



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE Day
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Flu pandemic

Next flu pandemic is inevitable: WHO (The Tribune: 20190313)

<https://www.tribuneindia.com/news/health/next-flu-pandemic-is-inevitable-who/741991.html>

Another flu pandemic is inevitable and the world must prepare for potential devastation, the World Health Organisation (WHO) has said, warning that the risks must not be underestimated.

Launching on Monday its Global Influenza Strategy for 2019-2030, the world body said the next influenza pandemic "is a matter of when, not if".

WHO's Director-General Tedros Adhanom Ghebreyesus said it would be the biggest public health threat and potentially threaten millions of lives worldwide because of the rapid spread of viruses.

"The threat is ever-present," he cautioned.

Outlining the global strategy the WHO official said surveillance systems must be strengthened and better tools for prevention and containment of influenza virus should be developed, Xinhua news agency reported.

Chief of Influenza Preparedness and Response at WHO, Ann Moen said improved vaccines that have longer lasting immunity were needed, as well as antivirals and better treatment for the disease.

An estimated 1 billion people are infected with flu every year, leading to between 290,000 and 650,000 deaths, according to a WHO health report.

The last flu pandemic across the globe was caused by the H1N1 virus that spread around the world in 2009 and 2010. Studies found that at least one in five people worldwide were infected in 2009, and the death rate was 0.02 per cent. — IANS



Health insurance

Health insurance is no more a want, but a necessity today (The Hindu: 20190313)

<https://www.thehindu.com/business/Industry/health-insurance-is-no-more-a-want-but-a-necessity-today/article17758979.ece>

Escalating medical costs and high medical inflation remain the biggest challenge

Considering health insurance as a social necessity rather than a business proposition, Anand Roy, joint executive director, Star Health and Allied Insurance, details the increased need to provide “purposeful and need-based insurance” while catering to varied requirements in diverse geographies across the country”. Edited excerpts of an interview:

How would you evaluate the past financial year for the health insurance industry?

The Financial year 2016-2017 has been a great year for the health insurance industry in general. With the industry showing high growth rate of 30% plus and with Gross Written Premium of more than ₹30,000 crore, the benefits and need for health insurance are now reaching all segments of the Indian society.

Profitable growth in health insurance has become a buzzword in the industry and this augurs well for all the stake holders.

What are the recent developments in the space? Are there any challenges you foresee in FY18?

Recent guidelines introduced by the regulator have brought about many positive changes specifically towards product innovation and improving distribution channels. Also, there is now a major thrust towards digital business.

Escalating medical costs and high medical inflation remain the biggest challenges to the health insurance industry.

I expect that we will have to face these challenges in this financial year as well. Every insurance company is taking various steps to mitigate these challenges.

In a country where there are more than 30 private and public insurance companies that provide health insurance, what is your differentiator?

The trust we have gained from millions of our customers has helped us achieve the position [of the largest private health insurance firm]. Our superior product design and service delivery are key to our accomplishment.

We believe that health insurance is a social necessity rather than a business proposition. Hence, we endeavour to provide purposeful and need-based insurance. Our motto of 'personal & caring' has been our key differentiator.

So we created in-house claims processing through our proprietary network of more than 8,000 hospitals which became industry benchmarks. Our disruptive products like Family Health Optima, Senior Citizens Red Carpet Health Insurance, Diabetes Safe Policy, Cardiac Care and the like have been well accepted in the market.

Also, I would like to add that we have built a strong distribution network through our 350(+) branch offices and 600(+) satellite offices across the country. Our large agency force and sales managers help us reach almost all parts of the country including Tier I, II, III, IV, V towns and in major cities to service the customers.

What part of this success can be attributed to successfully understanding consumer needs and market dynamics?

