.html](http://epaper.jagran.com/ePaperArticle/17-mar-2017-edition-National-page_14-176-13321-262.html)

# देश से टीबी का कलंक मिटाएगी सरकार

■ जागरण ब्यूरो, नई दिल्ली

भारत ने अगले आठ साल में देश से टीबी के कलंक को मिटा देने के लिए आक्रामक राष्ट्रीय रणनीतिक योजना (एनएसपी) तैयार की है। इसमें इलाज से लेकर निगरानी और नए मामलों की पहचान तक के लिए नए तरीके अपनाए जाएंगे। इसकी वजह से राष्ट्रीय स्तर पर दर्ज हो रहे टीबी के मामलों में शुरू में बढ़ोतरी भी हो सकती है।

केंद्रीय स्वास्थ्य मंत्री जेपी नड्डा के अनुसार, 'हम टीबी के अब तक छिपे रह जाने वाले मामलों को सामने लाने पर जोर दे रहे हैं। हमारी रणनीति हर हाल में 2025 तक इसे देश से समाप्त कर देने की है।' वे कहते हैं कि टीबी की नई राष्ट्रीय रणनीतिक योजना में इसके लिए बहुत आक्रामक रणनीति बनाई गई है। इसे कुछ दिनों में सार्वजनिक किया जाएगा। गुरुवार को ही संसद में रखी गई नई राष्ट्रीय स्वास्थ्य नीति (एनएचपी) में भी इसकी झलक दिखाई देती है। इसमें भी कहा गया है कि देश से 2025 तक टीबी को खत्म कर देना है।

यहां चल रहे डब्ल्यूएचओ के दक्षिण-पूर्व एशियाई देशों के स्वास्थ्य मंत्रियों के सम्मेलन में भी स्वास्थ्य मंत्रालय ने अपनी नई टीबी राष्ट्रीय रणनीतिक योजना पेश की है। यहां टीबी के खिलाफ काम कर रहे स्टॉप टीबी पार्टनरशिप और ग्लोबल फंड जैसी अंतरराष्ट्रीय एजेंसियों ने इस कार्ययोजना की जमकर तारीफ की है। इस समय हमारे देश में हर साल 28 लाख नए मामले दर्ज किए जा रहे हैं

और पांच लाख मौतें हो रही हैं। इस तरह नए मरीजों के मामले में भारत दुनिया में सबसे ऊपर है। साथ ही विशेषज्ञों का मानना है कि बहुत बड़ी संख्या में टीबी के मामले सरकारी रिकार्ड में आ ही नहीं पाते। उधर, अंतरराष्ट्रीय स्तर पर टीबी को वर्ष 2030 तक समाप्त करने का लक्ष्य रखा गया है। दिल्ली में चल रहे दक्षिण-पूर्व एशियाई देशों के स्वास्थ्य मंत्रियों के सम्मेलन में गुरुवार को टीबी के खाल्ते के लिए 'कॉल फॉर एक्शन' पर दस्तखत किए गए। इसमें भी इसे वर्ष 2030 तक समाप्त करने का ही लक्ष्य है।

केंद्रीय स्वास्थ्य सचिव सीके मिश्र कहते हैं, 'हमें पता है कि यह लक्ष्य बहुत आसान नहीं है। लेकिन, भारत ने दृढ़संकल्प किया है कि ऐसी बड़ी चुनौतियों से निपटने को प्राथमिकता पर रखा जाएगा। हमारी योजना है कि हम पहले उन मामलों को सामने लाएं, जिनका अब तक पता ही नहीं चलता था।' नए मामलों की खोज को लेकर तेज किए गए प्रयासों के बाद पिछले साल औषधि प्रतिरोधी टीबी के मामलों की रिपोर्टिंग में 35 फीसद बढ़ोतरी हुई है।

## 30 सेकेंड में होगी डेंगू की जांच

मनोज भट्ट, नई दिल्ली : मच्छरजनित बीमारी डेंगू की जांच के नतीजे आने में अब घंटों इंतजार नहीं करना पड़ेगा। आइआइटी दिल्ली में तैयार हो रहे सेंसर आधारित सिल्वर नैनो वायर से खून की जांच के परिणाम 30 सेकेंड में मिलने लगेंगे।

