Today’s Headlines

- Covid can fuse brain cells leading to brain fog, headaches: Researchers (The Tribune: 20230609)

- How to know if your skin rash is eczema (The Times of India: 20230609)

- Diabetes epidemic is increasing in many states in the country: ICMR-INDIAB study (The Times of India: 20230609)

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• तेजी से घटाना है वजन, तो साउथ इंडियन फूि्स को बनाएं अपनी डाइट का हिस्सा (Dainik Jagran: 20230609)

• Diabetes की चपेट में देश के 10 करोड़ से ज्यादा लोग, जानें कैसे इससे बच सकते हैं आप (Dainik Jagran: 20230609)
A new study explores how viruses alter the function of nervous system

Viruses such as SARS-CoV-2, which caused Covid-19, can cause brain cells to fuse, initiating malfunctions that lead to chronic neurological symptoms, according to an international team of researchers.

This could explain brain fog, headaches, loss of taste and smell and other long-term neurological symptoms some patients experience as 'long Covid' months after their initial infection.

To understand, the teams from the universities of Queensland, Macquarie in Australia, and Helsinki in Finland explored how viruses alter the function of the nervous system.

Their research, published in the journal Sciences Advances, showed that Covid-19 causes neurons to undergo a cell fusion process, which has not been seen before.

"After neuronal infection with SARS-CoV-2, the spike S protein becomes present in neurons, and once neurons fuse, they don't die," said Professor Massimo Hilliard from the Queensland Brain Institute.

"They either start firing synchronously, or they stop functioning altogether." As an analogy, Professor Hilliard likened the role of neurons to that of wires connecting switches to the lights in a kitchen and a bathroom.

"Once fusion takes place, each switch either turns on both the kitchen and bathroom lights at the same time, or neither of them," he said.

"It's bad news for the two independent circuits." The discovery offers a potential explanation for persistent neurological effects after a viral infection.

"In the current understanding of what happens when a virus enters the brain, there are two outcomes - either cell death or inflammation," said Ramon Martinez-Marmol from the institute.
"But we've shown a third possible outcome, which is neuronal fusion." Martinez-Marmol said numerous viruses cause cell fusion in other tissues, but also infect the nervous system and could be causing the same problem there.

"These viruses include HIV, rabies, Japanese encephalitis, measles, herpes simplex virus and Zika virus," he said.

"Our research reveals a new mechanism for the neurological events that happen during a viral infection. This is potentially a major cause of neurological diseases and clinical symptoms that is still unexplored." For their study, the team relied heavily on 'mini-brains', which allowed researchers to experiment on complex human neuronal networks resembling a live human brain.

Some of these mini-brains were infected with viruses, or viral surface fusogens -- including the SARS-Cov-2 virus -- and then compared with non-infected control mini-brains, using a remarkable breakthrough in brain experiment techniques.

This study is just one example of the huge research potential now possible thanks to the development of the mini-brains, which bridge the gap between non-living tissue and human subjects.

**Eczema**

*How to know if your skin rash is eczema (The Times of India: 20230609)*


All about the keyhole surgery for "arthroscopic repair" that MS Dhoni got done

YouTuber Ankur Warikoo's tweet on weight loss supplements draws flak; doc warns of dangerous side effects

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‘I ran straight to my mom and I was panicking’: Miss World Karolina Bielawska opens up about her first period experience while raising awareness about menstrual hygiene

‘I ran straight to my mom and I was panicking’: Miss World Karolina Bielawska opens up about her first period experience while raising awareness about menstrual hygiene

Undiagnosed eczema can be traumatizing and difficult to soothe. This makes it important for people to watch out for signs and symptoms of the condition. Read on to know more

How to know if your skin rash is eczema
Most experts say that people tend to take skin eruptions lightly without knowing that some eruptions can be eczema, which needs professional diagnosis and treatment. A lot of eczema cases get worse because people tend to self-diagnose and self-medicate. According to Dr. Deepti Rana, Senior Consultant, Dermatologist, Laser and Aesthetic Physician, Max Super Speciality Hospital, Noida, the prevalence of eczema in India is estimated to be around 20-30% of new patients in a skin outpatient department (OPD).

READ ALSO

Childhood Atopic Eczema: what does it look like?

Atopic dermatitis, also known as atopic eczema, is a type of skin disease that is characterized by dry skin and constant itching. It is a multifactorial disorder and may manifest in early childhood or in adulthood. The severity of the disease fluctuates over time, and aggravating factors such as

Childhood Atopic Eczema: what does it look like?

“People often resort to improper methods for soothing eczema. Many individuals mistakenly assume that any itchy skin condition is either a fungal infection or eczema. As a result, they may self-medicate with over-the-counter (OTC) medications and frequently use high-potency steroids without understanding the potential side effects and risks associated with the unmonitored use of these medications.”

Dr Vichitra, Consultant, Department of Dermatology, Amrita Hospital, Faridabad further adds, “One patient out of every 5 patients I see in my OPD, has some or the other form of eczema. However, the exact prevalence of eczema in India may vary depending on the population studied and the geographical region and such studies cannot be considered a true reflection of the prevalence of the disease in the community. One patient out of every 5 patients I see in my OPD, has some or the other form of eczema.”

Confusing signs of eczema

The signs of eczema can be confusing because they can vary greatly from person to person and may resemble other skin conditions. The most common presenting symptoms of eczema are itching, oozing, crusting, redness, few tiny red spots, swelling, shares Dr Deepti.

Dr Vichitra adds, “There are certain signs that indicate a person should consult a doctor, specifically a dermatologist, regarding their skin condition. If a rash is recurrent, persistent, intensely itchy, oozing, or crusty, it is advisable to seek medical attention. Additionally, if the rash follows a seasonal pattern or is worsening, it is important to consult a healthcare professional.”

Signs of eczema can sometimes be confusing because they can vary greatly from person to person and resemble other skin conditions.

Why do people get eczema?

Eczema can be due to internal factors like nummular eczema, stasis dermatitis due to varicose veins etc or due to external agents like chemicals, hair dye, sanitisers, detergents, artificial
jewellery, some plants, (irritant contact dermatitis) or due to both as in seborrhieic dermatitis, atopic dermatitis etc.

