



# DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY

Thursday

20190418

## Public health

### Attract more talent to public health (Hindustan Times: 20190418)

<http://paper.hindustantimes.com/epaper/viewer.aspx>

It's hard to get people to take on rural service but this issue can be resolved if it is made mandatory

I am sometimes asked, "What really is public health?" The term refers to the health of populations, in contrast to clinical health, which considers one patient's well-being. Public health also has a larger prevention component — for example mass immunisation programmes. It has multiple components: disease surveillance, epidemiology (transmission routes of diseases), designing programmes for scale (supply, demand, advocacy components), monitoring and evaluation, effective management, financing and more.

India's polio programme is one of the world's great public health successes. Surveillance was precise, household by household, reaching even the remotest areas. There was active engagement with the community, involving religious leaders. There was creative use of media. Remember Amitabh Bachchan's catchy "sirf do boond (just two drops)" appeal delivered in his trademark baritone? Logistics for safe distribution of vaccines were carefully worked out. The polio programme was much more than a techno-medical campaign. Indeed, its success was in the seamless coming together of business, social and medical skills.

Seen from this perspective, India's public health system has a problem of too little and too many. It is well known that there are too few doctors in rural areas: One for over 11,000 citizens against the global norm of one for 1000. Our focus this week is on the added problem that even within those meagre numbers, there are too many doctors, and not enough specialist managers and social scientists, especially at the sub-district level. Clinical doctors valiantly manage everything from disease surveillance to data reporting and accounting, and they are often ill-equipped.

Doctors flock to more lucrative private practice in cities. Newly minted Masters of Business Administration head for enticing jobs in business. It is very difficult to get people to take on rural service. The problem can be resolved only if it is made mandatory. Public health service should be required, without option, from anyone who has had the benefit of an education in medicine, social sciences, business management and engineering. In 2009, the Union health minister revealed that medical students pay annual fees of ~15,000 as against ~3.5 lakh spent on them. The Indian Institutes of Technology (IITs) charge a fee of ~2 lakh against a cost of over ~6 lakh. This is tax payers' money. It's time students paid back at least a part of their debt to the nation. Their degrees should be given only after such mandatory service.

Vice president Venkaiah Naidu recently made a stirring call for three years of mandatory rural service for doctors. Tamil Nadu and Odisha have had some form of required rural service for medical students; various other states are taking steps in that direction. Thailand has had such a system since 1972. The ambit of a medicine course goes beyond medical skills.

Working at the village level, I ask myself: "What if frontline data was being collected thoughtfully, by workers trained in the elements of data sharing and usage? Can we not have supervisors with management training, who are more effective with such data in their hands? Why not simple hand-held technologies used to share data between health workers, developed with inputs from the community? And what if adolescent girls worked as change agents at the village level, guided by those familiar with the dynamics of social change?" All this and more are possible, from my experience.

Over the last 15 years, I have led the setting up of large public health programmes in fields as diverse as HIV and maternal and child health, with an unusual recruiting strategy. I offer positions to just as many people with no background in medical health to speak of, but who have superb business and data analytical skills. I do this, convinced that the best marriage is between medical and business skills. I know it works. After all, I started off in public health with a similar profile.

In election season, political parties are talking about devoting more funds to public health. Perhaps, a chunk of this could be kept for attracting talent. Fellowship programmes such as Teach for India, the Gandhi Fellowship and others run by governments have shown that quality talent is willing to stay in the social sector, on acquiring initial exposure. Over time, mandatory rural service could be extended to other important causes such as education, agriculture, livelihoods and skill development as well.



## **Eye surgeries**

### **Can't blame doctors alone for failed eye surgeries (The Tribune: 20190418)**

<https://www.tribuneindia.com/news/comment/can-t-blame-doctors-alone-for-failed-eye-surgeries/760079.html>

Dr R Kumar Barring exceptions, most of the surgeons of failed surgeries had long experience, adequate qualifications and surgical skills. In some cases, the major lapses were the callousness of the supporting staff in the operation theatre, insanitary conditions in and around the place of surgery or recovery, and unhygienic conditions at home after discharge.

President, Society for promotion of Ethical and Affordable Healthcare

RECENT reports of failed eye surgeries in several hospitals of Haryana have brought into focus the failure to ensure vision to cataract patients even after successful surgical procedures by experienced surgeons and observance of operation theatre (OT) protocols. Studies reveal that such incidents have been occurring across the nation in private as well as public hospitals. Adverse events do occur with some frequency after any surgery, including eye surgery, but should the blame squarely lie on the operating surgeons? The failure of the surgery, coupled with the charge of negligence against doctors, obfuscates the underlying core issues and unduly exposes the doctor to the hysterical anger of society, physical assaults, and avoidable litigation by the patient's kin. While most consumers have come to expect defect-free electronic gadgets, medical scientists are loath to accept the same perfection in the delivery of surgical care.

Various investigations and studies have revealed that the cause of infection was detected in the fluids, medicines or instruments used in the surgery, in which doctors had no role to play. In a judicial review of failed eye surgeries, the Madurai Bench of the Madras High Court had acquitted the doctors of the charge of negligence, while observing that "the prosecution had failed to prove that doctors had any motive to cause harm." No lack of skill or negligence was proved in the court.

There are several factual and ethical issues regarding the practice of surgery that have plagued the outcome and its acceptance: (i) A cure or good outcome cannot be guaranteed, only possibilities can be predicted; (ii) Inadequate knowledge about the incidence of adverse events; (iii) Inadequate practice guidelines or protocols; (iv) Failure to appreciate the fact that the surgeon is only one player in the long chain of service and material providers; (v) Existence of hospital-acquired infections in almost all hospitals; (vi) Expectation of five-star facilities even in free camps; (vii) Need to compensate affected patients; (viii) The practice of blame game; and (ix) Doctors are soft targets.

According to the Oxford Dictionary, botching a task means to “carry it out badly or carelessly”. In the medical field, it means lack of skill, or negligence on the part of the surgeon. That is not a fact in the case of failed eye surgeries. Barring exceptions, most of the surgeons of failed surgeries had long experience, adequate qualifications and surgical skills. However, in some cases, the major reasons were the callousness of the supporting staff in the OT, insanitary conditions in and around the place of surgery or recovery, unhygienic conditions at home after discharge, existing infection in some other organ of the patient or his care-givers, or the failure to comply with the antibiotic regimen or other medication in the pre- or post-surgical period. No doubt doctors need to counsel patients about the risks of eye infection and its prevention. But can the surgeon ensure compliance?

Only one out of five doctors in rural India are qualified to practise medicine or surgery, as per a World Health Organisation report on the country’s healthcare workforce. Many unqualified doctors used to conduct free eye camps. Such surgeries used to compromise on several counts: unhygienic surroundings and set-up, inappropriate OT, inadequate or unclean water for surgeons’ hand wash, untrained assistants, unsterilised linen, dirty and blunt instruments, poor quality of fluids and medication, lack of follow-up after surgery, and lack of awareness among family members to look after the operated patients at home. Some quacks may still be operating.

The failed surgery would generally drive patients to hospitals like the PGI and make it worse for the already choked services. Despite technology, skill and commitment at these centres, the outcome would be dismal in a large number of such cases. No hospital can guarantee cure or absolute protection against adverse outcomes. The media had carried reports of an adverse occurrence in the Advanced Eye Centre at Chandigarh’s PGI about three years ago. A score of patients suffering from retinal problems were given avastin injections in their eyes. All those injected with a particular batch of the drug developed inflammation in the eyes. It was after a great effort that these eyes could be saved.

