



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY

Friday

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Vector Borne Diseases

For vector control, civic bodies using unapproved insecticides (The Tribune: 201901213)

<https://www.tribuneindia.com/news/for-vector-control-civic-bodies-using-unapproved-insecticides-10221>

To control dengue and malaria, various municipal councils under the Local Bodies Department have been using wrong insecticide for fogging and spraying all these years. The insecticides which are being purchased and used are neither approved under the National Vector Borne Disease Control Programme nor by the state Health Department.

As per documents available with The Tribune, municipal committees of Nangal, Derabassi and Sultanpur Lodhi floated tenders to purchase unapproved insecticides.

The Nangal MC floated tenders of Rs 17 lakh for the purchase of six insecticides, including Deltamethrin 1.25% ULB, Cyfluthrin 5% EW, Imidacloprid 0.5%, Diflubenzuron 2% and Deltamethrin 2%. However, none of these insecticides has been approved for the dengue control programme.

The Derabassi MC went a step ahead and not only tried to buy unapproved insecticide but also floated tenders with product names of the companies. Similarly, the Municipal Council of Sultanpur Lodhi purchased insecticide likes Sofalix, Malathion, Kwick Bet. All these are not approved under the national programme.

The practice of purchasing unapproved insecticides has been going on for years. Around three years ago, the Mohali Municipal Corporation had allocated lakhs of rupees to purchase an unapproved insecticide.

The National Vector Borne Disease Control Programme has approved just four insecticides — Pyrethrum Extract, Cyphenothrin, Malathion, Cyphenothrin. Besides that, six larvicides and seven indoor residual spray chemicals have been approved. It gives a go-ahead after proper technical evaluations and field trials by experts. Only those insecticides are allowed which are suitable for Indian conditions.

Even the Health Department has written to the Local Bodies Department to use only four approved insecticides. Following that, the Director, Local Bodies, through a letter in May this year had informed all Commissioners of Municipal Corporations and Regional Deputy Director of Local Bodies, to follow the directions given by Health Department for fogging.

Besides over 1,100 cases of malaria, around 5,000 cases of dengue has been reported this season in the state. For the past four years, on an average, 14,000 cases are being reported and over 10,000 cases each year are reported in October and November. Punjab is one of the worst-affected states in the country. Last year proved to be one of the worst-affected years as over 15,000 dengue cases were reported.

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Sleeping

Over 9 hours' of sleep may raise stroke risk by 23 % (The Tribune: 201901213)

<https://www.tribuneindia.com/news/over-9-hours-of-sleep-may-raise-stroke-risk-by-23-10057>

Over 9 hours' of sleep may raise stroke risk by 23%

Long napping and sleeping may suggest an overall inactive lifestyle, which is also related to increased risk of stroke

People who sleep nine or more hours per night are 23 per cent more likely to later have a stroke than people who sleep seven to less than eight hours per night, warns a new study.

The results revealed that long naps are also not good for your health.

People who took a regular midday nap lasting more than 90 minutes were 25 per cent more likely to later have a stroke than people who took a regular nap lasting from one to 30 minutes, said the study published online in *Neurology*, the medical journal of the American Academy of Neurology.

People who took no naps or took naps lasting from 31 minutes to one hour were no more likely to have a stroke than people who took naps lasting from one to 30 minutes.

"More research is needed to understand how taking long naps and sleeping longer hours at night may be tied to an increased risk of stroke, but previous studies have shown that long nappers and sleepers have unfavourable changes in their cholesterol levels and increased waist

circumferences, both of which are risk factors for stroke," said study author Xiaomin Zhang of Huazhong University of Science and Technology in Wuhan, China.

"In addition, long napping and sleeping may suggest an overall inactive lifestyle, which is also related to increased risk of stroke," Zhang said.

The study involved 31,750 people in China with an average age of 62. The people did not have any history of stroke or other major health problems at the start of the study.

They were followed for an average of six years. During that time, there were 1,557 stroke cases.

The people were asked questions about their sleep and napping habits.

People who were both long nappers and long sleepers were 85 per cent more likely to later have a stroke than people who were moderate sleepers and nappers, said the study.

"These results highlight the importance of moderate napping and sleeping duration and maintaining good sleep quality, especially in middle-age and older adults," Zhang said.—IANS

Adolescents

Adolescents in India, B'desh fittest: WHO (The Tribune: 201901213)

<https://www.tribuneindia.com/news/adolescents-in-india-b%E2%80%99desh-fittest-who-3595>

The first-ever global trends for adolescent insufficient physical activity show that urgent action is needed in girls and boys aged 11 to 17.

The study by World Health Organisation researchers has found that more than 80 per cent of school-going adolescents globally did not meet the current recommendations of at least one hour of physical activity per day — including 85 per cent of girls and 78 per cent of boys.

Corresponding proportions of physically inactive school goers are much lesser than the global average for India and Bangladesh — at 69 per cent and 66 per cent, respectively, which means children in these two South Asian nations are fitter than their global counterparts. Authors credit community cricket for better physical activity among Indian and Bangladeshi boys and social requirement of family support for comparatively better fitness levels among girls in India and Bangladesh.

“Some of the lowest levels of insufficient activity in boys were found in high income western countries like the US and South Asia driven by Bangladesh and India. The quite low prevalence of insufficient activity in boys in Bangladesh and India might be explained by the strong focus on national sports such as cricket which is frequently played unstructured in local communities,” says the WHO study “Global trends in insufficient physical activity among adolescents” published in The Lancet.

The high-income Asia-Pacific region showed the highest levels of insufficient activity among girls, driven largely by South Korea. “India and Bangladesh report the lowest levels of insufficient activity among girls potentially explained by social factors like girls being required to support their families and do household chores,” authors note.

The research — based on data reported by 1.6 million school goers — finds that across all 146 countries studied between 2001-2016 girls were less active than boys in all nations save Afghanistan, Tonga, Samoa, and Zambia.