आइआइटी दिल्ली के बायोकेमिकल विभाग के प्रोफेसर प्रशांत मिश्रा व भौतिकी के प्रो.जेपी सिंह मानव संसाधन विकास मंत्रालय की इमप्रिंट इंडिया योजना के तहत सेंसर आधारित सिल्वर नैनो वायर तैयार करने में जुटे हैं। प्रो. सिंह ने बताया कि पीसीआर आधारित डेंगू की जांच से नतीजे आने में काफी समय लगता है और नतीजे भी सटीक नहीं होते हैं। सेंसर आधारित नैनो वायर से जांच के परिणाम 30 सेकेंड में

संभव हो सकेंगे और यह डेंगू को प्रारंभिक अवस्था में ही पहचान करने में सक्षम है। जिससे समय रहते बीमारी की जानकारी होने से मरीज रोकथाम के लिए कदम उठा सकेगा।

उन्होंने कहा, आइआइटी दिल्ली एक मशीन भी तैयार कर रहा है। जिसे रामा बेस्ड इंस्ट्रूमेंट नाम दिया गया है। इसे जेब में रखकर मच्छर जनित बीमारियों से संक्रमित जगहों पर ले लाया जा सकता है। जहां पर सेंसर आधारित सिल्वर नैनो वायर के साथ इसे जांच में प्रयोग किया जा सकता है। सिंह ने कहा, इमप्रिंट इंडिया योजना में उनका प्रोजेक्ट देश भर के 60 प्रोजेक्ट के साथ शामिल किया गया है। इसे पूरा होने में दो वर्ष का समय लगेगा।

[http://epaper.jagran.com/ePaperArticle/17-mar-2017-edition-National-page\\_14-176-10468-262.html](http://epaper.jagran.com/ePaperArticle/17-mar-2017-edition-National-page_14-176-10468-262.html)

कनाडा के विज्ञानियों ने शोध में किया दावा

## असफल आइवीएफ से दिल को खतरा

कृत्रिम गर्भाधान की तकनीक आइवीएफ को लेकर चौंकाने वाला शोध सामने आया है। ताजा शोध के मुताबिक, आइवीएफ तकनीक अपनाने



वाली ऐसी महिलाएं जो गर्भधारण नहीं कर पातीं, उनमें दिल की बीमारी का खतरा बढ़ जाता है। शोधकर्ताओं ने बताया कि कृत्रिम गर्भाधान के लिए कई दवाओं का इस्तेमाल किया जाता है। ब्लड प्रेशर पर इन दवाओं का दुष्प्रभाव पड़ता है। साथ ही खून के थक्के जमने का खतरा भी बढ़ जाता है। कनाडा के ऑंटारियो स्थित वुमंस कॉलेज हॉस्पिटल के

कार्डियोलॉजिस्ट और प्रमुख शोधकर्ता जैकब उडेल ने कहा, 'कृत्रिम गर्भाधान का प्रयास करने वाली दो तिहाई महिलाएं गर्भधारण नहीं कर पाती हैं। ऐसी महिलाओं में आगे चलकर दिल से जुड़ी समस्याएं ज्यादा होती हैं। गर्भधारण कर लेने और बच्चे को जन्म देने वाली महिलाओं की तुलना में इनमें दिल का दौरा पड़ने और अचानक धड़कनें रुक जाने का खतरा बढ़ जाता है।'

-आइएनएस

### डायबिटीज का कारण बन सकती है स्टेटिन

कोलेस्ट्रॉल नियंत्रित करने के लिए इस्तेमाल होने वाली दवा स्टेटिन का दुष्प्रभाव सामने आया है। ताजा शोध के मुताबिक, 75 साल से अधिक

उम्र की महिलाओं में स्टेटिन डायबिटीज का कारण बन सकती है। ऑस्ट्रेलिया की यूनिवर्सिटी ऑफ क्वींसलैंड के शोधकर्ताओं ने इस शोध को अंजाम दिया। शोधकर्ताओं ने बताया कि बड़ी उम्र में स्टेटिन के इस्तेमाल से डायबिटीज का खतरा 33 फीसद तक बढ़ जाता है। शोधकर्ता

मार्क जॉस ने कहा कि परिणाम का सबसे आश्चर्यजनक पहलू यह है कि दवा की खुराक के हिसाब से खतरा बढ़ता है। स्टेटिन की ज्यादा खुराक लेने पर यह खतरा 50 फीसद तक भी बढ़ सकता है। शोध के दौरान 1921 से 1926 के बीच पैदा हुई 8,372 ऑस्ट्रेलियाई महिलाओं को शामिल किया गया। शोधकर्ताओं ने कहा कि स्टेटिन दिल की परेशानियों से बचाने की अहम दवा है, लेकिन इसकी ज्यादा खुराक से बचा जाना चाहिए।

-आइएनएस