In a servicing industry, customer's needs form the main part of market dynamics. Understanding our customer's needs and working towards this is our mantra. Hence I believe that a major part of our success can be attributed to properly understanding consumer needs i.e. the market dynamics. The existing market situation pointed us toward the large uninsured middle class of Indian society and this became our primary target segment. We hence introduced and focused on affordable health insurance products. There was, and to an extent still, a huge vacuum in the society where health insurance is not given much importance. Ten years ago, health insurance industry did not have a great reputation in terms of claims settlement and customer service. Our primary focus was to address this scenario and our priority was to focus on changing this market dynamics through our in-house settlement and proprietary network of hospitals. Primary focus was on customer service to gain the trust and confidence of the market.

With less than 15% of the one billion population covered under health insurance how can wellness be provided among all categories in the society?

The population covered under health insurance is very low in India and increasing penetration is our prime focus area. Health insurance is no more a want, it is a need in today's scenario. Generally a common man is reactive to his uncertainties and not proactive. Health insurance is not an investment, rather it is a protection to your savings.

Wellness is an evolving concept in the Indian health insurance industry. As awareness rises and maintaining a healthy lifestyle becomes popular, insurance companies are finding ways to

reward such efforts. In the long run, a well-designed wellness plan will lead to lower incidence of hospitalisation and will benefit all.

Health problems

Indians experience more health problems than Japanese, Swiss (The Tribune: 20190313)

<https://www.tribuneindia.com/news/health/indians-experience-more-health-problems-than-japanese-swiss/741490.html>

People living in India experience the health problems associated with ageing at an early stage than those living in Japan or Switzerland, according to a first-of-its-kind study published in The Lancet Public Health.

Researchers at the University of Washington in the US and colleagues found that a 30-year gap separates countries with the highest and lowest ages at which people experience the health problems of a 65-year-old.

They found 76-year-olds in Japan and Switzerland, and 46-year-olds in Papua New Guinea have the same level of age-related health problems as an “average” person aged 65.

The analysis also found that people living in India experience the similar health problems well before they turn 60.

“These disparate findings show that increased life expectancy at older ages can either be an opportunity or a threat to the overall welfare of populations, depending on the ageing-related health problems the population experiences regardless of chronological age,” said Angela Y Chang, lead author of the study and postdoctoral fellow at the University of Washington in the US.

“Age-related health problems can lead to early retirement, a smaller workforce, and higher health spending. Government leaders and other stakeholders influencing health systems need to consider when people begin suffering the negative effects of ageing,” Chang said in a statement.

These negative effects include impaired functions and loss of physical, mental, and cognitive abilities resulting from the 92 conditions analysed, five of which are communicable and 81 non-communicable, along with six injuries.

The study is the first of its kind, according to Chang. Where traditional metrics of ageing examine increased longevity, this study explores both chronological age and the pace at which ageing contributes to health deterioration.

The study uses estimates from the Global Burden of Disease study (GBD).

The researchers measured “age-related disease burden” by aggregating all disability-adjusted life years (DALYs), a measurement of loss of healthy life, related to the 92 diseases.

Although most countries have similar rankings between age-standardised, age-related and all-burden rates, countries such as Ethiopia, Nigeria, and South Africa perform better in age-related disease burden relative to all burden.

Countries such as China and India are performing better in all-burden rankings, researchers said.

The findings cover 1990 to 2017 in 195 countries and territories.

For example, in 2017, people in Papua New Guinea had the world's highest rate of age-related health problems with more than 500 DALYs per 1,000 adults, four times that of people in Switzerland with just over 100 DALYs per 1,000 adults.

The rate in the US was 161.5 DALYs per 1,000, giving it a ranking of 53rd, between Algeria at 52nd with 161.0 DALYs per 1,000 and Iran at 54th with 164.8 DALYs per 1,000.

Using global average 65-year-olds as a reference group, Chang and other researchers also estimated the ages at which the population in each country experienced the same related burden rate. PTI

Foetal heart

Foul air may affect foetal heart development (The Tribune: 20190313)

<https://www.tribuneindia.com/news/health/foul-air-may-affect-foetal-heart-development/741488.html>

A single exposure during the third trimester could restrict maternal and foetal blood flow. Thinkstock

NEW YORK: Pregnant mothers exposed to particulate matters may experience damage to the developing cardiovascular system in their foetuses, finds a study.

