



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY

Tuesday

20190305

Visually impaired

India home to 20% of world's visually impaired (The Tribune: 20190305)

<https://www.tribuneindia.com/news/nation/india-home-to-20-of-world-s-visually-impaired/738167.html>

Nearly 40 million people in India, including 1.6 million children, are blind or visually impaired due to refractive error.

Many among the underprivileged section are unaware that this is correctable. The World Health Organisation (WHO) that has given these numbers also suggests that a majority of these people live in villages and tier-4 cities where they don't have access to glasses.

“Simply providing eye glasses to 2.2 lakh people over the last six years has improved levels of rural education, reduced crime and prevented accidents among the elderly,” said Vinod Daniel, CEO, India Vision Institute, an NGO functioning through a joint initiative of LV Prasad Eye Institute and Brien Holden Hospital, Sydney, that works with underprivileged schoolchildren across 18 states.

India was home to about 20.5 per cent of the world's blind, 22.2 per cent of the world's low-vision population, and 21.9 per cent of those with vision impairment, said Daniel, quoting a study published in the Global Estimates of Visual Impairment

In an interaction with The Tribune, Daniel said as against a national requirement of 1.25 lakh optometrists, India had only 40,000 and that too mostly in urban areas. Studies, he said, had shown that merely providing the correct prescription glasses increased productivity by 34 per cent, raised earning potential by 20 per cent and reduced accidents among the elderly by seven times.

India Vision Institute that works for screening vision among school children has recorded that nearly 10 percent school children need prescription glasses. In the Northeast, the figures are as high as 20 percent. The NGO is involved in vision screening in many states.

Outlining IVI's work in vision screening and capacity-building programmes in the North, Daniel said around 10,000 children in Rewari had been screened, in addition to holding

capacity-building workshop in Rohtak and a programme on the role of optometrists in public health in Gurugram.

Similar workshops were held in Ludhiana, covering a range of topics, including essentials of refraction and ophthalmic dispensing. Another workshop on binocular and low vision was conducted in Chandigarh.

As against a national requirement of 1.25 lakh optometrists, India has only 40,000 and that too mostly in urban areas— Vinod Daniel, CEO, India vision Institute

Respiratory illness

Crop burning raises risk of respiratory illness threefold, says IFPRI study (The Hindu: 20190305)

<https://www.thehindu.com/sci-tech/health/crop-burning-raises-risk-of-respiratory-illness-threefold-says-ifpri-study/article26432113.ece>

Living near 100 fires a day ‘leading risk factor’ for Acute Respiratory Illness; outweighs factors like cracker burning in Diwali or high motor vehicle congestion

The burning of agricultural residue — a contributor to north India’s winter pollution — increases the risk of respiratory illnesses threefold for those who experience it. It may also be responsible for an annual \$30 billion (approximately ₹2 trillion) loss in terms of days of work lost in States affected by crop burning, according to a study by the International Food Policy Research Institute (IFPRI).

Health records

The findings were based on a study of the health records of 250,000 people in Haryana (which sees a spike in crop burning episodes in winter), and Andhra Pradesh and Tamil Nadu, which don’t see similar burning episodes. The study is to appear in the peer-reviewed International Journal of Epidemiology.

The researchers used health records and satellite data from September 2013-February 2014. The satellite data was for crop-burning fires detected by the Moderate-Resolution Imaging Spectroradiometer (MODIS) Terra satellite, managed by the National Aeronautics Space Administration (NASA).

“We found that living in an area where crop burning is practised was a leading risk factor for respiratory disease in northern India. Whereas the total burden of diseases from air pollution declined between 1990 and 2016 due to efforts to reduce the burning of solid fuel for household use, outdoor air pollution increased by 16.6%,” the researchers said in a statement.

‘Absent in South’

In Haryana, 5.4% of surveyed individuals reported suffering from ARI (Acute Respiratory Infection) whereas the reported ARI symptoms in southern States was only 0.1%.

Among those who reported suffering from ARI, 83% also reported receiving treatment for ARI at a private or public medical facility.

Whereas high-intensity fire exposure was virtually absent in south India, 17.5% of individuals in Haryana lived in a district where 100 or more fires per day were observed by the satellite.