All these forms can have different symptoms and presentations. Patients can have different combinations of the signs and symptoms like itching, dry sensitive skin, rough and scaly areas, red patches, thickening and dark patches over skin, blisters, oozing etc. Based on the duration of eczema, it can be acute eczema which presents as - oozing, redness itching, burning and blister formation. Chronic and long-standing eczema can present as thick and dark skin (lichenification and hyperkeratosis).

Also, there are some skin conditions which look like eczema but aren't, like psoriasis, ringworm (tinea), lichen planus etc. Eczema shares symptoms with other skin conditions, such as itching, redness, and irritation which can be present in psoriasis, fungal infections, and other inflammatory disorders of the skin. These symptoms can make it challenging to differentiate eczema from other dermatological issues, especially if there are no distinct visual cues.

Eczema flare-ups can be triggered by various factors like allergens, irritants, stress, weather changes, or hormonal fluctuations. Identifying the specific triggers and patterns can be confusing, as they can vary among individuals. Also, symptoms may appear at one site initially and then spread to other areas, making it difficult to pinpoint the cause.

**Diabetes epidemic**

**Diabetes epidemic is increasing in many states in the country: ICMR-INDIAB study (The Times of India: 20230609)**


Cardiologist Gaurav Gandhi, who had done more than 16,000 surgeries, dies of heart attack at 41: Report
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YouTuber Ankur Warikoo's tweet on weight loss supplements draws flak; doc warns of dangerous side effects
Findings of the study, done between 2008 and 2020 has been published in the Lancet Diabetes and Endocrinology journal. The study sheds light on the prevalence of diabetes in the country.
Diabetes epidemic is increasing in many states in the country: ICMR-INDIAB study
A cross sectional population based survey from 31 states and union territories of the country has found the prevalence of major metabolic non-communicable diseases like diabetes, hypertension, high cholesterol, obesity and prediabetes.

The study by the Indian Council of Medical Research–India Diabetes (ICMR-INDIAB), is published in the The Lancet Diabetes and Endocrinology journal. This is said to be the largest survey on diabetes and other metabolic non-communicable diseases undertaken in India.

The study was held between Oct 18, 2008 and Dec 17, 2020.

Prevalence of diabetes and prediabetes is 11.4% and 15.3% respectively

Central and northeastern regions have lower prevalence of diabetes

Diabetes epidemic is rising

Noncommunicable diseases (NCDs) kill 41 million in a year: WHO

Prevalence of diabetes and prediabetes is 11.4% and 15.3% respectively

For the study, the researchers studied a total of 1,13,043 individuals, more than 75,000 of which were from rural areas. It found that 136 million in the country prediabetic, 101 million already dealing with it.

It also found that the national prevalence of hypertension is 35.5%, overall obesity is 28.6%, abdominal obesity is 39.5% and hypercholesterolemia is 24%.

While Puducherry has been found to have the highest prevalence of obesity, Sikkim and Goa have the highest prevalence of prediabetes and diabetes, respectively.

With more than 50% prevalence, Kerala has the highest number of people with high cholesterol.

The prevalence of diabetes was based on Oral glucose tolerance tests (OGTT), the researchers said, citing national guidelines which do not recommend the use of HbA1c as the sole diagnostic criterion for diabetes and prediabetes.

Central and northeastern regions have lower prevalence of diabetes

The study found that diabetes prevalence was the highest in the southern and northern regions of India, with urban areas having high prevalence throughout.

However, a reverse in the pattern was observed for prediabetes. "Prevalence of prediabetes was the highest in the central and northern regions of India and lowest in Punjab, Jharkhand, and some parts of the northeastern region. The prevalence of prediabetes was not significantly different between urban and rural areas," it found.

Diabetes epidemic is rising

"The prevalence of diabetes and other metabolic NCDs in India is considerably higher than previously estimated. While the diabetes epidemic is stabilizing in the more developed states of the country, it is still increasing in most other states. Thus, there are serious implications for the
nation, warranting urgent state-specific policies and interventions to arrest the rapidly rising epidemic of metabolic NCDs in India," the researchers have said.

Are you getting enough of THESE heart-friendly minerals?

“With dedicated and commendable efforts by the members of MDRF, we have successfully been able to assess the rise in NCDs like obesity, Hypertension and Diabetes which definitely affects millions across the globe. Our study results have multiple implications for the planning and provision of health care in India. State governments in India, who are primarily in charge of providing healthcare in their respective regions, will be especially interested in the detailed state-level data on these NCDs as it will allow them to develop evidence-based interventions to successfully halt the progression of NCDs and manage their complications,” said Dr.V.Mohan, Chairman, Dr.Mohan’s Diabetes Specialities Centre (DMDSC) and Madras Diabetes Research Foundation (MDRF) and senior author of the study.

Noncommunicable diseases (NCDs) kill 41 million in a year: WHO

The relevance of study can be through the data released by the World Health Organisation (WHO) in September 2022. In its report, the WHO had said that non-communicable diseases kill 41 million in a year and had listed diabetes as one of the major cardiometabolic risk factors.

Among the other risk factors are raised blood pressure, obesity and high cholesterol. The current study has found the prevalence of these risk factors in India. “Our study estimates that in 2021, in India there are 101 million people with diabetes and 136 million people with prediabetes, 315 million people had high blood pressure, 254 million had generalized obesity, and 351 million had abdominal obesity. Additionally, 213 million people had hypercholesterolaemia,” the study has found.

"These results have multiple implications for the planning and provision of health care in India,” the researchers have said and have highlighted the chronic complications of diabetes few of which are cardiovascular diseases, kidney, foot and eye disease.

The researchers have also stressed on the cost of treatment.

11% of India’s population is diabetic

11% of India’s population is diabetic while 15.3% could be pre-diabetic, says study (Indian Express: 20230609)

ICMR-INDAB study reveals the burden of NCDs could be higher than anticipated; the estimation is based on an analysis of the prevalence of obesity, hypertension and hypercholesterolemia (presence of bad cholesterol)

Around 15.4% of the urban population and 15.2% of rural India are in the pre-diabetic stage. Image for representation purpose only.