Similarly, things can go wrong in the case of other eye surgeries. Lasik (laser-assisted in situ keratomileusis) is an example. Eye specialists receive dissatisfied patients off and on, who were expecting to get rid of spectacles after a Lasik operation. In the case of a 21-year-old woman, hopes of a spectacle-free look were dashed soon. She was left with the feeling of being stabbed in the eyes with ‘pins and needles’. A few others were driven to suicidal tendencies due to

perpetual pain, discomfort, dryness, disorientation, headaches, nausea and the inability to drive or work. Morris Wexler, the man who led the US FDA (Food and Drug Administration) team that approved Lasik two decades ago, now says it was all a mistake! There is a need for a warning message for each case considering Lasik.

Several whistleblowers have highlighted scams and manipulation issues in the pharmaceutical industry from time to time. The country needs strict criminal prosecution against the suppliers of substandard drugs on the one hand and over-pricing on the other. Despite some recent reforms, the pharmaceutical sector is not marketing uniformly standard medicines, injectables, fluids, devices etc. If the infection occurs due to poor quality of drugs, who should be tried?

Once substandard medicines are banished from the market, many issues of 'botched' surgeries will subside. This will also develop faith in generic medicines and the poor will get affordable healthcare.

## **Junk food**

### **Teens desire to rebel may be used to make them give up junk food (The Tribune: 20190418)**

<https://www.tribuneindia.com/news/health/teens-desire-to-rebel-may-be-used-to-make-them-give-up-junk-food/759219.html>

Teenagers' natural desire to rebel against authority could be tapped to drive them to replace junk food with healthier choices, a study has found.

Food marketing, designed to foster strong positive associations with junk food in kids' minds and to drive overeating, is one of the biggest obstacles in the public fight against obesity.

The study, published in the journal Nature Human Behaviour, found that a simple and brief intervention can provide lasting protection for adolescents against these harmful effects of food marketing.

The method works in part by tapping into teens' natural desire to rebel against authority, researchers said.

The team from the University of Chicago in the US went into classrooms and had one group of students read a fact-based, expose-style article on big food companies.

The article framed the corporations as manipulative marketers trying to hook consumers on addictive junk food for financial gain.

The stories also described deceptive product labels and advertising practices that target vulnerable populations, including very young children and the poor.

A separate, control group of students received traditional material from existing health education programs about the benefits of healthy eating. The researchers found that the group that read the exposes chose fewer junk food snacks and selected water over sugary sodas the next day.

Teens first read the marketing expose material, and then did an activity called "Make It True," meant to reinforce the negative portrayal of food marketing.

The students received images of food advertisements on iPads with instructions to write or draw on the ads—graffiti style—to transform the ads from false to true.

The study found that the effects of the marketing expose intervention endured for the remainder of the school year—a full three months.

The effects were particularly impressive among boys, who reduced their daily purchases of unhealthy drinks and snacks in the school cafeteria by 31 per cent in that time period, compared with the control group.

Researchers found that reframing how students view food-marketing campaigns can spur adolescents, particularly boys, to make healthier daily dietary choices for an extended period of time.

"Food marketing is deliberately designed to create positive emotional associations with junk food, to connect it with feelings of happiness and fun," Christopher J Bryan, from University of Chicago.

The intervention produced an enduring change in both boys' and girls' immediate, gut-level, emotional reactions to junk food marketing messages.

Teenage boys, a notoriously difficult group to convince when it comes to giving up junk food, started making healthier food and drink choices in their school cafeteria.

"One of the most exciting things is that we got kids to have a more negative immediate gut reaction to junk food and junk food marketing, and a more positive immediate gut reaction to healthy foods," said Bryan.

This relatively simple intervention could be an early sign of a public-health game changer, researchers said. — PTI

## **Diabetes**

### **Diabetes in pregnancy ups the risk in kids later (The Tribune: 20190418)**

<https://www.tribuneindia.com/news/health/diabetes-in-pregnancy-ups-the-risk-in-kids-later/759194.html>

Children and youths whose mothers had diabetes during their pregnancy are themselves at an increased risk of the disorder, say researchers, including one of Indian-origin.

The study showed that a child or teenager whose mother had gestational diabetes—diabetes during pregnancy—was nearly twice as likely to develop diabetes before the age of 22 years.

The association was found in children from birth to the age of 22 years, from birth to 12 years, and from 12 to 22 years, said the study, published in Canadian Medical Association Journal.

"Although Type-1 and Type-2 diabetes in parents are well-established risk factors for diabetes, we show that gestational diabetes mellitus may be a risk indicator for diabetes in the mother's children before age 22," said Kaberi Dasgupta, clinician-scientist from the McGill University in Canada.

"This link of diabetes in children and youth with gestational diabetes in the mother has the potential to stimulate clinicians, parents, and children and youth themselves to consider the possibility of diabetes if offspring of a mother with gestational diabetes mellitus develop signs and symptoms such as frequent urination, abnormal thirst, weight loss or fatigue," said Dasgupta.

According to World Health Organization, diabetes can be treated and its consequences can be avoided or delayed with diet, physical activity, medication and regular screening and treatment for complications.

## **Feminine hygiene products**

### **Things gynaecologists want you to stop doing (The Tribune: 20190418)**

<https://www.tribuneindia.com/news/health/things-gynaecologists-want-you-to-stop-doing/757406.html>

Most gynaecologists often see patients repeating some common mistakes over and over again. Women should put a full stop to doing these mistakes for their own good!

Here is a list of things that a gynaecologist wishes you to stop doing (ASAP).

**Using unnecessary feminine hygiene products:** Keeping your private parts clean is important, but so is to choose your feminine hygiene products wisely. There are a lot of over-hyped deodorant sprays, soaps, washes, powders, etc. available in the market that can lead to irritation or allergic reaction. When used around your vaginal area for a long period, some of these products may even lead to high bacterial and yeast overgrowth. Stop using such products if you value your health and hygiene.

**Douching:** Another common practice among young women is douching, i.e. cleaning the vagina with a mixture of fluids. It is important to understand that your vagina can naturally perform a great job of cleansing itself of blood, semen, or any discharge. Medical evidence suggests that excessive douching can up your risk for getting pelvic inflammatory disease and various types of bacterial infections, vaginal dryness, as well as preterm birth (if you are pregnant)

**Consulting ‘Dr’ Google:** If you have problems like vaginal itching, frequent urination, etc., it is okay to Google it for basic information about the problem. But don’t be convinced that you have some medical problem and start self-treating with the help of ‘Dr’ Google. Always visit a doctor for proper medical advice, diagnosis and treatment.

**Cancelling your appointment because it’s “that time of the month”:** There is no need to cancel your gynaecologist appointment because you are on your period and experiencing bleeding and uncomfortable symptoms. New-age pap smear techniques help doctors get more accurate results when women are on their periods. Even if you’re tempted to, it’s better not to reschedule the appointment, unless your doctor tells you.

**Don’t be afraid and/or embarrassed to ask or answer questions about your sex life:** In our country, considering the huge stigma, opening up about sex and related subjects is never easy for women. However, it is important to understand a gynaecologist will not pass judgment based on your sexual preferences, nor will they mind talking about seemingly awkward sexual health issues. On the contrary, they want you to ask questions about dealing with painful sex, intercourse, your partner’s issues (if any), etc. Even if you are too shy to ask questions, make sure to answer these in an unhesitant tone when your doctor asks. Remember, your gynaecologist is there to help.

**Suffering in silence during PMS or other vaginal discomfort/pain:** PMS (pre-menstrual syndrome) is a combination of physical and emotional problems that leads up women to the start of their period cycle. While the symptoms of PMS are mild amongst the majority, it may be severely depressing and bothersome in some. If you’re experiencing painful cramps, crazy mood swings and cravings, or unbearable anxiety or depression, do not just decide to put up with it and keep things to yourself. Tell your gynaecologist all about that. Also if you are feeling

any prolonged pain, irritation, discomfort that may or may not be related to your periods, PMS or even pregnancy, consult your gynaecologist ASAP.

**Withholding medical/genetic history:** Your gynaecologist needs to know about the medical/genetic history of you and your family members so as to recommend you for the screening of uterine cancer, breast cancer, PCOD and even cardiovascular disease, thyroid disorder etc., as well as to assess the risk of miscarriage and other pregnancy issues. So, do not lie to the doctor or withhold information and medical records. If there's a new update (like your paternal uncle getting a heart attack), inform this to your gynaecologist as well.