The difference in the proportion of boys and girls meeting the recommendations was greater than 10 percentage points in almost one in three countries in 2016.

“Urgent policy action to increase physical activity is needed now, particularly to promote and retain girls’ participation in physical activity,” says study author Regina Guthold of WHO.

Health benefits of a physically active lifestyle during adolescence include improved cardio-respiratory and muscular fitness, bone and cardiometabolic health, and positive effects on weight. There is evidence of activity having positive impact on cognitive development and socialising.

Authors note that if the current trends continue, the global target of a 15 per cent relative reduction in insufficient physical activity — which would lead to a global prevalence of less than 70 per cent by 2030 — will not be achieved. This target was agreed to by all countries at the World Health Assembly in 2018.

‘Cricket main reason’

The quite low prevalence of insufficient activity in boys in Bangladesh and India might be explained by the strong focus on national sports such as cricket which is frequently played unstructured in local communities. — WHO study

Breathing in toxicity

Air pollution has emerged as one of the major causes of lung cancer among non-smokers (The Tribune: 201901213)

<https://www.tribuneindia.com/news/breathing-in-toxicity-6026>

Lung cancer is among the five types of cancers leading to overall cancer mortality causing 1.3 million deaths per year globally. In India, this number is 75,000 deaths annually, according to WHO. Among Indian men, it is the leading cause of cancer mortality (10.8 per 100,000 men), accounting for 13 per cent of all cancer deaths.

Causes

It is commonly associated with smoking. Certain people, however, may have a genetic predisposition to cancer. Even non-smokers exposed to passive or second-hand smoking may fall prey to lung cancer. In recent years, air pollution has emerged as a major cause for lung

cancer among non smokers. Several workplace substances have also been associated with an increased risk for lung cancer, including arsenic, asbestos, beryllium, silica, radon, etc.

Signs and symptoms

Most patients will have one or more of the following symptoms:

Persistent cough and coughing up of blood

Wheezing and shortness of breath

Discomfort during breathing

Chest pain

Symptoms associated with pneumonia such as a fever and mucus-producing cough

Discomfort while swallowing

Hoarseness of voice

Weight loss and poor appetite

Treatment options

An early diagnosis can increase chances of cure. For those diagnosed with lung cancer, surgery along with radiation and/or chemotherapy, remains the preferred mode of treatment, depending upon the stage of the cancer.

For patients at early stage of lung cancer, surgical removal of the cancerous tumour and the lung tissue surrounding it is the standard procedure. If the tumour is too large for surgery at diagnosis, many patients are given radiation or chemotherapy (neo-adjuvant chemotherapy) in an attempt to shrink the tumour before the surgery can be performed.

The type of surgery performed depends upon the location and size of the tumour. Targeted chemotherapy has shown great promise in treatment.

The decision for surgery is made by the cardio vascular and thoracic surgeon along with a tumour board taking several factors into consideration. These include over-all medical condition and lung function, size of the tumour, its location, whether there is any sign of spread to lymph nodes and the type of tumour. The surgery may be done by an incision or by a key hole technique . The operation is a time tested procedure and has the most optimal results as far as complete removal of the cancer is concerned.

Frequent queries about surgery

How much of the lung is removed during surgery?

There are three lobes, or segments, of the right lung and two lobes of the left lung. A lobectomy involves removing the tumour along with the lobe of the lung from which the tumour has arisen. Sometimes, entire tumour can't be removed by lobectomy. In such cases, entire lung may need to be removed. In some cases only a segment of lung or a wedge may be removed.

Is it possible to breathe normally after part of a lung is removed?

Patients with healthy lungs will be able to breathe normally after removal of a lobe, or even an entire lung. Pulmonary function tests are used to determine how much lung can be removed without limiting the patient's ability to breathe. Well-known Indian classical singer, Kumar Gandharva, had only one functional lung.

Preventive measures

There's no sure way to prevent lung cancer, but you can reduce your risk if you:

Are a non-smoker, have quit smoking and don't use tobacco in any form i.e cigarette, cigar, bidi, loose tobacco.

Avoid second-hand smoke.

Avoid going out in polluted areas. If you have to go in such areas, wear a mask.

Avoid carcinogens at work e.g. dust, smoke, asbestos etc. Use a good-quality mask if you can't avoid.

Eat a nutritious diet including fruits and vegetables.

Exercise at least six days.

Practice breathing exercises, as these help in improving the breathing capacity. Many lung cancer patients experience shortness of breath and difficulty in breathing.

What can be expected during and following surgery?

Most patients remain in the hospital for four to five days. But patients are generally out of bed and walking the first day after the operation. A yoga therapist and physiotherapist instruct patients about deep breathing and coughing exercises, which are important to help prevent lung infection.

How long is the recovery period? Will help be needed at home?

After patients are discharged following lung surgery, they are able to walk on their own and breathe without difficulty. Patients are advised not to drive until they don't require pain medication every day. Some help may be needed for the first week or two. However, there is no need for nursing care at home.

What steps are needed to increase a patient's chances of living a normal life after lung surgery?

No smoking, eating a nutritious diet and exercising (walking for 30 minutes to an hour daily).

Any treatment needed after surgery?

This question can be answered once the stage of the lung cancer is known. In some patients, the stage is known before surgery, especially in those who get preoperative chemotherapy treatment. These patients usually continue treatment after surgery. When the disease is at an early stage, additional information after the operation can determine the need for additional treatment. It depends upon the size of tumour, if it is invading anything, if the lymph nodes have tumour in them, etc.

What does the rehabilitation consist of?

Formal pulmonary rehabilitation consists of professionally monitored sessions, occurring three-four days per week for one to two hours daily. Use of yoga therapy has also shown great success rate. This has specially made a difference in borderline cases.

As air pollution increases, young non-smokers in their late twenties have been diagnosed with lung cancer. Strict measures are needed by the government as well as society to reduce pollution for better public health.

What is the rate of survival after lung cancer surgery?

Without proper treatment, more than 50 per cent patients will die within a year of diagnosis. Life expectancy depends on the stage of the cancer at the time of diagnosis, as well as patient's age, overall health, etc.