Around 15.4% of the urban population and 15.2% of rural India are in the pre-diabetic stage. Image for representation purpose only. | Photo Credit: AP

An estimated 101.3 million people in the country could be diabetic and another 136 million in the pre-diabetic stage, a cross-section study, carried out between 2008 and 2020 across the country, has found.

According to the current estimate, about 11% of the country’s population is already diabetic with urban India accounting for 16.4% while in the rural population the

**Typhoid vaccine**

**Hyderabad-based Bharat Biotech recalls typhoid vaccine batch owing to substandard quality (Indian Express: 20230609)**


However, the company said there were no reports of adverse events or safety issues due to the batch, in the country

The recall was initiated utilising the principle of abundant precaution based on test results of field samples. File image for representation

The recall was initiated utilising the principle of abundant precaution based on test results of field samples. File image for representation | Photo Credit: Reuters

Flagged by the Central Drugs Standard Control Organisation (CDSCO) as “not of standard quality”, Hyderabad-based Bharat Biotech on June 8 confirmed that it had recalled a batch of its typhoid vaccine

CDSCO officials found that a batch manufactured at the Hyderabad facility did not comply with the standard specification of the drug controller. While the company in its statement, said that there were no reports of adverse events or safety issues due to the batch in the country, it added that a recall had been initiated.
Menopause

What do heart palpitations during menopause mean? (Indian Express: 20230609)

What do heart palpitations during menopause mean?

During menopausal transition, the ovaries begin to work less effectively with the production of hormones like estrogen and progesterone declining over time. These changes cause palpitations, says Dr Sonamm Tiwari, Consultant Gynaecologist, Hiranandani Hospital, Vashi, Navi Mumbai.

Menopause is defined as the absence of the menstrual cycle for an entire year. (Photo: Getty Images/Thinkstock)

A 55-year-old woman, with a known history of hypertension and diabetes, came to gynaecologist Dr Sonamm Tiwari’s clinic at Hiranandani Hospital in Vashi, Navi Mumbai, with complaints of intermittent palpitations for over two months. The flutters, she said, lasted from a few seconds to half a minute. She had no family history of heart disease, exercised regularly, didn’t smoke or drink alcohol. “On systemic examination, we found nothing unremarkable. A cardiovascular examination revealed regular pulse and rhythm…no heart murmurs, friction or gallops. There were no strong carotid upstrokes and no jugular vein distension,” said Dr Tiwari.

Just to be sure, she conducted a detailed cardiac workup, including ECG and 2D Echo of the heart, both of which were normal. But soon, blood tests confirmed her menopausal status. She then counselled and reassured her patient and asked her to do follow-ups to ease her menopausal journey. After one year, the patient’s complaints finally subsided without the need for further treatment.

During menopausal transition, the ovaries begin to work less effectively with the production of hormones like estrogen and progesterone declining over time. It is believed that such changes cause palpitations. Dr Tiwari explains what happens:

What are the symptoms of menopause?

Menopause is defined as the absence of the menstrual cycle for an entire year. It usually begins between the ages of 45 and 55 but can occur earlier or later. Also, it can occur differently. However, symptoms may be more severe after a sudden menopause caused by ovarian cancer, a hysterectomy or prolonged smoking, for example.

Menopause can cause many unpleasant symptoms, such as hot flashes, which is a sudden feeling of warmth all over the body. About 75 per cent of menopausal women suffer from hot flashes.

Other symptoms include:
- Difficulty sleeping (insomnia)

- Vaginal dryness

- Decreased libido due to hormonal imbalance.

- Weight gain

- Depression, anxiety or low mood

- Memory lapses or difficulty concentrating

- Urinary urgency (an urgent, more frequent need to urinate)

- Sore or tender breasts

- Headaches

- Rapid heartbeat

- Decreased muscle mass

- Painful or stiff joints

- Decreased bone mass
- Thinning of hair

Why do women experience heart palpitations during menopause?

As women get older, their reproductive cycle slows down and eventually comes to a halt. In the years leading up to menopause, the ovaries produce less of the hormone estrogen, which is the most common cause of the change in menstrual patterns. The symptoms women experience during menopause are all part of the body’s adaptation to these changes. Heart palpitations are not talked about much but they are completely dependent on changing hormone status, namely decrease in estrogen, and are temporary. This type of symptom also occurs with other hormonally challenging conditions such as pregnancy or menstruation.

Estrogen protects the arteries of a woman’s heart by reducing build-up of fatty plaque. Low estrogen increases cholesterol levels which means post menopause, women become more prone to developing heart disease.

**Menopause**

**What do heart palpitations during menopause feel like? (Indian Express: 20230609)**

https://indianexpress.com/article/health-wellness/heart-palpitations-menopause-symptoms-653639/

Palpitations are essentially irregular heartbeats that are more noticeable than normal heartbeats. A heart may flutter, race, thump or beat irregularly. These irregular or exaggerated beats are often short-lived, lasting a few seconds to minutes. Although these palpitations are harmless, women with these symptoms should still see a doctor to rule out other causes.

Do hot flashes cause heart palpitations?

Heart palpitations often occur with hot flashes during menopause. Heartbeats may increase by 5-15 beats during a hot flash.

Other causes of palpitations are:

- Caffeine, alcohol consumption or smoking
- Asthma inhalers and some cough medicines

- Intense physical activity

- Stress

- Fever or dehydration

- Problems with the thyroid gland

- Low sugar levels or low blood pressure

How to deal with palpitations during menopause?

If the palpitations are short-lived and occur occasionally, they could be related to menopause. However, if the palpitations occur more frequently, last longer, or get worse over time, you should see a doctor because it could be a serious heart problem that needs to be treated.

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If the palpitations are accompanied by shortness of breath, dizziness or chest pain, you should seek emergency medical attention immediately. Also just because you have gone through menopause that does not mean the heart trouble is over. On the other hand, a woman’s risk for heart disease increases significantly after menopause. As estrogen production comes to a near standstill, the risk of stroke and heart attack increases. Therefore, a healthy lifestyle, healthy diet and exercise and quitting smoking can help reduce the risk. Palpitations can also be an early warning sign of a heart problem in some women.