**Worrying about your grooming habits:** Whether you've had a Brazilian wax or have or have not shaved your legs for long, it doesn't really matter to us as doctors. Stop worrying and/or being apologetic to your doc for how you choose to groom yourself. However, grooming/trimming is necessary, especially in Indian summers as keeping the area dry and clean is important. Some sweating is normal but excessive sweating may cause irritation, itching, bacterial and yeast infections during the summer and monsoon.

## **Partnering**

### **Partnering up key to quit smoking: Study (The Tribune: 20190418)**

<https://www.tribuneindia.com/news/health/partnering-up-key-to-quit-smoking-study/757864.html>

Is addiction not letting you quit smoking? Relax. A new study suggests that kicking the habit works best in pairs.

The study, presented at EuroPrevent 2019, showed that couples who attempted to stop smoking together had a six-fold chance of success compared to patients who attempted it alone.

"Quitting smoking can be a lonely endeavour. People feel left out when they skip the smoke breaks at work or avoid social occasions. On top of that, there are nicotine withdrawal symptoms. Partners can distract each other from the cravings by going for a walk or to the cinema and encouraging replacement activities like eating healthy food or meditating when alone. Active support works best, rather than nagging," said Magda Lampridou, Researcher from the Imperial College London in Britain.

For the study, the researchers evaluated the supporting role married or cohabiting partners might have in smoking cessation and enrolled 222 current smokers who were at high risk of cardiovascular disease or had suffered a heart attack.

The couples attended preventive cardiology programmes and during the 16-week programme, they were offered nicotine replacement therapy with patches and gum. In one programme, participants could choose the prescription drug, varenicline instead.

At the end of the programme, the findings revealed that 64 per cent of patients and 75 per cent of partners had quit smoking compared to none and 55 per cent in the beginning.

European Society of Cardiology (ESC) cardiovascular prevention guidelines advise against tobacco in any form and people who stop smoking generally halve their risk of cardiovascular diseases.

Lampridou noted that research is needed to confirm the findings in smokers who are otherwise healthy.

## **Zinc deficiency**

### **Zinc deficiency rising in Indians' (The Tribune: 20190418)**

<https://www.thehindu.com/sci-tech/health/zinc-deficiency-rising-in-indians/article26867693.ece>

Rising CO2 levels responsible: study

Rising carbon dioxide levels can accelerate zinc deficiency in crops and thus in human consumption, cautions a new study titled 'Inadequate zinc intake in India: past, present and future' by the Harvard T.H. Chan School of Public Health.

The study states that inadequate zinc intake has been rising in India for decades, causing tens of millions of people to become newly deficient in it. The study added that the highest rate of inadequate zinc intake was concentrated mainly in the southern and northeastern States with rice-dominated diets: Kerala, Tamil Nadu, Andhra Pradesh, Manipur and Meghalaya.

“Rising carbon dioxide levels in the coming decades could accelerate this trend. National grain fortification programmes, increased dietary diversity, bio-fortified crops, and reduced carbon dioxide emissions could all make a difference to slow or reverse the course,” the study noted.

Inadequate zinc intake can have serious health consequences, particularly for young children, who are more susceptible to contracting malaria, diarrhoeal diseases and pneumonia, when suffering from zinc deficiency. The presence of zinc plays a critical role in human immune systems.

“Rice is poor in [the presence of] zinc, causing higher rates of zinc inadequacy in diets that rely heavily upon it. Overall urban populations, and wealthier urban groups in particular, showed

higher rates of inadequate intake as well, due to a higher proportion of nutrient-poor fats and sugars in the diet,” the study said.

## Earth,s surface heating (The Asian Age: 20190418)

<http://onlinepaper.asianage.com/articledetailpage.aspx?id=12831973>

# Earth’s surface heating up, Nasa study confirms

**Washington, April 17:** Satellite measurements by NASA researchers have verified the ground-based data which shows the Earth’s surface has been warming globally over the past 15 years.

The team used measurements of the ‘skin’ temperature of the Earth taken by a satellite-based infrared measurement system called AIRS (Atmospheric Infra-Red Sounder) from 2003 to 2017.

The researchers compared these with station-based analyses of surface air temperature anomalies — principally the Goddard Institute for Space Studies Surface Temperature Analysis (GISTEMP).

The study, published in the journal *Environmental Research Letters*,

■ **Satellite-based infrared measurement system called AIRS was used to take measurements for study from 2003-2017**

found a high level of consistency between the two datasets over the past 15 years.

“AIRS data complement GISTEMP because they are at a higher spatial resolution than GISTEMP, and have more complete global coverage,” said Joel Susskind, from Nasa’s Goddard Space Flight Center in the US.

“Both data sets demonstrate the Earth’s surface has been warming globally over this period, and

that 2016, 2017, and 2015 have been the warmest years in the instrumental record, in that order,” Susskind said in a statement.

“This is important because of the intense interest in the detail of how estimates of global and regional temperature change are constructed from surface temperature data, and how known imperfections in the raw data are handled,” he said.

AIRS data reflects skin temperature at the surface of the ocean, land and snow/ice covered regions.

Surface-based data are a blend of two metre surface air data anomalies over land, and bulk sea surface temperature anomalies in the ocean.

— PTI

## Chickenpox (The Asian Age: 20190418)

<http://onlinepaper.asianage.com/articledetailpage.aspx?id=12829474>

# FEVER AND AN ITCHY, RED RASH MIGHT INDICATE CHICKENPOX

Did you know that two doses of vaccination are required for better immunity against chickenpox? Senior GP Dr. Hari Kishan Boorugu shares his valuable insight pertaining to the disease with us



KANIZA GARARI

THE ASIAN AGE

**✓** The combination of extreme heat and humid conditions are the major reasons for chicken pox. A highly contagious disease seen mostly in children chicken pox is an infection that causes blister like rash on the face and body and spreads throughout the body. It is mostly seen in children and the severity depends on whether the child has been vaccinated or not explained Dr Hari Kishan Boorugu, senior general physician at Apollo Hospitals.

**Q** Do fluctuating temperatures cause the outbreak of chicken pox during the summer?

The outbreak of chicken pox is witnessed mostly during periods of hot and humid weather. Therefore, there is an increase in its incidence from March to May.

It's a viral infection that causes a fever and an itchy red rash, which spreads all over the body. Although it is not life-threatening, complications can arise if not brought to the notice of a medical practitioner in time. It puts the patient at the risk of dehydration and in more serious cases, even brain fever.

Rashes appear on the belly, back, and face, and spread to almost every region in the body including hands, legs, mouth, scalp, and the genital area. It causes a tremendous amount of physical discomfort.

**Q** Although a vaccination for it is administered to children between the ages 3 and 5, some children still contract the disease. Why so?

No vaccine is 100 per cent effective. 90

out of 100 people who take the chickenpox vaccine are protected from the disease, and 99 of those are protected from acquiring severe chicken pox.

Those who contract the disease might have received a single dose of the vaccination instead of the standard two doses. Such a patient might suffer a mild attack wherein the rash isn't as severe and it isn't as itchy, either. There have also been cases wherein despite receiving two doses of the vaccination, an individual still fell prey to the disease.

**Q** Chickenpox usually leaves marks on the skin after it subsides. How can those marks be treated?

The residual marks usually disappear completely with time. In some cases, however, the marks might not heal at all and in such cases, it is best to consult a skin specialist, who will ideally suggest creams for cosmetic benefits.



Dr Hari Kishan Boorugu, Sr. General Physician

**Q** Approximately how many individuals miss the vaccination?

Earlier, in the pre-vaccination era, most cases of chickenpox were noted in children. Now, however, since most parents are proactively immunising their children against diseases like chicken pox, we are beginning to witness more cases of chickenpox in those adults who did not receive their shots as chil-

dren.