The five-year survival rate for lung cancer is 56 per cent for cases detected when the disease is still localised (within the lungs). However, only 16 per cent of lung cancer cases are diagnosed at an early stage. For distant tumours (spread to other organs) the five-year survival rate is only five per cent. In such cases, surgery is generally not advocated anyway

— The writer is director, cardio vascular, endovascular & thoracic sciences, Ivy Hospital, Mohali.

Food and Nutrition

Soups can save you from malaria (The Tribune: 201901213)

<https://www.tribuneindia.com/news/soups-can-save-you-from-malaria-2426>

Celebrity trainer Vrinda Mehta was overweight in her childhood. At certain point in life, she started dieting. She achieved the physique she wanted but dieting made her weak and she got osteoporosis. That's when Vrinda decided to find out the right way to approach health.

She explains, "Today, we are so focused in maintaining weight and correcting our eating habits and no one is addressing the foundation of being healthy, which is a healthy mind. I remember when my father was diagnosed with cancer, I was questioning my knowledge on health because he always ate healthy and use to work out a lot."

Talking about the craze for gym and physical fitness that has increased since the past decade, Vrinda says, "It is our duty now to raise awareness about mental well-being." Vrinda and Shivoham run a joint programme called Shivfit where the former trains mind and the latter focuses on physical training.

Vrinda believes, "Thoughts, vibrations and energy exist and this is the basis of everything. It is your prerogative whether you want to crib about a bad moment whole day or to transform it into something positive with the power of your mind. Just remember energy flows from the higher to the lower point, so no amount of negative vibrations will harm you if your state of mind is always positive." She advocates pranayama for maintaining healthy mind and soul.

In Chandigarh to address young presidents of YPO workshop, both Vrinda and Shivotham say that they have the power over their mind to steer it clear from distractions. Shivotham (earlier Dheepesh Bhatt) confesses, “I used to party a lot and Vrinda helped me transform. It is my second innings with the name Shivotham, which came naturally to my mind after my transformation.”

Having trained celebrities like Amitabh Bachchan, Ranveer Singh, Arjun Kapoor, Jacqueline Fernandez, Kangana Ranaut, Sonakshi Sinha, Parineeti Chopra and Aamir Khan, cross-fit trainer Shivotham says, “In the acting profession when you are meant to lose or gain for a role, the mind is already set and the role of a trainer is how to make that daily session interesting for them.”

Has he ever approached Bollywood actors and Shivotham answers, “No, it never happened but I was offered a role in a Punjabi movie because Diljit Dosanjh insisted that I have the angry look. But when I auditioned, they said ‘No sir, you are so calm. Aapse na ho paayega’. The aggression that they saw in me was during training sessions.”

Currently training Aamir Khan, Shivotham was all praise for the actor as he believes, “Aamir’s will power and strong mindset make the body transformation a lot easier for him.” Apart from that Shivotham trained Parineeti Chopra and Ranveer for their movies Ishaqzaade and Band Baaja Baaraat, respectively. He adds, “Ranveer was my college buddy and used to come to my group classes of cross-fit before signing his first film and then I personally trained him for his first movie.”

Healthy diet for healthy gums

Healthy diet for healthy gums (The Tribune: 201901213)

<https://www.tribuneindia.com/news/healthy-diet-for-healthy-gums-2024>

Pococrates said it over 2400 years ago, “Let food be thy medicine and medicine be thy food. Dental health is more important than most people realise and nutrition plays a big role.

A healthy body naturally fights gum disease. There are however some nutrients that are especially effective. The key is to eat foods that nourish your oral microbiome. To make sure you have the right nutrient building blocks within your diet, follow the guidelines below.

Antioxidants

When it comes to their health benefits, antioxidants have almost celebrity status. How do they help your mouth stay healthy? Antioxidants fight the bacteria that cause inflammation and periodontal disease. They help protect gums and other tissues from cell damage and bacterial infection. Best sources are apples, berries, grapes, raisins, nuts and beans.

Probiotics

When it comes to bacteria in your body, there are tons of both good and bad bacteria. Probiotics are some of the best ones and may help decrease plaque and promote healthy gums. Best sources are yogurt, kombucha, miso and other fermented foods.

Phosphorus

It supports calcium in building strong bones and teeth. Luckily, phosphorus is found in a wide range of foods. Rich sources of the mineral include seafood, such as scallops, sardines, cod, shrimp, tuna and salmon. If you're looking to get your phosphorus from plant-based foods, consider soybeans, lentils and pumpkin seeds. You can also find phosphorus in beef, pork and cheese.

Vitamin K

Think of this vitamin as a shield. It helps block substances that break down bone. It also helps your body produce osteocalcin, a protein that supports bone strength. Vitamin K deficiency can slow down your body's healing process and make you more likely to bleed. Best sources are leafy greens, such as kale, collards and spinach that can help increase your vitamin K quota. Other great sources include parsley, broccoli and Brussel sprouts.

Vitamin C

It strengthens your gums and the soft tissue in your mouth. It can protect against gingivitis, the early stage of gum disease, and can prevent your teeth from loosening.

Best sources are citrus fruits that are rich in vitamin C, but you can also find it in potatoes and leafy greens.

Anthocyanins

They prevent the attachment of plaque on the teeth and fight oral cancer. Best sources are berries, grapes, cherries, plums, eggplant.

Arginine

It is an important amino acid that may disrupt the formation of plaque and reduce chances of cavities and the best sources are meat, soy, nuts.

Polyphenols

Polyphenols may slow the growth of bacteria leading to plaque, preventing gum disease, cavities and bad breath. Best sources are tea (black and green), berries, flaxseed, and cocoa.