During and after menopause, women should pay closer attention to their heart health. To protect your heart, you can follow some of the tips below:

- Get 30 minutes of exercise a day at least five days a week.
- Eat more fruits and vegetables. Reduce added sugars, caffeine, fried foods and salt.

- Maintain a healthy weight.

- Try relaxation techniques such as deep breathing, yoga and meditation.

**Cholesterol and high BP,**

**More Indians are getting diabetes, belly fat, cholesterol and high BP, says ICMR-backed study (Indian Express: 20230609)**

https://indianexpress.com/article/health-wellness/more-indians-getting-diabetes-belly-fat-cholesterol-high-bp-8653224/

The study, which was spearheaded by Dr Mohan’s Diabetes Specialities Centre and based on 113,000 people from 31 states, maps how we are getting sicker.

Published on Thursday in The Lancet Diabetes & Endocrinology, it shows that 11.4 per cent or 101 million people in India have diabetes. What is more concerning, however, is the finding that 15.3 per cent or 136 million people have prediabetes. “There is almost no rural and urban divide when it comes to the prevalence of prediabetes. Also, prediabetes levels were found to be higher in states where the current prevalence of diabetes was low. It is a ticking time bomb,” said Dr RM Anjana, lead author of the study and managing director at Dr Mohan’s Diabetes Specialities Centre. She further explained: “If you have prediabetes, conversion to diabetes is very, very fast in our population; more than 60 per cent of people with prediabetes end up converting to diabetes in the next five years. Moreover, almost 70 per cent of India’s population lives in villages. So if the prevalence of diabetes increases by even 0.5 to 1 per cent, the absolute numbers will be huge.”
The second area of concern was the high prevalence of central obesity at 39.5 per cent. The generalised obesity, measured using the body mass index, was lower, at 28.6 per cent. Considering that belly fat is a major risk factor for diabetes and heart disease, there is an urgent need for Indians to prioritise sustainable weight loss routines.

**Healthy fats like olive oil**

**Can overusing healthy fats like olive oil raise your bad cholesterol? (Indian Express: 20230609)**

https://indianexpress.com/article/health-wellness/cholesterol-levels-overusing-healthy-fats-8652437/

Overconsumption of any type of fat can lead to weight gain, increased risk of chronic diseases and unfavourable changes in our cholesterol profile. Remember that all fats contain nine calories per gram. This is more than twice the amount found in carbohydrates and proteins. So practise moderation and focus on a balanced meal, says Dr Tarun Sahani, Senior Consultant, Internal Medicine, Indraprastha Apollo Hospitals, Delhi

Achieving a balanced diet is key to maintaining a healthy cholesterol profile. While healthy fats should be included in our meals, they should not overshadow other essential food groups. (Pic source: Pixabay )

In recent years, there has been a growing emphasis on the consumption of healthy fats as part of a balanced diet. While incorporating good fats into our meals is undoubtedly beneficial, it is important to examine whether our obsession with these fats has led to overconsumption and overuse. This article delves into the potential consequences of excessive fat intake on our cholesterol profile, with a particular focus on the Indian population.

Cholesterol plays a crucial role in our bodies, acting as a building block for cell membranes and a precursor for various hormones. However, not all cholesterol is created equal. There are two types: good cholesterol, known as high-density lipoprotein (HDL), and bad cholesterol, known as low-density lipoprotein (LDL). Understanding the differences between these two forms is vital for maintaining cardiovascular health.

Good cholesterol, HDL, functions as a scavenger in the bloodstream, collecting excess cholesterol from tissues and arteries and transporting it to the liver for disposal. HDL has a protective effect on the heart, reducing the risk of heart disease. On the other hand, bad cholesterol, LDL, carries cholesterol from the liver to various tissues throughout the body. Excessive LDL can accumulate
in the arterial walls, forming plaques that narrow the blood vessels, leading to atherosclerosis and an increased risk of heart disease.

**CGM**

**One in five healthy people can have prediabetes, says study but simple tests can detect condition early (Indian Express: 20230609)**

https://indianexpress.com/article/health-wellness/one-in-five-healthy-people-prediabetes-study-early-detection-tests-8652052/

While continuous glucose monitors (CGMs) can do the job, they are costly. ‘A simple oral glucose tolerance test is effective. We have been pushing for one-hour values just to identify those who can progress to prediabetes or diabetes,’ says Dr V Mohan, Chairman, Dr Mohan’s Diabetes Specialities Centre, Chennai

X

By using continuous glucose monitors (CGMs), a US study, which used Indian test cases, found that one in five healthy individuals has the glucose metabolism of a prediabetic (Source: Pixabay)

In a diabetes-prone country like India, should we be monitoring glucose levels much earlier to ensure that we don’t even get to the prediabetes stage? It’s possible with scientists having developed a new method to pick up early signs of the body failing to control blood glucose levels before it reaches prediabetic levels in patients. By using continuous glucose monitors (CGMs), a US study, which used Indian test cases, found that one in five healthy individuals has the glucose metabolism of a prediabetic. The study is valid because it talks about halting the silent progression of diabetes but experts feel that continuous glucose monitoring in India with a high prevalence of diabetes may be a costly affair. However, they advocate simpler ways to check the body’s response to sugar.

A latest research paper of a comprehensive epidemiological study funded by ICMR and published in The Lancet highlights the burden of diabetes in the country. The new national estimates show that in 2021, there were 101 million Indians living with diabetes and 136 million people with prediabetes.
Preventing childhood cavities

Preventing childhood cavities: Common causes of tooth decay in children (Hindustan Times: 20230609)


Discover the common causes of tooth decay in children as we delve into the factors beyond brushing that contribute to this prevalent oral health issue.

Tooth decay is a widespread issue affecting children, with multiple factors contributing to its development. Despite your best efforts to prioritize your child's dental health, it can be disheartening to find them experiencing yet another cavity. While you diligently restrict sugary treats compared to other parents, it seems their children remain cavity-free. However, dental caries in children are influenced by more than just brushing and candy intake. It involves a complex interplay of various elements that contribute to decay. By comprehending these factors, you can uncover the underlying causes of cavities and take proactive measures to safeguard your child's precious smile. (Also read: Dental hygiene for kids: Tips for protecting your child's teeth from harmful bacteria )

By recognizing the causes, parents and caregivers can take proactive measures to safeguard their children's dental health and promote a lifetime of healthy smile.