Living in a district that saw 100 fires a day was the “leading risk factor” for ARI. These trumped factors such as cracker burning in Diwali, being a child below 5 years of age and, living in a district with high motor vehicle congestion. The study was co-authored by IFPRI’s Dr. Samuel Scott and Dr. Avinash Kishore; CGIAR Research Program on Agriculture for Nutrition and Health’s Dr. Devesh Roy; University of Washington’s Suman Chakrabarti; and Oklahoma State University’s Md. Tajuddin Khan.

Crop burning raises risk of respiratory illness threefold, says IFPRI study

‘First victims’

“Our study shows that it is not only the residents of Delhi, but also women, children and men of rural Haryana who are the first victims of crop residue burning. Much of the public discussion on the ill-effects of crop residue burning ignores this immediately affected vulnerable population,” said Dr. Kishore.

For about a decade now, Delhi has been complaining about the practice of stubble burning, holding it responsible for the abysmal air quality in the capital in winter.

‘Zero tolerance’

In 2013, the National Green Tribunal (NGT) issued a directive to Punjab, Haryana and Uttar Pradesh, asking them to ban stubble burning.

The Environment Ministers of these States as well as top officials at the Centre declared a “zero tolerance” policy on the burning of stubble, which has been estimated to contribute anywhere from 7% to 78% of the particulate matter-emission load in Delhi during winter.

H1N1 cases

Alarming spread: on H1N1 cases (The Hindu: 20190305)

<https://www.thehindu.com/opinion/editorial/alarming-spread/article26432512.ece>

With H1N1 now a seasonal flu strain, care workers and others at risk must be vaccinated

In a short span of 55 days (till February 24) this year, the number of influenza A (H1N1) cases and deaths reported from India reached an alarming 14,803 and 448, respectively. The highest numbers were from Rajasthan (3,964), Delhi (2,738) and Gujarat (2,726). Uttar Pradesh was next, with 905. While Rajasthan and Gujarat had the highest number of deaths, at 137 and 88, respectively, Delhi recorded seven deaths despite recording around the same number of cases as Gujarat. There appears to be no let-up, with the number of cases and deaths steadily rising. What is more disturbing is that the number of cases reported till February 24 is nearly the same as that recorded in the whole of 2018 (14,992). At about 450, the number of deaths till February

24 is nearly half the total reported in 2018 (1,103). The actual number of cases and deaths this year is likely to be higher as West Bengal has not reported the data to the Integrated Disease Surveillance Programme. Moreover, the IDSP data are based only on laboratory confirmed cases and deaths. The H1N1 virus, which caused a pandemic in 2009, has since become a seasonal flu strain globally, including in India, and causes fewer deaths. According to the WHO, in 2009 the number of laboratory confirmed deaths caused by the pandemic strain was at least 18,500. But a 2012 paper in Lancet Infectious Diseases mentioned 2,84,000 deaths, which was 15 times more than the number of laboratory confirmed deaths.

On February 6, the Union Health Ministry had reviewed the preparedness and action taken by States to deal with influenza cases when the number of H1N1 cases and deaths stood at 6,701 and 226, respectively. Despite the number of cases and deaths more than doubling in less than 20 days since the review, the Ministry has made no additional effort to contain the spread. It has issued a guidance “recommending” vaccines for health-care workers, and deeming them “desirable” for those above 65 years of age and children between six months and eight years. Surprisingly, people with pre-existing chronic diseases, who are most susceptible to H1N1 complications according to the WHO, have been ignored — though its own statement released on February 6 had said more deaths were seen in people with diabetes and hypertension. With H1N1 becoming a seasonal flu virus strain in India even during summer, it is advisable that health-care workers and others at risk get themselves vaccinated. Despite the sharp increase in cases and deaths, the vaccine uptake has been low. Besides vaccination, there needs to be greater awareness so that people adopt precautionary measures such as frequent handwashing, and cough etiquette.

“MEA statement said there were no civilian or military casualties. So, who put out the number of casualties as 300-350?”

Insomniac

Insomniac? Blame it on your genes (The Tribune: 20190305)

<https://www.tribuneindia.com/news/health/insomniac-blame-it-on-your-genes/736595.html>

Finding it hard to sleep at night? If so, blame your genes, say researchers, who identified 57 genes associated with symptoms of insomnia, affecting 10 to 20 per cent people worldwide.

“Our findings confirm a role for genetics in insomnia symptoms and expand upon the four previously found gene loci for this condition,” says an expert. “All of these identified regions help us understand why some people get insomnia, which pathways and systems are affected, and point to possible new therapeutic targets,” she added.