Exposures to these microscopic materials early in the gestation period significantly impact foetal heart development, especially the main artery and the umbilical vein.

A single exposure during the third trimester could restrict maternal and foetal blood flow, resulting in further consequences throughout the child's adulthood, the study said.

Late exposures mostly impact the foetal size as it restricts blood flow from the mother and deprives the foetus of nutrients in the final stages.

"Pregnant women should also consider monitoring their indoor air quality," said Phoebe Stapleton, Assistant Professor at Rutgers University.

What a mother inhales affects her circulatory system, which is constantly adapting to supply adequate blood flow to the fetus as it grows.

"These findings suggest that pregnant women, women of child-bearing age and those undergoing fertility treatments should avoid areas with high air pollution or stay indoors on high-smog days," said Stapleton.

Air pollution exposure constricts blood vessels, restricts blood flow to the uterus and deprives the foetus of oxygen and nutrients, resulting in delayed growth and development.

It can also lead to common pregnancy complications, such as intrauterine growth restriction, he explained.

The study, published in the journal Cardiovascular Toxicology, looked at how the circulatory systems of pregnant rats' foetuses on a single exposure to nanosized titanium dioxide aerosols -- a surrogate for particles found in typical air pollution -- during their first, second and third trimesters.

The results were compared to pregnant rats that were exposed to high-efficiency filtered air.

In non-pregnant animals, even a single exposure to these nanoparticles was linked to impaired function of the arteries in the uterus. — IANS

Nutrants

How Indian parents are nurturing screen addiction in toddlers (The Tribune: 20190313)

<https://www.tribuneindia.com/news/health/how-indian-parents-are-nurturing-screen-addiction-in-toddlers/740984.html>

If you are one of those parents who hand over a smartphone or a tablet to your toddlers while feeding them or to keep them entertained, beware this habit can not only make them sedentary but also push them into severe digital addiction in their formative years.

According to the American Academy of Pediatrics (AAP), only 15-20 minutes of screen exposure is healthy and acceptable for babies under 18 months of age.

However, busy schedules and an over-protective approach towards the physical safety of toddlers have increasingly convinced parents, especially in the metros, to hook their children onto smart screens, say the experts.

Instead of playing with toys or being part of an outdoor activity, over-exposing them to screens so early in life could hinder their holistic development, damage their eyesight and cause childhood obesity which can lead to diabetes, high blood pressure and high cholesterol.

"Toys generate more visual and tactile information to the toddler's brain. Screen interactions are just too fast for a toddler of less than two years of age to comprehend any information and learn anything out of it," Soumiya Mudgal, Psychiatrist, Max Healthcare, Gurugram, told IANS.

The increased screen time can also push toddlers to laziness and permanently damage their cognitive abilities such as solving problems, paying attention to other people and falling asleep on time.

Health experts suggest that the "ideal" age for children to be exposed to moderate screen involvement is 11 years. But, a recent survey by UK-based online trade-in outlet musicMagpie found that 25 per cent of children aged six and under already have their own mobile phones and nearly half of them spend up to 21 hours per week on their devices, playing games on screen and watching videos.

Since screen exposure is inescapable for toddlers, parents are being advised by experts to engage their children in "open-ended" content on screens. This would help them to be creative in interacting with the app, which could contribute as cognitive development than mere reward or distraction.

However, screen exposure for a short period under supervision cannot be harmful.

"Under supervision, 15-20 minutes of letting toddlers interact with screens while eating, bathing or getting a haircut could be allowed as a reward for the child because there is no evidence of it causing addiction in that little duration," Mudgal said.

Media diets should be rich in educational content and should be based on the science of learning approaches in creating content that triggers the intuitive senses in kids at that tender age.

"Technology should not hamper the child's normal social interaction and environmental learning," Mudgal noted.

Once children become habitual to interacting with smart displays, trying to cut down their screen engagement time later could result in problematic withdrawal symptoms like irritable behaviour, disobedience, repetitive demanding and tantrums in sleeping, eating or even staying awake.

