



# DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY  
Monday 20201011

## **COVID virus can survive on phone screens for 4 weeks:**

### **COVID virus can survive on phone screens for 4 weeks: Study (The Tribune: 20201011)**

<https://www.tribuneindia.com/news/health/covid-virus-can-survive-on-phone-screens-for-4-weeks-study-154314>

COVID virus can survive on phone screens for 4 weeks: Study

SARS-CoV-2, the virus responsible for Covid-19 can remain infectious on surfaces for long periods of time as researchers at Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia's national science agency, have found that it can survive for up to 28 days on common surfaces including banknotes, glass such as that found on mobile phone screens, and stainless steel.

The research, undertaken at the Australian Centre for Disease Preparedness (ACDP) in Geelong, found that SARS-CoV-2 survived longer at lower temperatures and tended to survive longer on non-porous or smooth surfaces such as glass, stainless steel and vinyl, compared to porous complex surfaces such as cotton.

The study, published in Virology Journal, showed that the virus survived longer on paper banknotes than plastic banknotes.

"While the precise role of surface transmission, the degree of surface contact and the amount of virus required for infection is yet to be determined, establishing how long this virus remains viable on surfaces is critical for developing risk mitigation strategies in high contact areas," said one of the study authors Debbie Eagles, Deputy Director of ACDP.

"How long they can survive and remain infectious depends on the type of virus, quantity, the surface, environmental conditions and how it's deposited - for example touch vs droplets emitted by coughing," said Professor Trevor Drew, Director of ACDP

"Proteins and fats in body fluids can also significantly increase virus survival times." CSIRO Chief Executive Larry Marshall said surface survivability research builds on the national science agency's other Covid-19 work, including vaccine testing, wastewater testing, Personal Protective Equipment (PPE) manufacture and accreditation, and big data dashboards supporting each state.

"Establishing how long the virus really remains viable on surfaces enables us to more accurately predict and mitigate its spread, and do a better job of protecting our people," Marshall said.

"Together, we hope this suite of solutions from science will break down the barriers between us, and shift focus to dealing with specific virus hotspots so we can get the economy back on track." The research involved drying virus in an artificial mucus on different surfaces, at concentrations similar to those reported in samples from infected patients and then re-isolating the virus over a month.

Further experiments were carried out at 30 and 40 degrees Celsius, with survival times decreasing as the temperature increased.

The study was also carried out in the dark, to remove the effect of UV light as research has demonstrated direct sunlight can rapidly inactivate the virus.

"Our results show that SARS-CoV-2 can remain infectious on surfaces for long periods of time, reinforcing the need for good practices such as regular handwashing and cleaning surfaces," Eagles said.

"At 20 degrees Celsius, which is about room temperature, we found that the virus was extremely robust, surviving for 28 days on smooth surfaces such as glass found on mobile phone screens and plastic banknotes.

"For context, similar experiments for Influenza A have found that it survived on surfaces for 17 days, which highlights just how resilient SARS-CoV-2 is," Eagles said.

## **BCG vaccine**

### **UK study tests if BCG vaccine protects against COVID (The Tribune: 20201011)**

<https://www.tribuneindia.com/news/health/uk-study-tests-if-bcg-vaccine-protects-against-covid-154226>

Bacillus Calmette-Guérin (BCG) vaccine, used to protect against tuberculosis, induces a broad innate immune-system response

UK study tests if BCG vaccine protects against COVID

Bacillus Calmette-Guérin (BCG) vaccine, used to protect against tuberculosis, induces a broad innate immune-system response

The widely used BCG tuberculosis vaccine will be tested on frontline care workers in Britain for its effectiveness against COVID-19, researchers running the UK arm of a global trial said.

Bacillus Calmette-Guérin (BCG) vaccine, used to protect against tuberculosis, induces a broad innate immune-system response and has been shown to protect against infection or severe illness with other respiratory pathogens.

"BCG has been shown to boost immunity in a generalised way, which may offer some protection against COVID-19," Professor John Campbell, of the University of Exeter Medical School, said.

"We are seeking to establish whether the BCG vaccine could help protect people who are at risk of COVID-19. If it does, we could save lives by administering or topping up this readily available and cost-effective vaccination." The UK study is part of an existing Australian-led trial, which launched in April and also has arms in the Netherlands, Spain and Brazil. The BCG vaccine is also being tested as protection against COVID-19 in South Africa.

The British trial is recruiting volunteers ahead of winter months that officials have warned may be tough as the country grapples with the second wave of infections.

UK Prime Minister Boris Johnson has indicated that restrictions to curb the pandemic could be in place until spring.

The trial's UK arm, which is being run from Exeter, southwest England, is seeking to recruit 1,000 people who work in care homes and community healthcare nearby.