The study, published in the Nature Genetics journal, associated 57 gene sites with self-reported insomnia, associations that were not affected by known risk factors such as lifestyle, caffeine consumption, depression or recent stress.

Instead the genomic regions identified include genes involved in ubiquitin-mediated proteolysis — a process by which proteins are tagged for destruction — and those expressed in

several brain regions, skeletal muscles and the adrenal gland, researchers noted. The team also found evidence that increased insomnia symptoms nearly doubled the risk of coronary artery disease. They were also linked to symptoms of depression and a reduced sense of well-being.”Insomnia has a really significant impact on millions of people worldwide. We’ve long known there’s a link between insomnia and chronic disease. Now our findings suggest that depression and heart disease are actually a result of persistent insomnia,” added an expert. For the study, the team analysed data from more than 4.5 lakh participants, 29 per cent of whom reported frequent insomnia symptoms.

Working long hours ups depression risk in women

Women who work more than 55 hours a week are at a higher risk of depression, according to study which found that the same is not true for men. The study of over 20,000 adults, published in the BMJ’s Journal of Epidemiology & Community Health, found that women who worked extra-long hours had 7.3 per cent more depressive symptoms than women working a standard 35-40 week. Weekend working was linked to a higher risk of depression among both sexes. Women who worked for all or most weekends had 4.6 per cent more depressive symptoms on average compared to women working only weekdays. Men who worked all or most weekends had 3.4 per cent more depressive symptoms than men working only weekdays. “Many women face the additional burden of doing a larger share of domestic labour than men, leading to extensive total work hours, added time pressures and overwhelming responsibilities,” says an expert. “Additionally, women who work most weekends tend to be concentrated in low-paid service sector jobs, which have been linked to higher levels of depression,” the study added. The research showed that men tended to work longer hours in paid work than women, and having children affected men’s and women’s work patterns differently: while mothers tended to work fewer hours than women without children, fathers tended to work more hours than men without kids. Two thirds of men worked weekends, compared with half of women. Those who worked all or most weekends were more likely to be in low-skilled work and to be less satisfied with their job and their earnings than those who only worked five days or some weekends. Researchers analysed data from 40,000 UK households since 2009 about working hours, weekend working, working conditions and psychological distress from 11,215 working men and 12,188 working women between 2010 and 2012. Depressive symptoms such as feeling worthless or incapable were measured using a questionnaire. “Women in general are more likely to be depressed than men, and this was no different in the study,” Weston said. “Independent of their working patterns, we also found that workers with the most depressive symptoms were older, on lower incomes, smokers, in physically demanding jobs, and who were dissatisfied at work,” she said. — Agencies

Sleeping

Sleep apnea linked with Alzheimer's marker: Study (The Tribune: 20190305)

<https://www.tribuneindia.com/news/health/sleep-apnea-linked-with-alzheimer-s-marker-study/738034.html>

Researchers have found a link between sleep apnea and increased levels of a toxic brain protein commonly associated with Alzheimer's disease.

The findings suggest that people suffering from sleep apnea may have higher accumulations of an Alzheimer's disease biomarker called tau in an area of the brain that helps with memory.

Those who had apneas had on average 4.5 per cent higher levels of tau in the entorhinal cortex than those who did not have apneas, suggests the study presented at the American Academy of Neurology's 71st Annual Meeting in Philadelphia.

Tau, a protein that forms into tangles, is found in the brains of people with Alzheimer's disease.

"Our research results raise the possibility that sleep apnea affects tau accumulation. But it is also possible that higher levels of tau in other regions may predispose a person to sleep apnea," said co-author Diego Z. Carvalho from Minnesota's Mayo Clinic.

According to the researchers, obstructive sleep apnea is a condition that involves frequent events of stopped breathing during sleep, although an apnea may also be a single event of paused breathing during sleep.

"A person normally has fewer than five episodes of apnea per hour during sleep," Carvalho added.

For the study, the research team involved 288 people of age 65 and older who did not have cognitive impairment. Bed partners were asked whether they had witnessed episodes of stopped breathing during sleep.

Participants had positron emission tomography (PET) brain scans to look for accumulation of tau tangles in the entorhinal cortex area of the brain, an area of the brain in the temporal lobe that is more likely to accumulate tau than some other areas.

This area of the brain helps manage memory, navigation and perception of time.