In adults, however, the severity of the disease is very high, especially if one suffers from other diseases like diabetes, hypertension, or cardiovascular diseases. Such cases might call for specialist intervention.

**Q** Do non-vaccinated individuals require special treatment?

People with chickenpox develop skin lesions in the form of red bumps or small blisters all over the body. It starts small and in four to five days, spreads all over the body. Occasionally, chickenpox may tamper with one's brain chemistry and can also cause pneumonia, jaundice, and rarely, death.

Severe complications, however, are not so common in children as they are in adults. However, chickenpox is usually a self-resolving infection. The use of antiviral drugs like Aciclovir is recommended in adults to prevent serious complications.

**Q** When is it ideal to commence confinement? Since, it's contagious, can it spread the disease to up to 10 people as rumoured?

Minimum seven days of isolation is required, sometimes longer. Essentially, the patient must be isolated until all the skin lesions form crusts and no more new active lesions are found. Isolation should start as soon as chicken pox is suspected. If one comes in contact with a patient suffering from the disease, then taking the chickenpox vaccine soon after has been shown to help in minimising the risk of contraction.

**Q** There are alternative remedies that people opt for, do they cause a delay in recovery?

The traditional method of applying neem leaves to the skin may worsen irritation caused by the lesions, which are already itchy and painful. Besides, that it works, is only a myth.

**Q** The marks left behind are a major concern and often take months and dermatological treatment to resolve. Why is that?

The marks on the body which eventually disappear completely in most cases.

However, it may take a long time and in some cases, marks may remain, which is not particularly harmful. In such cases, however, dermatologists prescribe can specific creams for the treatment.

**RASHES APPEAR ON THE BELLY, BACK, AND FACE, AND SPREAD TO ALMOST EVERY REGION IN THE BODY INCLUDING HANDS, LEGS, MOUTH, SCALP, AND THE GENITAL AREA. IT CAUSES A TREMENDOUS AMOUNT OF PHYSICAL DISCOMFORT. ALTHOUGH IT IS NOT LIFE-THREATENING, COMPLICATIONS CAN ARISE IF NOT BROUGHT TO THE NOTICE OF A MEDICAL PRACTITIONER IN TIME**

**Blood Circulation (The Asian Age: 20190418)**

<http://onlinepaper.asianage.com/articledetailpage.aspx?id=12829473>

## Ask a doc

# BLOOD CIRCULATION IS MUST TO AVOID SWELLING

**Q** *I am 18 years old suffering from acid reflux? What must I do?*

— *Ashok Verma*

Gastroesophageal reflux disease (GERD) occurs when stomach acid frequently flows back into the tube connecting your mouth and stomach (esophagus). This backwash (acid reflux) can irritate the lining of your esophagus. Many people experience acid reflux from time to time. GERD is mild acid reflux that occurs at least twice a week, or moderate to severe acid reflux that occurs at least once a week. Most people can manage the discomfort of GERD with lifestyle changes and over-the-counter medications. But some people with GERD may need stronger medications or surgery to ease symptoms.

Your doctor might be able to diagnose GERD based on a physical examination and history of your signs and symptoms. To confirm a diagnosis of GERD, or to check for complications, your doctor might recommend: Upper endoscopy, Ambulatory acid (pH) probe test, Esophageal manometry, X-ray of your upper digestive system.

Your doctor is likely to recommend that you first try lifestyle modifications and Prescription medications. If you don't experience relief within a few weeks, your doctor might recommend surgery. GERD can usually be controlled with medication. But if medications don't help or you wish to avoid long-term medication use, your doctor might recommend surgery.

— *Dr. Bhavani Raju*  
*Consultant Gastroenterologist*

**Q** *I am having severe swelling in the legs? I have a desk job and sitting 8 hours? What must I do?*

## **Aging population (The Indian Express: 20190418)**

<https://indianexpress.com/article/explained/telling-numbers-in-three-decades-one-in-five-indians-will-be-aged-60-yrs-or-more-5681209/>

Telling Numbers: In three decades, one in five Indians will be aged 60 yrs or more

With life expectancy growing, an ageing population has become a worldwide trend, and older persons make up a growing share of the population in virtually every country.

Exit Ayodhya architects, enter new-age Hindutva

Explained: Caught in London, is Julian Assange headed to the US to face trial now?

The case against Sadhvi Pragya

lok sabha elections, election news, party manifestos, congress, bjp, pune news, Senior citizens, senior citizen concerns, senior citizen issues, indian express

The population aged 60 or above is growing at a rate of about 3% per year worldwide.

THE SHARE of older persons (those aged 60 years or above) in India's population is projected to increase to nearly 20% in 2050. This was among trends flagged during the ongoing tenth session of the United Nations Open-ended Working Group on Ageing. On Wednesday, a PTI report from the UN quoted Paulomi Tripathi, First Secretary in India's Permanent Mission to the UN, as saying: "We live in a world where people live longer than ever before. It is estimated that by 2050, there will be more people older than 60 years than those below 15 years."

With life expectancy growing, an ageing population has become a worldwide trend, and older persons make up a growing share of the population in virtually every country. Their share, less than 13% worldwide in 2017, is projected to rise to 21% by 2050 (World Ageing Report 2017 and World Population Prospects 2017, both UN). In India, the share of older persons is projected to rise from 9.4% on 2017 (125.7 million out of 1.3 billion) to 19.1% in 2050 (316.7 million out of 1.6 billion).

The population aged 60 or above is growing at a rate of about 3% per year worldwide. Their proportion is expected to double between 2007 and 2050, and their actual number will cross two billion by 2050. By then, all regions of the world except Africa will have nearly a quarter or more of their populations at ages 60 and above. The number of older persons could rise to 3.1 billion in 2100, UN reports have projected.



## **Healthier rice**

### **Roll over, quinoa. New, healthier rice is here (Hindustan Times: 20190418)**

<http://paper.hindustantimes.com/epaper/viewer.aspx>

Rice isn't nice for diabetics, but four low glycaemic index (GI) varieties developed by the Indian Council of Agricultural Research (ICAR) could make the cereal not just less damaging but also help achieve better diabetes control, scientists have said.

In a country on course to becoming the world's diabetes capital by 2025, low GI foods — including quinoa and millets-based cereals — have become a fad for those wanting alternatives to starchy grains. According to World Health Organization (WHO), India has close to 62 million people living with the diseases and is projected to have close to 70 million diabetics by 2025, more than the diabetic population of any other country in the world.

Glycaemic index is a measure of how quickly food is digested and sugar released into the bloodstream. Low GI foods are digested slowly and don't instantly release huge amounts of sugar in the body. Rice, naturally high in starch, has a high GI score, making it a bad grain for diabetics.

“But for a vast majority of Indians whose diets culturally depend on rice, it's very difficult for other grains to take its place,” says scientist Jyothi Badri of the Hyderabad-based, state-run Indian Institute of Rice Research.

The institute has cracked complex rice plant biology to produce a bunch of varieties that have lower GI index.

They also are better quality and have higher yields. Rice naturally has a GI score of 70-80.

According to V Ravindrababu, a former director of the institute who oversaw the project, the challenge was to reduce the GI score to 55.

The new varieties that were validated by the National Institute of Nutrition as having the lowest GI scores compared to commonly consumed See page 10

## **New AI system**

### **New AI system may help detect prostate cancer (New Kerala: 20190418)**

<https://www.newkerala.com/news/read/129249/new-ai-system-may-help-detect-prostate-cancer.html>

Researchers have developed a new artificial intelligence (AI) system to help radiologists improve their ability to diagnose prostate cancer.

The system, called FocalNet, helps identify and predict the aggressiveness of the disease by evaluating magnetic resonance imaging (MRI) scans, and does so with nearly the same level of accuracy as experienced radiologists.