Globally, more than 10,000 healthcare staff will be recruited.—Reuters

## **Mental illness**

### **Elderly have positive attitude towards mental illness: PGI study (The Tribune: 20201011)**

<https://www.tribuneindia.com/news/health/elderly-have-positive-attitude-towards-mental-illness-pgi-study-154039>

A study of the Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh, has found that the elderly in the northern rural Haryana, in general, have a positive attitude towards mental illness and have a lower level of stigma associated with it.

The study was carried out at the Civil Hospital of Naraingarh in Ambala by the treating team of psychiatry, which had received complaints from the local people that people were not taking

treatment for mental health-related ailments and some were being mistreated at home or were visiting local quacks.

The research team evaluated 104 adults aged 60 or above from a rural background visiting a general outpatient's clinic at the Civil Hospital as attendants of patients on community attitudes toward the Mentally Ill (CAMI) scale, developed to measure community attitudes towards people with mental illness to measure the extent of stigma for mental disorders among the older adults.

The scale consisted of 40 attitudinal statements which were put to participants. They were further divided into four subscales — "authoritarianism", which is a view of the mentally ill person as someone who is inferior and requires supervision and coercion; "benevolence", which corresponds to a humanistic and sympathetic view towards sick mentally persons; "social restrictiveness", which reflects the belief that mentally ill patients are a threat to society and should be avoided; and "community mental health ideology", which is the acceptance of mental health services and the integration of mentally ill patients in the community.

Over 45 per cent people agreed that most women who were once patients in a mental hospital could be trusted as baby sitters, but 26 per cent disagreed and 3.8 per cent strongly disagreed.

Over 56 per cent agreed that anyone could be mentally ill, while 57.7 per cent disagreed that the best way to handle them is to keep them behind locked doors.

As many as 36.5 per cent agreed that mentally ill are a burden, but more 45.2 per cent disagreed too.

Also, 59.6 per cent agreed that mentally ill are subject of ridicule for long, and 45.2 per cent agreed that mental hospitals are outdated means of treating the mentally ill.

## **Blocking immune system**

### **Blocking immune system pathway may stop Covid-19: Johns Hopkins study (The Tribune: 20201011)**

<https://www.tribuneindia.com/news/health/blocking-immune-system-pathway-may-stop-covid-19-johns-hopkins-study-153834>

Researchers believe that inhibiting protein known as Factor D will also curtail the potentially deadly inflammatory reactions

Blocking immune system pathway may stop Covid-19: Johns Hopkins study

Protective face masks and face shields are on display at a market, as the coronavirus disease outbreak continues, in Vienna on October 10, 2020. Reuters

As the world waits eagerly for an effective vaccine against the Covid-19 virus, researchers are also focusing on better understanding of how the virus attacks the body in the quest for other means of stopping its devastating impact.

The key to one possibility—blocking a protein that enables the virus to turn the immune system against healthy cells—has been identified in a recent study by a team of Johns Hopkins University researchers.

Based on their findings published in the journal ‘Blood’, the researchers believe that inhibiting the protein known as Factor D will also curtail the potentially deadly inflammatory reactions that many patients have to the virus.

Scientists already know that spike proteins on the surface of the SARS-CoV-2 virus—making the pathogen look like the spiny ball from a medieval mace—are the means by which it attaches to cells targeted for infection.

To do this the spikes first grab hold of heparan sulfate, a large, complex sugar molecule found on the surface of cells in the lungs, blood vessels and smooth muscle making up most organs.

Facilitated by its initial binding with heparan sulfate, SARS-CoV-2 then uses another cell-surface component, the protein known as angiotensin-converting enzyme 2 (ACE2), as its doorway into the attacked cell. The Johns Hopkins medicine team discovered that when SARS-CoV-2 ties up heparan sulfate, it prevents Factor H from using the sugar molecule to bind with cells.

Factor H’s normal function is to regulate the chemical signals that trigger inflammation and keep the immune system from harming healthy cells. Without this protection, cells in the lungs, heart, kidneys and other organs can be destroyed by the defence mechanism nature intended to safeguard them.

“Previous research has suggested that with tying up heparan sulfate, SARS-CoV-2 activates a cascading series of biological reactions—what we call the alternative pathway of complement or APC—that can lead to inflammation and cell destruction if misdirected by the immune system at healthy organs,” said the study’s senior author Robert Brodsky.

The APC is one of the three chain reaction processes involving the splitting and combining of more than 20 different proteins—known as complement proteins—that usually gets activated when bacteria or viruses invade the body.

In a series of experiments, the research team used normal human blood serum and three sub-units of the SARS-CoV-2 spike protein to discover exactly how the virus activates the APC, hijacks the immune system and endangers normal cells.

They discovered that two of the sub-units called S1 and S2 are the components that bind the virus to heparan sulfate—setting off the APC cascade and blocking Factor H from connecting with sugar—and in turn disabling the complement regulation by which Factor H deters a misdirected immune response.