According to government statistics, dental caries is a prevalent concern in India, affecting over 70% of school children and more than 90% of adults suffering from periodontal disease. The World Health Organization (WHO) has recognized dental caries as a significant global health issue, ranking it at the forefront of their 2015 Global Burden of Disease study. Disturbingly, an estimated 2.3 billion individuals with permanent teeth and 560 million children with milk teeth are affected by dental caries worldwide. These statistics serve as a wake-up call, urging us to prioritize dental health awareness and preventive measures to combat this pervasive oral health crisis.

"Children are more prone to tooth decay because of their predisposition to foods with high sugar content, poor oral hygiene, and in some cases extended orthodontic treatment with fixed braces. With the growing incidence of visits to the dentist for cavity fillings, it is essential we attack the problem from the root, so to speak," says, Dr. Varinder Goyal, Professor and Head, Department of Paediatric & Preventive Dentistry, Guru Nanak Dev Dental College, Punjab.

Causes of tooth decay:

Dr. Varinder Goyal further shared with HT Lifestyle, some common causes of demineralization and tooth decay.
1. Effects of acidic foods

Acidic fruits and juices, as well as fizzy drinks, can cause enamel breakdown and demineralization. Tooth demineralization is a natural process, and it only becomes an issue when your body cannot replace what is lost in the demineralization process. A lot of factors cause demineralization, including bacteria, and the acidic pH of the mouth, for example.

2. Effects of Bacteria

Your mouth harbours many types of bacteria, some of which are good for you and some of which can lead to tooth decay. Plaque, a sticky film that is continuously produced on your teeth, is like a colony where bacteria live, feed on the sugar in your food and beverages, and produce acids. Your teeth's minerals and enamel are gradually dissolved by these acids.

Too much sugary, starchy food and drink, along with not brushing your teeth twice a day, increases bacteria, plaque build-up, and tooth disease, and it also affects the pH level of the saliva. When the pH of your saliva falls below 5.5, acids in your mouth begin to demineralize your tooth enamel. Tooth enamel becomes weak and starts to become porous, leading to cavities, pain, and other dental problems.

3. No remineralization and absence of neutral pH environment

Remineralization occurs daily after an attack by acids from food through the presence of calcium, phosphate, and fluoride naturally found in saliva. Here, minerals are deposited back onto the enamel, restoring teeth to good as new. Saliva is thus a natural armour in our mouths that helps to neutralise acids, prevent and/or reverse demineralization. This demineralization-remineralization cycle however needs an external modulating agent to ensure things stay on track.

4. Toothpaste lacks arginine, fluoride, and naturally occurring calcium

Clinical research has shown that toothpaste containing 1.5% arginine combined with fluoride and natural calcium has superior anti-cavity efficacy to toothpaste containing fluoride alone. Arginine is a naturally occurring amino acid and a protein building block. In oral care, it can help maintain a pH-neutral environment in the mouth, showing promising results in destabilizing biofilm, decreasing enamel demineralization and dentinal hypersensitivity, and supporting remineralization.

It is heartening to know that the scientific community continue to research ways to nourish and strengthen our teeth. For kids who often show no control over the foods they consume, a power-packed toothpaste is the necessary aid to strengthen teeth and prevent cavities for a healthy mouth.

**Stress**

*Can stress cause heart attack? Ways to manage stress to safeguard your heart (Hindustan Times: 20230609)*
All work and no play can impact your heart health. Stress, be it acute or chronic can increase the heart rate, blood pressure and can lead to heart attack.

Stress has emerged as one of the major risk factors for heart attack in recent times. As per researchers from Harvard University, stress is as dangerous as smoking or high blood pressure for heart. This has brought a major lifestyle factor that could be affecting our hearts in focus. Dr Gaurav Gandhi, a noted cardiologist from Gujarat, died of heart attack on Tuesday at the age of 41. The cardiologist's colleague told Indian Express that Dr Gandhi was working for 14 hours a day, didn't smoke or drink alcohol and had no medical history to make him more at risk of heart attack. (Also read: Cardiologists on why doctors could be at higher risk of heart attack; suggest heart care tips)

Stress cannot directly cause heart attack, but it can precipitate it. (Freepik)

Impact of acute and chronic stress on heart health

"Stress can cause heart attack. It cannot directly cause heart attack, but it can precipitate it. Acute stress is a more frequent cause of heart attack than the chronic one. Acute stress can lead to increase in adrenaline and other hormone levels which increases heart rate and BP. It also makes plaque more vulnerable to rupture and it increases the coagulable state as well. Everything combined, it may lead to heart attack," Dr Nityanand Tripathi, Director and HOD — cardiology and electrophysiology at Fortis Hospital, Shalimar Bagh told HT Digital.

Coping with stress in an unhealthy way like skipping meals, over-eating, not taking out time for relaxation or exercise can have an impact on heart health and cause heart attacks.

"Chronic stress has multi-factorial effect on our body. Chronic stress can lead to increased emotional stress, and blood pressure. To cope with chronic stress, a person resorts to unhealthy habits like smoking, over-eating, avoiding exercise and not taking proper and healthy foods, lack of relaxation, all these can lead to maladaptations in the body, thereby increasing the chances of heart attack. They also increase chances of getting diabetes mellitus and high blood pressure. Everything combined leads to increase in plaque formation and if there is a plaque formation and acute stress at some point of time, it can lead to heart attack," says Dr Tripathi.

"Chronic stress can also cause a heart attack, but more than that, emotional stress is the one which is the most dangerous for heart attacks. Stress is the most important precipitating factor heart attacks in younger population apart from smoking. A person having problems of high BP, diabetes, cholesterol, obesity already might be having heart blockages of 30-40%. When this person goes through emotional stress, the heart block ruptures and forms a blood clot which can reach to a 100% block. So, a normal person going through emotional stress who also has pre-existing blocks, can get a heart attack even without any premonitory symptoms. Even physical stress like the stress
one faces in the gym, can cause heart attacks due to the same reason," says Dr. V. Vinoth Kumar, Senior Consultant Interventional Cardiologist, CARE Hospitals, Hi-Tec City, Hyderabad.