For digital detox, experts say parents should create and maintain device-free zones at home, especially at dining tables and in bedrooms for kids as well as for themselves.

"Children pick up from what they see. Parents have to set an example of practising healthy screen time habits themselves and they must cautiously beware of the impact that their own screen habits could have on their toddlers," Mudgal said. IANS

Air pollution

Air pollution killing more people than smoking: Scientists (The Tribune: 20190313)

<https://www.tribuneindia.com/news/health/air-pollution-killing-more-people-than-smoking-scientists/741995.html>

Air pollution is killing more people every year than smoking, according to research published on Tuesday that called for urgent action to stop burning fossil fuels.

Researchers in Germany and Cyprus estimated that air pollution caused 8.8 million extra deaths in 2015—almost double the previously estimated 4.5 million.

The World Health Organization (WHO) estimates smoking kills about 7 million people a year globally.

The researchers found that in Europe—the key focus of the European Society of Cardiology research—air pollution caused an estimated 790,000 deaths, between 40 and 80 percent of them from cardiovascular diseases such as heart attacks and stroke.

"Since most of the particulate matter and other air pollutants in Europe come from the burning of fossil fuels, we need to switch to other sources for generating energy urgently," said co-author Prof. Jos Lelieveld, of the Max-Planck Institute for Chemistry in Mainz and the Cyprus Institute Nicosia, Cyprus.

"When we use clean, renewable energy, we are not just fulfilling the Paris Agreement to mitigate the effects of climate change, we could also reduce air pollution-related death rates in Europe by up to 55 percent."

The study, published in the *European Heart Journal*, focused on ozone and the smallest pollution particles, known as PM2.5, that are particularly harmful to health as they can penetrate into the lungs and may even be able to cross into the blood.

The researchers said new data indicated the hazardous health impact of PM2.5—the main cause of respiratory and cardiovascular disease—was much worse than previously thought.

They urged a reduction in the upper limit for PM2.5 in the European Union, which is currently set at 25 micrograms per cubic metre, 2.5 times higher than the WHO guideline.

"In Europe the maximum permissible value ... is much too high," said Lelieveld and co-author Prof. Thomas Munzel, of the Department of Cardiology of the University Medical Centre Mainz in Germany, in a joint statement.

"In the USA, Australia and Canada the WHO guideline is taken as a basis for legislation, which is also needed in the EU." Worldwide, air pollution caused 120 extra deaths in every 100,000 people per year, with deaths in parts of Europe at an even higher rate of up to 200 in 100,000.

"To put this into perspective, this means that air pollution causes more extra deaths a year than tobacco smoking," said Munzel.

"Smoking is avoidable but air pollution is not." — (Thomson Reuters Foundation)

Environmental Health (The Asian Age: 20190313)

<http://onlinepaper.asianage.com/article/detailpage.aspx?id=12611571>

Raw materials behind emissions: UN

Nairobi, March 12: Extracting and processing materials, fuel and food contributes as much as half of the world's greenhouse gas emissions, the UN said on Tuesday, as experts gathered in Kenya to find ways to rein in exploding global consumption. Using dozens of data sources, the authors of a major new report presented lawmakers and businesses with a stark choice: drastically reform the global economy to get more from less, or risk the collapse of global infrastructure.

With countries already committed under the Paris climate deal to curb emissions to fend off the worst impacts of global

warming, experts said there was little hope of meeting that goal without an "urgent and systemic transformation" in how we use Earth's resources.

The **Global Resources Outlook 2019** said that worldwide consumption of basic commodities such as water, minerals and fossil fuels had tripled since 1970.

With high-population nations such as China and India rapidly expanding economies, the team behind the report

■ Extracting and processing materials, fuel and food contributes as much as half of world's greenhouse gas emissions.

■ Experts said there was little hope of meeting Paris deal goal sans 'systemic transformation.'