“We found that by blocking another complement protein known as Factor D which works immediately upstream in the pathway from Factor H, they were able to stop the destructive chain of events triggered by SARS-CoV-2,” the authors wrote. — IANS

## **Hand-sanitisers**

### **Excessive use of hand-sanitisers may boost antimicrobial resistance, warns AIIMS (The Tribune: 20201011)**

<https://www.tribuneindia.com/news/health/excessive-use-of-hand-sanitisers-may-boost-antimicrobial-resistance-warns-aiims-153824>

By 2050, about 10 million human lives can be at risk every year if we do not manage the increasing drug resistance, say experts

Excessive use of hand-sanitisers may boost antimicrobial resistance, warns AIIMS  
Photo for representational purpose only.

Increased usage of antibiotics during Covid-19 can lead to more antimicrobial resistance, health experts of the All India Institute of Medical Sciences said, adding that the widespread use of hand-sanitisers and antimicrobial soaps can further worsen the situation.

Antimicrobial resistance is the ability of a pathogenic microbe to develop a resistance to the effects of an antimicrobial medication. It has been estimated that by 2050, about 10 million human lives could be at risk every year if drug resistance is not managed.

Various aspects of antimicrobial resistance were discussed in a two-day international webinar on antibiotic resistance jointly organised by the All India Institute of Medical Sciences and American Society for Microbiology.

The webinar was organised by Dr Rama Chaudhry, Professor and Head of AIIMS's Department of Microbiology, International Ambassador of American Society for Microbiology to India and her team – Dr Bimal Kumar Das, Dr Sarita Mohapatra, Dr Gagandeep Singh, Dr Hitender Gautam and Dr Nishant Verma.

In the webinar, the health experts talked about how the Covid-19 pandemic has jolted the entire world and significantly impacted the focus of health facilities towards antimicrobial resistance.

"It has been estimated that as we reach the year 2050, about 10 million human lives could be at risk every year if we do not manage the increasing drug resistance. The widespread use of hand sanitisers and antimicrobial soaps which has especially increased multifold during the Covid-19 pandemic can worsen the situation," said the experts.

They went on to say that antibiotic-resistant organisms have become rigidly established in our environment with many infections failing to respond to currently available antimicrobials. The antimicrobial resistance has outpaced the development of newer antimicrobials.

The health experts added that there is an urgent need to explore the alternative therapies. "The importance of these non-conventional and alternative therapeutic approaches like bacteriophages, endolysins, nanoparticles, probiotics and antimicrobial peptides are needed."

Antimicrobial resistance is one of the biggest challenges of modern medicine. It mounts problems beyond the geographical as well as species barriers and can transmit from animals to humans.

The webinar was inaugurated by the Guest of Honour and AIIMS Director Randeep Guleria, and Chief Guest Dr Sujeet Kumar Singh, Director of National Centre for Disease Control.

It also covered a vast range of topics from esteemed speakers from the Centre for Disease Control, World Health Organisation, Indian Council of Medical Research, PGIMER Chandigarh, and IIT Roorkee.

Various aspects of antimicrobial resistance were discussed, including surveillance, one health approach, role of whole genome sequencing, including alternative therapies.

Both the days concluded with very interesting and informative panel discussions moderated by Dr Pallab Ray from PGIMER, Chandigarh, and Dr Rama Chaudhry from the AIIMS. IANS

## **'Emotional Health'**

### **Facebook 'Emotional Health' tool now available in India (The Tribune: 20201011)**

<https://www.tribuneindia.com/news/health/facebook-emotional-health-tool-now-available-in-india-153769>

Facebook 'Emotional Health' tool now available in India

The partners in India are mental health campaign 'OK to Talk', iCALL Psychosocial Helpline and The Live Love Laugh Foundation

Facebook on Saturday said its centralised resource centre called Emotional Health, launched this week to help people cope with growing mental health issues in the pandemic, is now available with locally relevant information from its Indian partners.

The partners in India are mental health campaign 'OK to Talk', iCALL Psychosocial Helpline (Tata Institute of Social Sciences), and The Live Love Laugh Foundation that will provide mental health helplines and resources catering to the local needs of users.

"Our Covid-19 Information Centre and Emotional Health, launched ahead of the Mental Health Day on the Facebook app, provides people with access to tips and information from leading experts," said Ajit Mohan, Managing Director and Vice-President, Facebook India.

"We have also launched eight new well-being guides on Instagram, along with partners," he said in a statement.

On Mental Health Day on Saturday, Instagram launched a 'The Real Talk' content series in partnership with the Under25 community and The Artidote.

It's a three-part video series, hosted by the founder of The Artidote, Jovanny Ferreyra, a global mental health advocate.

"While mental health tools, resources and community guidelines are powerful and necessary components of making the social media experience a positive one, the majority of interaction still happens between members of a community," Mohan said.

More than six million people in the Asia-Pacific region are part of over 35,000 active groups dedicated to mindfulness and mental well-being.