FocalNet is an artificial neural network, which uses an algorithm that comprises more than a million trainable variables, according to researchers, including Ruiming Cao from University of California, Los Angeles.

For the study, published in the journal IEEE Transactions on Medical Imaging, the team trained the system by having it analyse MRI scans of 417 men with prostate cancer. Scans were fed into the system to help it learn to assess and classify tumours in a consistent way and then compare results to the actual pathology specimen.

The team compared the system's results with readings by UCLA radiologists with more than 10 years of experience.

The findings showed the AI system was 80.5 per cent accurate in reading MRIs, while UCLA radiologists were 83.9 per cent accurate.

Radiologists use MRI to detect and assess the aggressiveness of malignant prostate tumours. But it typically takes practicing on thousands of scans to learn how to accurately determine whether a tumour is cancerous or benign and to accurately estimate the grade of cancer, the team said.

The research suggests an artificial intelligence system could save time and potentially provide diagnostic guidance to less-experienced radiologists.

## **Diabetic drug**

### **Commonly used diabetic drug - Metformin, beneficial for non-diabetic patients (New Kerala: 20190418)**

<https://www.newkerala.com/news/read/129243/commonly-used-diabetic-drug-metformin-beneficial-for-non-diabetic-patients.html>

A new study claims that 'metformin', a commonly used diabetes drug, has the potential to reduce the risk of heart diseases in non-diabetic patients. Researchers also claim that metformin could reverse the harmful thickening of the heart muscle that leads to cardiovascular diseases. The study was published in the medical journal European Heart.

The study showed that metformin, used to treat type 2 diabetes safely for the last six decades, reduced left ventricular hypertrophy (LVH) in patients with prediabetes and pre-existing heart disease.

LVH is the thickening of the muscle wall in the heart's left pumping chamber and is a serious risk factor for future heart attack, stroke and heart failure.

LVH is often a silent symptom and most people do not know they have it prior to experiencing a heart attack or stroke. Large studies have previously shown that patients with LVH are at higher risk of adverse cardiovascular events and reducing LVH can substantially reduce mortality rates.

"Cardiovascular diseases are the leading cause of global mortality. We have previously shown that metformin can have beneficial effects in patients with cardiovascular diseases. But this is the first time anyone has looked specifically at the effects of metformin on LVH in nondiabetic patients with coronary artery disease in a clinical trial." said, Professor Lang, head researcher of the study.

"The study involved treating prediabetic people with coronary artery disease with metformin or a placebo over a period of 12 months to see how the drug affected the heart muscle wall, using state-of-the-art MRI technology. The major causes of LVH are high blood pressure, obesity and insulin resistance, which are also thought to be key contributors of coronary artery disease. The dangerous thickening of the left ventricle was reduced by twice as much in those taking metformin compared to the placebo," he added.

"We also found that metformin reduced blood pressure, oxidative stress and lost body weight - an average of 3.6 kg, compared to no changes in the placebo group. If the findings from this study are substantiated in a larger-scale study, metformin could offer hope for millions of patients across the globe," the researcher said.

The MET-REMODEL trial is the first clinical trial in the world to show that metformin could reverse harmful thickening heart muscle wall in a clinical trial. Repurposing cheap and readily available drugs, such as metformin, to treat other health conditions could potentially save the NHS billions of pounds every year.

Mohapradeep Mohan, the lead author, said blood pressure medications were the standard treatment modalities for LVH but that this approach was not particularly effective as LVH can also be present in patients who have well-controlled blood pressure. This highlighted the need for new treatment strategies in these patients.

"In this context, we need non-blood pressure medication and we had good reason to suppose that metformin should help to reduce thickening of the heart muscle wall," he said.

"The findings from our study reinforce the notion that metformin has the potential to improve cardiovascular health, offering the possibility of improving the life expectancy of patients. From the standpoint of clinical practice, this drug is already approved and well tolerated with minimal side effects.

"If our findings are backed up by bigger studies, using metformin to target LVH presents a novel treatment option and unique opportunity for a quick translation to the clinic. We are thankful to BHF for funding this study and extremely grateful to all the participants of this study."

## **Mindful body awareness**

### **Mindful body awareness training helps prevent drug relapse: Study (New Kerala: 20190418)**

<https://www.newkerala.com/news/read/129115/mindful-body-awareness-training-helps-prevent-drug-relapse-study.html>

A novel type of training called mindful body awareness training, which is undertaken during treatment for drug addiction, helps prevent relapse, recent findings suggest.

According to the study, the training helps people better understand the physical and emotional signals in their body and how they can respond to these to help them better regulate and engage in self-care. It's the first time the mindfulness approach has been studied in a large randomised trial as an adjunct treatment.

"We could teach this intervention successfully in eight weeks to a very distressed population, and participants not only really learned these skills, they maintained increases in body

awareness and regulation over the yearlong study period," said Cynthia J. Price, lead author of the study published in the Journal of Drug and Alcohol Dependence.

According to Prince, likely due to using the skills learned in the intervention, the women showed less relapse to drug and alcohol use compared to those who didn't receive the intervention, Price said.

As part of the research, the training included one-on-one coaching in an outpatient setting, in addition to the substance use disorder treatment the women were already receiving. The intervention is called Mindful Awareness in Body-oriented Therapy (MABT) and combines manual, mindfulness and psycho-educational approaches to teach interoceptive awareness and related self-care skills. Interoceptive awareness is the ability to access and process sensory information from the body.

Researchers studied 187 women at three Seattle-area locations. The cohort, all women in treatment for substance use disorder (SUD), was split into three relatively equal groups. Every group continued with their regular SUD treatment. One group received SUD treatment only, another group was taught the mindfulness technique in addition to treatment, and the third group received a women's education curriculum in addition to treatment in order to test whether the additional time and attention explained any positive study outcomes.

Women were tested at the beginning, and at three, six and 12 months on a number of factors including substance use, distress craving, emotion regulation (self-report and psychophysiology), mindfulness skills and interoceptive awareness. There were lasting improvements in these areas for those who received the MABT intervention, but not for the other two study groups.

## **Testosterone,**

### **Testosterone, cortisol linked with aggression behaviour in children: Study (New Kerala: 20190418)**

<https://www.newkerala.com/news/read/129109/testosterone-cortisol-linked-with-aggression-behaviour-in-children-study.html>

A recent study, which included 139 eight-year-old children, has concluded that low levels of testosterone and high levels of empathy may explain the low levels of aggressive behaviour in girls. The findings also suggest that low levels of empathy and high levels of cortisol may account for high levels of aggressive behaviour in boys.

"We are talking about a type of normative, mild aggressive behaviour inherent in the human being him-/herself. We work with the normative population, in other words, they are not

children with behavioural problems," said Pascual-Sagastizabal, one of the lead authors of the study.

"See whether there was any interaction on a biological and psychological level that could account for aggressive behaviour in children. A further aim was to find out whether this behaviour can be explained by means of various psychobiological mechanisms in children," she added.

According to the researchers, there are in fact psychobiological markers of aggressive behaviour, in other words, there are variables of a psychobiological type that account for aggressive behaviour in children.

The findings were published in the *Journal of Psychoneuroendocrinology*.

80 boys and 59 girls aged 8 (in year 3 of Primary Education) participated in the study, which involved measuring their hormonal levels of testosterone and estradiol (sexual hormones) and cortisol (hormone associated with stress). At the same time, "we measured their empathy through a questionnaire that we handed out to their parents, and aggressive behaviour was assessed in the classroom itself the rest of the classmates evaluated each other's behaviour," she said.

The results of the study revealed that "empathy and hormones could together account for aggressive behaviour. In fact, the interactions were different for boys and for girls".

The findings pointed out that "the reason why a girl is not very aggressive could be explained partly by their high levels of empathy and their low levels of testosterone", in other words, it was established that the girls who combine these two psychobiological elements are less aggressive.

