



# DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY  
Tuesday 20210119

## Coronavirus variant

**New evidence suggests South African coronavirus variant binds more readily to human cells (The Tribune: 20210119)**

<https://www.tribuneindia.com/news/health/new-evidence-suggests-south-african-coronavirus-variant-binds-more-readily-to-human-cells-200244>

Variant identified by South African genomics experts late last year more infectious

New evidence suggests South African coronavirus variant binds more readily to human cells

Photo for representational purpose.

Scientists have new biological evidence that the so-called South African coronavirus variant binds more readily and strongly to human cells, making it more infectious, top local epidemiologist Salim Abdool Karim said on Monday.

He was speaking at a presentation of research into the variant, known as 501Y.V2, by a team of scientists. The variant was identified by South African genomics experts late last year. Reuters

## Bowel syndrome

**This is what causes stomach discomfort in irritable bowel syndrome patients (The Tribune: 20210119)**

<https://www.tribuneindia.com/news/health/this-is-what-causes-stomach-discomfort-in-irritable-bowel-syndrome-patients-200192>

Researchers have identified the biological mechanism that explains why some people experience abdominal pain when they eat certain foods.

According to the researchers, up to 20 per cent of the world's population suffers from the irritable bowel syndrome (IBS), which causes stomach pain or severe discomfort after eating.

The researchers revealed a mechanism that connects certain foods with activation of the cells that release histamine (called mast cells), and subsequent pain and discomfort.

"With these new insights, we provide further evidence that we are dealing with a real disease," said researcher Guy Boeckxstaens, Professor at Katholieke Universiteit Leuven in Belgium.

In a healthy intestine, the immune system does not react to foods, so the first step was to find out what might cause this tolerance to break down, according to the study published in the journal Nature.

Since people with IBS often report that their symptoms began after a gastrointestinal infection, such as food poisoning, the researchers started with the idea that an infection while a particular food is present in the gut might sensitise the immune system to that food.

They infected mice with a stomach bug, and at the same time fed them ovalbumin, a protein found in egg white that is commonly used in experiments as a model food antigen.

An antigen is any molecule that provokes an immune response. Once the infection cleared, the mice were given ovalbumin again, to see if their immune systems had become sensitised to it.

The results were affirmative -- the ovalbumin on its own provoked mast cell activation, histamine release, and digestive intolerance with increased abdominal pain. This was not the case in mice that had not been infected with the bug and received ovalbumin.

The researchers then went on to see if people with IBS reacted in the same way.

When food antigens associated with IBS (gluten, wheat, soy and cow milk) were injected into the intestine wall of 12 IBS patients, they produced localised immune reactions similar to that seen in the mice. No reaction was seen in healthy volunteers. IANS

## **Vaccinate**

### **Not right' to vaccinate young before old: WHO (The Tribune: 20210119)**

<https://www.tribuneindia.com/news/health/not-right-to-vaccinate-young-before-old-who-200188>

'Only 25 vaccine doses provided in a single poor country, while over 39 million doses administered in nearly 50 richer nations'

The head of the World Health Organisation says it's "not right" that younger, healthier adults in rich countries get vaccinated against COVID-19 before older people in poorer countries.

Director-General Tedros Adhanom Ghebreyesus kicked off WHO's week-long executive board meeting—virtually from its headquarters in Geneva—on Monday by lamenting that only 25 vaccine doses have been provided in a single poor country, while over 39 million doses have been administered in nearly 50 richer nations.

"Just 25 doses have been given in one lowest income country—not 25 million, not 25,000 -- just 25. I need to be blunt," Tedros said. He did not specify the country.

Tedros, an Ethiopian who goes by his first name, nonetheless hailed the scientific achievement behind rolling out vaccines less than a year after the pandemic erupted in China, where a WHO-backed team has now been deployed to look into origins of the coronavirus.

"Vaccines are the shot in the arm we all need, literally and figuratively," he said.

"But we now face the real danger that even as vaccines bring hope to some, they become another brick in the wall of inequality between the worlds of the world's haves and have-nots." In some of his toughest public words yet against vaccine makers, Tedros again criticised "bilateral deals" between drug companies and countries that hurt the ability of the WHO-backed COVAX program that aims to get vaccines to all countries based on need.

