



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Wednesday 20240320

Air pollution

Air pollution major source of lung diseases, needs to be controlled: Health experts (The Tribune: 20240320)

<https://www.tribuneindia.com/news/health/air-pollution-major-source-of-lung-diseases-needs-to-be-controlled-health-experts-602251>

There is an urgent need to control it in summer months to ensure air pollution does not impact people in the winter.

Air pollution major source of lung diseases, needs to be controlled: Health experts

Air pollution has become a major source of lung diseases and plays a major part in exacerbating other ailments such as diabetes and sleep apnea, health experts said on Tuesday and called for measures to control it.

There is an urgent need to control it in summer months to ensure air pollution does not impact people in the winter, they stated.

On the second day of the 'Illness to Wellness' summit organised by ASSOCHAM Foundation for CSR, medical practitioners shared their views on how air pollution has become a major source of lung diseases and also plays a major part in exacerbating other ailments.

In a session titled 'Depleting Air Quality Index: A Potent Threat to Health and Environment', air pollution's deadly impact was discussed to throw light on the gravity of the situation.

Speaking in the session, Dr GC Khilnani, chairman, PSRI Institute of Pulmonary, Critical Care and Sleep Medicine, PSRI Hospital, Delhi, said, “Long-term effects of air pollution on lungs are very worrying. Around 30 years ago, Chronic Obstructive Pulmonary Disease (COPD) meant nothing.”

“Today, COPD is one of the leading causes of deaths and a major reason is air pollution. The number of patients being admitted to emergency due to COPD diseases has also increased by over 20 per cent due to air pollution.” Household air pollution also causes deaths which not many people are aware of, he said.

“Respiratory diseases have increased due to air pollution and there is an urgent need to control air pollution in summer months to ensure air pollution woes do not impact people in winter,” Dr Khilani said.

Dr Vivek Nangia, principal director and head, Institute of Respiratory, Critical Care and Sleep Medicine and Chief of Pulmonology, Cluster 1, Max Healthcare, said, “Air pollution also plays a part in aggravating existing ailments. For instance, with diabetes, a co-relation has been found with the duration of exposure to air pollution. So far we have attributed rise in diabetes patients to lifestyle issues, obesity and diet issues. But now, a very preventive risk factor that is coming into play is air pollution.”

Studies have found that there has been a rise in diabetes patients after being continuously exposed to rising levels of air pollution. Sleep apnea is another big issue that people are facing to air pollution.

British Heart Foundation (BHF)

Indian-origin professor's UK research explores blood test to detect heart failure risk (The Tribune: 20240320)

<https://www.tribuneindia.com/news/health/indian-origin-professors-uk-research-explores-blood-test-to-detect-heart-failure-risk-602225>

The study, funded by the British Heart Foundation (BHF) and published in the ‘European Journal of Heart Failure’ this week, was led by Neil Herring

Indian-origin professor's UK research explores blood test to detect heart failure risk

Heart failure occurs when the heart can't pump blood around the body as well as it should.

A blood test could help identify those at highest risk of dying from heart failure within the next five years, new Oxford University research conducted in collaboration with an Indian-origin professor has found.

The study, funded by the British Heart Foundation (BHF) and published in the 'European Journal of Heart Failure' this week, was led by Neil Herring, Professor of Cardiovascular Medicine and Consultant Cardiologist at the University of Oxford, in collaboration with Professor Pardeep Jhund at the University of Glasgow.

The researchers suggest that measuring a protein called neuropeptide Y (NPY) alongside hormone B-Type Natriuretic Peptide (BNP) could help diagnose heart failure patients, pinpointing those who may be at higher risk of dying.

“Patients with heart failure are still at a high risk of dying despite the advances in treatment,” said Professor Jhund.

“Our work shows that NPY is a promising marker that can be measured in the blood to determine which patients are more likely to die. We hope that this will allow us to identify patients who may benefit from new therapies,” he said.

Heart failure occurs when the heart can't pump blood around the body as well as it should. It is a life-limiting condition resulting in frequent hospital visits and reduced quality of life and there is currently no cure. NPY is released by nerves in the heart in response to extreme stress. It can trigger potentially dangerous heart rhythms and causes constriction of the smallest blood vessels in the heart muscle, making the heart work harder and causes blood vessels going to the heart to contract.

