



DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY
Tuesday 20220621

Bacterial gene

**Researchers find ‘dangerous’ drug-resistant bacterial gene in hospital waste
The findings call for attention and further studies in hospital and clinical
settings, say AMU researchers (The Tribune:202000621)**

<https://www.tribuneindia.com/news/health/researchers-find-dangerous-drug-resistant-bacterial-gene-in-hospital-waste-405511>

Researchers find ‘dangerous’ drug-resistant bacterial gene in hospital waste
Photo for representational purpose only. PTI file

Researchers at the Aligarh Muslim University (AMU) have identified a new variant of a drug resistant bacterial gene in samples collected from sewage water discharge of a hospital in Murshidabad, West Bengal.

The new gene mcr-5.1, which is resistant to the antibacterial drug Colistin, is a “pointer to the likelihood of an outbreak of multi-drug resistant bacterial infections in this part of the world,” the researchers said.

According to the research, published in the journal Microbial Drug Resistance, “this is the first report from India showing the presence of this hazardous Colistin resistant gene.”

The discovery of this gene in India should serve as a timely warning for taking preemptive steps for tackling the possibility of a threat to the health management system in the country, said the researchers at AMU’s Interdisciplinary Biotechnology Unit in Aligarh, Uttar Pradesh.

“The discovery of this gene should be a cause of concern as it is a pointer to the likelihood of an outbreak of multi-drug resistant bacterial infections in this part of the world,” said Professor Asad U Khan, the lead author of the research paper describing the finding.

The authors, including Absar Talat, Amina Usmani and Asad U. Khan, noted that Colistin is used against many multidrug-resistant and extremely drug-resistant bacterial infections.

“The emergence of Colistin resistance gene is highly concerning as it may lead to the failure of this last resort antibiotic,” they noted in the paper.

Since the identification of first mobile Colistin resistance (mcr) gene, several variants have been reported, but still there are limited studies detecting mcr in hospital sewage water, the researchers said.

“The prevalence of mcr in the hospital environment is extremely hazardous by putting health care workers, patients, and visitors at a higher risk of exposure. It may lead to a multidrug-resistant bacterial infection outbreak,” the authors added.

The researchers collected six samples from the sewage water from Domkal Super Specialty and Sub divisional Hospital in Domkal, Murshidabad.

The DNA collected from one of the samples on March 21, last year was found to be harbouring the mcr-5.1 gene.

The findings call for attention and further studies in the hospital and clinical settings, the researchers said.

A global surveillance network to detect antibiotic-resistant bacteria employing next generation sequencing technologies will play a pivotal role in determining the future strategies to eliminate the probability of a multidrug-resistant bacterial outbreak, they said.

“The predicted mortality rate of 10 million per year by the year 2050 due to antimicrobial resistance (AMR) is startling and it becomes more minacious for a country like India, which is considered one of the hotspots for AMR,” the authors of the study noted.

“The hospital sewage water of a region is a mirror reflection of the antibiotic resistance genes and the antibiotic-resistant bacteria circulating in its environment,” they added.

Covid infection

**Covid infection may increase risk of Parkinson's, mice study suggests
Parkinson's is a rare disease that affects 2 per cent of population above 55 years (The Tribune:20200621)**

<https://www.tribuneindia.com/news/health/covid-infection-may-increase-risk-of-parkinsons-mice-study-suggests-405461>

Covid infection may increase risk of Parkinson's, mice study suggests

The SARS-CoV-2 virus may increase the likelihood of the brain degeneration found in Parkinson's disease, according to a study in mice.

Covid patients commonly report symptoms such as brain fog, headaches, and insomnia, complications which are not new after a viral infection, the researchers said.

It took nearly a decade for patients to develop the neurological disease known as "post-encephalic parkinsonism" after the 1918 influenza pandemic, they said.

The study, published in the journal *Movement Disorders*, found that the SARS-CoV-2 virus could raise the brain's susceptibility to a toxin that causes the death of nerve cells seen in Parkinson's disease.

"Parkinson's is a rare disease that affects 2 per cent of the population above 55 years, so the increase in risk is not necessarily a cause for panic," said study first author Richard Smeyne, from Thomas Jefferson University, US.