The researchers identified 43 participants, 15 per cent of the study group, whose bed partners witnessed apneas when they were sleeping. — IANS

High-fat diet

High-fat diet in elderly linked to heart disease, diabetes (The Tribune: 20190305)

The obesity-generating diet in elderly also led to structural deformities in mice spleens.

LONDON

Elderly people, who consume a high-fat diet rich in Omega-6 fatty acids, could be at risk of developing health issues ranging from diabetes to heart failure, researchers, including one Indian-origin, said in a study.

The study conducted on a mice model showed that a calorie-dense, obesity-generating diet in ageing mice disrupted the composition of the gut microbiome.

Young mice, who were fed an obesity-generating diet were able to resolve inflammation after a heart attack, even though their gut microflora had already been altered by the diet.

In contrast, in aged mice fed the obesity-generating diet, the heart attack triggered nonresolving inflammation -- associated with heart failure.

The study, published in FASEB Journal, investigated how ageing and omega 6-enriched diet impact microflora in the gut, the structure and function of the spleen (abdominal organ), and a subsequent immune response to heart attack.

"This study highlights that diet and age are critical factors that have differential impact with age, and it highlights the spleen and heart as an inter-organ communication system with the immune defence system," said Ganesh Halade, Associate Professor at the University of Alabama.

The team found that obesity-generating diet increased the proportion of neutrophils in the blood of aged-mice.

Higher neutrophil counts means that you have an infection or are under a lot of stress.

The obesity-generating diet in elderly also led to structural deformities in mice spleens.

The spleen, a secondary immune organ, is a known reservoir for leukocytes that move to the heart to begin tissue repair and help resolve inflammation in case of an heart attack. — IANS

Eat tomatoes

Eat tomatoes to fight liver cancer, inflammation (The Tribune: 20190305)

<https://www.tribuneindia.com/news/health/eat-tomatoes-to-fight-liver-cancer-inflammation/737043.htm>

Higher consumption of tomatoes could be associated with a decreased risk of liver cancer caused by high-fat diets, a study has found.

The study, conducted on mice, showed that tomatoes are rich in lycopene—a strong antioxidant, anti-inflammatory and anti-cancer agent—which helps in effectively reducing fatty liver disease, inflammation and liver cancer development.

"Consuming whole foods like tomatoes and processed tomatoes from sauces, tomato paste, canned whole tomato products, ketchup and juice, provides the best source of lycopene," said Xiang-Dong Wang, Professor at Tufts University in the US.

Interestingly, we observed that tomato powder is more effective than the same dose of purified lycopene supplementation to prevent liver cancer development, said Wang.

This could be due to the potential beneficial effects of other nutrients in a whole tomato, such as vitamin E, vitamin C, folate, minerals, phenolic compounds and dietary fibres.

In addition, feeding mice tomato powder increased the richness and diversity of beneficial microbiota and prevented the over-growth of some bacteria related to inflammation, said the study, published in the journal *Cancer Prevention Research*.

For the study, infant mice were infected with a liver carcinogen and then fed an unhealthy high-fat diet similar to a Western diet, with or without tomato powder containing lycopene.

Other foods including guava, watermelon, grapefruit, papaya, and sweet red pepper also contain lycopene, but in much lower concentrations compared to tomatoes.

Eating tomatoes and tomato products such as tomato sauce rich in lycopene is also associated with a lower risk of cardiovascular disease, osteoporosis, diabetes, and certain cancers, including prostate, lung, breast and colon cancer, the study showed. — IANS

Mental disorders

Spending childhood in greener spaces may prevent mental disorders later (The Tribune: 20190305)

<https://www.tribuneindia.com/news/health/spending-childhood-in-greener-spaces-may-prevent-mental-disorders-later/735651.html>

Children who grow up with greener surroundings have up to 55 per cent less risk of developing various mental disorders later in life, according to a study which emphasised the need for designing green and healthy cities for the future.

An increasing share of the world's population now lives in cities and World Health Organisation estimates that more than 450 millions of the global human population suffer from a mental disorder.

Based on satellite data from 1985 to 2013, researchers from Aarhus University in Denmark have mapped the presence of green space around the childhood homes of almost one million Danes and compared this data with the risk of developing one of 16 different mental disorders later in life.

The study, published in the *Journal PNAS*, shows that children surrounded by the high amounts of green space in childhood have up to a 55 per cent lower risk of developing a mental disorder.

"With our dataset, we show that the risk of developing a mental disorder decreases incrementally the longer you have been surrounded by green space from birth and up to the age of 10. Green space throughout childhood is therefore extremely important," Kristine Engemann from Aarhus University.