UNICEF recipe for kids

UNICEF recipe for kids: Paneer roll, uttapam (The Tribune: 201901213)

<https://www.tribuneindia.com/news/unicef-recipe-for-kids-paneer-roll-uttapam-1668>

35% of children under five are stunted, 17% wasted and 33% underweight, as per nutrition survey

Anaemia affects 40% adolescent girls and 18% adolescent boys

10% of overweight children and adolescents are at risk of non-communicable diseases like diabetes

From paneer kathi roll to uttapam to sprouted dal parantha, a book by Unicef tells how to tackle problems of underweight, obesity and anaemia among children by consuming nutritious food that costs less than Rs 20.

The report also found that overweight and obesity increasingly begins in childhood with a growing threat of non-communicable diseases like diabetes (10 per cent) in school-aged children and adolescents.

The 28-page book, based on the findings of the Comprehensive National Nutrition Survey 2016-18, lists out recipes of freshly prepared foods, also giving the cost of preparation of each of them.

For tackling underweight, the books lists recipes like potato-stuffed parantha, paneer kathi roll and sago cutlets while for tackling obesity, there are suggestions of sprouted dal parantha, poha and vegetable upma.

Apart from calorie count, the book gives detailed break-up of protein, carbohydrate, fat, total fibre, iron, vitamin C and calcium content of the recipe. Unicef chief Henrietta H Fore said the booklet aimed at telling people what was nutritious and in what amount. — PTI

Bone Health

Keeping bones, joints strong (The Tribune: 201901213)

<https://www.tribuneindia.com/news/keeping-bones-joints-strong-2064>

Bones provide a structure to our body and protect our organs. Joints are complex structures of bones made functional by adjoining muscles. Therefore, it is important to maintain them in good health says Dr Harshavardhan Hegde, Executive Director, Orthopaedics and Bone & Joint Surgery, Fortis Escorts Heart Institute.

The bones in a human body are in a state of constant cyclical change — where new bone replaces old one as the bone mass increases. The amount of bone mass accumulated before the age of 30 and the rate of depletion could give a fair estimation of how likely is one expected to develop osteoporosis in later years.

There are multiple factors which affect bone health.

Physical activity: One cannot over emphasise the role of physical activity in maintaining bone health. It is the most important factor to reduce the risk of osteoporosis in old age.

Food: A balanced diet with sufficient amount of calcium, Vitamin D and protein helps with both bone and joint health. Calcium assists with bone density, Vitamin D assists with calcium deposition.

Gender and age: Since bones become thinner and weaker with age, the elderly are at greater risk of osteoporosis. Women have lesser bone tissues than men and therefore, they too are more

likely to develop osteoporosis. Hormone levels: Sometimes missed out, some varieties of hormones are crucial to bone health. In women, estrogen levels, which are maintained during active menstruation period, drop significantly during menopause. This increases the risk of osteoporosis.

Tobacco and alcohol: Smoking has a direct negative effect on bone mass. Smokers are at greater risk of developing osteoporosis. Similarly, regular consumption of large amounts of alcohol can also contribute to weaker bones. —IANS

Diabetes-related stress more harmful for young adults

Diabetes-related stress more harmful for young adults (The Tribune: 201901213)

<https://www.tribuneindia.com/news/diabetes-related-stress-more-harmful-for-young-adults-1022>

Young people diagnosed with Type 2 diabetes experience high psychological distress, resulting in worse health outcomes and poor blood sugar control, find researchers from Carnegie Mellon University.

Age plays a critical role in the well-being of people newly diagnosed with Type 2 diabetes.

"We found we can evaluate a patient's initial stress and predict how they will be doing six months later," said Vicki Helgeson, professor of psychology at the university.

"If you can identify people who are facing diabetes distress earlier, you can intervene and prevent their health from declining," said the findings published in the Journal of Behavioural Medicine.

In the study, the team evaluated 207 patients who were diagnosed with Type 2 diabetes within the past two years.

They found younger patients (42 years and younger) experienced higher diabetes-related and psychological distress.

In addition, patients with higher education and income expressed more stress.

Conversely, older patients (older than 64 years) had less psychological stress and greater consistency in self-care, blood sugar control and medication adherence.

Patients in long-term relationships also reported less diabetes stress.

Patients identified diet as the greatest stressor (38 per cent).

Other significant stressors include checking blood sugar (8 per cent) and experiencing high or low blood sugar events (7 per cent).

Patients who self-reported greater stress also reported greater depressed mood, less adherence to medication and higher anxiety.

"Diabetes care is difficult because it requires a lifestyle change that you have to do forever," Helgeson said.

Vaccine (The Asian Age: (The Tribune: 201901213)

<http://onlinepaper.asianage.com/articledetailpage.aspx?id=14270839>

SCIENCE NUGGETS

Vaccine against gut bacteria to help with ulcer

London: Researchers have developed a method to restrict the mobility of gut bacteria that are linked to chronic inflammatory bowel disorders that cause stomach and intestinal ulcers, an advance that may lead to new vaccine development strategies. The researchers, including those from Inserm - The Institut national de la sante et de la recherche medicale in France, said patients with inflammatory bowel diseases had reduced diversity of gut bacteria, and excessive levels of microbes with a protein called flagellin, which favours their mobility. — *PTI*

Telecom cables can be used to detect thunder

Washington: Researchers have discovered that telecommunication lines, which carry internet and phone service, can pick up the rumble of thunder underground, an advance that can offer scientists a new way to detect hazards, and image deep inside the Earth. Researchers, including those from Pennsylvania State University, said this is the first time thunder has been heard underground using a telecommunications fibre optic array. Explaining how the sound was produced in nature, they said, the passage of lightning heats up the air so fast that it creates a shockwave we hear as thunder. — *PTI*

Over nine hours of night sleep can increase stroke risk: Study

Beijing: Older people, who sleep nine hours or more at night, and take long naps during the day are 85 per cent more likely to later have a stroke than people, who are moderate sleepers and nappers, according to a study.

The researchers, including those from Huazhong University of Science and Technology in China, studied 31,750 people in China with an average

age of 62, following them for a mean period of six years. They said the people did not have any history of stroke or other major health problems at the start of the study but over the duration of the research, they noted 1,557 stroke cases.