"Most manufacturers have prioritised regulatory approval in rich countries, where the profits are highest, rather than submitting" data to WHO, he said, so it can approve vaccines for wider use. AP

## **Mental Health**

### **Peer support may be more beneficial to teens with anxiety (The Tribune: 20210119)**

<https://www.tribuneindia.com/news/health/peer-support-may-be-more-beneficial-to-teens-with-anxiety-200166>

Suicide is the second leading cause of death among teens.

Peer support may be more beneficial to teens with anxiety

One in three parents strongly support schools having mental health programmes like peer support leaders, a new poll suggests.

One in three parents strongly support schools having mental health programmes like peer support leaders, a new poll suggests.

The poll indicates that an estimated one in five teenagers has symptoms of a mental health disorder such as depression or anxiety and suicide is the second leading cause of death among teens.

But the first person a teen confides in may not always be an adult—they may prefer to talk to another teen.

“Peers may provide valuable support for fellow teens struggling with emotional issues because they can relate to each other,” Sarah Clark from the University of Michigan in the US, said in a statement.

“Some teens may worry that their parents will overreact or not understand what they are going through. Teachers and school counsellors may also have limited time to talk with students in the middle of other responsibilities,” Clark added.

According to the C.S. Mott Children’s Hospital National Poll on Children’s Health at Michigan Medicine, three-quarters of parents in a new national poll think peers better understand teen challenges, compared to teachers or counsellors in the school.

The majority also agree that peer support leaders at school would encourage more teens to talk with someone about their mental health problems.

The poll found that 38 per cent believe if their own teen was struggling with a mental health problem, their teen would likely talk to a peer support leader and 41 per cent of parents say it’s possible their teen would take advantage of this option.

Another 21 per cent said it’s unlikely their child would seek support from a peer mentor.

The nationally representative poll report included responses from 1,000 parents of teens aged between 13-18 about their views on programmes like peer support leaders.—IANS

## **WHO**

### **World is on the brink of a ‘catastrophic moral failure’ on vaccines: WHO chief (The Tribune: 20210119**

<https://www.tribuneindia.com/news/health/world-is-on-the-brink-of-a-catastrophic-moral-failure-on-vaccines-who-chief-200161>

“Ultimately these actions will only prolong the pandemic.”

World is on the brink of a ‘catastrophic moral failure’ on vaccines: WHO chief

Image only for representational purposes

The head of the World Health Organization said on Monday that the world was on the brink of a "catastrophic moral failure" on distributing COVID-19 vaccines, urging countries and manufacturers to share doses more fairly around the world.

WHO Director-General Tedros Adhanom Ghebreyesus said the prospects for equitable distribution are at "serious risk" just as its vaccine-sharing scheme COVAX aims to start distributing inoculations next month.

He noted 44 bilateral deals were signed last year and at least 12 have already been signed this year.

"This could delay COVAX deliveries and create exactly the scenario COVAX was designed to avoid, with hoarding, a chaotic market, an uncoordinated response, and continued social and economic disruption," he said.

Such a "me-first approach" left the world's poorest and most vulnerable at risk, he said at the opening of the body's annual Executive Board meeting in virtual format.

"Ultimately these actions will only prolong the pandemic." The global scramble for shots has intensified as more infectious virus variants circulate.

Tedros cited as an example of inequality that more than 39 million doses of vaccine have been administered in 49 higher-income countries whereas just 25 doses had been given in one poor country.— Reuters

## **Food and Nutrition**

### **Study suggests children's weight likely not affected by proximity to fast food restaurant (The Tribune: 20210119)**

<https://www.tribuneindia.com/news/health/study-suggests-childrens-weight-likely-not-affected-by-proximity-to-fast-food-restaurant-199745>

Obese children are also more likely to become obese adults and suffer associated health problems

Study suggests children's weight likely not affected by proximity to fast food restaurant

Photo for representation only. — File photo

The availability of fast-food restaurants on the route between children's houses and their schools does not affect children's weight, suggest the findings of a novel study.