"Let's be aware of our own emotions, and acknowledge the impact of this situation on our lives. Reach out for help, without hesitation and any inhibition," Mohan added. — IANS

## **Vaccine**

**India considers using more than one vaccineSingle manufacturer may not be able to fulfil the country's needs, given its huge population; multiple options on the table (Hindustan Times: 20201011)**

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

# The vaccine road map

The Union health ministry has laid down the government's plan to procure and distribute a Covid vaccine when it is available

## ON MULTIPLE VACCINE OPTIONS

"We are open to assessing the feasibility of introducing several Covid-19 vaccines in the country as per their availability for the Indian population."

## ON PRIORITISING DISTRIBUTION

"In a huge country like India, it is critical to prioritise vaccine delivery based on various factors such as the risk of exposure, comorbidity, the mortality rate among Covid-19 cases and several others."

## ON POSSIBLE SPIKE IN CASES

"During winter, there is a tendency of overcrowding in residential dwellings... it would not be wrong to assume that the winter season may see an increase in the number of cases."

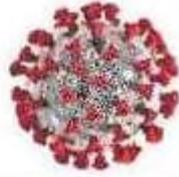
## ON UPCOMING FESTIVE SEASON

"Extraordinary circumstances must draw extraordinary responses. No religion or God says that you have to celebrate in an ostentatious way."

"All Covid-19 vaccines currently in India are in the phases

Dr. Harsh Vardhan clarified that since it is anticipated that

# Tracking the virus



## INDIA

CASES  
**7,119,181**  
(+68,016)

DEATHS  
**109,190**  
(+816)

## DELHI

CASES  
**309,339**  
(+2,780)

DEATHS  
**5,769**  
(+29)



India data compiled by covid19india.org and cross-checked from inputs by HT's correspondents and news agencies

## Rhythmia Kaul

letters@hindustantimes.com

New Delhi : India may have to tie up with more than one vaccine manufacturer to ensure that every one in the country receives protection against the coronavirus disease (Covid-19) when a vaccine becomes available, Union health minister Dr Harsh Vardhan said on Sunday, and stressed the need for making sure that the most vulnerable groups get it first

“Considering the large population size of India, one vaccine or vaccine manufacturer will not be able to fulfil the requirements of vaccinating the whole country. Therefore, we are open to assessing the feasibility of introducing several Covid-19 vaccines in the country as per their availability for the Indian population,” the minister said.

“All Covid-19 vaccines currently in India are in the phases 1, 2 or 3 of trials with results awaited. Adequate safety and efficacy data is required for emergency use authorization vaccine approval for ensuring patient safety. Further course of action will be based on data generated,” he added, responding to people’s queries on his social media accounts as part of the fifth episode of his Sunday Samvaad (dialogue).

Dr. Harsh Vardhan clarified that since it is anticipated that supplies of a Covid-19 vaccine would be available only in limited quantities in the beginning, its administration will have to be prioritised. Of several different types of vaccines being tested, some may be suitable for a particular age group and may not be for others.

“Prioritization of groups for vaccination will be based on two key considerations, first is occupational hazard and the risk of exposure to infection; second is the risk of developing severe disease and risk of increased mortality,” the health minister said. “The Covid vaccines

currently under trial in India are two-dose and three-dose vaccines. While Serum Institute and Bharat Biotech's vaccine candidates are two-dose vaccines, Cadila's is a three-dose vaccine candidate. For other vaccines in preclinical stages the dosing is being tested," he said.

According to the website of the World Health Organisation (WHO), there are currently more than 100 Covid-19 vaccine candidates under development, with scientists, businesses and global healthcare providers racing to find a safe and effective vaccine.

In India, Bharat Biotech International Limited has developed an inactivated whole virion candidate vaccine (BBV152) for Sars-CoV-2, the virus that causes Covid-19. Cadila Healthcare Limited has developed a DNA vaccine for which pre-clinical toxicity studies were conducted in small animals: mice, rats, rabbits and guinea pigs.

Serum Institute of India has entered a manufacturing partnership with AstraZeneca to produce the AstraZeneca-Oxford vaccine candidate in India, for which it is conducting Phase 2/3 trials.

The Central Drugs Standard Control Organisation (CDSCO) has granted test license permission for manufacture of Covid-19 vaccine for preclinical test, examination and analysis to the seven manufacturers in India.

These are Serum Institute of India in Pune, Cadila Healthcare in Ahmedabad, Bharat Biotech in Hyderabad, Biological E Ltd. in Hyderabad, Reliance Life Sciences Private Limited in Mumbai, Aurobindo Pharma Limited in Hyderabad, and Gennova Biopharmaceuticals Limited, Pune

Experts say that more than a vaccine, it is Covid-19 appropriate behaviour that will help prevent the transmission of the respiratory disease.

"The vaccine is far from being available right now, as we really do not know when will it be available and more importantly, how effective it will be. If you look at the influenza vaccines, the efficacy that we get is about 50%. Even after 21 years the vaccine against Hepatitis C, which is an RNA-based virus like Covid-19, is not very effective. So, it is too early to predict about the Covid-19 vaccine at this stage," said Dr GC Khilnani, former head of pulmonology, All India Institute of Medical Sciences, Delhi.