The participants were asked questions about their sleep and napping habits and the quality of rest they had.

— *PTI*

Kerala has cemeteries for fish too, displays pics of extinct ones

Washington: Cemeteries are commonly built for humans, but in Kerala, they are made for fishes too. They are not just tombs made up of cement or mud, but iron frames that raise their heads to the sky and are filled with single-use plastic bottles.

On the few-feet-long gravestones situated on the seashore of Beypore, the photographs of endangered species or extinct fishes including one freshwater fish - Miss Kerala (Sahyadria denisonii) - are displayed to create awareness. — *ANI*

Alcohol consumption

Alcohol consumption, drugs, internet addiction on the rise among youngsters' (The Indian Express: 201901213)

<https://indianexpress.com/article/cities/pune/alcohol-consumption-drugs-internet-addiction-on-the-rise-among-youngsters-5801880/>

A new report released by the National Drug Dependence Treatment Centre, AIIMS on the magnitude of substance abuse in India showed that substance use exists in all population groups and alcohol was the most common psychoactive substance used by Indians.



The United Nations has recognised June 26 as the International Day Against Drug Abuse and Illicit Trafficking. Various initiatives have been taken to advocate measures to tackle drug abuse and trafficking. (Representational Image)

Of the 150 patients at the Mukhtangan de-addiction centre, at least 10 per cent are aged below 20. The most common addictions are that of marijuana and alcohol, says Mukta Puntambekar, in-charge of the centre. While internet addiction is also common, the centre has now planned three runs of 5, 10 and 15 km on June 30 to raise awareness on drug abuse and different forms of addiction. Puntambekar says there are cases where children aged 15 or 16 are undergoing treatment for alcohol addiction.

The United Nations has recognised June 26 as the International Day Against Drug Abuse and Illicit Trafficking. Various initiatives have been taken to advocate measures to tackle drug abuse and trafficking. A new report released by the National Drug Dependence Treatment Centre, AIIMS, in collaboration with the Ministry of Social Justice and Empowerment on the

magnitude of substance abuse in India showed that substance use exists in all population groups and alcohol was the most common psychoactive substance used by Indians.

According to the report released early this year, an estimated 4.6 lakh children and 18 lakh adults need help for inhalant use (harmful use/dependence) and researchers have urged that prevention programmes must address the risk and protective factors aimed not just to prevent substance use but also ensure that young people grow and stay healthy into adulthood.

Dr Rahul Bagale, consultant psychiatry, says he frequently sees patients who are using drugs in some or the other form. “In one week, we come across seven to eight such cases, who end up in complications due to harmful drug use. The patients are mostly aged between 18 and 25,” he says, adding that they start using drugs for leisure or recreational purposes but get addicted.

Youngsters need to avoid peer groups that are into drug use and should learn to say no, he says.

Experts say the rise of “Over The Top (OTT) platforms” has fostered an environment where youngsters require instant gratification in order to stay entertained. They add that the streaming platform, Netflix, has taken advantage of the younger generation’s alarming rate of content consumption.

According to clinical psychologist Dr Renee Carr, Netflix has prompted today’s youth to engage in “binge-watching”, since entertainment produces the neurotransmitter dopamine (a chemical that evokes pleasure); viewers then decide to watch numerous episodes of one show to induce sensations associated with dopamine.

Experts also say mirroring the effects of substance addiction, increasing tolerance for dopamine urges people to take part in similar sessions that are longer. Additionally, cliffhangers release the body’s fight-or-flight stress hormones, actively keeping the brain captivated. The same science applies to the app TikTok, which distributes 13 million clips daily of people lip-syncing to songs.

“This binge-watching can lead to lack of sleep,” says high school student Aman Dhoraje. Another student, Rama Deshpande, adds, “It can change your views and expectations on life, especially for younger viewers who don’t have the level of maturity to distinguish media from reality.”

They say since binge-watching interferes with sleep, a critical aspect with regard to normal functioning, people’s perceptions of reality is distorted. As a result of both addiction and impaired sensory input, people often feel isolated and lonely; this results in common mental disorders such as anxiety and depression. PUBG is another OTT platform and causes players to play for lengthy periods of time. The addiction then facilitates the formation of mental disorders.

On the impact of PUBG on mental health, Anjali Pradhan, a parent, says it can have long-term, harmful effects on the human brain, especially on young kids.

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Pollution Level

Heavy rain puts the bite in air, will bring down pollution Level (Hindustan: 201901213)

<https://epaper.hindustantimes.com/Home/ArticleView>

Hailstorm Weather dept officials said they expect rain to continue overnight and on Friday as well



Strong surface winds and heavy rains in parts, accompanied by hail, lashed the capital on Thursday. Weather scientists predicted these would lead to a drop in pollution levels, which remained in the 'severe' category as per the Central Pollution Control Board's (CPCB) 4pm bulletin.

Some parts of the city such as south and outer Delhi received heavy rains, which India Meteorological Department (IMD) officials said they expected would continue overnight, and on Friday as well.

Scientists said parts of the city also witnessed hail, and that some areas in the National Capital Region (NCR) like Noida, Greater Noida, and Rewari witnessed hailstorms around 9pm.

Airport officials said 24 were flights were diverted from the Indira Gandhi International Airport, and no landings/take-offs took place between 9.10pm and 9.20pm.

“Thunderstorm and rainfall with surface winds picking up pace to 20-30kmph is expected on Friday as well. This is a cumulative impact of rainfall, hailstorm and snowfall predicted in the western Himalayan region, for which a warning has been issued in those states. The impact of rain and winds will be seen by Friday morning,” said Kuldeep Srivastava, head of the IMD’s regional weather forecasting centre.

According to the central government-run System of Air Quality and Weather Forecasting and Research (Safar), the air quality may improve to ‘poor’ by Friday morning and to ‘moderate’ on December 14.

“While air quality is in the ‘severe’ zone now, the forecast is that it will improve rapidly and significantly from Thursday night onwards. It takes a while for pollutants that have accumulated over days to get cleared,” a senior Safar scientist said.