As the researchers adjusted for other known risk factors of developing a mental disorder, they see their findings as a robust indication of a close relationship between green space, urban life, and mental disorders.

"There is increasing evidence that the natural environment plays a larger role for mental health than previously thought. Our study is important in giving us a better understanding of its importance across the broader population," said Engemann.

This knowledge has important implications for sustainable urban planning. Not least because a larger and larger proportion of the world's population lives in cities.

"The coupling between mental health and access to green space in your local area is something that should be considered even more in urban planning to ensure greener and healthier cities and improve mental health of urban residents in the future," said Jens-Christian Svenning from Aarhus University. — PTI

‘Hum do, hamare teen’: Jains seek to have more children (The Times of India: 20190305)

<https://timesofindia.indiatimes.com/india/hum-do-hamare-teen-jains-seek-to-have-more-children/articleshow/68262377.cms>

Also, according to the latest National Family Health Survey, ..

Breakfast

Skipping breakfast increases chances of diabetes by 33% The Times of India: 20190305)

<https://timesofindia.indiatimes.com/india/skipping-breakfast-increases-chances-of-diabetes-by-33/articleshow/68262682.cms>

NEW DELHI: If you think missing your morning meal can help you reduce your calories, you are mistaken. On the contrary, skipping breakfast raises your risk of developing type-2 diabetes by a third and those who are overweight are more susceptible, a latest research shows.

Those who miss their breakfast are on average 33% more likely to have type-2 diabetes. In fact, those who skip the morning meal at least four times a week are at 55% more risk of contracting the disease, according to the meta-analysis of data from around 1,00,000 people published in The Journal of Nutrition.

Experts say this is because skipping breakfast increases insulin resistance, putting stress on the metabolic system – which is the first step towards diabetes. Moreover, people who do not eat their morning meal are more likely to snack through the day.

“Skipping any meal repeatedly stresses the system by making the hormone insulin less active; and breakfast is the most important meal of the day. It should be balanced with more of healthy proteins and less of carbohydrates and least of saturated fat e.g. butter. It is also likely that the person who misses breakfast is also under stress and pursues other unhealthy behaviours,” says Fortis C-Doc chairman Dr Anoop Misra.

The analysis shows at least 30% of people around the world miss their breakfast. In India, missing breakfast is considered more of an urban phenomenon prevalent among youngsters than those older, experts say. This is primarily because of work-related stress and the amount of time spent on travelling to work, which makes them either skip their breakfast or eat very little.

Doctors say eating a wholesome breakfast on the table is very important because a balanced diet taken at proper time keeps sugar levels intact. This helps in creating a healthy metabolism for a prolonged time.

The research shows those who are overweight are more likely to miss their morning meal, because they wrongly believe this will reduce their overall calorie intake. However, the findings shows such people are more likely to get diabetes because insulin resistance is already high in such people and skipping breakfast adds to the problem.

Diabetes is a growing challenge in India with an estimated 8.7% population in the age group of 20 and 70 years diabetic.

अल्जाइमर

खर्राटों का अल्जाइमर से है संबंध (Dainik Gagan: : 20190305)

https://epaper.jagran.com/epaper/article-05-Mar-2019-edition-delhi-city-page_27-7236-8025-4.html

ताजा शोध में नींद में खर्राटि लेने और याददाश्त संबंधी बीमारी अल्जाइमर के बीच संबंध सामने आया है। अमेरिका के मायो क्लीनिक के शोधकर्ताओं के मुताबिक, जो लोग रात में सोते समय खर्राटि लेते हैं, उनमें अल्जाइमर के बायोमार्कर का स्तर बढ़ा रहता है। वैज्ञानिकों ने बताया कि व्यक्ति खर्राटि इसलिए लेता है कि सोते समय उसकी सांस बाधित होती है। अचानक सांस रुकने और चलने की स्थिति को स्लीप एपनिया कहा जाता है। वहीं अल्जाइमर के लिए एक विशेष प्रोटीन टाऊ जिम्मेदार है। यह प्रोटीन दिमाग के उस हिस्से पर जमा होने लगता है, जो बातें याद रखने में भूमिका निभाता है। शोधकर्ता डिएगो जेड कार्वाल्हो ने कहा, 'हाल के अध्ययनों में पता चला था कि स्लीप एपनिया और डिमेंशिया के बीच संबंध है। इन नतीजों को देखते हुए ही हमने स्लीप एपनिया और टाऊ प्रोटीन के जमा होने के बीच संबंध जानने के लिए यह अध्ययन किया।' शोध में 65 साल और इससे ज्यादा उम्र के 288 लोगों को शामिल किया गया था। -प्रेट्र