"Developing antibodies is one thing, more important is to know whether those antibodies can actually protect against the infection, which gets known after phase 3 trial data is generated. Phase-3 trial will be crucial but it takes longer for phase 3 trial results to be out; it cannot be expedited. Changing behaviour to make it Covid-19 appropriate is the key, especially with winters coming," he added.

Currently, the key component of the planning for Covid vaccine procurement is the cold chain and other logistics that need to be planned to ensure that no glitches take place in vaccine delivery even at the last mile, the health minister added.

In another development, Dr Harsh Vardhan disclosed that Feluda, a low-cost indigenously developed test that can detect the coronavirus disease (Covid-19) within an hour, is expected to be available for use in the next few weeks. Feluda is said to be nearly as accurate as the gold standard reverse transcription-polymerase chain reaction (RT-PCR) test.

"While I cannot put an exact date on the availability, we should expect this test within the next few weeks," the minister said on Sunday Samvaad.

The paper strip test has been developed by the Council for Scientific and Industrial Research-Institute of Genomics and Integrative Biology (CSIR-IGIB) and has been approved by the Drug

Controller General of India for commercial launch. The kit has already been validated by the Department of Atomic Energy's National Centre for Biological Sciences, Bengaluru.

The test is named after a fictional detective created by the late Satyajit Ray, although it is also an acronym for FNCAS9 Editor-Linked Uniform Detection Assay. It has been developed by senior scientists Dr Debojyoti Chakraborty and Dr Souvik Maiti at CSIR-IGIB.

Based on tests performed on over 2,000 patients during the trials at IGIB and on testing in private labs, the test showed 96% sensitivity and 98% specificity. This compares favourably to ICMR's current acceptance criteria of RT-PCR kit of at least 95% sensitivity and at least 99% specificity. Sensitivity is the ability of a test to correctly identify those with the disease (true positive rate) whereas specificity is the ability of the test to correctly identify those without the disease (true negative rate).

"It has similar accuracy as RT-PCR because it is based on the same PCR concept except it is done on simple machines, not expensive real time PCR ones. The detection system is CRISPR based," said Anurag Agrawal, director, CSIR-IGIB, Delhi.

Feluda uses CRISPR gene-editing technology to identify and target the genetic material of Sars-CoV2.

CRISPR, which is short for Clustered Regularly Interspaced Short Palindromic Repeats, is a gene-editing technology that can be used to detect a specific snippet of DNA from a sequence.

## **Covid-19: What you need to know today**

**So, after eight months of the pandemics run in India, it is now down to good sense. (Hindustan Times: 20201011)**

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

Amid a lot of spin about what has worked for India and what hasn't, and whether or not the government has done a good job in tackling the coronavirus disease (Covid-19), two things stand out.

One, we now know how to keep the viral disease at bay. I don't mean that in jest. We really do. I remember telling a very senior functionary in the government this in mid-August — that if everyone in India wore masks when they were out and about (not just when they thought someone was watching, but even otherwise), the number of cases would fall to a tenth in about four weeks. I meant it directionally, of course — the four could have become five and the tenth could have become an eighth — but I still believe this.

Two, we now know how to save the lives of those infected by the disease. Every passing day increases our knowledge about what works and what doesn't, and our ability to cure even people with severe infection.

Both are universal truths. They apply to every country on the planet — from China, whose numbers remain a mystery, to New Zealand, which has successfully crushed the virus for the

second time (a feat that is expected to play no small part in what political analysts in that country see as a landslide win for Jacinda Ardern in the coming national election), to the US, which now has as many alternate facts about Covid-19 as it does about anything else, and whose President Donald Trump, facing an election in November, is the most prominent world leader to have contracted the disease.

These things matter because India is really opening up.

Even the health minister of Maharashtra, the state worst affected by the pandemic — 40,040 deaths and 1.5 million cases out of India's total of 108,374 deaths and 7.05 million cases till Saturday night — believes that everything in the state, including schools, will be open in some form by the end of November. "Schools are expected to open after Deepavali; railway services are being allowed this month; religious places and gymnasiums too, will be allowed to open in a phased manner. Some activities will be allowed by October-end and the remaining by November-end," Rajesh Tope said on Saturday. "I think, by November-end, everything will be open," he added, for good measure.

The pan-India easing of restrictions on movement and activities comes ahead of the festive season, and with the beginning of the next cycle of elections in India — the Bihar assembly elections and by-elections in 11 states will be held shortly. In the first half of next year, Assam, Kerala, Puducherry, Tamil Nadu, and West Bengal will all go to the polls.

And in the first half of 2022, Goa, Manipur, Uttarakhand, Punjab, and Uttar Pradesh will go to the polls. A Covid-19 vaccine will definitely be available by then, although it is unlikely that everyone in India would have got a shot.

Put otherwise, it's going to be business as usual — except, it won't be. And things can't be left to chance, or the belief (which has usually proved erroneous) that people will always end up doing what is best for them.