Data from over 800 participants at different stages of heart failure were used and participants were measured for levels of the hormone B-Type Natriuretic Peptide (BNP), a hormone currently used to diagnose heart failure. Participants' blood pressure and echocardiograms – a type of ultrasound heart scan – were also taken and were followed up regularly.

Newborn delivery services

Many hospitals in China stop newborn delivery services as birth rate drops (The Tribune: 20240320)

<https://www.tribuneindia.com/news/health/many-hospitals-in-china-stop-newborn-delivery-services-as-birth-rate-drops-602205>

More babies are being born in hospitals across China in the Year of the Dragon

Many hospitals in China stop newborn delivery services as birth rate drops

The closures come as Chinese policymakers grapple with how to boost young couples' desire to have children as authorities face a growing demographic headache of a rapidly ageing society. File Photo

Many hospitals in China have stopped offering newborn delivery services this year, state-backed news outlet Daily Economic News reported, with industry experts warning of an "obstetric winter" due to declining demand amid a record drop in new births.

Hospitals in various provinces including in eastern Zhejiang and southern Jiangxi have in the past two months announced that they will close their obstetric departments, according to notices viewed by Reuters.

The Fifth People's Hospital of Ganzhou City in Jiangxi said on its official WeChat account that obstetric services would be suspended from March 11.

Zhejiang's Jiangshan Hospital of Traditional Medicine announced that its obstetrics business would stop from February 1.

The closures come as Chinese policymakers grapple with how to boost young couples' desire to have children as authorities face a growing demographic headache of a rapidly ageing society.

China's population fell for a second consecutive year in 2023 as the record-low birth rate and high deaths due to COVID-19 accelerated a downturn that officials fear will have profound long-term effects on the economy's growth potential.

The most recent available data from China's National Health Commission showed the number of maternity hospitals dropped to 793 in 2021 from 807 in 2020.

Local media including Daily Economic News said the plummeting number of newborns meant that it was not possible for many hospitals to keep operating their obstetrics departments.

"The obstetric winter' seems to be coming quietly," the newspaper reported on Friday.

Many women in China are opting to remain childless due to high childcare costs, an unwillingness to marry or put their careers on hold in a traditional society where they are still seen as the main caregivers and where gender discrimination remains rife.

Authorities have tried to roll out incentives and measures to boost the birth rate, including expanding maternity leave, financial and tax benefits for having children and housing subsidies.

But China is one of the world's most expensive places to bring up a child relative to its gross domestic product per capita, a prominent Chinese think tank said in February, as it detailed the time and opportunity cost for women who give birth.

More babies are being born in hospitals across China in the Year of the Dragon, which began on February 10, financial news outlet Yicai reported, with the dragon Chinese zodiac sign believed

to be particularly auspicious. But demographers say any bump from a “dragon baby” boom is likely to be short-lived.

Diabetics

Study finds skin condition behind liver damage in diabetics in India (The Tribune: 20240320)

<https://www.tribuneindia.com/news/health/study-finds-skin-condition-behind-liver-damage-in-diabetics-in-india-601845>

Study finds skin condition behind liver damage in diabetics in India

A skin condition characterised by thickening, dark pigmentation, and velvety appearance of the skin at the nape of the neck among people with Type 2 diabetes may indicate a higher risk of liver cell damage (fibrosis), said researchers from Fortis C-DOC hospital for Diabetes and Allied Sciences and AIIMS on Monday.

The easily identified skin condition, called Acanthosis Nigricans, is usually found in individuals with insulin resistance and is typically observed at the nape of the neck. However, it can also manifest in other areas such as the axillae, elbows, knees, and groin, said the researchers in a statement.

The study, published in the journal Primary Care Diabetes showed that “Acanthosis Nigricans has the potential to be used as an easy-to-identify clinical marker for risk of hepatic fat and fibrosis in Asian Indians with type 2 diabetes, allowing for early detection and management strategies”.

The findings are important because of the significantly large number of people living in India with insulin resistance and early onset of Type 2 diabetes.

“In this case-control study involving patients with Type 2 diabetes, we made important observations indicating an independent association between the presence of Acanthosis Nigricans and hepatic steatosis and fibrosis (adverse markers of liver damage),” said Dr Anoop Misra, Padma Shri, co-author of the study and Executive Chairman & Director, Diabetes and Endocrinology, Fortis C-Doc Hospital, in a statement.

For the study, the team examined 300 people with Type 2 diabetes and with Acanthosis Nigricans, and those without the skin condition.