Reducing the rate of childhood obesity is a top public health priority in the United States where obesity rates are 18.4 per cent for those ages 6-11 and 20.6 per cent for those ages 12-19. Childhood obesity is a documented risk-factor for negative physical and mental health outcomes.

Obese children are also more likely to become obese adults and suffer associated health problems.

Researchers have proposed that the accessibility of affordable healthy food options may be an important determinant of childhood weight. Many public health figures are concerned about the role of fast-food restaurants on food consumption and resulting in obesity in children.

Local governments in the United States have the power to influence children's food options through the zoning process. Several cities, including Austin, Texas, and New York, have considered banning fast-food restaurants near schools.

This article investigates the effect of fast-food availability on childhood weight outcomes by gender, race, and location.

The researchers used a novel identification strategy based on changes in fast food exposure along the route between home and school that occur as students progress through the public school system and transition to different types of schools, e.g., from elementary schools to intermediate schools or from intermediate schools to high schools.

Researchers here used Arkansas student Body Mass Index, collected from 2004 to 2010, and matched it to home and school address through annual school registration records. Home address was used to geocode the location of student residences.

The researchers identified fast-food restaurants on the route between children's houses and their schools. Fast food restaurants included the major hamburger chains and drive-in restaurants (eg McDonald's, Burger King, Wendy's), dairy stores with large fast-food menus (eg Dairy Queen), take-out pizza establishments, quick-service taco places (eg Taco Bell). Sandwich delicatessens (eg Subway, Quiznos), and fried chicken restaurants (eg KFC, Chick-Fil-A).

The researchers excluded speciality stores such as ice-cream parlours not selling other fast foods (eg Baskin-Robbins), coffee shops (eg Starbucks), and doughnut shops (eg Krispy Kream).

Using a radius of a one-half mile to define exposure near home and school, the mean total exposure level is 3.34 restaurants.

The majority of children in the sample had zero exposure within 0.5 miles of home (69.6 per cent). In contrast, 45.2 per cent of children have at least one fast-food restaurant located within 0.5 miles of their school.

Researchers then measured changes in fast-food exposure as students changed schools as a result of a natural progression through the school system over time, for example, the change from elementary school to junior high school, and thus had different exposure to fast-food restaurants.

## **Jabs hit hesitancy hurdle**

### **Average turnout less than 50% at vaccine sessions as recipients get cold feet; glitches in app hamper drive (Hindustan Times: 20210119)**

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

New Delhi : In the three days since coronavirus vaccinations began in India, roughly 50 people have been given doses per session –half of the 100 on average expected by the government, data released by the Union health ministry showed on Monday, as reports poured in of people being reluctant to come forward to take the jab.

The government said that between Saturday morning and 5pm on Monday, 381,305 people were given doses in 7,704 sessions. Some health workers across the country, who are first in line to get doses, either did not turn up for their appointments, or outages in the digital platform to manage their records meant they were not informed.

The Union government has advised states to call and administer doses to 100 people on average during each session. According to figures collated by HT from across India, the total number of vaccinations by the end of Monday was 429,409.

The turnout dipped from 4,319 on Saturday to 3,593 on Monday (there were no immunisations on Sunday) in the national capital. At the All India Institute of Medical Sciences (AIIMS) in Delhi, only eight people were vaccinated on Monday, an official said, while asking not to be named.

Officials said concerns over the vaccines' safety appear to have deterred many people. "Initially, health care workers were very keen to get the vaccine. But then because of the infodemic, because of things doing the rounds on social media, because of side effects being highlighted more than what they were, it created a lot of anxiety not only among healthcare workers but also in public at large," said Dr Randeep Guleria, the director of All India Institute of Medical Sciences (AIIMS), in an interview to HT on Monday.

Hesitancy was reported among some beneficiaries in the run-up to the January 16 launch of the vaccination drive. Groups of doctors said they were apprehensive or would not prefer to get doses of Covaxin, the vaccine made by Hyderabad-based Bharat Biotech. This dose has not yet been tested entirely in Phase 3 trials, and the manufacturers don't know how effective it is in preventing Covid-19. The other vaccine, Covishield, developed by Oxford-AstraZeneca and manufactured by Serum Institute of India, has proved its efficacy in human trials.