Which is why it's important that the Union health ministry and state (and Union Territory) health departments, and the Indian Council of Medical Research do what needs to be done.

On the testing front, they need to mandate the use of accurate rapid tests, even pushing for their use by occasion — ahead of events, for instance, or maybe even ahead of flights — or time (a weekly testing regimen for teachers and students once schools open physically).

On the tracking front, they need to keep a close eye on numbers — at the neighbourhood level in cities, and at the village level elsewhere — and define containment zones at the first hint of trouble.

And on the treatment front, especially with the onset of winter and other strains of flu (especially in central India and the northern plains), they need to ensure that hospitals are geared for an increase in the number of patients (perhaps even an increase in the number of those requiring critical care).

It's not over so there is simply nothing to be gained by pretending it is.

## **Food for peace: On 2020 Peace Nobel (The Hindu: 20201011)**

<https://www.thehindu.com/opinion/editorial/food-for-peace-the-hindu-editorial-on-2020-peace-nobel-for-the-world-food-programme/article32828831.ece>

The Nobel for the World Food Programme highlights multilateralism's benefits. Alfred Nobel's willed legacy to reward exceptional work that furthers fraternity among nations, eliminates or reduces armies and promotes congresses of peace has brought the Nobel Peace Prize to a variety of causes — from abolition of landmines, nuclear and chemical weapons to addressing climate change, besides conflict resolution. This year's prize has been awarded to the World Food Programme (WFP), of the UN system, for its contribution to combating hunger in conflict and disaster-struck sites. The Norwegian Nobel Committee took note of the WFP's life-saving role in the year of the pandemic, staving off catastrophes of hunger in Yemen, Congo, Nigeria, South Sudan and Burkina Faso. The Prize is a fitting tribute to the aid workers who brave hazardous conditions to reach starving people in theatres of war, civil strife and natural disasters, moving food on aircraft, trucks and even all-terrain amphibious vehicles. The decision to honour the WFP echoes the advice of another peace laureate from 1949, Lord John Boyd Orr, the first head of the FAO, that peace cannot be built on empty stomachs. That counsel must resonate even more with all countries and foster greater cooperation to close the WFP's funding gap of \$4.1 billion, as the world's hunger map presents a depressing picture with more than a quarter of the population facing undernourishment in many countries; in strife-ridden Syria, an estimated 4.6 million people survive on food aid. Clearly, without stronger commitment from the big powers, the challenge to feed the millions who suffer acute hunger due to conflict and failed agriculture can never be met.

## **Nerve cell**

### **Research suggests our confidence in decision making is determined by nerve cell activity (New Kerala: 20201011)**

<https://www.newkerala.com/news/2020/179733.htm>

: Researchers, on a different study, unexpectedly found that individual nerve cells in the brain can reveal about the confidence level of an individual while making decisions.

The researchers were actually on the trail of a completely different evaluation mechanism. The study was conducted by researchers at the University of Bonn and published in the journal Current Biology.

Every day humans have to make decisions. Researchers at the University Hospital Bonn have now identified nerve cells in the brain whose activity indicates the confidence in decisions. A total of twelve men and women took part in their experiment.

"We showed them photos of two different snacks, for example, a chocolate bar and a bag of chips. They were then asked to use a slider to indicate which of these alternatives they would rather eat," said Prof. Dr. Florian Mormann from the Department of Epileptology.

The more they moved the slider from its center position towards the left or right photo, the more confident they were in their decision.

Participants had to judge a total of 190 different snack pairs in this way. At the same time, the scientists recorded the activity of 830 nerve cells each in the so-called temporal lobe.

"We discovered that the frequency of the electrical pulses in some neurons, in other words, their 'firing rate', changed with increasing decision confidence," said Mormann's colleague Alexander Unruh-Pinheiro.

"For instance, some fired more frequently, the more confident the respective test person was in their decision," added Pinheiro.

It is the first time that such a correlation between activity and decision confidence has been identified. The affected neurons are located in a brain region that plays a role in memory processes.

"It is possible that we not only store what decision we made, but also how confident we were in it. Perhaps such a learning process saves us from future wrong decisions," said Mormann.

Ethical reasons usually prohibit the study of the state of individual neurons in living humans. However, the participants in the study suffered from a severe form of epilepsy.

In this form of the disease, the characteristic seizures always start in the same area of the brain. One possible treatment is therefore to remove this epileptic focus surgically.

To pinpoint the exact location of the defective site, the doctors at the Clinic for Epileptology implant several electrodes in the patient. These are distributed over the entire potentially affected area. At the same time, they also allow an insight into the functioning of individual nerve cells in the brain.

Researchers at the University of Bonn were originally looking for a completely different phenomenon. When we make a decision, we assign a subjective value to each of the alternatives.

"There is evidence that this subjective value is also reflected in the activity of individual neurons. The fact that we instead came across this connection between fire behavior and decision confidence surprised even us," said Mormann.