In boys, however, "with testosterone being as famous as it is in relation to aggressive behaviour, our data do not correlate testosterone with empathy to account for aggressive behaviour", specified Pascual, since boys with higher levels of cortisol and lower levels of empathy than the rest turned out to be more aggressive. By contrast, the levels of estradiol did not reflect any interaction with empathy in either case.

With the study, researchers tried to understand the complexity of human behaviour, and within that complexity to add as many variables as possible".

It is a piece of basic research, "essential for understanding why there are things that work when they are applied or if one intervenes, and why at other times they don't work", Pascual-Sagastizabal stressed.

## **Stimulating brain**

### **Stimulating brain with ultrasound can influence decisions (Medical News Today: 20190418)**

<https://www.medicalnewstoday.com/articles/324998.php>

A noninvasive, low-intensity ultrasound method that targets nerve cells, or neurons, can alter brain function to influence decision-making.

vintage illustration of a brain

New research shows how a brain area called the anterior cingulate cortex controls a type of reasoning known as counterfactual thinking.

Scientists have demonstrated the technique in a recent study, in which they disrupted "counterfactual thinking" in primates.

Counterfactual thinking, or counterfactual reasoning, is a type of decision-making that involves considering options that are not available now but could be in the future.

For example, a person working indoors on a sunny day who says to themselves, "I could be outside enjoying the sunshine," is engaging in counterfactual thinking.

The recent study is the first to show that a frontal brain region known as the anterior cingulate cortex can regulate counterfactual thinking.

In a paper in Nature Neuroscience, the authors describe how they altered counterfactual thinking in macaque monkeys by targeting neurons in their anterior cingulate cortex with noninvasive, low-intensity ultrasound.

'Internal representations of choices'

Research on decision-making has tended to focus on brain circuits that control responses to current stimuli. However, the authors note that "Animals often pursue behaviors for which there is no reward. They argue that, to be able to do this, animals have to maintain "internal representations" of choices, "even when these choices are unavailable."

Honey bees may help to explain how humans make decisions

Honey bees may help to explain how humans make decisions

Honey bee colonies obey the same laws as human brains when making decisions in response to sensory stimuli.

In other words, animals must have some capacity for counterfactual thinking, or thinking about choices that are unrelated to current experience.

"This is a really exciting study for two main reasons," says lead and corresponding study author Elsa Fouragnan, Ph.D., who works at the University of Plymouth School of Psychology, in the United Kingdom.

The first reason for being excited by the study, she explains, is because the findings reveal that "the cingulate cortex is crucial to help switch to better alternatives."

And the second reason, she adds, is because the results show that "low-intensity ultrasound can be used to reversibly change brain activity in [a] very precise part of the brain."

### Nonsurgical brain stimulation

There is a growing need for nonsurgical brain stimulation tools. There is potential for such methods to improve treatment outcomes safely and with minimum side effects.

Low-intensity, focused ultrasound is "gaining traction" as such an approach. Previous studies have shown that it can alter activity in mammal brains noninvasively, both by stimulating and blocking signals.

Some studies have also shown that ultrasound can influence activity in the outer layers and also deep inside the human brain.

The recent study sheds light on how activity in the anterior cingulate cortex influences decision-making.

It suggests that, if this part of the brain does not function properly, it could prevent an individual from being able to switch to a better option, even when it becomes available.

Experts believe that this type of brain dysfunction could be the reason why people with certain psychiatric illnesses remain trapped in unhelpful habits.

### Study reveals causal role of brain region

Fouragnan and colleagues investigated these possibilities further by studying the macaques as they searched for and selected a treat from a range of options.

The monkeys rapidly learned which of the options they preferred, but when it came to exercising choice, it was not always available. However, they did "keep it in mind" for when it was next available.

The researchers then investigated how the monkeys "maintained representations of the value of counterfactual choices – choices that could not be taken at the current moment but which could be taken in the future."

Using MRI scans of the monkeys' brains, they observed that activity in the cingulate cortex "reflected whether the internal value representations would be translated into actual behavioral change."

They showed that, by stimulating the brain region with noninvasive, focused, low-intensity ultrasound, the anterior cingulate cortex was of "causal importance" to this process. Stimulating the brain in this way disrupted the monkeys' counterfactual thinking.

Fouragnan concludes that brain stimulation using noninvasive, focused, low-intensity ultrasound "has the potential to improve the lives of millions of patients with mental health conditions by stimulating brain tissues with millimeter accuracy."

Some brain stimulation techniques are already helping people with Parkinson's disease and depression, but because they are nonsurgical, the methods do not have the level of accuracy achieved in this study, she adds.

"It's still early stages, and the next stage is for further trials to be conducted in humans, but the potential is very exciting."

## **Alzheimer's:**

### **Alzheimer's: Synthetic protein blocks toxic beta-amyloid (Medical News Today: 20190418)**

<https://www.medicalnewstoday.com/articles/324985.php>

Alzheimer's is a relentless disease in which toxic clusters of beta-amyloid protein collect in brain cells. Now, scientists have designed a synthetic peptide, or small protein, that can block beta-amyloid in its early and most harmful stages.

brain illustration

New research may have found a way to stop Alzheimer's-related brain damage in its early stages.

The synthetic peptide, which has only 23 amino acids, folds into structures called alpha sheets. The sheets bind to early-stage, small clumps of beta-amyloid and stop them forming larger masses.

A team from the University of Washington (UW) in Seattle and other research centers in the United States designed and produced the synthetic peptide and also tested it in cells and animals.

The tests showed that alpha sheets of the peptide reduced the toxic impact of beta-amyloid in cultured human brain cells. The sheets also blocked early forms of beta-amyloid in animal models of Alzheimer's disease.

The Proceedings of the National Academy of Sciences is shortly to feature a paper about the study.

The researchers say that the findings could lead to treatments that clear away toxic beta-amyloid in its early forms. They also see potential for using the peptide as the basis of a test for diagnosing Alzheimer's disease before symptoms emerge.

#### Forms of beta-amyloid

Toxic beta-amyloid is a distinguishing hallmark of Alzheimer's disease. But not all forms of beta-amyloid are toxic. Brain cells, or neurons, make the protein in a simple form called a monomer. Monomer forms of beta-amyloid carry out essential jobs in brains cells.

However, in people with Alzheimer's disease, beta-amyloid monomers cluster into oligomers, which can contain up to 12 monomers.

A simple type of daily meditation may alter the course of Alzheimer's

A simple type of daily meditation may alter the course of Alzheimer's

Practicing simple mind-body therapy for 12 minutes per day can alter potential biomarkers of Alzheimer's disease.

The formation of protein deposits is a typical feature of diseases in which a protein fails to fold properly into the shape necessary for it to do its job.

In Alzheimer's disease, the oligomers continue to grow into longer shapes, and then eventually, they form much bigger deposits, or plaques.

At first, scientists thought that plaques were the most toxic form of beta-amyloid that produced symptoms of Alzheimer's disease, such as loss of memory and thinking capacity.

However, due to growing evidence, an increasing number of experts are suggesting that the earlier oligomer stages of beta-amyloid are likely to be the most toxic to brain cells.

#### Synthetic peptide targets oligomers

The researchers designed the synthetic peptide alpha sheets to target beta-amyloid while it is at the oligomer-forming stage.

"This is," says corresponding study author Valerie Daggett, who is a professor of bioengineering at UW, "about targeting a specific structure of [beta-amyloid] formed by the toxic oligomers."

The study shows, she adds, that it is possible to devise synthetic peptide alpha sheets whose structures "complement" those of beta-amyloid as it assumes a toxic form, "while leaving the biologically active monomers intact."

The process of making proteins in cells eventually produces molecules of diverse 3D shapes. The first stage of this involves folding the long chain into one of several basic shapes.

Prof. Daggett's team had discovered one such basic shape — the alpha sheet — in earlier work in which they had simulated production of proteins on computers.

The recent study reveals that beta-amyloid oligomers adopt the alpha-sheet shape as they form longer clumps and plaques.