■ Worldwide consumption of basic commodities has tripled since 1970. The report paints a grim picture of relentless demand for resources as the global population ticks towards eight billion people



their for a drastic overhaul in that the countries which for vague commitments on the environment had passed. -AFP

have the right to develop," said Janez Potocnik, co-chair of the International Resource Panel. "The question is, is it possible to do it differently to how we have done it, with fewer consequences than we see today?"

The report paints a grim picture of relentless demand for resources as the global population ticks towards eight billion people.

In a message to heads of state due in Nairobi for Thursday's One Planet Summit, Potocnik said the time for vague commitments on the environment had passed. -AFP

Brain ((The Aaian Age: 20190313)

<http://onlinepaper.asianage.com/articledetailpage.aspx?id=12611513>

'Forgetting drains brain more than remembering'

Houston: Choosing to forget something uses more brain power than trying to remember it, according to a study that could lead to treatments to help people rid themselves of unwanted memories.

The findings, published in the *Journal of Neuroscience*, suggest that in order to forget an unwanted experience, more attention should be focused on it.

The study extends prior research on intentional forgetting, which focused on reducing attention to the unwanted information through redirecting attention away from unwanted



that in order to forget an unwanted experience, more attention should be focused on it

experiences or suppressing the memory's retrieval.

"We may want to discard memories that trigger maladaptive responses, such

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▶ The study extends prior research on intentional forgetting, which focused on reducing attention to the unwanted information through redirecting attention away from unwanted experiences or suppressing the memory's retrieval

as traumatic memories, so that we can respond to new experiences in more adaptive ways," said Jarrod Lewis-Peacock, an assistant professor at The

University of Texas at Austin in the US.

"Once we can figure out how memories are weakened and devise ways to control this, we can design treatment to help people rid themselves of unwanted memories," Lewis-Peacock. Memories are dynamic constructions of the brain that regularly get updated, modified and reorganised through experience.

The brain is constantly remembering and forgetting information — and much of this happens automatically during sleep. Prior studies focused

on locating "hotspots" of activity in the brain's control structures, such as the prefrontal cortex, and long-term memory structures, such as the hippocampus.

The latest study focuses, instead, on the sensory and perceptual areas of the brain, specifically the ventral temporal cortex, and the patterns of activity there that correspond to memory representations of complex visual stimuli.

"We are looking not at the source of attention in the brain, but the sight of it," said Lewis-Peacock.

— PTI

Girl child

To promote girl child, govt plans award (Hindustan Times: 20190313)

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

Parents going for sterilisation after birth of daughters or adopting a girl eligible

Child Sex Ratio (no. of females per 1,000 males between 0 and 6 years)

Haryana

Punjab Jammu and Kashmir Delhi Chandigarh

FAMILIES WHO BACK GIRLS IN EDUCATION AND OTHER ACTIVITIES AND THOSE WHO HAVE SAVED GIRL CHILDREN ALSO ELIGIBLE

Four to five families from each of Delhi's 11 districts will get the 'Star family award' entailing a cash prize of ₹1 lakh for not showing a preference for sons.

The award will be given by the state's Pre Conception, Pre-Natal Diagnostics Techniques (PC-PNDT) cell to motivate families and boost the sex ratio in Delhi, which stood at 902 females born against every 1,000 males in 2016, according to a report on registration of births and deaths in Delhi.

In India, there are just 919 females children between the ages of 0 and 6 for every 1,000 males of the same age, according to Census 2011 data.

"The proposal for the award has been accepted and we have partial funding for it in place. Now, we are in the process of developing standard operating procedures for the district officials to select the families," said Dr Nitin Kumar, state programme officer for PC PNDT.

The award will be given to families where the husband or the wife has undergone sterilisation

States with worst child sex ratios

after one or two daughters or those who adopted a girl child.

Families who supported girls in their education and other activities and those who have saved their girl children despite all odds would be eligible. 834 846 862 871 880 919

"This could mean couples who have protected their girl despite opposition and hostility from the family or those who have struggled to get the required medical attention to help their girl. We have seen families not take as much care of a sick girl as compared to a boy," said Dr Kumar.