Two interns at Delhi's RML Hospital, who asked not to be identified, said they were aware they could walk in and get the shots on Monday, but expressed concerns over lack of long-term data.

In UP, the state government issued a notice to a government hospital in Kanpur where only 40 people were given doses on Saturday. The state is carrying out immunisations only two days a week, Thursday and Friday from this week onwards.

The problem, as suggested by Guleria, appears to have been made worse by reports of some adverse reactions. Manohar Aghnani, additional secretary in the Union health ministry, said 580 cases of adverse effect following immunisation (AEFI) were reported in the three days.

The Union health ministry has said that most AEFIs have been mild, with symptoms such as pain at injection site, nausea and mild fever. Of the 580 – who represent just 0.15% of those vaccinated – seven required hospitalisations. For of these people were still under admission.

Experts said that these numbers were much below the thresholds for anything that should be worrying and that the risks outweigh the benefits of immunisation. "Acceptable level of AEFI would ideally be zero, but that is not the case. I think it is around 0.2% and yet we are focussing on that and not the 99.8% benefit," said Dr Shahid Jameel, former CEO of Wellcome Trust/DBT India Alliance.

Officials also reported glitches in the Co-WIN mobile application that vaccinators use to create lists of who will be given doses during a particular session and record their status. "The portal is crashing intermittently, leading to delays. It happened on Saturday and today as well," said Dr Vidyapati Chaudhary, principal of the Patna Medical College Hospital. "We are not getting the names of beneficiaries on time. As a result, we are unable to contact them telephonically. Some beneficiaries have complained that they did not receive any intimation about their vaccination. Sometimes, midway through the exercise, names of beneficiaries also disappear from the portal."

Similar problems were reported in Delhi, where hospitals allowed health care workers at their facilities to walk in for doses. Their details, an official at one of these centres said while asking not to be named, will be uploaded later.

The problem was such that Maharashtra suspended the vaccination drive on Saturday after only less than 2,000 people were vaccinated across the state.

A Union health ministry official said glitches in the app were being rectified. "Almost 90% glitches have been addressed. Speed has improved. Session creation and planning has been

made more flexible. A lot of the “glitches” are also because of varying degrees of IT awareness of vaccinators,” said this person, asking not to be named.

Experts believe vaccine hesitancy may be a bigger challenge in accelerating the drive. “Vaccine hesitancy had a major role to play when it came to the low vaccination rate on Saturday. Many people were comparing the two vaccines, many people wanted to wait and see what happens, and others wondered whether they needed it, having recovered from the infection recently. When people were asked to sign the consent forms, that too led to a lot of anxiety,” said Dr Suneela Garg, professor of community medicine at Maulana Azad Medical College.

Recipients who were given Covaxin were required to sign consent sheet that is typically given to people participating in clinical trials – technically, the Bharat Biotech vaccine has been approved under “the clinical trial route”, as per the regulators’ decision on January 3.

## **Health Care Services**

### **Vaccine turnout drops to 44% on Day 2, just 8 given shots at AIIMS (Hindustan Times: 20210119)**

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

Health care workers of Kalawati Saran Hospital waiting at the observation area after being vaccinated against Covid-19 on Monday. Amal KS/HT PHOTO

Only 3,598 health-care workers – about 44.2% of those selected to be inoculated on Monday - turned up for the Covid-19 vaccination drive, registering a drop of nine percentage points from the Day One (Saturday) of the immunisation campaign in the city, while only eight people were administered the jabs at the All India Institute of Medical Sciences on the day.

The data shared by the government showed that on the second day of the drive, conducted between 9am and 5pm Monday, a total 8,136 health-care workers were to be inoculated, but only 3,598 actually got the jabs. The remaining days for Covid-19 vaccination this week are Tuesday, Thursday and Saturday.

Adverse events following immunisation (AEFI) were reported in 26 beneficiaries (0.72%). Two of them were categorised as “severe” with one beneficiary in east Delhi’s Lal Bahadur Shastri hospital requiring hospitalisation.