They found that the skin issue is more common in women, overweight/obese individuals, and those with a family history of type 2 diabetes.

Pharma sector

Pharma: the good, the bad and the ugly (The Hindu: 20240320)

<https://www.thehindu.com/sci-tech/health/pharma-the-good-the-bad-and-the-ugly/article67968020.ece>

This week in health: the growing clout of the pharma sector, a potential new dengue vaccine, why Indian students are facing a mental health crisis and all about the HbA1C test for diabetes.

It has turned out to be a pharma week of sorts, in some ways unexpectedly so. In a completely non-medical sense, pharma companies were among those named in the purchase of electoral bonds, over the week. While the details on who gave whom exactly what amount when will be clear in a couple of days, it is a clear indication of the growing clout of the pharma sector in the country. But in core health news, Bindu Shajan Perapaddan records a very important development: the Pharmaceuticals Department formed a panel to reform the prices of drugs and medical devices. With the aim of reforming the pricing framework for drugs and medical devices, the Department of Pharmaceuticals (Pricing Division) has constituted a committee, which is expected to submit its report within the next three months. The committee is mandated to give inputs regarding institutional reforms within the National Pharmaceutical Pricing Authority (NPPA) as well as balancing price and availability of essential medicines, while providing incentives to the industry to sustain growth and exports. Periodic, if not frequent reassessments of pricing and availability are very important for the government to ensure that life-saving drugs continue to be affordable and accessible for the public.

Blood sugar

International body recommends more sensitive test to indicate risk of developing diabetes

The IDF has also recommended revising glycaemic thresholds to predict the risk (The Hindu: 20240320)

<https://www.thehindu.com/sci-tech/health/international-body-recommends-more-sensitive-test-to-indicate-risk-of-developing-diabetes/article67959160.ece>

The measure of blood sugar one hour after a 75 gm sugar solution is consumed is likely to be a far more sensitive and practical method to screen for intermediate hyperglycaemia, say experts.

The measure of blood sugar one hour after a 75 gm sugar solution is consumed is likely to be a far more sensitive and practical method to screen for intermediate hyperglycaemia, say experts. | Photo Credit: Getty Images/ISTockphoto

The International Diabetes Federation (IDF), in a position statement, has recommended the adoption of a test measuring blood sugar one hour (1-h PG) after the load of Oral Glucose Tolerance Test (OGTT) has been administered to check for diabetes risk. They have also recommended revising glycaemic thresholds to measure and predict the risk of developing diabetes.

Sickle cell disease

Indigenous drug for sickle cell disease developed

The drug would be the country's first indigenous, room temperature stable drug for sickle cell disease to be available at only 1% of the global price. (The Hindu: 20240320)

<https://www.thehindu.com/sci-tech/health/indigenous-drug-for-sickle-cell-disease-developed/article67959168.ece>

This electron microscope image provided by the National Institutes of Health in 2016 shows a blood cell altered by sickle cell disease.

This electron microscope image provided by the National Institutes of Health in 2016 shows a blood cell altered by sickle cell disease. | Photo Credit: AP

Delhi-based Akmus Drugs and Pharmaceutical Limited announced the development of a new drug for sickle cell disease on March 16.

OMAD diet

What is OMAD diet and does it benefit you? (Indian Express: 20240320)

<https://indianexpress.com/article/lifestyle/food-wine/what-is-omad-diet-benefits-risks-nutrition-experts-9217510/>

While OMAD diet or One Meal A Day diet can aid weight loss and improve metabolism, its safety varies among individuals, said Mohini Dongre, senior dietician, Narayana Hospital Gurugram.

eating Do you follow diet trends? (Source: Getty Images/Thinkstock)

With so many different types of fasting methods becoming an integral part of many people's lives, it is important to bring to you the pros and cons. While some swear by intermittent fasting for the window of 16:8 or 14:10, some others follow what is called the OMAD diet or One Meal a Day diet, a form of intermittent fasting where individuals eat only one meal within 24 hours and fast for the remaining time of 23 hours. "It typically involves consuming all daily caloric intake in one sitting, often within a one-hour window," said Shruti K Bhardwaj, chief dietician, Zydus Hospitals, Ahmedabad.

Benefits and safety

The OMAD diet might be suitable for individuals looking to lose weight or improve metabolic health, as it can lead to calorie restriction and potential benefits such as improved insulin sensitivity and fat loss. "However, it's essential to ensure that the single meal consumed is balanced and provides all necessary nutrients," emphasised Bhardwaj.