"But understanding how coronavirus impacts the brain can help us prepare for the long-term consequences of this pandemic," Smeyne said.

The study expands on prior findings from the Smeyne lab indicating that viruses can increase the susceptibility of brain cells or neurons to damage or death.

In that study, the researchers discovered that mice exposed to the H1N1 influenza strain that caused the 2009 flu pandemic were more vulnerable to MPTP.

MPTP is a toxin known to cause some of the characteristic symptoms of Parkinson's disease, most notably the loss of neurons that express the chemical dopamine and increased inflammation in the basal ganglia, a brain region that is crucial for movement.

The latest study employed mice that were genetically altered to express the human ACE-2 receptor, which the SARS-CoV-2 virus utilises to get access to the cells in our airways.

These mice were infected with SARS-CoV-2 and then allowed to recover, the researchers said.

The dosage used in this research corresponds to a mild covid infection in people, with around 80 per cent of infected mice surviving, they said.

Thirty-eight days after the surviving mice had recovered, one group was given a modest dosage of MPTP that would not ordinarily trigger neuron loss.

The control group was given saline. The animals were sacrificed and their brains were examined two weeks later.

The researchers found that covid infection alone had no impact on dopaminergic neurons in the basal ganglia.

However, mice given a modest dosage of MPTP after recovering from infection demonstrated the classic pattern of neuron loss found in Parkinson's disease.

This increased sensitivity following covid infection was comparable to what was reported in the influenza trial, suggesting that both viruses might cause an equal increase in the risk of developing Parkinson's.

"We think about a 'multi-hit' hypothesis for Parkinson's -- the virus itself does not kill the neurons, but it does make them more susceptible to a 'second hit', such as a toxin or bacteria or even an underlying genetic mutation," Smeyne explained.

Both influenza and SARS-CoV2 have been found to cause a "cytokine storm" or an overproduction of pro-inflammatory chemicals.

These chemicals can cross the blood-brain barrier and activate the brain's immune cells – microglia.

The researchers found increased numbers of activated microglia in the basal ganglia of mice that recovered from SARS-CoV2 and received MPTP.

While the mechanism is not fully understood, they believe the increased microglia inflame the basal ganglia and cause cellular stress. This then lowers the neurons' threshold to withstand subsequent stress.

"We were concerned about the long-term consequences of viral infection," said Peter Schmidt, a neuroscientist from New York University in the US, who co-led the study.

The researchers are planning to determine whether vaccines can mitigate the experimental increase in Parkinson's pathology linked to prior SARS-CoV-2 infection.

They are also testing other variants of the virus, as well as doses that correspond to milder cases in humans.

International Yoga Day LIVE updates

International Yoga Day LIVE updates: Yoga no longer just a part of life, it's a way of life, says (The Tribune:202000621)

<https://www.tribuneindia.com/news/nation/international-yoga-day-live-updates-yoga-no-longer-just-a-part-of-life-its-a-way-of-life-says-pm-modi-405692>

International Yoga Day LIVE updates: Yoga no longer just a part of life, it's a way of life, says PM Modi

Yoga brings peace to our universe, says PM Modi. Photo credit: Twitter/BJP4India

Yoga brings peace to our universe, Prime Minister Narendra Modi said, as he led the main event of the International Day of Yoga in the backdrop of the iconic Mysuru Palace on Tuesday.

Thousands of people joined the Prime Minister in the mass Yoga demonstration here.

"This whole universe starts from our own body and soul. The universe starts from us", Modi said. "And, Yoga makes us conscious of everything within us and builds a sense of awareness".

"Yoga brings peace for us. The peace from yoga is not merely for individuals. Yoga brings peace to our society. Yoga brings peace to our nations and the world. And, Yoga brings peace to our universe", the Prime Minister said.