On Saturday, the first day of the drive, a total of 4,319 (53.3%) of the 8,117 selected health-care workers received the Covid-19 vaccine in Delhi. There were 52 AEFI cases on Day One, with one hospitalisation at the All India Institute of Medical Sciences (AIIMS).

If looked at vaccine-wise, the AEFI cases on Monday were from Covishield doses, which are being used as the primary vaccine in Delhi and are being administered in 75 of 81 centres

across the city. The turnout for the Covishield vaccine was 44.5% on Monday, whereas that for Covaxin was 40%, according to the data provided by the government.

Apart from the general vaccine hesitancy, senior government officials attributed the low turnout to glitches in the Covid Vaccine Intelligence Network (Co-Win) app, which they said failed to send out text messages (SMSes) to a majority of the beneficiaries selected at random by the app.

A Delhi government spokesperson did not comment on the reasons for the low turnout on Day Two.

Of 11 districts in Delhi, the highest turnout (55%) was in east Delhi, where 273 of 500 selected beneficiaries were vaccinated. This is quite lower than the highest turnout of 71.44% reported in the south district on Saturday.

The second-highest turnout on Day Two (Monday) was in the south-east district where 420 (53%) of the 800 health-care workers were given the first dose. The Shahdara district vaccinated 163 (27%) of a total registered group of 600 persons -- the lowest among the 11 districts.

Senior health officials said the low turnout was also because of glitches in the Co-Win app because of which at least two vaccination centres – Ram Manohar Lohia (RML) hospital and Lady Hardinge Medical College – were forced to allow beneficiaries on a “walk-in” basis.

“There were login issues with the Co-Win app. Other than that, the app is still not sending SMSes to all beneficiaries it randomly selects each day for the vaccination. Hence, fewer health-care workers were turning up. After we communicated the problem to the district administration, they allowed us to accept health-care workers on a walk-in basis. As a result, the number of vaccinations improved at our hospital on Monday compared to Saturday,” said a senior official at Lady Hardinge Medical College. The number who got the jab increased from 26 on Saturday to 76 on Monday at the hospital.

Similarly, RML vaccinated 69 health-care workers on Monday, compared to 31 on Day One.

Dr Ravinder Pal Dhingra, the nodal officer of Chacha Nehru Bal Chikitsalaya in east Delhi said their staff are personally calling all selected beneficiaries to inform them about their turn.

“The auto-generated text message system is still not in place properly. Our staff members have to divide the 100 numbers among themselves and call each one on each immunisation day,” he said.

Dhingra said there is also a hesitancy among senior health -care workers to get the shot.

“Those who are close to 50 years and have co-morbidities are showing reluctance to get the jabs. Some with co-morbidities have expressed fears that the vaccine could worsen their condition. So, we have now appointed a dedicated counsellor who is talking to such people and clearing their doubts and dispelling myths and rumours,” he said.

## Low turnout at AIIMS

Meanwhile, an official at AIIMS said the low turnout at the central government-run hospital, could be related to multiple factors, including apprehensions of adverse events and late notifications through the Co-WIN app.

A security guard of the hospital who received the shot on Saturday suffered anaphylaxis and was admitted to the facility. He was discharged on Sunday.

“Also, those who had refused on Saturday were again included in the list and they did not turn up again on Monday. Around 20 people had turned up at AIIMS, of which some had fever while others had history of allergies, only eight beneficiaries received the shots,” the source said.

## Combat vaccine

### **Whatever it takes: On govt. powers to combat vaccine hesitancy (The Hindu: 20210119)**

<https://www.thehindu.com/opinion/editorial/whatever-it-takes-on-govt-powers-to-combat-vaccine-hesitancy/article33603615.ece>

The government must do all within its powers to combat vaccine hesitancy

Faith in entities is often an act of personal commitment not amenable to falsification, but trust in a scientific process can be established with confidence-building measures and full disclosure of all relevant data. Any mass campaign that involves voluntary effort on the part of the public can succeed only when transparency and open communication channels are the tools of choice. If the poor rate of uptake of the COVID-19 vaccine in most of the States in the country is any indication, the government has not taken the people of the country along, in what is a purely voluntary exercise, but one vested with great power to retard the pace of the epidemic. For instance, Tamil Nadu, a State perceived to be largely health literate, and relatively well-equipped with health infrastructure, achieved only over 16% of its targeted coverage on the launch day. On the second day of vaccination, the compliance further dropped; in some States, vaccination was suspended. A marked favouring of the Covishield vaccine over Covaxin was also noticed in multiple States.