Stress

Stuck in a productivity slump? Exercising might help(Indian Express: 20240320)

<https://indianexpress.com/article/lifestyle/fitness/productivity-slump-exercising-9211887/>

Dr Tvisha Parikh, a sports medicine physician at Sir HN Reliance Foundation Hospital, explained how getting your body moving can unlock a hidden wellspring of productivity

workplace, productivity, exercises Feeling unproductive and stuck? Science shows exercise can be the key to unlocking focus and boosting performance! (Source: Pexels)

Hitting a wall at work? Feeling like you can't concentrate or get anything done? You're not alone. Thankfully, the solution might be simpler than you think: exercise!

Dr Tvisha Parikh, a sports medicine physician at Sir HN Reliance Foundation Hospital, explained how getting your body moving can unlock a hidden wellspring of productivity.

Overall good health

Why your teeth matter for overall good health (New Kerala: 20240320)

<https://www.newkerala.com/news/2024/16767.htm>

esides giving you the aesthetic appeal, a bright and healthy set of teeth may also be key to your good health, said experts on Tuesday, ahead of World Oral Health Day.

Image description

World Oral Health Day is celebrated annually on March 20 to raise awareness of good dental practices and hygiene.

The theme this year is "A happy mouth is a happy body".

"Oral health plays a crucial role in our overall well-being. It's not just about having a bright smile, it impacts our ability to eat, speak and even socialise comfortably. Neglecting oral health can lead to various issues including gum disease to decay and even systematic health problems like heart disease and diabetes," Dr. Nitika, Consultant - Dental Science at Fortis Hospital Greater Noida, told IANS.

She implored people to avoid sugary drinks, use of tobacco, and excessive alcohol consumption to maintain a healthy mouth

"Mouth is the entry point to the digestive and respiratory tract. Without proper oral hygiene, bacteria can reach levels that might lead to oral infections such as tooth decay and gum disease," Dr Ragini Sehgal Sethi, Senior Consultant, Dental Sciences, Medanta Hospital Lucknow, told IANS.

She noted that poor oral health might reduce the ability to chew, thus "constrain food choices and lead to weight loss, gastrointestinal disturbances, impaired communication, low self-esteem, and overall well-being".

Recent studies have also linked oral infections, especially periodontitis, with systemic diseases such as endocarditis, cardiovascular disease, bacterial pneumonia, pregnancy, and birth complications. In addition, diabetes, osteoporosis, HIV/AIDS, Alzheimer's disease, eating disorders, rheumatoid arthritis, cancers, and immune system disorders -- all can affect oral health, Dr Sethi said.

To maintain good oral health, the doctors stressed the need to establish a routine of brushing at least twice a day with fluoride toothpaste, flossing daily, and even visiting dentists regularly for check-ups and cleaning.

Why your teeth matter for overall good health

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Mimic pancreas

New system to mimic pancreas may help diabetics with insulin delivery (New Kerala: 20240320)

<https://www.newkerala.com/news/2024/16762.htm>

n a potential breakthrough in insulin delivery for people with diabetes, a team of Indian scientists has developed a novel silk-based hydrogel system that mimics the pancreas.

The silk protein was modified to create a super smart system that senses low insulin in the blood and triggers its release.

"The goal was to create a system that mimics the function of the pancreas, an organ responsible for insulin production and release in the body, providing a continuous and controlled supply of insulin in response to elevated glucose levels in the body, to manage diabetes," said Prof T. Govindaraju from the Bioorganic Chemistry Laboratory, New Chemistry Unit at JNCASR, Bengaluru (an autonomous institution under the Department of Science & Technology), in a statement.

The system "can provide a more efficient and responsive method for insulin release, and address the challenges faced by individuals with both Type 1 and advanced stage Type 2 diabetes", he added.

The findings were published in ACS Applied Materials and Interfaces. Initial tests on mice showed the system to be effective in delivering controlled insulin and normalising blood sugar levels. The researchers next hope to transition to human trials. In addition to drug delivery, the silk-based system can also be used in wound healing, and tissue engineering for various medical conditions, the team said.

Covid JN.1 variant

Covid JN.1 variant escaped new vaccine boosters: Study (New Kerala: 20240320)

<https://www.newkerala.com/news/2024/16745.htm>

he latest set of Covid-19 vaccines offered no increased protection against the JN.1 variant, which continues to circulate, according to a study.