It also shows that the synthetic peptide alpha sheet binds only to beta-amyloid oligomer alpha sheets and that this neutralizes their toxicity.

### Big drop in beta-amyloid oligomers

The team used traditional and state-of-the-art spectroscopes to watch how beta-amyloid progressed from monomers to oligomers to plaques in cultured human brain cells.

They also confirmed that oligomers were more harmful to brain cells than plaques. This finding supports studies that have found beta-amyloid plaques in the brains of people without Alzheimer's disease.

The team showed that treating samples of brain tissue from a mouse model of Alzheimer's disease with alpha sheets of synthetic peptide led to an 82 percent reduction in beta-amyloid oligomers.

In addition, treating the live mice with alpha sheets of synthetic peptide reduced their beta-amyloid oligomer levels by 40 percent within 24 hours.

The team also carried out experiments on another common model of Alzheimer's disease, the worm *Caenorhabditis elegans*. These showed that treatment with alpha sheets of synthetic peptide was able to delay paralysis due to beta-amyloid.

Treated worms also showed less of the gut damage that develops when they feed on bacteria that produces beta-amyloid.

Finally, the researchers showed that it could be possible to use alpha sheets of synthetic peptide to test for levels of beta-amyloid oligomers.

Prof. Daggett and her team are already experimenting with new versions of synthetic peptide alpha sheets to find those that can neutralize beta-amyloid oligomers even more effectively.

"[Beta-amyloid] definitely plays a lead role in Alzheimer's disease, but while historically attention has been on the plaques, more and more research instead indicates that amyloid beta oligomers are the toxic agents that disrupt neurons."

## **Alternative therapies for cancer**

### **Alternative therapies for cancer: Do they do more harm than good? (Medical News Today: 20190418)**

New research finds that one-third of people living with cancer use complementary and alternative therapies. Medical professionals raise concerns about the safety of these practices, suggesting that they may interfere with conventional cancer treatment.

woman doing yoga

New research suggests that yoga may be one of the few nonconventional therapies that may help people living with cancer.

In 2018, the National Cancer Institute estimated that 1,735,350 people in the United States would receive a diagnosis of cancer by the end of that year and that 609,640 people would die from the condition.

Coping with the distressing news of a cancer diagnosis can be challenging.

As Dany Bell, a specialist advisor on cancer treatment and recovery at Macmillan Cancer Support in the United Kingdom, put it, "Being diagnosed with cancer can be a big shock, even if you already suspected you might have it."

Once they receive a diagnosis, many people turn to complementary and alternative therapies in search of a cure.

But new research cautions that such an approach may be misguided. Dr. Nina Sanford, from the University of Texas Southwestern Medical Center, in Dallas, led an analysis of data from a comprehensive national survey to find out exactly how many people living with cancer also use complementary and alternative medicines.

Dr. Sanford — an assistant professor of radiation oncology — and colleagues published their findings in the journal JAMA Oncology.

One-third of patients use alternative medicines

Some have expressed concern that people who use complementary therapies — such as yoga, meditation, acupuncture, herbal medication, and supplements — do not inform their physicians.

Dr. Sanford and colleagues refer to these concerns in their paper, as well as a study suggesting that a small subgroup of people who used complementary medicines had a poorer outlook than those who did not.

Breast cancer: Does stress fuel its spread?

Breast cancer: Does stress fuel its spread?

New research examines the role of stress hormones in the growth and development of tumors.

In light of these worries, Dr. Sanford and the team analyzed data from the National Health Interview Survey of the Centers for Disease Control and Prevention (CDC). The researchers carried out a cross-sectional study in an attempt to estimate the proportion of people with cancer who use complementary therapies.

Dr. Sanford's analysis revealed that one-third of people with a cancer diagnosis take complementary and alternative medicines. Herbal supplements were the most popular alternative therapy. Chiropractic and osteopathic manipulation were a close second.

Furthermore, Dr. Sanford's analysis revealed that 29 percent of those who use complementary treatments do not tell their physicians about it. Among the reasons that participants gave were that the doctor did not ask or that they thought their physician did not need to know.

"Younger patients are more likely to use complementary and alternative medicines and women were more likely to, but I would have thought more people would tell their doctors," comments Dr. Sanford.

Why herbal supplements may be harmful

"You don't know what's in them," the lead investigator continues, referring to herbal supplements. "Some of these supplements are kind of a mishmash of different things."

"Unless we know what's in [the herbal supplements], I would recommend patients avoid using them during radiation because [certain supplements] could interfere with treatment."

Dr. Nina Sanford

"With radiation specifically, there is concern that very high levels of antioxidants could make radiation less effective," she adds.

Dr. David Gerber, a lung cancer specialist and professor of internal medicine and population and data sciences at the university — who was not involved in the study — also comments on the clinical relevance of the findings.

"[Supplements] may interact with the medicines we're giving them, and through that interaction [they] could alter the level of the medicine in the patient," he says, adding, "If the levels get too high, then toxicities increase, and if the levels get too low, the efficacy would drop."

## अनाज में जिंक की कमी से बीमारियों का खतरा बढ़ रहा (Hindustan: 20190418)

[http://epaper.livehindustan.com/imageview\\_42930\\_91139662\\_4\\_1\\_18-04-2019\\_i\\_20.pagezoomsinwindows.php](http://epaper.livehindustan.com/imageview_42930_91139662_4_1_18-04-2019_i_20.pagezoomsinwindows.php)

<h3>जलवायु परिवर्तन</h3>	<p>रखता है। मैथ्यू स्मिथ, अश्विनी छत्रे, सुपर्णा घोष और सैमुअल एस. म्येर्स द्वारा भारत पर किए गए अध्ययन के अनुसार, वर्ष 1983 में देश में जिंक की कमी के शिकार लोगों का प्रतिशत 17 था, जो वर्ष 2012 में बढ़कर 25 फीसदी तक पहुंच गया। इसका मतलब यह हुआ कि इन तीन दशकों में 8.2 करोड़ और लोग जिंक की कमी के शिकार हुए।</p> <p>रिपोर्ट में कहा गया कि वर्ष 2050 तक पांच फीसदी और भारतीय आबादी जिंक की कमी के चपेट में आ सकती है। वैज्ञानिकों ने इस अध्ययन में खाद्यान्न के उपभोग को लेकर 30 सालों के एनएसएसओ के आंकड़ों, देश के विभिन्न हिस्सों में सात परिवारों के खानपान के पैटर्न का</p>		<h3>कितनी कमी</h3>	<h3>इसलिए होती है कमी</h3>
<p>नई दिल्ली   मदन जैड़ा</p>	<p>अध्ययन करने के बाद यह नतीजा निकाला है। सभी प्रमुख अनाजों जिसमें चावल, गेहूँ, मक्का, जौ तथा फलियाँ शामिल हैं, उच्च कार्बन</p>	<p>रिपोर्ट के अनुसार, गेहूँ, चावल, मक्का, जौ और फलियों में जिंक की कमी 5-11 फीसदी की दर्ज की गई है। यह तुलना 1983 से पहले के आंकड़ों से की गई है।</p>	<p>कार्बन डाई आक्साइड पौधों के जरूरी है। जितना कार्बन उत्सर्जन ज्यादा होगा, उतने ही पौधों की वृद्धि बेहतर होगी। पौधों की वृद्धि अच्छी हो रही है, लेकिन इससे अनाज के दानों की गुणवत्ता घट रही है।</p>	
<p>जलवायु परिवर्तन से अनाज में जिंक (जस्ता) की मात्रा तेजी से घट रही है, जिसका सीधा असर हमारी सेहत पर पड़ रहा है।</p> <p>हार्वर्ड विश्वविद्यालय के टीएच चान स्कूल ऑफ पब्लिक हेल्थ के अध्ययन में दावा किया गया है कि अत्यधिक कार्बन उत्सर्जन के कारण अनाज में जिंक कम हो रहा है। जिंक की कमी से डायरिया, मलेरिया तथा निमोनिया जैसी बीमारियों का खतरा ज्यादा रहता है। जिंक शरीर के प्रतिरोधक तंत्र को दुरुस्त भी बनाए</p>	<p>उत्सर्जन से प्रभावित हो रही हैं। दक्षिणी भारत समेत देश के जिन हिस्सों में चावल का सेवन ज्यादा होता है, वे लोग जिंक की कमी के</p>	<h3>इस तरह हो समाधान</h3>	<p>रिपोर्ट में समस्या का समाधान भी सुझाया गया है। इसके अनुसार, इस समस्या से निपटने के लिए भारत को दो उपाय करने होंगे। एक तो कार्बन उत्सर्जन में कमी लाई जाए। दूसरे, जिंक की कमी से निपटने के लिए राष्ट्रीय पोषण कार्यक्रम में जिंक को अलग से प्रदान करें।</p> <p>ज्यादा शिकार हुए हैं। वहीं शहरी आबादी में भी जिंक की कमी पाई जा रही है।</p> <p><b>शरीर का पोषक तत्व :</b> जिंक शरीर के लिए जरूरी आठ सूक्ष्म पोषक तत्वों में से एक है। यह शरीर में नहीं बनता है बल्कि भोजन से ही शरीर को प्राप्त होता है।</p>	