After a cabinet approval, the department has started work on the informer-decoy reward scheme, under which people who inform the government of centres performing illegal sex determination will get a cash award of ₹50,000 and women who help them in conducting the raids ₹1,50,000.

Health Care Services

No space for walkers outside capital's top two hospitals (Hindustan Times: 20190313)

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

Hawkers, makeshift shops and patients' families encroach pavements, walkways

the ramp to the orthopaedics clinic on the first floor is a challenge. "My wife alone cannot push my gurney. It feels like the stretcher will topple," Kumar said.

n Pushed out of pavements, patients and their families have come to occupy the subway outside AIIMS.

Safdarjung Hospital has four e-rickshaws for patients and their relatives. "For patients on wheelchairs and stretchers, the two farthest blocks in the hospital are the emergency and super speciality, where we have stationed ambulances for in-hospital travel," said Dr Rajendra Sharma, medical superintendent.

Last year, an underpass was opened for public, connecting the AIIMS's main campus to Safdarjung Hospital and AIIMS Trauma Centre.

"It used to take about 30 minutes to commute between hospitals in an ambulance in peak traffic on Ring Road. Now, it takes about five minutes," said an official from Safdarjung Hospital, on condition of anonymity.

People, however, still have to run across the busy road between gaps in traffic as homeless patients and their families camp for days in the subway across Sri Aurobindo Marg. The very narrow and steep ramp in another subway across the Ring Road makes it impossible for use for people on wheelchairs and stretchers.

This leads many to use the Metro station to cross the road. "When I'm here, I stay with my brother in Noida and take the Metro to AIIMS. I have to go across the road to buy medicines from the shops outside Safdarjung Hospital. I've discovered that it is easier to cross the road through within the station," said a patient's relative.

Pesticides

India must ban highly hazardous pesticides (Hindustan Times: 20190313)

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

This can reduce deaths in the young and active working population and contribute to the health of the country

Pesticide poisoning is the most common method of deliberate self-harm in India. The majority of deaths are due to ingestion of highly hazardous pesticides (HHP). The Government of India banned 18 HHPs in August 2018. Twelve are to be removed immediately; the remaining six will be done away with over a period of two years. The ban follows the 2015 Anupam Verma report that recommended the review of 27 pesticides by 2018. This ban is indeed a welcome step. However, there are 99 pesticides that are banned in other countries but still in extensive use in India.

ANIRUDDHA CHOWDHURY/HT

Endosulfan poisoning has long been a problem in India, with around 30% of affected patients dying

In 2017, activist Kavitha Kuruganti and others launched a PIL in the Supreme Court urging the government to ban HHPs banned in other countries. The government has responded that any negative consequences of pesticide use are due to misuse or indiscriminate use of such products by farmers. It also argued that some HHPs are still used in the high-income countries and that pesticide toxicology findings are location specific, meaning that not all HHPs need to be banned in India. Some high-income countries such as the US use many HHPs. However, in the US only 2% of the population is directly employed in agriculture and the sector is highly mechanised, reducing the contact of farmworkers and farming households with pesticides. This reduced contact between humans and pesticides in US agriculture allows the use of more HHPs. This is the reason for the continued registration of a few hazardous pesticides in the US and other industrialised countries.

In India, a vast number of households are dependent on agriculture. Most of these households are small-land holders, who perform farming without mechanisation. There are many manual operations in agriculture in India, including weeding, harvesting, and pesticide spraying that result in much greater direct contact between pesticides and farmers and labourers. The accidental exposure to pesticides of farmers is due to lack of education, affordable protective equipment, user regulation and enforcement and safe storage. Recognising this situation across low and middle-income countries, the United Nation's International Code of Conduct on Pesticide Management states that the handling and application of such pesticides that require the use of personal protective equipment that is uncomfortable, expensive or not readily available should be avoided, especially in the case of small-scale users and farm workers in hot climates.