Sometimes, you can't tell if you are stressed

Dr Sanjeev Chaudhary, Director- Cardiology at Marengo Asia Hospitals, Gurugram says that stress is a very important factor in causing heart diseases but it is not quantifiable.

"Sometimes there are patients who can feel a lot of stress even if there is a significant disturbance in their life but sometimes there are some other patients who do not feel stress so it is a non-quantifiable thing and that makes it very difficult to assess that what is the effect of stress on heart attack. But stress is a very has a very important role, Both acute stress and chronic stress can increase heart rate, blood pressure and can be a contributor to heart disease," he says.

So, how do we beat the stress

One needs to prioritise what really matters and that is health. Not taking out enough time out of the daily duties can ultimately impact heart and even be fatal.

"Take some time in between for relaxation. Meditation and Yoga definitely helps. Exercise also helps in keeping body fit and well. Do not use alcohol and smoking to beat the stress. Regularly spend time with loved ones in the family. It's important to take care of mental and physical health so overall heart attacks can be prevented or reduced," advises Dr Tripathi.

"Yoga, meditation, attitude. There are some questionnaires which can if you answer them correctly, tell you how much stress do you have and based on that you can modify your lifestyle. But one thing I want to convey that do not ever be shy in seeking professional help," says Dr Chaudhary.

“One can beat their stress by performing Yoga and Meditation, and by slowing the pace of their life. Most of the times we all give a lot of importance to our work, but one also must consider the other aspects of their life and spend time for themselves by taking breaks in between to maintain a balance. When one has psychological stress, which is affecting their routine life, they can seek help of a psychologist or a psychiatrist, in cases of the patient not being able to come out of the stress on their own,” says Dr Kumar.

Get rid of stigma attached to stress

"Like our body gets diseased, our mind also gets diseased. But there is a lot of stigma attached to stress induced disorders in India and people tend to push it under the carpet. They don't reveal it and they are not ready to visit a psychiatrist or psychologist in a fear that they will be labelled as a mentally ill patient. But there's nothing to be ashamed of. It's better to seek professional health and try to seek it at an early stage so that you can be benefited," concludes Dr Chaudhary.
Brain cells

COVID-19 can cause brain cells to fuse, study finds (Hindustan Times: 20230609)


Infection with the SARS-CoV-2 virus can cause brain cells to fuse, initiating malfunctions that lead to chronic neurological symptoms, according to a study.

Infection with the SARS-CoV-2 virus can cause brain cells to fuse, initiating malfunctions that lead to chronic neurological symptoms, according to a study. SARS-CoV-2, the virus that causes COVID-19, has been detected in the brains of people with "long COVID" months after their initial infection. The new research, published in the journal Science Advances, explored how SARS-CoV-2 alters the function of the nervous system. (Also read: ‘Even deadlier…’: WHO chief warns of next pandemic as Covid-19 cases dip)

We discovered COVID-19 causes neurons to undergo a cell fusion process, which has not been seen before(Unsplash)

"We discovered COVID-19 causes neurons to undergo a cell fusion process, which has not been seen before," said Professor Massimo Hilliard from The University of Queensland, Australia.

"After neuronal infection with SARS-CoV-2, the spike S protein becomes present in neurons, and once neurons fuse, they don't die. They either start firing synchronously, or they stop functioning altogether," Hilliard said.

The researcher likened the role of neurons to that of wires connecting switches to the lights in a kitchen and a bathroom.

"Once fusion takes place, each switch either turns on both the kitchen and bathroom lights at the same time, or neither of them," Hilliard said.

"It's bad news for the two independent circuits," he added.

The discovery offers a potential explanation for persistent neurological effects after a viral infection, the researchers said.

"In the current understanding of what happens when a virus enters the brain, there are two outcomes—either cell death or inflammation," said Ramon Martinez-Marmol from The University of Queensland.

"But we've shown a third possible outcome, which is neuronal fusion," Martinez-Marmol said.
The researchers noted that numerous viruses cause cell fusion in other tissues, but also infect the nervous system and could be causing the same problem there.

"These viruses include HIV, rabies, Japanese encephalitis, measles, herpes simplex virus and Zika virus," Martinez-Marmol said.

"Our research reveals a new mechanism for the neurological events that happen during a viral infection. This is potentially a major cause of neurological diseases and clinical symptoms that is still unexplored," he added.

**Food and Nutrition**

**Weight Loss Diet**

Weight Loss Diet

Weight Loss Diet: वजन कम करने के प्रयोग में आपकी डाइट का बहुत बड़ा रोल होता है। आप आपके पास एक्सरसाइज करने का तंत्र नहीं तो डाइट में इन जरूरी बदलावों से कर सकते हैं जो हैं।

पहला दिन

सुबह की शुरुआत गुलमुखी नींबू नींबू पानी के साथ करें। नाश्ते में बाजरे बिस्कुट, सब्जियों, रसम और छांटे लें। शाम के स्नैक्स में ग्रीन टी, विशिष्ट व दूध के साथ लें और रात के खाने में मल्टीग्रेन आटे की रोटी फिम्स दाल के साथ लें। सोने से पहले हल्दी बाला दूध लें।

दूसरा दिन

सुबह शहद-नींबू के साथ गुलमुखी नींबू पानी पिएं। नाश्ते में दो रागी ब्राउन रोटी, ब्लेक कॉफी और चार से पांच बादाम लें। 10 बजे एक कटोरी फल खाएं। डिनर के खाने में एक कटोरी ब्राउन राइस, दो रोटी, साबुन, सलाद और छांटे लें। शाम के समय आप ब्लेक कॉफी और एक अंडा खा सकते हैं। रात के खाने में दो रोटी, मिस्स दाल, सब्जियों और चिकन करूँ। सलाद और दही लें। सोने से पहले दूध लें।