मशीन लर्निंग से होगी फेफड़े के कैंसर की जांच

वैज्ञानिकों ने एक ऐसा मशीन लर्निंग मॉडल तैयार किया है, जो फेफड़े के कैंसर के विभिन्न प्रकार के बीच अंतर करने में सहायक होगा। वैज्ञानिकों ने इसे अनुभवी जांचकर्ताओं से भी ज्यादा कारगर पाया है। मशीन लर्निंग मूलतः आर्टिफिशियल इंटेलिजेंस (एआइ) आधारित सॉफ्टवेयर होता है। यह सॉफ्टवेयर उपलब्ध डाटा के हिसाब से खुद-ब-खुद स्थितियों की समीक्षा करने और जांच करने में सक्षम है। अमेरिका के डार्माउथ-हिचकॉक मेडिकल सेंटर के शोधकर्ताओं का कहना है कि हाल के वर्षों में मशीन लर्निंग चिकित्सा के क्षेत्र में उल्लेखनीय क्रांति की वाहक बनी है। अभी फेफड़े में होने वाले एडेनोकार्सिनोमा कैंसर के ट्यूमर पैटर्न और सब-टाइप का पता लगाने के लिए विशेषज्ञ चिकित्सकों को ही इमेजिंग से मिली रिपोर्ट का गहन अध्ययन करना पड़ता है। मशीन लर्निंग की मदद से यह काम ज्यादा आसान और सटीक तरीके से करना संभव होगा। - प्रेट्र

Air Pollution (Hindustan: 20190305)

http://epaper.livehindustan.com/imageview_137057_96520294_4_1_05-03-2019_i_24.pagezoomsinwindows.php

वायु प्रदूषण से भारत को 2.1 लाख करोड़ की क्षति

खतरा

नई दिल्ली | हिंदी

उत्तर भारत में पराली जलाने के कारण पैदा होने वाले वायु प्रदूषण से स्वास्थ्य के साथ अर्थव्यवस्था को भी भारी नुकसान पहुंच रहा है।

वायु प्रदूषण के कारण सांस संबंधी संक्रमण बढ़ने के साथ ही देश को सालाना 30 अरब डॉलर (लगभग 2.1 लाख करोड़ रुपये) का आर्थिक नुकसान भी हो रहा है। अमेरिका के

चिंताजनक

- पराली जलाने से उत्तर भारत में बढ़ रहा वायु प्रदूषण
- मानक से 20 गुना अधिक हो गया है वायु प्रदूषण



इंटरनेशनल फूड पॉलिसी रिसर्च इंस्टीट्यूट व सहयोगी संस्थानों के शोधकर्ताओं ने पाया है कि पराली जलाने से होने वाले वायु प्रदूषण के कारण उत्तर भारत के विभिन्न जिलों में रहने वालों में एक्यूट रेस्पिरेटरी इन्फेक्शन

(एआरआई) का खतरा बहुत अधिक होता है। इस अध्ययन में कहा गया है कि पांच साल से कम उम्र के बच्चों में इस संक्रमण का खतरा सर्वाधिक है।

इस अनुसंधान के जरिए पहली बार उत्तर भारत में पराली जलाने से स्वास्थ्य

एवं अर्थव्यवस्था पर पड़ने वाले नुकसानों का अध्ययन किया गया है। आईएफपीआरआई के रिसर्च फेलो और इस अध्ययन के सह लेखक सैमुअल स्कॉट ने कहा कि वायु की खराब गुणवत्ता दुनियाभर में स्वास्थ्य से जुड़ी सबसे बड़ी समस्या बन गई है।

दिल्ली में तो हवा में पार्टिकुलेट मैटर (पीएम) का स्तर विश्व स्वास्थ्य संगठन के मानकों से 20 गुना तक अधिक हो गया है। हरियाणा और पंजाब में किसानों के पराली जलाने से निकलने वाले धुएँ के कारण दिल्ली में वायु गुणवत्ता पर असर पड़ता है।

New Gene Therapy (Hindustan: 20190305)

http://epaper.livehindustan.com/imageview_137057_96517170_4_1_05-03-2019_i_24.pagezoomsinwindows.php