While decisions to use or ban a pesticide is location-specific, the findings from studies of toxicity of specific pesticides even from other settings are useful in assessments of the risks of pesticides to health by national regulatory agencies in India. For example, the USA Environmental Protection Agency's factsheet on monocrotophos reports that this pesticide has been shown to be highly toxic to birds, fish and mammals. They recommend that occupational use requires the wearing of respirators. These findings have resulted in monocrotophos being banned in the US and this is highly relevant to the Indian situation, where it a common cause of pesticide poisoning and death.

Endosulfan poisoning has long been a problem in India, with around 30% of poisoned patients dying. A legal case filed by endosulfan-affected communities led to a Supreme Court ban and virtual disappearance of endosulfan poisoning over the last five years. Bans of 15 pesticides by

the state of Kerala in 2006 and 2011 has resulted in a remarkable 83% reduction in the number of pesticide suicides each year (from 1,934 in 1995 to 327 in 2015). For these reasons we advocate the ban of HPP as a public health strategy to reduce deaths in the young and active working population to protect life and contribute to the health of the country.

Anand Zachariah is professor of medicine at Christian Medical College, Vellore. Michael Eddleston is professor of clinical toxicology and director, Centre for Pesticide Suicide Prevention, University of Edinburgh

Diabetes and pollution

Diabetes and pollution linked, says 11-year China study on 88,000 people (Hindustan Times: 20190313)

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

BEIJING/NEWDELHI: Long-term exposure to the major air pollutant PM2.5 increases the risk of diabetes, an international study conducted in China has found, linking pollution to a health risk rarely talked about.

Experts from the Fuwai hospital in Beijing under the Chinese Academy of Medical Sciences and Emory University in the US evaluated the association between long-term exposure to PM2.5 and diabetes incidence based on data collected from more than 88,000 Chinese adults. The large-scale study conducted over a decade found that the risk of the disease increased by about 15.7% for an increase of 10 micrograms per cubic metre of longterm concentration of the pollutant, considered one of the worst. "The adverse effects of PM2.5 were larger among young-to- middle-aged subjects, females, non-smokers and subjects with lower body mass index," the study found.

China is said to have the largest number of diabetes patients in the world. It also has a relatively higher concentration of PM2.5 in the air despite improvement in air quality in cities like Beijing in the last few years.

"Diabetes causes substantial economic and health burdens worldwide. However, the association between air pollution and diabetes incidence is rarely reported in the developing countries, especially in China which has a relatively high PM2.5 concentration," official Xinhua news agency said in a report on the link between pollution and diabetes. "The study revealed that PM2.5 was an important risk factor for diabetes incidence in China and sustained improvement of air quality will help decrease the diabetes epidemic in China," the Xinhua report said.

"The co-relation between pollution and diabetes is sort of well established now. Most of these studies in developing countries have happened in China," said Dr Anoop Misra, chairman, Fortis Centre for Diabetes, Obesity and Cholesterol.

“Even though there are no India-specific long-term studies, the co-relation will be more or less the same as far as India is concerned because pollution is severe in India and both Indians and Chinese people are pre-disposed to diabetes.”

The China study comes in backdrop of a new UN report released over the weekend which lauded Beijing’s efforts in curbing pollution. Countries with the largest number of adults with diabetes (20-79 years)

Muscle tonic

Muscle tonic turns poison cocktail for kidneys (The Times of India: 20190313)

<https://timesofindia.indiatimes.com/city/delhi/muscle-tonic-turns-poison-cocktail-for-kidneys/articleshow/68382873.cms>

Muscle tonic turns poison cocktail for kidneys

The normal blood pressure of an adult is deemed to range between 120/80 mm of mercury and 140/90 mm. Sidharth’s BP was 220/140 mm/hg when he was rushed to hospital. Further tests revealed his creatinine level was also six times the normal level. The doctors were baffled to see an otherwise healthy, young man coming for such an emergency.

On enquiry, they found that Sidharth, a west Delhi-based tour operator, was fascinated with a good body and had been taking pre-workout supplements for four years on his gym trainer’s advice. These included caffeine, amino acids and creatine to support energy and increase endurance and muscular strength.