तीसरा दिन

सुबह की शुरुआत भागी हुए मेवी दाल से करें। नाश्ते में आलम पन्नी, 7-8 बादाम और ग्रीन टी लें। 10 बजे एक कप ताज़ा फल फुस्स लें। दोपहर के खाने में एक कटोरी ब्राउन राइस, दाल, चुकुंदर, एक कप सुअर्डेस और छांटे लें। इचियंग स्नैक्स में ग्रीन टी, 7-8 पिस्ता, शाम के दूध में दो मल्टीग्रेन पराते के साथ एक कप कुरमा सब्जियों, एक कटोरी मिस्स दाल और दही लें।
सूबह दो चमच भीगी हुई में िी का पानी पिएं। नाले में एक कटोरी उपमा, एक कप गूंगी दी लें। 10 बजे खाना और 4 से 5 बादाम ले। दोपहार के खाने में एक कटोरी सफेद चवनल, एक कटोरी लीली की दाल, सलाद और छांटा ले। दोपहार के खाने में एक ब्लैक कॉफी, मल्टीप्रेशन बिस्किट के साथ ले। रात के खाने में दो छांटए, भिजस बेच करी, सालतू दाल, सलाद और दही ले। सोते समय प्लेन फ्लेक ले।

पांचवा दिन

सूबह नाले में गूंगी टी और डोंगा ले। 10 बजे नदुर व जूस ले। खाने में नारियल राजस्व या रेटी, पालक दाल, फूलनोबी कोटू, सलाद और छांटा ले। शाम को ब्लैक कॉफी, रात में दो छांटए, एक कटोरी दाल या चिकन करी और दही ले। सोने से पहले हल्दी वाला दूध पिए।

खड़ा दिन

सूबह की शुरुआत गुंगुदी नैंटू-शाद पानी से की। नाले में एक कप कॉफी, दो डाइल्युम, एक कटोरी अंडा करी ले। 10 बजे जोई भी एक फल, दोपहार में एक कटोरी लेमन राइस, इडली, सांभर, सेवई और दही ले। रात के खाने में आधा कप ब्राउन राइस, मशरूम करी या चिकन ले।

सातवां दिन

नाशे में एक कटोरी पांगल, नारियल चट्टी और गूंगी टी ले। 10 बजे नारियल पानी पिएं। दोपहार में आधी कटोरी सफेद चवनल, एक कटोरी कोकोला, फिश ग्रीती, दो रेटी, सलाद और दही ले। शाम को गूंगी टी अंडरित मूंग दाल ले। रात में दो छांटए, पालक दाल, सलाद और दही ले।

इस दिन में मल्टीप्रेशन, राजस्व और कोकोला से बांटी में एनी बनी रहती है। जरूरी प्रोटीन्स मिल जाते हैं। इसके साथ ही 15 मिनट का वक्त कसरत करने के लिए निकालें। देखिए किस एक धारा का ट्रान्सफॉर्मेशन।

**Diabetes**

**Diabetes की चपेट में देश के 10 करोड़ से ज्यादा लोग, जानें कैसे इससे बच सकते हैं आप (Dainik Jagran: 20230609)**

*Diabetes in India* डायबिटीज एक गंभीर स्वास्थ्य सिंचाई है जो पूरी दुनिया में तेजी से अपने पैर पसार रही है। वह भारतीयों को लेकर ICMR ने भी एक खुलासा किया गया है जो काफी झाड़ा बताता है।

ICMR ने भारतीयों को लेकर किया चांकने वाला खुलासा

*ICMR ने भारतीयों को लेकर किया चांकने वाला खुलासा*

नई दिल्ली, ताजमहल डॉक्टरों और डॉ. क्रिस्टिन हिल ग्रांडा, डायबिटीज के बारे में जानने के लिए एक पांच वर्षों के लिए अनुमान दिते जा रहे हैं। इन्होंने एक क्लासिफाईड अफ डायबिटीज़ (ICMR) के लिए एक चांकने वाला खुलासा किया है, जिसमें बताया गया है कि इस दिन डायबिटीज और डायबिटीज और स्क्रूडर डॉ. होटल डाॉ। मोहन ने 31 राज्यों के 113,000 लोगों पर एक टेस्ट की, जिसके बाद यह नतीजे निकलकर सामने आए।
फाइबर
यूके मेडिकल जर्नल 'जैसेट' में प्रकाशित आईसीएमआर के एक अध्ययन के मुताबिक, 2019 में 70 मिलियन लोगों की तुलना में अब भारत में 101 मिलियन से अधिक लोग मधुमेह के साथ जी रहे हैं। एक तरफ जहां कुछ विकसित राज्यों में यह संख्या फिर हो रही है, तो वहीं अन्य राज्यों में खतरनाक तरीके से बढ़ती नजर आ रही है।

प्रीडायबिटिज का भी बड़ा हार जाता है जानकारी

रिपोर्ट में बताया गया है कि कम से कम 136 मिलियन लोग या 15.3% आबादी को प्रीडायबिटिज है। इसमें गोमा (26.4%), पुडुचेरी (26.3%) और केरल (25.5%) में डायबिटिज को लेकर जागरूकता देखने को मिली। इसके अलावा अगले कुछ सालों में यूपी, एमग, बिहार और अगरावल प्रदेश जैसे कम जागरूक राज्यों में डायबिटिज के मामलों के विशेषता तरीके से बढ़ती नजर आ रही है।

डी अंजना ने कहतीं हैं कि, यूपी में मधुमेह का प्रसार 4.8% है, जो देश में सबसे कम है, लेकिन राज्यीय औसत 15.3% की तुलना में यह कम 18% प्रीडायबिटिक है। "यूपी में डायबिटिज वाले प्रवेश लक्षण के लिए, प्रीडायबिटिज वाले लगभग चार लोग हैं। इसका मतलब है कि ये लोग जल्द ही डायबिटिज पेप्ट का जाना।" यह मधुमेह प्रदेश में, मधुमेह वाले प्रवेश लक्षण के लिए, तीन प्रीडायबिटिक लोग हैं।

क्या है प्रीडायबिटिज?

प्रीडायबिटिज एक गंभीर स्वास्थ्य स्थिति है, जहां व्यक्ति शुरू में लेविन सामान्य से अधिक होता है, लेकिन टाइप 2 डायबिटिज के रूप में उसकी स्थिति नहीं पहुंची है। प्रीडायबिटिज वाले 80% से अधिक लोगों को पता नहीं होता कि उन्हें यह है।

क्या आप भी तो नहीं है प्रीडायबिटिक?