## **COVID-19**

### **Pre-existing health conditions enhances fatality risk due to COVID-19(New Kerala: 20201011)**

<https://www.newkerala.com/news/2020/179669.htm>

Certain pre-existing medical conditions including cardiovascular disease, hypertension may increase the risk of death due to COVID-19, according to a study.

Researchers at Penn State College of Medicine say their findings may help public health officials improve patient care and develop interventions that can target these high-risk populations.

The researchers found that cardiovascular disease may double a patient's risk of dying from COVID-19. They also discovered that other pre-existing conditions may increase COVID-19 patient's risk of death by one-and-a-half to three times. The results were recently published in PLOS ONE.

"This study suggests that these chronic conditions are not just common in patients with COVID-19, but their presence is a warning sign to a higher risk of death," said Dr Paddy Ssentongo, a doctoral student in epidemiology at the College of Medicine and research assistant professor in Penn State's Department of Engineering Science and Mechanics. "There is a high prevalence of cardiovascular disease and hypertension around the world and in particular, the US. With the persistence of COVID-19 in the US, this connection becomes crucially important."

The research team conducted a systematic review and meta-analysis of studies published from December 2019 through early July 2020, to determine which chronic conditions put hospitalised patients at risk of dying from COVID-19. They explored 11 co-existing conditions that pose a risk of severe disease and death among COVID-19 patients, including cardiovascular disease, diabetes, high blood pressure, cancer, chronic kidney disease, chronic obstructive pulmonary disease, stroke, congestive heart failure, asthma, chronic liver disease and HIV/AIDS.

Ssentongo and colleagues analyzed data from more than 65,000 patients from 25 studies worldwide. Patients in the selected studies had an average age of 61 years. They found that certain pre-existing health conditions affected survival rates more than others. When compared to hospitalised COVID-19 patients without pre-existing conditions, researchers determined that patients with diabetes and cancer are 1.5 times more likely to die, patients with cardiovascular disease, hypertension and congestive heart failure are twice as likely to die, and patients with chronic kidney disease are three times more likely to die.

"Although the health care community has circulated anecdotal information about the impact of these risk factors in COVID-19 mortality, our systematic review and meta-analysis is the most comprehensive to date that attempts to quantify the risk," said Vernon Chinchilli, distinguished

professor and chair of public health sciences, and senior author of this research. "As the COVID-19 pandemic continues through 2020 and likely into 2021, we expect that other researchers will build on our work."

The researchers said that prior studies exploring the association of pre-existing chronic conditions and COVID-19 mortality had limitations in the number of countries included, the number of studies included and the number of conditions explored. They also said these studies had unaddressed sources of bias that limited the conclusions that can be drawn from them.

"We took an all-inclusive, global approach for this study by examining 11 chronic conditions and including patients from four continents Asia, Europe, North America and Africa," Ssentongo adds. "Research suggests that SARS-CoV-2, the virus that causes COVID-19, may become seasonal and require annual vaccination. Once an approved and effective vaccine is available, high-risk individuals with these pre-existing conditions should receive vaccination priority to prevent high mortality rates."

Even though additional research is needed to fully understand health risks and implications, particularly in understanding the effects of race and ethnicity on COVID-19 survival rates, Ssentongo said these findings can help inform global prevention and treatment strategies.

## **Fatality risk due to COVID-19**

### **Pre-existing health conditions enhances fatality risk due to COVID-19(New Kerala: 20201011)**

<https://www.newkerala.com/news/2020/179669.htm>

Certain pre-existing medical conditions including cardiovascular disease, hypertension may increase the risk of death due to COVID-19, according to a study.

Researchers at Penn State College of Medicine say their findings may help public health officials improve patient care and develop interventions that can target these high-risk populations.

The researchers found that cardiovascular disease may double a patient's risk of dying from COVID-19. They also discovered that other pre-existing conditions may increase COVID-19 patient's risk of death by one-and-a-half to three times. The results were recently published in PLOS ONE.

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## **Holistic fitness**

### **Ensuring holistic fitness of mind, body (New Kerala: 20201011)**

<https://www.newkerala.com/news/2020/179571.htm>

The truth is that our body and mind are not separate identities, they are one. Our mind is our subtle self while our bodies are the gross self.

On an average we have sixty to seventy thousand thoughts in a day and a large percentage of these thoughts are stressful especially during the current times, points out Reebok Mind Coach Vrinda Mehta.

This excessive stress energy is connected to almost all lifestyle diseases such as diabetes, hypertension, cardiovascular diseases, obesity, depression, anxiety and much more, she says.

We cannot always control what happens around us but what happens within us can be brought under our control with true knowledge, diligent practice, and patience. "Just like we follow a healthy diet and a regular exercise routine for physical fitness we need to have a healthy mental diet of positive thoughts, emotions and regular breathing exercise or pranayama to ensure mental wellbeing."

As the World marked Mental Health Day on October 10, she shares a few simple tips how mental health can be kept in check through positive life habits.