“Four years ago, my trainer suggested I should take a pre-workout formula before exercises. This gave me a sudden boost in energy level and I could do heavy lifting for longer durations,” admitted Sidharth.

The 32-year-old, who has a gym goer since 2003, said he took scoops of the supplement every day for four years until the kidney was affected. “I found later that normally such supplements are taken for a short period or at intervals,” he said.

According to Dr Sunil Prakash, director and head of the department of nephrology and renal transplant at BLK Super Specialty Hospital, Sidharth could have died due to brain haemorrhage if his BP hadn’t been lowered with medicines in time. “When he came to the hospital, his creatinine level was 6.7mg per decilitre against a normal range of 0.84-1.21mg. He was only a step away from kidney failure that would have necessitated life-long dialysis,” Prakash said.

Luckily, in Sidharth’s case, immediate withdrawal of supplements, medicine to control BP and diet restrictions pulled him out of danger. But he will have to live with restriction on what he can eat and how much he can exercise. “Kidney function cannot be restored completely. Therefore, to prevent deterioration, Sidharth has been advised to avoid street food. He also shouldn’t do tough exercises, only take regular walks,” Prakash said.

The doctor added that 10% of all kidney patients in the hospital are youngsters who are victims of overuse of supplements. “At least three of my patients suffered kidney damage due to prolonged use of health supplements. They are on dialysis,” Prakash disclosed.

Dr R P Mathur, senior consultant and head of nephrology at Institute of Liver and Biliary Sciences, noted with concern the explosion in the number of youngsters using health supplements often without medical supervision. “One should never take pre-workout supplements or protein supplements without the advice of a doctor or a qualified professional,” Mathur said. “But due to lack of awareness, such practice is rampant and is the reason behind the health crisis among otherwise healthy persons.”

Vikas Jain, managing director of Anytime Fitness, said nearly 20% of men who go to gyms take such supplements. “High protein drinks are also common. They are good if consumed under medical supervision or under the guidance of a trained professional,” Jain added.

(Name of the patient has been changed on request.)

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Air pollution

Air pollution killing more people than smoking, say scientists.. (The Times of India: 20190313)

http://timesofindia.indiatimes.com/articleshow/68377940.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

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Eye Care

आंखों की जांच से चलेगा अल्जाइमर का पता(Dainik Gagan: 20190313)

https://epaper.jagran.com/epaper/article-13-Mar-2019-edition-delhi-city-page_12-7560-9909-4.html

बड़ी उम्र में याददाश्त कमजोर होने की बीमारी यानी अल्जाइमर एक गंभीर समस्या बनी हुई है। इस बीमारी का समय पर पता लगाना बड़ी चुनौती है। अक्सर इसके लक्षणों की पहचान होने तक बीमारी का स्तर गंभीर हो जाता है। अब भारतवंशी समेत वैज्ञानिकों के एक दल ने आंखों की जांच से अल्जाइमर का पता लगाने का तरीका विकसित किया है। ऑप्टेल्मोलॉजी रेटिना जर्नल में प्रकाशित शोध के अनुसार ऑप्टिकल कोहरेन्स टोमोग्राफी एंजियोग्राफी (ओसीटीए) की मदद से मरीज के रेटिना की जांच से दिमाग की सेहत का पता लगाना संभव होगा। ड्यूक यूनिवर्सिटी के शोधकर्ता दिलराज एस. ग्रेवाल ने कहा, ‘हम जानते हैं कि अल्जाइमर के मरीजों के दिमाग की छोटी रक्त नलिकाओं में कुछ बदलाव हो जाते हैं। रेटिना दिमाग

का विस्तृत हिस्सा है। इसी को ध्यान में रखते हुए हमने यह जानने का प्रयास किया है कि दिमाग की नसों में होने वाले बदलाव से रेटिना पर कैसा असर होता है' 200 मरीजों पर किए गए प्रयोग में इसके नतीजे कारगर पाए गए हैं - आइएनएस

आंखों की जांच से चलेगा अल्जाइमर का पता