10:15 21 Jun

Chandigarh Administrator Purohit performs yoga at Rock Garden

Residents of Chandigarh on Tuesday participated in the eighth International Yoga Day celebrations at the famed Rock Garden that was presided over by the Union Territory's Administrator Banwarilal Purohit. Union Minister of State for Commerce and Industry, Som Parkash was the guest of honour. Besides the Rock Garden, the administration celebrated the Yoga day at 74 other sites too, including wellness centres and hospitals, Chandigarh Industrial and Tourism Development Corporation Limited (CITCO) hotels, tourist spots such the Terraced Garden, the Sukhna lake and the Sector-10 museum, colleges and Panjab University. Nearly 2,000 people comprising participants from Patanjali, Brahma Kumari's, AYUSH and CRPF personnel performed yoga asanas at the Rock Garden.

09:27 21 Jun

People have understood importance of healthy lifestyle based on yoga: Gujarat CM

Ahmedabad: Gujarat Chief Minister Bhupendra Patel and Union Minister of State for Finance Dr Bhagwat Karad led a crowd of nearly 7,500 people in performing yoga on Tuesday morning at the Sabarmati Riverfront in Ahmedabad on the occasion of the International Yoga Day.

Positivity rate

Positivity rate past 10% as testing drops; 97% hospital beds still free (Hindustan Times:202000621)

Positivity rate past 10% as testing drops; 97% hospital beds still free

<https://epaper.hindustantimes.com/Home/ShareArticle?OrgId=216a764a1d0&imageview=0>

The Covid-19 test positivity rate in Delhi crept past 10% on Monday for the first time since end-January this year on the back of a dip in the number of collected samples, showed data released by the state government.

However, hospitalisations of the infection continue to remain minimal, and most beds in reserved facilities were vacant on Monday, reaffirming the milder nature of infections caused by the Omicron variant of the coronavirus that's dominant in Delhi at the moment.

Delhi added 1,060 infections on Monday, down from 1,530 cases on Sunday, a fall that came on the back of a sharp dip in testing, a usual feature over the weekend.

The case spike came after 10,506 tests were conducted on Sunday, with 10.09% samples returning positive results, the highest this number has been since January 26 this year. On that day, 10.59% of the tested samples returned positive results, according to the state bulletin.

In comparison, 17,908 tests were conducted in the Capital on Sunday.

Still, nearly 97.5% of Delhi's 9,506 hospital beds kept aside for Covid-19 patients were vacant on Monday.

Six people also died of the infection on Monday, according to the bulletin.

Senior officials of the Delhi government's health department said that the high numbers on Monday were most likely an "aberration" and people should not panic unless the numbers show a similar trend in the next few days.

"We are not denying that the Covid spread is on a rise but this is not a time to panic. We are monitoring the cases closely and we are taking all the measures to control the spread," said a health official.

Dr Subhash Giri, medical director, Guru Teg Bahadur Hospital, said 12 Covid-19 patients were admitted to their facility and most of these patients who have required hospital care comprised either senior citizens or people with pre-existing comorbidities. He also said that primarily patients were coming in with symptoms such as fever, sore throat, stuffy nose and weakness. These symptoms, he said, were being experienced for 3-4 days.

"While patients coming into our hospital and to our fever clinics are rising but the share of patients who are requiring hospital admissions with only Covid is very less. In our hospital, in the month of June, we only had two to three patients who were admitted solely for Covid. We are seeing that majority of the patients are recovering in home isolation. That said, I would urge people to get vaccinated, wear masks and practice social distancing and other Covid-appropriate behaviour to avoid getting infected," said Dr Giri.

Dengue cases

Delhi adds 7 dengue cases in a week (Hindustan Times:202000621)

<https://epaper.hindustantimes.com/Home/ShareArticle?OrgId=21667172e9c&imageview=0>

About 32,386 houses were found to have mosquito larvae so far this year, the highest count in at least the past four years.

Delhi has registered seven more dengue cases over the past week taking the overall case count this year to 133 cases, the mosquito borne disease report issued by the Municipal Corporation of Delhi (MCD) on Monday showed. The city also reported 22 malaria and eight chikungunya cases up to June 18, 2022, the report said.

With the capital city already receiving pre-monsoon showers and the monsoon expected to reach Delhi by June-end, the registered count of dengue cases has been on a higher side this year. In comparison, the city had reported 32 dengue cases in 2021 (till June 18), 20 cases in 2020 and 14 cases in 2019, MCD officials said.