JN.1, from the lineage of Omicron, is an off-spin of BA.2.86.

The variant, first detected in Luxembourg in August, was classified as a variant of interest (VOI) by the World Health Organisation (WHO) due to its rapid spread.

The additional mutation L455S in the spike protein of JN.1 is believed to have provided the variant with immune-evasion properties.

The study, appearing on a preprint site and not peer-reviewed yet, examined the efficacy of XBB 1.5 boosters on the JN.1 variant among 76 people. The findings showed that the vaccine provided better coverage overall, but the globally dominant JN.1 managed to evade them.

"Remarkably, while many individual mutations that emerged between 2020 and 2022 exhibit escape from sera following primary vaccination, few escape boosted sera," said Alejandro B. Balazs, from Ragon Institute of Massachusetts General Hospital, in the paper.

"An updated XBB.1.5 booster significantly increased titers against newer variants but not JN.1," he added.

Importantly, the team also found that newly emerging Covid variants have "more efficient ways of entering cells", besides the common entry point - ACE2.

"In addition to escape from vaccine sera, we found that mutations also contribute significantly to the ability of pseudovirus to infect cells, suggesting that variant selection is optimising both antibody escape and viral entry. We found that spikes from variants post BA.1 produced pseudoviruses that were up to 30-fold better at transducing target cells than wild-type, suggesting that WT SARS-CoV-2 spike was not optimally configured for ACE2-dependent viral entry," the team said.

Although seasonal boosters improve immunity against new strains, the immune escape potential of the "variants demonstrate the need for novel approaches to adequately control SARS-CoV-2 transmission", the team said.

Covid JN.1 variant escaped new vaccine boosters: Study

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lung diseases

Air pollution biggest contributor to lung diseases, say experts at ASSOCHAM 'Illness To Wellness' Summit (New Kerala: 20240320)

<https://www.newkerala.com/news/2024/16708.htm>

On the second day of the 'Illness to Wellness' Summit organised by the ASSOCHAM Foundation for CSR, under the aegis of Associated Chambers of Commerce and Industry of India (ASSOCHAM), eminent medical practitioners shared their views on how air pollution has become a major source of lung diseases, besides playing a major part in exacerbating other ailments.

Image description

In a session titled 'Depleting Air Quality Index: A Potent Threat to Health and Environment' moderated by Dr. Karan Thakur, Vice President, Sustainability, ESG & Public Affairs, Apollo Hospitals Enterprises Limited, New Delhi, air pollution's deadly impact was discussed to throw light on the gravity of the situation.

Speaking at the session, Dr. G.C. Khilnani, Chairman, PSRI Institute of Pulmonary, Critical Care and Sleep Medicine, PSRI Hospital, New Delhi, said, "The long-term effects of air pollution on lungs are very worrying. Around 30 years ago, Chronic Obstructive Pulmonary Disease (COPD) meant nothing. Today, COPD is one of the leading causes of death and a major reason is air pollution.

"The number of patients being admitted to the emergency wards due to COPD diseases has also increased by over 20 per cent due to air pollution. Household air pollution also causes deaths, which not many people are aware of. Respiratory diseases have increased due to air pollution, and there is an urgent need to control air pollution in the summer months to ensure that air pollution woes do not impact people in the winter."

Speaking at the same session, Dr. Vivek Nangia, Principal Director & Head, Institute of Respiratory, Critical Care & Sleep Medicine and Chief of Pulmonology, Cluster 1, Max Healthcare, said, "Air pollution also plays a part in aggravating the existing ailments. For instance, with diabetes, a correlation has been found with the duration of exposure to air pollution.

"So far, we have attributed the rise in diabetes patients to lifestyle issues, obesity, and diet issues. But now, a very preventive risk factor that is coming into play is air pollution. Studies have found that there has been a rise in diabetes patients after being continuously exposed to rising levels of air pollution. Sleep apnea is another big issue that people are facing due to air pollution."

The ASSOCHAM Awareness Summit aims to disseminate information on identified and critical health-related issues, thereby fostering overall well-being.

The Summit featured more than 60 distinguished specialists and wellness professionals from the country. They shared their insights on various topics across nine sessions which delved into a range of subjects, such as healthcare workforce strengthening, nutrition, women's health, mental health, sickle cell diseases, Ayush, elderly care, and the digital healthcare landscape.