नई जीन थेरेपी से दिल का इलाज आसान होगा



सेहत

नई दिल्ली | हिटी

हृदय की असामान्य धड़कनों से जुड़े विकार से जूझ रहे लोगों के लिए अच्छी खबर है। एक नई जीन थेरेपी ऐसे मरीजों के लिए आसान उपचार मुहैया कराने में मददगार साबित होगी। नीदरलैंड के लीडेन विश्वविद्यालय के शोधकर्ताओं ने यह दावा किया है।

एरिथमिया हृदय की असामान्य धड़कनों से जुड़ा विकार है। इसमें रोगी की हृदय गति बहुत ज्यादा या कम हो जाती है। ऐसे में एलईडी डिवाइस

दावा

- नीदरलैंड के लीडेन विश्वविद्यालय के शोधकर्ताओं ने दावा किया
- जीन थेरेपी से हृदय गति को तेजी से नियंत्रित किया जा सकेगा

इंफ्लान्टड जीन थेरेपी के जरिए रोगी की धड़कनों का हाल तुरंत लिया जा सकेगा और उसे नियंत्रित जा सकेगा।

चूहों पर हुए परीक्षण में नई जीन थेरेपी से एरिथमिया की जल्द पहचान करने में मदद मिली। शोधकर्ता डैनियल के मुताबिक धड़कन की गति को सामान्य करने के लिए एलईडी फ्लैश लाइट हृदय में इलेक्ट्रिक प्रवाह जेनरेट करती है।

Smoking

Smokers misunderstand health risks of smokeless tobacco products: Study (New Kerala: 20190305)

<https://www.newkerala.com/news/read/109032/smokers-misunderstand-health-risks-of-smokeless-tobacco-products-study.html>

Smokers often misunderstand health risks that come with consuming smokeless tobacco product, a recent study suggests.

While smokeless tobacco products are addictive, contain cancer-causing chemicals and are linked with cardiovascular and certain cancer risks, products such as snus, a kind of smokeless tobacco, have comparatively fewer health risks than smoking when used exclusively. This product can also serve as harm-reduction alternatives for smokers unable or unwilling to completely quit tobacco.

Published in the Journal of Addictive Behaviors, the study provides new research on what smokers think about snus.

Snus -- a Swedish word for snuff -- is a moist powder tobacco that can be sold in a loose form or in small prepacked pouches that users place under the top lip for about 30 minutes. It is typically spit free. The product is popular in Scandinavia, but newer to the United States.

In Sweden, snus use has been linked to a decrease in tobacco smoking and smoking-related diseases.

The researchers reviewed how 256 smokers responded to questions about their perceived risk of developing lung cancer, heart disease and oral cancer from using snus versus cigarettes, and whether there were subgroups of smokers with similar patterns of beliefs. More than 75 per cent of the participants smoked daily and about 20 per cent had tried smokeless tobacco.

The researchers found that smokers fell into three subgroups based on their beliefs.

- About 45 per cent perceived snus to be as harmful as smoking overall and for all three risks: lung cancer, heart disease and oral cancer.
- About 38 per cent perceived that snus poses less risk for lung cancer and heart disease than cigarettes but had the same oral cancer risk as cigarettes.
- Another 17 per cent accurately perceived snus to have lower risks for lung cancer but perceived risks for oral cancer and heart disease to be about the same as that from smoking.
- Almost 40 per cent incorrectly perceived the risk of oral cancer to be higher from snus use than smoking.

These findings continue to suggest that the public does not understand that combustion escalates the health risks in tobacco products that are smoked, making them more harmful than non-combusted smokeless tobacco on a continuum of risk, said lead researcher Olivia Wackowski.

They are also significant given that use of Scandinavian snus has not been clearly associated with oral cancer, unlike smoking, which poses a significant risk for oral cancer, Wackowski added.

Quitting all tobacco is the best course of action. However, smokers who have not been successful in quitting or who do not want to quit tobacco entirely may be able to reduce their risks by learning about and switching to a product like snus, Wackowski said.

However, this information can be challenging to communicate and is a key area for research work. It's important for smokers to know that the reduced risks may come from completely

switching over from smoking to snus use, and not using both products, she said. It's also important that such messaging does not unintentionally encourage product initiation among non-users, especially youth.