However, a senior official from the public health department said the higher case count can be attributed to the significant rise in the number of clinics and hospitals from where case reports are being submitted after dengue was declared a notifiable disease in October last year.

“As rains are about to start in a week or two, people should check their rooftops, and clear unattended objects that can become mosquito breeding locations,” the official said, asking not to be named.

Dengue along with other vector-borne diseases such as chikungunya and malaria were declared to be “notifiable diseases” under the Epidemic Diseases Act, according to a notification issued by the government of Delhi on October 14, 2021.

The declaration of dengue as a notifiable disease now makes it compulsory for all private hospitals and clinics to provide information to the government about any such case that they receive. However, despite the notification, the high proportion of untraced cases, owing to incomplete address and personal details of patients, remains a cause of worry for officials.

The report issued on Monday states that of the 133 reported dengue cases, 84 cases, or about 63% of the total cases, remained untraced.

“The lack of address and communication details of patients becomes an obstacle in taking preventive measures such as sprinkling of larvicides or fogging in the area from where the patient resides,” the official quoted above said.

The action taken report of the corporation shows that 32,386 houses were found to have mosquito larvae so far this year, a count that is the highest in at least the past four years.

“We have issued 33,470 legal notices to property owners and contractors for allowing mosquito-genic conditions and fines have been issued in 3,305 cases,” the MCD official added.

While the Delhi high court in a hearing on May 26, 2022 had asked Delhi to explore the proposal to increase the quantum of fine for mosquito breeding ₹5,000 to ₹50,000, the government is yet to do so.

Last year, Delhi recorded 9,613 dengue cases and 23 fatalities, making it the second worst annual outbreak on record, behind the dengue outbreak of 2015 had led to 60 deaths and 15,867 infections.

Robotic surgery

**Robotic surgery saves 15-year-old with single kidney and cyst
Breakthrough operation in 20-minute window has made us confident about
complex life-saving procedures, says Dr Surender Dabas, Senior Director &
HOD, Surgical Oncology and Robotic Surgery, BLK- Max Super Specialty
Hospital (Indian Express: 202000621)**

<https://indianexpress.com/article/lifestyle/health/robotic-surgery-single-kidney-cyst-7980594/>

The case was also challenging given the small frame of the child and smaller abdomen (File Photo/Representational)

Fifteen-year-old Deepali never knew she was living on one kidney till about two years ago. She had a lingering dull pain on her left flank on and off while growing up. But it was only over the past two years that she felt a pinching pain that would last 10 minutes. It was only when the frequency of these episodes increased that she consulted a doctor. That's when she found that she was born with development abnormalities that caused both her kidneys to fuse together on the left side. Which means she technically had one kidney and no right kidney. Not only that, she had a tennis ball-sized cyst, which doctors at BLK-Max Super Speciality Hospital have now removed with robotic surgery, saving her unique kidney, avoiding a transplant and gifting her a new life.

Mental health

**How to prioritise mental health by giving your mind some rest
"When you don't allow your mind to pause and recharge, it doesn't operate
as well," said nutritionist Bhakti Kapoor (Indian Express: 202000621)**