According to the CPCB’s 4pm bulletin, the air quality index (AQI) was 429 in Delhi, as compared to 408 on Wednesday.

However, the respite brought by the rain and winds may be short-lived, as a ‘dense’ fog and an expected dip in mercury on December 15-16, may push up pollution levels again. According to CPCB officials, another spike in pollution levels is expected from December end to the first week of January owing to heavy fog and low temperatures.

The average wind speed picked up to 22-24kmph during the day, which is strong enough to clear the air. This has been between 8kmph and 10kmph over the past two days.

Srivastava added that owing to the rain and strong winds, the day temperature dipped to 21.5 degrees Celsius, two notches below the season’s average, as compared to 23 degrees Celsius on Wednesday.

However, the minimum temperature was 12.8 degrees Celsius, four above normal.

The maximum temperature may dip to 19 degrees Celsius on Friday, and the minimum may settle at 13 degrees Celsius.

Air quality

Air quality falls across north Hindustan: 201901213)

<https://epaper.hindustantimes.com/Home/ArticleView>

The air quality across north India deteriorated on Thursday, following a sudden fall in temperature, with Ghaziabad in Uttar Pradesh the most polluted across 102 cities monitored by Central Pollution Control Board (CPCB), as winds from the north and west brought pollutants towards northern plains.

Experts said that the high base level in the region led to the air quality being in the “severe” category.

According to CPCB 4pm bulletin, AQI in Ghaziabad on Thursday was 436, in Lucknow 320, and in Kanpur 400. In several parts of western UP and south Haryana, the AQI was over 400.

“Pollution levels are high in December because of the drop in temperature and increase in local biomass burning due to the cold weather,” said a senior CPCB official. Air quality was likely to remain in the “severe” zone over the next 24 hours, he said.

Since the first week of October, air quality in the northern region hovered between “poor” and “severe”. Till November 20, stubble burning in Punjab and Haryana were said to be the reasons for high air pollution levels. A sudden dip in temperature, low wind speed, and high humidity were said to be the main reasons for the rapid accumulation of pollutants from local sources. Low temperature and high humidity lead to the formation of mist, haze and shallow fog, which blend with pollutants, and cause air pollution.

Mahesh Palawat of Skymet Weather, a private forecasting agency, said light winds were blowing over the Indo-Gangetic plains for the past few days. “Dust, vehicular and industrial emissions remain suspended near the ground in the absence of favourable wind speed,” he said.

According to data from UP Pollution Control Board, Lucknow did not have a single day of “satisfactory” or “moderate” air quality since Diwali.

Chief minister Yogi Adityanath on November 1 directed the UP Pollution Control Board to prevent stubble burning and check other factors contributing to air pollution.

In Bihar, where Patna witnessed its worst air quality in decades with AQI touching close to 490 in the first week of November, the government ordered the closing of polluting industries and banned running of vehicles older than 15 years.

On Thursday, environmental advocacy organizations asked Prime Minister Narendra Modi to declare a national health emergency with pollution levels in north India rising at an alarming rate over the last two days.

“Almost all of north India is reeling under severe air pollution, almost verging on ‘hazardous’. This is causing irreversible health harm to all residents,” according to The Clean Air Collective, a network of organisations, citizens groups and institutions. “We request the Prime Minister to declare a national health emergency.”

Alzheimer's

Mouse study tests a novel approach against Alzheimer's (Medical News Today: 201901213)

<https://www.medicalnewstoday.com/articles/327291.php#4>

Using mouse models of Alzheimer's disease, researchers have been looking into a new approach to slow down the progression of this neurodegenerative disease — a ketone ester-rich diet.

Could a new therapeutic approach help slow down Alzheimer's disease? Researchers from the NIH investigate.

To get the energy it needs to function correctly, the body usually relies on glucose (a simple sugar), which results from the digestion of carbohydrates.

When there is not enough glucose to rely on, the body will burn fat instead. This is a process called ketosis, and it is the principle that ketogenic — or keto — diets rely on.

Keto diets are typically low in carbohydrates and high in fats, and this imbalance in resources produces ketosis. But there is also another way of inducing ketosis that does not involve making this dietary shift. It involves taking supplements containing ketone ester, which have the same effect.

Researchers have also been interested in ketone ester because of the possibility that it may help fight neurodegenerative conditions, including Parkinson's and Alzheimer's disease.

Recently, a team of investigators from the Laboratory of Neurosciences at the National Institutes of Health (NIH) in Baltimore, MD — in collaboration with colleagues from other research institutions — has used mouse models of Alzheimer's to further examine the potential of ketone ester, as well as the possible underlying mechanisms at work.

A study paper — whose first author is Aiwu Cheng, Ph.D., and which features in *The Journal of Neuroscience* — details the proceedings.

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Can a ketone ester diet help?

The researchers explain that early on in the development of Alzheimer's disease, several changes occur in the brain. One of these changes is a lot more uncontrolled neural (brain cell) activity.

The investigators hypothesize that this lack of regulated brain cell activity may be due to damage to a set of specialized, inhibitory neurons — called GABAergic neurons. This means they are unable to prevent other brain cells from sending too many signals.

The study authors also suggest that since GABAergic neurons need more energy to function correctly, they may be more vulnerable to beta-amyloid, a protein that over accumulates in the brain in Alzheimer's disease, becoming toxic.

According to existing studies, beta-amyloid also affects mitochondria^{Trusted Source}, which are tiny organelles in cells that keep them "fuelled" with energy. Some researchers argue that beta-amyloid disrupts mitochondrial function by interfering with the SIRT3 protein that would usually help preserve it.

In their current study, the investigators genetically modified mouse models of Alzheimer's disease, so that the rodents would produce lower than normal levels of SIRT3. They found that

these mice experienced more violent seizures, had a higher rate of GABAergic neurons death, and were also more likely to die when compared both with healthy control mice and with regular Alzheimer's disease model mice.