Air pollution biggest contributor to lung diseases, say experts at ASSOCHAM 'Illness To Wellness' Summit

Stress at workplace

Here's how to deal with stress at workplace (New Kerala: 20240320)

<https://www.newkerala.com/news/2024/16685.htm>

orkplace stress is a harsh reality that needs to be addressed both at the individual level as well as by the management, said mental health experts on Tuesday, amid the recent news of two recent deaths due to stress at work: one by heart attack and another by suicide.

Image description

Satish Nandgaonkar, a Mumbai-based senior journalist working for Hindustan Times, died after a cardiac arrest outside the daily's office after reportedly being "humiliated" at the workplace hours before the episode.

In another tragic case, 25-year-old Saurabh Kumar Laddha, working at McKinsey & Company reportedly ended his life by jumping from the ninth floor of his building in Mumbai, after being unable to handle the work pressure. The list can go on with many more names.

Dr. Rajiv Mehta, Chairman of Psychiatry, at Sir Ganga Ram Hospital, told IANS that overwork, interpersonal relations at work, deadlines, long working and travelling time, all play major roles in building workplace stress.

However, the results are drastic, which include: "burnouts and depression, and addiction to smoking and alcohol. Interpersonal relations at home go haywire. And there is also the risk of the early emergence of medical diseases like diabetes, hypertension, back pains, etc."

So what can be the solutions:

Dr Rajiv stressed the need to "be assertive and set boundaries in the workplace relationship. Saying no is equally important as saying yes to work."

Cow Milk

वैज्ञानिकों का दावा- अपने दूध में इंसुलिन बना रही ये खास गाय, डायबिटीज मरीजों की आ सकती है मौज! (Navbharat Times: 20240320)

<https://navbharattimes.indiatimes.com/lifestyle/health/according-to-new-research-genetically-modified-cow-produce-human-insulin-in-milk/articleshow/108614780.cms>

इलिनोइस यूनिवर्सिटी के वैज्ञानिकों ने गाय के दूध में मानव इंसुलिन पाया। इसमें ग्लूकोज को अवशोषित कर के ऊर्जा प्रदान करने वाले प्रोटीन हैं, जिससे इंसुलिन की उत्पादन में सुधार हो सकता है।

according to new research genetically modified cow produce human insulin in milk

वैज्ञानिकों का दावा- अपने दूध में इंसुलिन बना रही ये खास गाय, डायबिटीज मरीजों की आ सकती है मौज!
जीवनशैली में बदलाव से मधुमेह को मात दें - अभी रजिस्टर करने के लिए यहां क्लिक करें
डील देखें

जीवनशैली में बदलाव से मधुमेह को मात दें - अभी रजिस्टर करने के लिए यहां क्लिक करें
शॉपिंग: सेल! मेगा इलेक्ट्रॉनिक्स डेज (11-१८मार्च)- 80% तक छूट प्राप्त करें
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क्या आप iPhone 15 जीतने के लिए लकी ड्रॉ का हिस्सा बनना चाहेंगे?
डील देखें

क्या आप iPhone 15 जीतने के लिए लकी ड्रॉ का हिस्सा बनना चाहेंगे?

वैज्ञानिकों ने डायबिटीज के खिलाफ लड़ाई में एक बड़ी सफलता हासिल की है। इलिनोइस यूनिवर्सिटी (अर्बन-शैपेन) के पशु वैज्ञानिक मैट व्हीलर के नेतृत्व में शोधकर्ताओं ने एक ऐसी जेनेटिकली मोडिफाइड गाय तैयार की है, जिसके दूध में मानव इंसुलिन पाया गया है।

यह शोध, जो बायोटेक्नोलॉजी जर्नल में प्रकाशित (Ref) हुआ है, वैश्विक स्तर पर इंसुलिन की आपूर्ति की चुनौती के लिए एक संभावित समाधान प्रदान करता है। अभी तक, डायबिटीज रोगियों के लिए इंसुलिन मुख्य रूप से आनुवंशिक रूप से संशोधित बैक्टीरिया या खमीर का उपयोग करके बनाया जाता है। यह नया तरीका, अगर सफल साबित होता है, तो इंसुलिन उत्पादन में क्रांति ला सकता है।