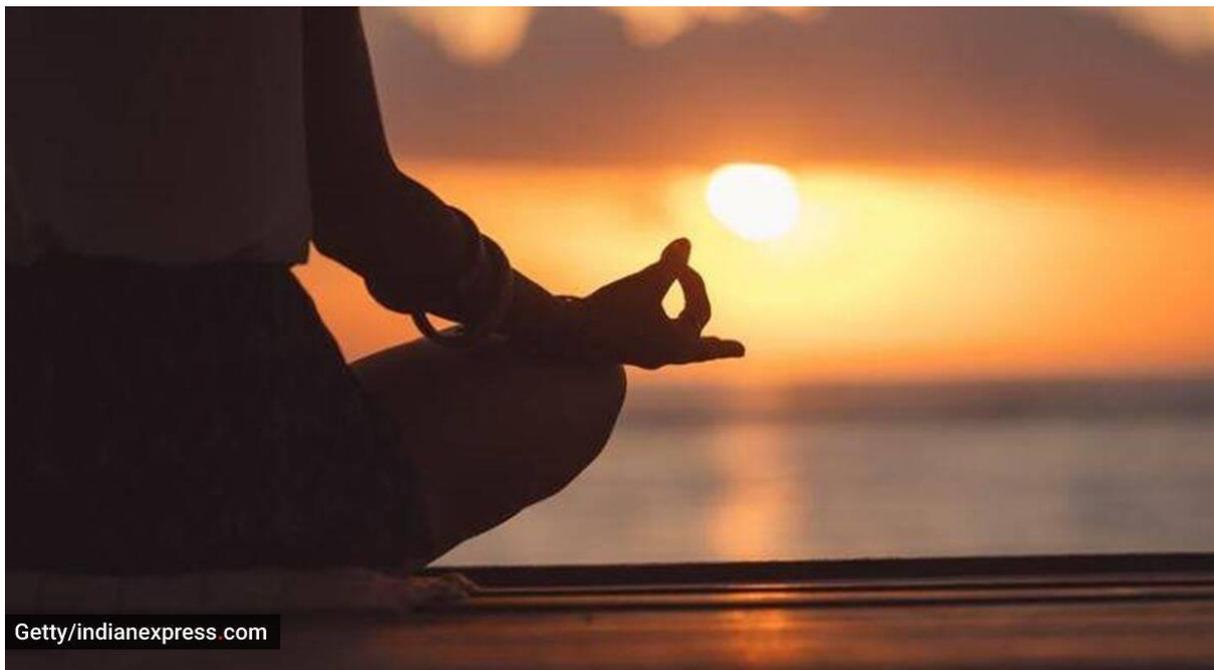
<https://indianexpress.com/article/lifestyle/health/prioritise-mental-health-mind-rest-7978989/>

Just like the rest of the organs of the body, the mind needs rest, too. It is the most active organ which is always buzzing with information — something is constantly being processed, filtered out, and registered.

WHO

Integrate yoga into community based well-being initiatives: WHO

It has been shown to have immediate psychological effects, decreasing anxiety and stress, and increasing feelings of emotional and social well-being (Indian Express: 202000621)



Throughout the COVID-19 response, yoga has helped hundreds of millions of people from all countries and cultures stay healthy and well (Source: Getty Images/Thinkstock)

On the eve of the International Day of Yoga (IDY), the WHO on Monday said policymakers should consider integrating yoga into community-based mental health and well-being initiatives while increasing efforts to leverage the potential of safe and effective traditional medicine.

Stress-related illness

Why stress-related illness is so hard to diagnose, and how a patient-centred playful approach can help

While it is known that stress and social and economic disparities make people sick, physicians do not have the necessary tools to fix those causes of illness(Indian Express: 202000621)

<https://indianexpress.com/article/lifestyle/health/why-stress-related-illness-is-so-hard-to-diagnose-and-how-a-patient-centred-playful-approach-can-help-7947395/>

stressWhy stress-related illness is hard to diagnose, get to know everything about it here. (Source: Getty Images/Thinkstock)

For at least three decades, researchers have gathered evidence that chronic stress puts pressure on the body to constantly adjust itself to restore physiological stability. This process is known as allostatic load and it creates a cascade of toxic metabolic activities that cause wear and tear on the body.

FDA authorises first COVID-19 shots for infants

FDA authorises first COVID-19 shots for infants, preschoolers (The Hindu: 202000621)

<https://www.thehindu.com/sci-tech/health/fda-authorizes-1st-covid-19-shots-for-infants-preschoolers/article65537480.ece>

Centers for Disease Control and Prevention recommends how to use vaccines and its vaccine advisers are set to discuss the shots Friday and vote on Saturday.

U.S. regulators on Friday authorised the first COVID-19 shots for infants and preschoolers, paving the way for vaccinations to begin next week.

The Food and Drug Administration's action follows its advisory panel's unanimous recommendation for the shots from Moderna and Pfizer. That means U.S. kids under 5 — roughly 18 million youngsters — are eligible for the

Vaccination advisory group

Vaccination advisory group recommends reducing COVID-19 booster dose gap to 6 months (The Hindu: 202000621)

<https://www.thehindu.com/sci-tech/health/ntagi-recommends-reducing-covid-booster-dose-gap-to-6-months/article65534281.ece>

Health Ministry will take the final call on the National Technical Advisory Group on Immunisation recommendation soon.