Begin your day with the 5 basic Pranayama or breathing techniques The Bhastrika, Kapalbhathi, Anulomvilom, Bhramri and Udgeeth Pranayams. According to the yogic science, our mind and our breathing are directly connected.

Include positive affirmations in your pranayama routine.

Become aware of your breath. Get into the habit of taking slow deep breaths especially when you are stressed out.

Surround yourself with positive people. Think and talk about positive things.

Keep a gratitude journal. Make a habit of writing down 5 things that you are grateful for each day.

Connect with nature. Get some sunshine as it is a powerful electromagnetic energy that helps in cleansing and rejuvenation. Reconnect with mother earth by walking barefooted on grass/sand to destress.

Listen to calming soothing music to relieve stress.

Get proper sleep by going to bed and waking up at the same time every day and staying away from electronic gadgets before bedtime.

Consciously develop a habit of being positive in any given scenario and truly grateful for all that you already have.

## Corona (Hindustan: 20201011)

[https://epaper.livehindustan.com/imageview\\_372363\\_52210374\\_4\\_1\\_12-10-2020\\_3\\_i\\_1\\_sf.html](https://epaper.livehindustan.com/imageview_372363_52210374_4_1_12-10-2020_3_i_1_sf.html)

यूनिवर्सिटी कॉलेज ऑफ लंदन के वैज्ञानिकों के अध्ययन से खुलासा, सर्दी-खांसी की जगह दूसरे कई संकेत दिखने लगे

# चिंता: शरीर के दूसरे अंगों में उभर रहे कोरोना के नए लक्षण

नई दिल्ली | हिन्दुस्तान न्यूज़

कोरोना वायरस संक्रमण के 80 प्रतिशत मरीजों में खांसी, जुकाम और बुखार जैसे सामान्य लक्षण अब नहीं दिखते हैं। यूनिवर्सिटी कॉलेज ऑफ लंदन के वैज्ञानिकों ने अपने शोध में पाया है कि अब शरीर में दिख रहे लक्षण दूसरे महत्वपूर्ण अंगों से जुड़े हैं। इससे पता चलता है कि वायरस कितना खतरनाक रूप ले चुका है।

**दस में से दो मरीजों के भर्ती होने का खतरा:** यूनिवर्सिटी कॉलेज ऑफ लंदन के शोधकर्ताओं का कहना है कि कोविड-19 का असर भले अलग-अलग मरीजों के शरीर में अलग-अलग अंगों पर दिख रहा हो पर उनमें से बहुत कम मामलों के गंभीर होने की आशंका रहती है। संक्रमण के उच्च जोखिम वाले बुजुर्गों में भी इन लक्षणों के कारण अस्पताल में भर्ती होने की संभावना मात्र दस में से दो है।

**कार्यक्षमता घट जाएगी:** शोधकर्ताओं ने पाया कि मरीजों के ठीक होने के बाद भी कई परेशानियों का सामना करना पड़ सकता है।

**25** मरीजों में से एक की आंख की रोशनी घटती है

**10** फीसदी मरीजों के शरीर में दिखने लगती हैं झुर्रियां

**हृदयरोगी की समस्या:** सी में से तीन मामलों में हृदयरोग से जुड़ी समस्याएं पैदा हो जाती हैं। दस प्रतिशत से कम मरीजों के शरीर में झुर्रियां पड़ने लगती हैं। हर दसवें मरीज के पैर के अंगूठे में सूजन आ जाती है।

**दिमाग से लेकर नाखूनों तक पर इसका असर**

अब कोरोना का असर सिर्फ सांस लेने में तकलीफ जैसे लक्षण तक सीमित नहीं है। 80 फीसदी संक्रमित मरीजों के मस्तिष्क, हृदय, फेफड़े, जोड़, आंखों की रोशनी, श्रवणशक्ति, चेतना, त्वचा, सूघने और स्वाद से जुड़ी इंद्रियां और उंगलियों के नाखूनों तक पर इसका असर दिख रहा है।

वैज्ञानिकों का यह भी कहना है कि इस संक्रमण से ठीक होने के बाद भी लोगों के जीवन की गुणवत्ता और कार्यक्षमता में कमी आ सकती है।

**➤ 60 लाख स्वस्थ पेज 13**

**एक-तिहाई मरीजों के झड़ जाते हैं बाल**

शोधकर्ताओं ने पाया कि कोविड-19 के कारण एक-तिहाई मरीजों के बाल झड़ जाते हैं। वहीं, सौ मरीजों में से छह के मस्तिष्क पर असर पड़ता है। 25 मरीजों में एक मरीज की आंखों की रोशनी घट जाती है।

**ठीक होने पर भी काम करना कठिन**

कोविड-19 से ठीक होने के कई महीनों के बाद भी अगर वह व्यक्ति लंबे वक़्त तक बैठकर काम करता है तो उसकी सांस तीन गुना तेजी से चलने का खतरा पैदा हो जाएगा। उसकी मौत हो सकती है।