But none of this is a surprise. The signs, verily, were out there for everyone to see, for a long time indeed. Studies measured high levels of vaccine hesitancy among the general population, and among health-care workers, the first in the line list of people to receive free vaccination. Clearly, vaccine hesitancy was not addressed sufficiently, or not taken seriously enough. With the sequence of events that followed the clearance of Emergency Use Authorisation (in

Covaxin, it is emergency use authorisation in 'clinical trial mode') — a high-handed announcement with little attempt to put out compelling evidence in the public domain, or answer multiple queries in press conferences — vaccine hesitancy merely dug its heels in deeper. The inability of the government and agencies involved to amicably resolve controversies surrounding the clearance for Covaxin, even before it was able to produce interim data on efficacy from phase-3 trials, has had a direct consequence, as witnessed by poor numbers in its uptake so far. A vaccine, unequivocally, is public good, but the lack of transparency surrounding the roll-out of the COVID vaccines has done little to enhance trust in this experiential principle. This uncommon haste in trying to lunge towards the tape while still some distance from the finish line might have been justified if the state had taken the people along. Vaccinating the nation, however, is less a race than a slow and steady process. Building confidence in the process is crucial to achieving the task at hand. Prime Minister Narendra Modi's oft-repeated mantra, 'Sabka Saath, Sabka Vikas', is very relevant here. And the Health Ministry must do whatever it takes to make a success of the vaccination drive.

## **Non-alcoholic fatty liver disease**

### **Green med diet cuts non-alcoholic fatty liver disease by half: Study (New Kerala: 20210119)**

<https://www.newkerala.com/news/2021/10779.htm>

A green Mediterranean (MED) diet reduces intrahepatic fat more than other healthy diets and cuts non-alcoholic fatty liver disease (NAFLD) in half, according to a long-term clinical intervention trial.

The trial was led by Ben-Gurion University of the Negev researchers and a team of international colleagues.

The findings were published in *Gut*, a leading international journal focused on gastroenterology and hepatology.

"Our research team and other groups over the past 20 years have proven through rigorous randomized long-term trials that the Mediterranean diet is the healthiest," says lead researcher Prof. Iris Shai, an epidemiologist in the BGU School of Public Health who is also an adjunct lecturer at the Harvard T.H. Chan School of Public Health.

"Now, we have refined that diet and discovered elements that can make dramatic changes to hepatic fat and other key health factors."

Other Harvard investigators are Profs. Meir Stampfer and Frank Hu, chair of the Department of Nutrition at the Chan School.

NAFLD affects 25% to 30% of people in the United States and Europe. While some fat is normal in the liver, excessive fat (5% or higher) leads to insulin resistance, type 2 diabetes, cardiovascular risk, as well as decreased gut microbiome diversity and microbial imbalance. Since no drug is currently available to treat fatty liver, the only intervention is weight loss and curtailing of alcohol consumption.

This MRI-nutritional clinical trial (called Direct-Plus), conducted by an international research team led by Prof. Shai is the first to develop and test a new green Mediterranean diet. This modified MED diet is rich in vegetables, includes daily intake of walnuts (28 grams), and less processed and red meat. It is enriched with green components, high in polyphenols, including three to four cups of green tea/day and 100 grams (frozen cubes/day) of a Mankai green shake. Mankai, an aquatic green plant also known as duckweed, is high in bioavailable protein, iron, B12, vitamins, minerals, and polyphenols.

"Addressing this common liver disease by targeted lifestyle intervention might promote a more effective nutritional strategy," says Dr Anat Yaskolka-Meir, first author and member of the BGU School of Public Health. "This clinical trial demonstrates an effective nutritional tool for NAFLD beyond weight loss."