Air Pollution

Polluted air kills around 6 lakh children every year: UN (New Kerala: 20190305)

<https://www.newkerala.com/news/read/108980/polluted-air-kills-around-6-lakh-children-every-year-un.html>

Air pollution, both outside and inside home, is a silent and invisible prolific killer responsible for premature death of 7 million people each year, including 600,000 children, according to a UN expert on environment and human rights.

According to David R. Boyd, UN Special Rapporteur, more than 6 billion people, one-third of them children, are regularly inhaling air so polluted that it puts their life, health and well-being at risk.

"Every hour, 800 people are dying, many after years of suffering, from cancer, respiratory illnesses or heart disease directly caused by breathing polluted air. Yet, this pandemic receives inadequate attention as these deaths are not as dramatic as those caused by other disasters or epidemics," Boyd said during the Human Rights Council in Geneva.

Boyd emphasised that air pollution is a preventable problem and gave a call to abide by their legal obligations to ensure clean air, which is essential for fulfilling the rights to life, health, water and sanitation, adequate housing, and a healthy environment.

"There are many examples of good practices, such as programmes in India and Indonesia, that have helped millions of poor families switch to cleaner cooking technologies that are successfully eliminating the use of coal-fired power plants," said Boyd.

Enzyme inhibitor

Enzyme inhibitor could treat deadly brain tumour in kids (New Kerala: 20190305)

<https://www.newkerala.com/news/read/108957/enzyme-inhibitor-could-treat-deadly-brain-tumour-in-kids.html>

Researchers have identified an enzyme inhibitor that may help fight the most deadly brain tumour in children.

The study, published in the journal Nature Communications, suggests that an inhibitor of ACVR1 enzyme slows tumour growth and increases survival in an animal model of diffuse intrinsic pontine glioma (DIPG) -- the most deadly brain tumour in children.

According to the researchers, currently, there are no approved drugs for treating DIPG.

"Our results are encouraging and suggest that it might be reasonable to test an inhibitor of this enzyme in a clinical trial," said senior author Oren Becher, Associate Professor at Northwestern University in the US.

"Prior to that, we need to evaluate different ACVR1 inhibitors in animal models to make sure we bring the most safe and effective agent to trials with children," Becher added.

In 2014, Becher's lab co-discovered that ACVR1 mutations are found in approximately 25 per cent of DIPGs, leading the enzyme to be overactive.

In this study, the team demonstrated for the first time in an animal model that this enzyme mutation cooperates with a histone mutation (H3.1 K27M) found in 20 per cent of DIPGs. Together, these mutations are important in initiating tumour development.

Histone is a protein that acts like a spool for DNA, helping to package the six-foot long DNA strand into the tiny nucleus of every cell.

"Our future work will examine why and how the ACVR1 and histone mutations work together to trigger DIPG development," Becher noted.

Steroid

Steroid use during cardiac bypass surgery does not reduce risk of severe kidney injury(New Kerala: 20190305)

<https://www.newkerala.com/news/read/108893/steroid-use-during-cardiac-bypass-surgery-does-not-reduce-risk-of-severe-kidney-injury.html>

A new study now says that using steroids during cardiopulmonary bypass surgery do not reduce the risk of acute kidney injury in people at increased risk of death.

The study, conducted in 18 countries, was published in CMAJ (Canadian Medical Association Journal).

The multisite randomised controlled trial, funded by the Canadian Institutes of Health Research, included patients in Canada, China, India, United States, Colombia, Australia, Italy, Iran, Czech Republic, Greece, Spain, Brazil, Austria, Belgium, Hong Kong, Argentina, Chile and Ireland, which broadens the reach of the study's findings.

About one-fifth of the millions of bypass surgeries performed around the world each year result in acute kidney injury, which in its most severe forms greatly increases the chance of death and the need for life-sustaining dialysis treatments.

Bypass surgery can trigger widespread inflammation, which is thought to be a key culprit in the development of kidney injury. Prior studies suggested that steroids might help reduce inflammation and acute kidney injury.

Speaking about the study, study author Dr Amit Garg said, Administering steroids to prevent inflammation during surgery did not reduce the risk of acute kidney injury in people at moderate or high risk of adverse effects.

The study included 7286 patients, of whom about half (3647) were randomised to receive steroids and the remaining 3639 to placebo. The rate of acute kidney injury was similar in both groups.

Given the broad range of countries and populations represented in the study, these findings further support a shift away from using steroids as an effective method of preventing the complications from inflammation during bypass surgery, added Dr Garg.