Yet, when the researchers fed the mice with lower SIRT3 levels a ketone ester-rich diet, the rodents did better, with fewer seizures and lower death rates.

Moreover, Cheng and the team also observed that a ketone ester-rich diet appeared to increase SIRT3 levels in the rodents that received it.

This has led the investigators to conclude that boosting SIRT3 levels by way of a ketone ester-rich diet may be useful in slowing down the progression of Alzheimer's disease.

Biospay (Navbharat Times: 201901213)

<http://epaper.navbharattimes.com/details/80446-67807-1.html>

बायोप्सी में लगनेवाला वक्त और दर्द दोनों की होगी छुट्टी, ब्लड टेस्ट से हो जाएगी जांच

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■ **नई दिल्ली :** एम्स ने ऐसे दो बायोमार्कर की पहचान की है, जिससे सीलिएक डिजीज के मरीज के आंत में होने वाले नुकसान का पता संभव हो पाएगा। अभी तक इस बीमारी में आंत के अंदर विलस (Villus) को पहुंचे नुकसान का आंकलन करने के लिए बायोप्सी करानी पड़ती है, जिसमें मरीज को दर्द होता है। समय भी काफी लगता है। अब दो ब्लड टेस्ट से ही होने वाले नुकसान का पता चल जाएगा। इससे मरीज का इलाज जल्द और आसानी से संभव होगा। आंत के अंदर विलस एक फंक्शनल यूनिट होता है, जो खाने को पचाने में मदद करता है।

एम्स के गेस्ट्रोइंट्रोलाजी विभाग के डॉक्टर गोविंद मुखरिया ने कहा कि सीलिएक ऐसी बीमारी है, जो गेहूँ में पाए जाने वाले ग्लूटेन



एम्स ने की स्टडी, आंत में नुकसान का चलेगा पता

अभी आंत के अंदर विलस को पहुंचे नुकसान की जांच के लिए बायोप्सी करानी पड़ती है

की वजह से होता है। लेकिन कई बार इस बीमारी की वजह से आंत के अंदर विलस को नुकसान पहुंच जाता है और इस बारे में पता नहीं चलता है। क्योंकि विलस को पहुंचे नुकसान का पता तभी लगता है जब मरीज बायोप्सी कराता है। बायोप्सी थोड़ा मुश्किल जांच है, इसके लिए इंडोस्कोपी की जाती है और यह मशीन मुंह के जरिए

पेट के अंदर जाता है, तब जाकर प्रोसेस पुरा होता है। इसलिए अधिकतर लोग यह जांच नहीं कराना चाहते हैं। इस परेशानी का हल अब निकल गया है, दो ब्लड टेस्ट से यह पता चल जाएगा कि मरीज का विलस को नुकसान पहुंचा है या नहीं। इस स्टडी में शामिल डॉक्टर अलका सिंह ने बताया कि हमने इसके लिए तुलनात्मक स्टडी की और

फिर उसके बाद इस नतीजे पर पहुंचे हैं। इस स्टडी में तीन प्रकार के ग्रुप को शामिल किया गया। पहले सीलिएक बीमारी से पीड़ित 131 मरीज को लिया गया। दूसरे ग्रुप में 216 ऐसे लोग थे, जिन्हें किसी भी तरह की बीमारी नहीं थी। 133 ऐसे लोग लिए गए हैं जो किसी सीलिएक की बीमारी तो नहीं थी, लेकिन वो पूरी तरह से स्वस्थ भी नहीं थे। इसके बाद हमने इनके अंदर की बीमारी का पता लगाने के लिए बायोमार्कर का इस्तेमाल किया, जिसमें Citrulline और FABP की जांच की गई। डॉक्टर अलका ने कहा कि इसके लिए एक रेंज डिफाइन की गई है, उस रेंज के अंदर अगर रिपोर्ट आती है तो उसके आधार पर विलस को पहुंचे नुकसान का पता लगाया जा सकता है। यह जांच इस बीमारी के इलाज से जुड़े देशभर के डॉक्टरों के लिए मददगार साबित होगी।

Health Care ((Navbharat Times: 201901213)

<http://epaper.navbharattimes.com/details/80438-58252-1.html>

दुर्लभ रोगों पर राष्ट्रीय नीति में विलंब खतरनाक

दिल्ली हाई कोर्ट ने दुर्लभ रोगों पर नई राष्ट्रीय नीति बनाने के लिए कहा है। 2017 में यह नीति घोषित हुई थी, पर दुर्भाग्य से उसे विराम दे दिया गया



प्रसन्ना शिरोदल

भारत में हेल्थकेयर के क्षेत्र में बड़े पैमाने पर सुधार हो रहे हैं, लेकिन सरकार दुर्लभ रोगों की गंभीरता को नहीं समझ रही है। दुर्लभ रोग गंभीर, स्थायी, दुर्बल करने वाले, जानलेवा होते हैं और इनके लिए अक्सर लंबी अवधि के, विशेषीकृत उपचार की जरूरत होती है। कभी-कभी तो ये बड़ी विकलांगता तक दे जाते हैं।

एक आकलन के अनुसार विश्व में 6000 से 8000 दुर्लभ रोग हैं और ऐसे नए रोग नियमित रूप से सामने आ रहे हैं। दुर्लभ रोगों के आम समूहों में से एक है लाइसोसोमल स्टोरेज डिफिशिएंसी (एलएसडी)। लाइसोसोम ऐसे एंजाइम हैं जो शरीर में महत्वपूर्ण कार्य करते हैं। यदि इनमें से एक एंजाइम भी काम करना बंद कर दे तो कोई एक एलएसडी हो सकता है। इसके 50 प्रतिशत नए मामले बच्चों में पाए जाते हैं