हो सकता है कि आपको उसी से प्रीडायबिटिज हो लेकिन उसके कोई संकेत नजर न आ रहे हों, इसलिए टाइप 2 डायबिटिज जैसी गंभीर स्थिति पर पहुंचने तक अभिभावक इसका पता नहीं चल पाता है। हालाँकि, इसके कुछ सामान्य लक्षण हैं, जिनसे नजर आने पर आपको तुलना देखकर संकेत दिखाई पड़ सकते हैं।

हट से ज्यादा वजन बढ़ना फैटला हिस्ट्री होना

समाह में 3 बार से कम फिजिकल एक्सरस होना

प्रेग्नेंसी के दौरान कभी जेंचेंटवाल डायबिटिज का होना

पॉलीसिकल ओब्जर्वेशन होना

प्रीडायबिटिज को डायबिटिज तक पहुंचने से कैसे रोकने?

अगर आपको प्रीडायबिटिज है और आपका वजन अधिक है, तो कॉन्सल्टेंट करने के लिए धीरे-धीरे वजन कम करने और नियमित शारीरिक गतिविधि की आदत आमंत्रित। इससे टाइप 2 डायबिटिज के खतरे को कम किया जा सकता है। नियमित शारीरिक गतिविधि का मतलब है कि समाह में कम से कम 150 मिनट तक व्यायाम या इससे जुड़ी कोई दूसरी एक्सरसिटी की आदत डाटी। दिन में सर्वाधिक 30 मिनट और समाह में पांच दिन ऐसा करने से आपको काफी मदद मिल सकती है।

प्रीडायबिटिज लोगों का क्या खाना चाहिए?

प्रीडायबिटिज एक चीजें इम्प्ल्यूंस भी है, जो शरीर को डायबिटिज की गंभीर स्थिति तक पहुंचने से पहले रोकने के लिए संबंधित देता है। अगर समय रहते इसपर ध्यान दिया जाए स्थिति को काबू में किया जा सकता है। इस दौरान आपको डाइट का कुछ खास खाना रखने की जरूरत होती है।

फाइबर रिच फूड्स
Lungs Cleaning Foods

Lungs Cleaning Foods: केवल 5 सस्ती चीजें, छानकर आए रह सांस
(Navbharat Times: 20230609)


Superfoods for Lung Health: बहुत प्रदूषण की वजह से फेफड़ों की कई बीमारियां हो सकती हैं, इन्हें स्वस्थ और मजबूत बनाने के लिए, अमेरिकी डॉक्टर ने कुछ सुपरफूड बताए हैं, जिन्हें आपको रोजाना खाना चाहिए।

कपड़े, स्मार्टवॉच, जैँटरी पर बंधे ऑफ़, 60% तक की मिल रही छूट

Foods For Strengthen And Detox The Lungs: आप जिस हवा में सांस लेते हैं वह तेजी से प्रौढ़ होती जा रही है। धूल और धुआं तेजी से बढ़ रहे हैं और सीटें आपके फेफड़ों में पहुँचकर उन्हें खराब और कमजोर बन रहे हैं। फेफड़ों के कमजोर और बीमारीं होने से सीओपीडी, एमफाइज़्मा, ब्रोंकाइडा स्थिति और ब्रोंकिक ट्रांस्फ़र सैंडी तीन बीमारी का निकल सकते हैं और उन्हें लाज और मजबूत भी बन सकते हैं।

अमेरिकी डॉक्टर Joseph Mercola के अनुसार, फेफड़ों को मजबूत बनाकर भ्रूण भारी बनाने का सबसे अच्छा आरोप और प्रभावी तरीका डॉ. ड्र. जोड्र मरकोला की ज्यादा से ज्यादा प्रयोग शामिल कर सकते हैं क्योंकि वे विटामिन, मिनरल्स और एंटीऑक्सिडेंट्स से भरे होते हैं, जो फेफड़ों के कामराज को बढ़ा सकते हैं और सांस से जुड़ी प्रशांतियों को रोकने में मदद कर सकते हैं।

कच्चे और ताजे खाद्य पदार्थ ज्यादा खाएं:

फेफड़ों का स्वस्थ रखने के लिए आपको सुपरफूड फूड्स का कम सेवन करना चाहिए। इसके बजाय आपको अपनी डाइट में कच्चे और ताजे खाद्य पदार्थों को ज्यादा मात्रा में शामिल कर सकते हैं।

फेफड़ों को मजबूत बनाने के उपाय:

फेफड़ों की भरपूर निकालने के तरीके
Home Remedies for Lungs Mucus: फेफड़ों में जमा कफ को निकालने के लिए, आपने ये टिप्स
हेल्दी फैट का अधिक सेवन करें
आपकी रोजगार की कैलोरी का 50 से 85 प्रतिशत हेल्दी फैट से आना चाहिए। इसके लिए, आप रोजाना ड्राई फ्रूट्स, अवोकेडो, फिश, ऑलिव ऑयल और सीड्वस का सेवन करें।
सब्जियों का सेवन बढ़ा दें
फेफड़ों को साफ बनाने और उनके कामकाज को बेहतर बनाने के लिए, आपको नॉन-स्टार्च वाली सब्जियों का अधिक सेवन करना चाहिए। उदाहरण के लिए, ब्रोकोली, गाजर, अजवाइन, डमचन, टमाटर और तोरी हैं।
प्रोटीन भी है जरूरी
फेफड़ों के स्वास्थ्य को बढ़ावा देने के लिए, आपको प्रोटीन का अधिक सेवन करना चाहिए। आपको अपनी बॉर्ड के प्रति पाउंड वजन के हिसाब से 0.7 से 1.0 ग्राम तक प्रोटीन का सेवन करना चाहिए।
पानी मात्रा में पानी पिएं
डॉक्टर ने बताया कि एक फाईंड शूगर, फ्रुक्टोज और प्रोसेस्ड ट्रेन या मैदा से एकदम दूरे बना लें। यह सभी चीजें सीधे तौर पर आपके फेफड़ों को कमजोर करने का काम करती हैं। इनके अलावा सोडा, कोल्ड हिस्स आदि से बचें और इनके बजाय साफ और स्वच्छ पानी पिएं।