## E- Cigarettee (Hindustan: 20190418)

[http://epaper.livehindustan.com/imageview\\_42930\\_91137468\\_4\\_1\\_18-04-2019\\_i\\_20.pagezoomsinwindows.php](http://epaper.livehindustan.com/imageview_42930_91137468_4_1_18-04-2019_i_20.pagezoomsinwindows.php)

# ई-सिगरेट से धूम्रपान की लत बढ़ी

## रिपोर्ट

नई दिल्ली | स्कन्द विवेक धर

सिगरेट की लत छुड़ाने के दावों के आधार पर बाजार में धड़ल्ले से बिकने वाली ई-सिगरेट बच्चों में धूम्रपान की लत बढ़ा रही है। अमेरिका में हुए नेशनल यूथ टोबैको सर्वे के मुताबिक, पिछले दो वर्षों में हाई स्कूल स्तर के बच्चों में ई-सिगरेट के उपभोग में 75 फीसदी का इजाफा हुआ है। विशेषज्ञों ने भारत सरकार को अमेरिका के इस अध्ययन से सीखने की नसीहत दी है।

अमेरिका के खाद्य एवं दवा नियामक एफडीए ने अगस्त, 2016 में ई-सिगरेट को अमेरिकी बाजार में बेचने की दो साल की अनुमति दी थी। इस साल इसे बढ़ाकर 2021 तक कर दिया गया। ई-सिगरेट निर्माता कंपनियों का दावा था कि यह सिगरेट की लत छुड़ाने में मददगार होगी, इसमें निकोटीन के अलावा अन्य कोई हानिकारक पदार्थ नहीं हैं।



## विशेषज्ञों ने चेतावनी

इस अध्ययन का हवाला देते हुए कई चिकित्सकों ने केंद्रीय स्वास्थ्य मंत्रालय से अपील की कि वह भारत में प्रवेश की अनुमति मांग रहे विदेशी ई-सिगरेट ब्रांड पर रोक लगाने के लिए वाणिज्य मंत्रालय को लिखे। विशेषज्ञों ने चेतावनी दी कि यदि ऐसा नहीं हुआ, तो भारत में भी बड़े पैमाने पर बच्चे ई-सिगरेट की लत का शिकार हो सकते हैं। गैटस-2 के आंकड़ों के मुताबिक, भारत में 0.02 फीसदी लोग ही फिलहाल ई-सिगरेट का इस्तेमाल करते हैं।

## उपभोग बढ़ा

दो साल बाद भी इस बात के पुख्ता प्रमाण नहीं मिले कि ई-सिगरेट की वजह से कितने लोगों की सिगरेट की लत छूटी। इसके उलट जो बच्चे सिगरेट की लत से दूर थे, उन्हें ई-सिगरेट की लत लग गई। वर्ष 2017 से 2018 के दौरान किए गए इस सर्वे के आंकड़ों के मुताबिक, इस दौरान हाईस्कूल स्तर के बच्चों में ई-सिगरेट के उपभोग में 75 फीसदी का इजाफा हुआ। वहीं, मिडिल स्कूल स्तर के बच्चों में भी ई-सिगरेट का उपभोग 50 फीसदी बढ़ा। अन्य तंबाकू उत्पादों के उपभोग में भी बढ़ोतरी हुई। जानकारों के मुताबिक, पेन झड़व जैसी डिजाइन के चलते छुपाने में आसानी और अलग-अलग फ्लेवर के चलते पसंद किए जाने की वजह से बच्चों में यह तेजी से लोकप्रिय हो रही है।

निकोटीन बहुत ही विषैला केमिकल है और संभावित कैंसर कारक है। वास्तव में इसे एक जहर के तौर पर स्वीकार करना कोई अतिशयोक्ति नहीं होगी। इसलिए किसी भी निकोटीन उत्पाद का उपयोग सिर्फ धूम्रपान बंद करने की चिकित्सा के दौरान उभरने वाले लक्षणों को नियंत्रित करने के लिए एक सख्त मेडिकल निगरानी में होना चाहिए। इन नए निकोटीन डिलीवरी उपकरणों पर कड़ा रुख अपनाने के लिए मैं भारत सरकार की सराहना करता हूँ।

- डॉक्टर पंकज चतुर्वेदी, वरिष्ठ कैंसर सर्जन, टाटा मेमोरियल अस्पताल

**Aging Population (Hindustan: 20190418)**

# 2050 तक देश में किशोरों से ज्यादा बुजुर्ग हो जाएंगे

संयुक्त राष्ट्र | एजेंसी

भारत को युवाओं का देश कहा जाता है लेकिन 2050 तक यह स्थिति बदल सकती है। भारत ने संयुक्त राष्ट्र में कहा है कि वर्ष 2050 तक यहां 60 वर्ष से अधिक उम्र वाले बुजुर्गों की संख्या आठ प्रतिशत से बढ़कर करीब 20 प्रतिशत होने की संभावना है। साथ ही 15 साल से कम उम्र के किशोरों की संख्या बुजुर्गों की संख्या की तुलना में कम रह जाएगी।

ऐसी स्थिति में देश के सामने बुजुर्ग नागरिकों की सामाजिक सुरक्षा एक बड़ा प्रश्न बन जाएगा। भारत ने कहा है कि वह इस स्थिति से निपटने के लिए अपनी वर्तमान युवा पीढ़ी को अधिक समर्थ बनाएगा ताकि बुढ़ापे में वे स्वस्थ और आर्थिक गतिविधियों के लिए सक्रिय रहें। संयुक्त राष्ट्र में भारत के स्थायी मिशन में प्रथम सचिव पॉलोमी त्रिपाठी ने यह जानकारी दी। सोमवार को संयुक्त राष्ट्र में उम्र दरज लोगो की बढ़ती संख्या पर एक कार्यकारी समूह के आयोजन के दौरान वह संबोधन दे रहे थे।



## किशोरों से अधिक बुजुर्गों की आबादी हो जाएगी

प्रमुख सचिव त्रिपाठी ने कहा कि आकलन है कि 2050 तक 15 साल से कम आयुवर्ग के किशोरों की तुलना में 60 साल से अधिक उम्र के लोगों की संख्या अधिक होगी। इसका एक कारण प्रजनन दर घटना भी है।

## बेहतर स्वास्थ्य जरूरी

प्रमुख सचिव के अनुसार, हमें निश्चित रूप से युवावस्था में ही लोगों को समर्थ बनाना चाहिए ताकि उनका शारीरिक एवं मानसिक स्वास्थ्य बेहतर बना रहे और वे बढ़ती उम्र के बावजूद सक्रिय भागीदारी करें।