और 1 वर्ष की आयु से पहले होने वाली 35 प्रतिशत मृत्यु का कारण बनते हैं। 10 प्रतिशत मृत्यु 1-5 वर्ष में और 12 प्रतिशत मृत्यु 5-15 वर्ष में होती हैं। इसे ध्यान में रखते हुए दुर्लभ रोगों से पीड़ित लोगों को सतत और लंबी अवधि का सहयोग चाहिए। वयस्कों में भी कुछ दुर्लभ रोग पाए जाते हैं। खासकर उस समय, जब उनका कोई बच्चा बड़ा होता है। ऐसे रोगियों को बड़ा भावनात्मक, मानसिक कष्ट होता है। वे आम तौर पर सामान्य और मामूली माने जाने वाले कार्य भी नहीं कर पाते। इन बीमारियों का इलाज खर्चीला होने के कारण इनका पूरा परिवार आर्थिक तौर पर भी परेशान रहता है।

इंडियन सोसायटी फॉर क्लिनिकल रिसर्च के अनुसार भारत में 7 करोड़ लोगों को ऐसे रोग हैं। यह संख्या स्पष्ट रूप से बताती है कि इस समस्या का निदान तुरंत होना चाहिए। इन्फ्रास्ट्रक्चर की कमी और प्रशिक्षित कार्यबल के अभाव ने स्थिति को और जटिल बना दिया है। इसी वजह से इन मामलों की समय पर सही जांच भी नहीं हो पाती। नतीजा यह होता है कि बहुत से ऐसे बच्चे जो समय पर इलाज करवा कर शिक्षा हासिल कर सकते हैं और टैक्स देकर देश के विकास में योगदान कर सकते हैं, ऐसा नहीं कर पाते।

दुर्लभ रोगों से पीड़ित इन रोगियों के निरंतर



कॉमन रूम

जारी संघर्ष को देखते हुए ऐसा एक मजबूत सहयोग तंत्र विकसित करने की जरूरत है, जो भारत में उपचार के लिए सहायता प्रदान करे। दुर्लभ रोगों को चिकित्सा के पाठ्यक्रम में शामिल करना भी जरूरी है, ताकि रोग की जल्दी डायग्नोसिस हो सके और सही समय पर उसका उपचार हो। रोगियों का आनुवंशिक परीक्षण भी होना चाहिए, खासकर उच्च जोखिम वाले मामलों में, जहां दुर्लभ रोग का पारिवारिक इतिहास हो।

मगर ऐसे कदम सरकार के सहयोग के बगैर संभव नहीं हैं। दिल्ली हाई कोर्ट ने केंद्रीय स्वास्थ्य मंत्रालय से दुर्लभ रोगों के उपचार हेतु नई राष्ट्रीय नीति बनाने के लिए

कहा है। मई 2017 में इस नीति की घोषणा की गई थी जिससे ऐसे रोगियों और उनके परिवारों को नई उम्मीद मिली थी। दुर्भाग्य से, उस नीति को विराम दे दिया गया। अब राष्ट्रीय नीति की घोषणा में हो रहा विलंब रोगियों और उनके परिवारों को बड़ा कष्ट दे रहा है। हालांकि अब तक की सूचना के मुताबिक स्वास्थ्य एवं परिवार कल्याण मंत्रालय द्वारा वर्ष 2019 के अंत तक दुर्लभ रोगों के उपचार पर नई नीति का मसौदा जारी किया जाना है। अगर इस समय सीमा का पालन होता है तब भी मसौदे को अंतिम तौर पर स्वीकृति मिलने और राष्ट्रीय नीति लागू होने में वक़्त तो लगेगा।

स्वास्थ्य एवं परिवार कल्याण मंत्रालय के पूर्व निर्देश के अनुसार 180 से अधिक मरीज रेयर डिजीजेस सेल में उपचार के लिए आवेदन कर चुके हैं। जरूरी है कि ऐसे बच्चों को अंतरिम सहयोग देने पर सहानुभूतिपूर्वक विचार किया जाए और यह बात भी समझी जाए कि राष्ट्रीय नीति को अंतिम रूप देने में हो रहा एक-एक दिन का विलंब न केवल इन मरीजों और इनके परिवारों की तकलीफ बढ़ा रहा है बल्कि ऐसी मौतों की भी वजह बन रहा है जो आसानी से टाली जा सकती हैं।

(लेखक 'ऑर्गेनाइजेशन फॉर रेयर डिजीजेस' के को-फाउंडर हैं)

Life ((Navbharat Times: 201901213))

<http://epaper.navbharattimes.com/details/80442-56087-1.html>

चेहरे की चोट का कारण बन रहा है मोबाइल

File Photo

■ **वॉशिंगटन :** मोबाइल का बढ़ता उपयोग लोगों को हॉस्पिटल पहुंचा रहा है। कई लोग गंभीर चोटों के साथ तो कई लोग फेस इंजरी के साथ हॉस्पिटल पहुंच रहे हैं। इनमें से ज्यादातर केस सेल्फ हार्मिंग वाले हैं। यानी जब किसी व्यक्ति को मोबाइल फोन का उपयोग करते समय चोट लग गई। यूएस के हॉस्पिटल्स के इमरजेंसी रूम में माइनर और मेजर इंजरी के ऐसे केस लगातार आ रहे हैं, जिनमें पेशेंट को मोबाइल फोने के कारण चोट लगी है। रिसर्च के लीड डॉक्टर बोरिस पासखोबर के अनुसार, साल 2006 से इमरजेंसी में आनेवाले केसों में लगातार वृद्धि हो रही है। उन्होंने कहा कि मैं पिछले 20 साल से ओपीडी देख रहा हूँ और मोबाइल फोन के कारण चोटिल होने वाले ज्यादातर



केसों में लोगों को अपनी ही लापरवाही के कारण चोट लगी होती है। मीडिया रपटों के अनुसार, विशेषज्ञों का कहना है कि यूएस की बात करें तो एक साल में करीब 76 हजार लोग मोबाइल फोन का असुरक्षित या गैर जिम्मेदारान तरीके से उपयोग करते हुए चोटिल हो जाते हैं। इस तरह चोट खानवाले लोगों में ज्यादातर की उम्र 13 से 29 साल के बीच होती है।