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कैसे हुआ शोध

शोधकर्ताओं ने गाय के भ्रूणों में प्रोइंसुलिन (इंसुलिन का अग्रदूत) के निर्माण के लिए जरूरी विशिष्ट मानव डीएनए कोड डाला। इसके बाद इन भ्रूणों को सामान्य गायों में प्रत्यारोपित किया गया, जिसके परिणामस्वरूप एक स्वस्थ बछड़े का जन्म हुआ। हालांकि, इस गाय को प्राकृतिक रूप से गर्भवती कराने का प्रयास असफल रहा, लेकिन वैज्ञानिक दूध उत्पादन को प्रेरित करने में सफल रहे।

गाय के दूध में मिला इंसुलिन

दूध के विश्लेषण में पाया गया कि उसमें मानव प्रोइंसुलिन और इंसुलिन के समान आणविक भार वाले प्रोटीन मौजूद हैं। इसके अतिरिक्त, शोध से यह भी संकेत मिलता है कि गाय का दूध प्रोइंसुलिन को इंसुलिन में भी परिवर्तित कर सकता है। हालांकि अभी उत्पादन का स्तर कम है, लेकिन शोधकर्ताओं का मानना है कि इस तकनीक में बड़े पैमाने पर उत्पादन की काफी संभावना है।

ट्रांसजेनिक गायों के दूध में मिला प्रोटीन

अध्ययन के लेखकों के अनुसार, ट्रांसजेनिक गायों के दूध में पुनः संयोजक प्रोटीन का उत्पादन एक रोमांचक प्रणाली है। दूध में मौजूद प्रोटीएज (प्रोटीन को तोड़ने वाले एंजाइम) इस प्रक्रिया में अहम भूमिका निभा सकते हैं। ये प्रोटीएज प्रोसेसिंग में मदद कर सकते हैं और पुनः संयोजित प्रोटीन को कार्यात्मक प्रोटीन में बदल सकते हैं। वहीं, कुछ दूध प्रोटीएज पुनः संयोजित प्रोटीन को नष्ट भी कर सकते हैं। यह शोध दुनिया भर में डायबिटीज रोगियों के लिए इंसुलिन की आपूर्ति को स्थिर और संभावित रूप से अधिक किफायती बनाने के लिए एक नया रास्ता खोलता है।

इंसुलिन क्या है?

इंसुलिन एक तरह का हॉर्मोन है जो हमारे शरीर में अग्नाशय (पैंक्रियाज) नाम के अंग द्वारा बनाया जाता है। यह शरीर में रक्त शर्करा (ब्लड शुगर) के स्तर को नियंत्रित करने में अहम भूमिका निभाता है। आसान शब्दों में कहें तो, हम जो भी खाते-पीते हैं उसमें से शरीर को ऊर्जा मिलती है। यह ऊर्जा मुख्य रूप से ग्लूकोज (रक्त शर्करा) से प्राप्त होती है। भोजन पचाने के बाद ग्लूकोज हमारे रक्तप्रवाह में मिल जाता है। इंसुलिन शरीर की कोशिकाओं को संकेत देता है कि वे ग्लूकोज को अवशोषित कर लें, जिससे शरीर को ऊर्जा मिलती है।

इंसुलिन नहीं बनने से क्या होता है

अगर शरीर पर्याप्त मात्रा में इंसुलिन का उत्पादन नहीं कर पाता है या कोशिकाएं इंसुलिन के प्रति संवेदनशील नहीं होती हैं, तो यह स्थिति डायबिटीज कहलाती है। डायबिटीज की स्थिति में ब्लड शुगर लेवल लगातार ऊंचा रह सकता है, जिससे शरीर को कई तरह की समस्याएं हो सकती हैं।

Intermittent Fasting

Intermittent Fasting दिल के लिए है खतरनाक, बढ़ जाता है 91% मौत का खतरा, रिसर्च में चौंकाने वाला खुलासा(Navbharat Times: 20240320)

<https://navbharattimes.indiatimes.com/lifestyle/health/according-to-aha-new-study-intermittent-fasting-increase-risk-of-death/articleshow/108618929.cms?story=3>

Intermittent Fasting: क्या खाने का समय सीमित करना दिल के लिए खतरनाक है? इंटरमिटेन्ट फास्टिंग पर हाल ही में हुए शोध के नतीजों ने सवाल खड़े कर दिए हैं। कुछ डॉक्टरों ने इस अध्ययन के नतीजों पर सवाल उठाए हैं।

according to aha new study intermittent fasting increase risk of death

Intermittent Fasting दिल के लिए है खतरनाक, बढ़ जाता है 91% मौत का खतरा, रिसर्च में चौंकाने वाला खुलासा