The Standing Technical Sub-Committee (STSC) of the NTAGI (National Technical Advisory Group on Immunisation) on Thursday recommended reducing the gap between the second and precaution doses of COVID-19 vaccines from the current nine to six months, official sources said.

They said the Health Ministry will take the final call on the recommendation soon.

Alzheimer's disease

Alzheimer's disease can be diagnosed with single brain scan (New Kerala: 20220621)

London, June 20: During new research, researchers used a machine learning technology to look into the structural features within the brain, including the areas w-> View it--> <https://www.newkerala.com/news/2022/81605.htm>

'Powerful clinical strategy'

New discovery of 'powerful clinical strategy' for treating heart disease (New Kerala: 20220621)

: Researchers at the University of Houston revealed a new technology that not only repairs heart muscle cells in mice but also regenerates-> View it-->

<https://www.newkerala.com/news/2022/81581.htm>

Antibodies

A glucose meter could soon say if you have antibodies against Covid (New Kerala: 20220621)

A team of US researchers have developed a simple, glucose-meter-based test that can be used to accurately monitor our own antibody levels to -> View it-->

<https://www.newkerala.com/news/2022/81369.htm>

Prenatal or postnatal yoga

Only 7pc of mothers actually practice prenatal or postnatal yoga (New Kerala: 20220621)

A Prenatal Yoga Survey on the occasion of the upcoming International Day of Yoga revealed the benefits and practice of prenatal and postnatal y-> View it-->
<https://www.newkerala.com/news/2022/81350.htm>

Postpartum depression

Postpartum depression affects dads too (New Kerala: 20220621)

If you thought only women faced depression during pregnancy and post birth, you may be wrong. New research shows men also face severe mood changes in the period surrounding -> View it--> <https://www.newkerala.com/news/2022/81218.htm>

Kidney disease

Study finds new algorithm that can identify people with Kidney disease risk (New Kerala: 20220621)

A new algorithm can analyse thousands of mutations across the genome and determine a person's risk of getting chronic kidney disease, acco-> View it--> <https://www.newkerala.com/news/2022/81195.htm>

International Yoga Day

International Yoga Day: दिल्ली में ऐसे मनाया गया योग दिवस, राष्ट्रपति से लेकर आम जनता तक ने किया योग Amar Ujala:20220621)

<https://www.amarujala.com/photo-gallery/delhi/international-yoga-day-2022-celebrated-in-delhi-see-pictures?pageId=8>

पूरी दुनिया में 21 जून का दिन योग दिवस के रूप में मनाया जाता है। योग के विशेष महत्व को दुनिया के सामने लाने के लिए आज का दिन इसके नाम किया गया है। प्रधानमंत्री मोदी भी अक्सर योग के फायदे गिनाते नजर आते हैं। इसी का असर है कि आज देश भर के कोने कोने में योग दिवस मनाया जा रहा है। तस्वीरों में देखिए राजधानी दिल्ली में कैसे मनाया गया योग दिवस -

राष्ट्रपति रामनाथ कोविंद ने राष्ट्रपति भवन में योग दिवस मनाया। उन्होंने कहा कि योग हमारी प्राचीन भारतीय विरासत का एक हिस्सा है। मानवता के लिए भारत का उपहार, यह स्वास्थ्य और कल्याण के लिए एक समग्र दृष्टिकोण है, जो हमारे मन, शरीर और आत्मा को संतुलित करता है।

इस मौके पर दिल्ली पुलिस के कमिश्नर राकेश अस्थाना ने भी पुलिसकर्मियों और अधिकारियों के साथ योग किया।

रक्षा मंत्री राजनाथ सिंह ने विश्व योग दिवस के मौके पर योग किया।

लोक सभा अध्यक्ष ओम बिरला ने संसद भवन के परिसर में अन्य सांसदों के साथ योग किया।

विदेश मंत्री डॉ. एस जयशंकर ने विभिन्न देशों के राजनयिकों के साथ पुराना किला परिसर में योग दिवस मनाया।