जीवनशैली में बदलाव से मधुमेह को मात दें - अभी रजिस्टर करने के लिए यहां क्लिक करें

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शॉपिंग: सेल! मेगा इलेक्ट्रॉनिक्स डेज (11-१८मार्च) - 80% तक छूट प्राप्त करें

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क्या आप iPhone 15 जीतने के लिए लकी ड्रॉ का हिस्सा बनना चाहेंगे?

डील देखें

क्या आप iPhone 15 जीतने के लिए लकी ड्रॉ का हिस्सा बनना चाहेंगे?

क्या आप वजन कम करने के लिए 'इंटरमिटेंट फास्टिंग' को फॉलो करते हैं? अगर जवाब हां में है तो आपको सतर्क रहने की जरूरत है। अमेरिकन हार्ट एसोसिएशन पर प्रकाशित एक स्टडी के मुताबिक खाने के समय को दिन में केवल आठ घंटे तक सीमित करने से हृदय रोग से मृत्यु का जोखिम 91 प्रतिशत तक बढ़ जाता है। इंटरमिटेंट फास्टिंग क्या है, इसका फार्मूला क्या है, और यह कैसे हमारी हेल्थ को प्रभावित कर सकती है, आइए एक-एक करके जानते हैं।

इंटरमिटेंट फास्टिंग को आसान भाषा में समझें तो दिन में एक फिक्स्ड टाइम तक हम कुछ नहीं खाते हैं, और एक छोटे समय में ही खाना खाते हैं। 16:8, इंटरमिटेंट फास्टिंग का एक सबसे लोकप्रिय तरीका माना जाता है। इसमें 16 घंटे उपवास रखा जाता है, और बाकी के 8 घंटे में खाना खाया जाता है। एक्सपर्ट्स की मानें तो इससे वेट लॉस करने में मदद मिलती है। ऐसे में अमेरिकन हार्ट एसोसिएशन की स्टडी ने सवाल खड़े कर दिए हैं और एक नई बहस छेड़ दी है।

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खाने का समय सीमित करना खतरनाक

खाने का समय सीमित करना खतरनाक

शिकागो में एक मेडिकल मीटिंग में पेश की गई इस रिसर्च में पाया गया कि दिन में सिर्फ आठ घंटे खाना खाने से दिल की बीमारी से मृत्यु का खतरा 91 प्रतिशत तक बढ़ जाता है। अमेरिकन हार्ट एसोसिएशन ने इस स्टडी का केवल सार प्रकाशित किया है। एसोसिएशन के अनुसार, रिलीज से पहले इस स्टडी की समीक्षा अन्य विशेषज्ञों द्वारा की गई थी।

स्टडी के नतीजों पर कई सवाल

स्टडी के नतीजों पर कई सवाल

कुछ डॉक्टरों ने इस अध्ययन के नतीजों पर सवाल उठाते हुए कहा कि ये नतीजे असलियत से अलग भी हो सकते हैं। ऐसा इसलिए क्योंकि अध्ययन में उपवास करने वाले लोगों और तुलनात्मक समूह के बीच पहले से मौजूद हृदय स्वास्थ्य में अंतर हो सकता है।

फास्टिंग करते वक्त इन बातों का रखें ध्यान

Do's and Don'ts of Intermittent Fasting: फास्टिंग करते वक्त इन बातों का रखें ध्यान

'इंटरमिटेन्ट फास्टिंग' के प्रभाव

इंटरमिटेन्ट फास्टिंग के प्रभाव

यूनिवर्सिटी ऑफ ऑक्सफोर्ड में मेटाबोलिज्म के प्रोफेसर कीथ फ्रेन ने अपने एक बयान में कहा, 'इंटरमिटेन्ट फास्टिंग' कैलोरी कम करने का एक लोकप्रिय तरीका है। हालांकि, यह स्टडी इस लिहाज से महत्वपूर्ण है कि यह बताती है कि हमें 'इंटरमिटेन्ट फास्टिंग' के दीर्घकालिक प्रभावों पर व्यापक अध्ययन की आवश्यकता है। स्टडी का सार फिलहाल कई सवालों के जवाब नहीं देता।