This 18-month trial DIRECT-PLUS began in 2017 at the Nuclear Research Center Negev in Dimona, Israel, when 294 workers in their fifties with abdominal obesity were randomly divided into three groups healthy dietary regimen, Mediterranean diet and green Mediterranean diet. In addition to the diet, all the participants were given a physical exercise regimen with a free gym membership. The participants underwent MRI scans to quantify the exact proportion of excess intrahepatic fat before and after the trial.

The results showed that every diet led to liver fat reduction. However, the green MED diet resulted in the greatest reduction of hepatic fat (-39%), as compared to the traditional Mediterranean diet (-20%) and the healthy dietary guidelines (-12%). The results were significant after adjusting for weight loss.

Overall, the green MED diet produced dramatic reductions in fatty liver. NAFLD prevalence dropped from 62% at baseline to 31.5% in the green Mediterranean group, down to 47.9% in the Mediterranean group and 54.8% in the healthy dietary regimen group.

Specifically, greater Mankai and walnut intake and less red/processed meat intake were significantly associated with the extent of IHF loss, after controlling for other variables. Both MED groups had significantly higher total plasma polyphenol levels. More specific polyphenols, found in walnuts and Mankai, were detected in the green MED group. The researchers hypothesize the effect of polyphenols and the reduction in red meat play a role in liver fat reduction.

## **Tumour**

### **New computational technique differentiates between cancer and normal cells within tumour samples: Study (New Kerala: 20210119)**

<https://www.newkerala.com/news/2021/10765.htm>

In an effort to address a major challenge when analyzing large single-cell RNA-sequencing datasets, researchers from the University of Texas MD Anderson Cancer Center have developed a new computational technique to accurately differentiate between data from cancer cells and the variety of normal cells found within tumor samples.

The work was published in the journal Nature Biotechnology.

The new tool, dubbed CopyKAT (copy number karyotyping of aneuploid tumors), allows researchers to more easily examine the complex data obtained from large single-cell RNA-sequencing experiments, which deliver gene expression data from many thousands of individual cells.

CopyKAT uses that gene expression data to look for aneuploidy, or the presence of abnormal chromosome numbers, which is common in most cancers, said study senior author Nicholas Navin, Ph.D., associate professor of Genetics and Bioinformatics and Computational Biology. The tool also helps to identify distinct subpopulations, or clones, within the cancer cells.

"We developed CopyKAT as a tool to infer genetic information from the transcriptome data. By applying this tool to several datasets, we showed that we could unambiguously identify, with about 99 percent accuracy, tumor cells versus the other immune or stromal cells present in a mixed tumor sample," Navin said.

"We could then go one step further to discover the subclones present and understand their genetic differences," added Navin.

Historically, tumors have been studied as a mixture of all cells present, many of which are not cancerous. The advent of single-cell RNA sequencing in recent years has enabled researchers to analyze tumors in much greater resolution, examining the gene expression of each individual cell to develop a picture of the tumor landscape, including the surrounding microenvironment.

However, it's not easy to distinguish between cancer cells and normal cells without a reliable computational approach, Navin explained. Former postdoctoral fellow Ruli Gao, Ph.D., now assistant professor of Cardiovascular Sciences at Houston Methodist Research Institute,

developed the CopyKAT algorithms, which improve upon older techniques by increasing accuracy and adjusting for the newest generation of single-cell RNA-sequencing data.

The team first benchmarked its tool by comparing results to whole-genome sequencing data, which showed high accuracy in predicting copy number changes.

In three additional datasets from pancreatic cancer, triple-negative breast cancer and anaplastic thyroid cancer, the researchers showed that CopyKAT was accurate in distinguishing between tumor cells and normal cells in mixed samples.

These analyses were made possible through collaborations with Stephen Y. Lai, M.D., Ph.D., professor of Head and Neck Surgery, as well as Stacy Moulder, M.D., professor of Breast Medical Oncology, and the Breast Cancer Moon Shot, part of MD Anderson's Moon Shots Program, a collaborative effort to rapidly develop scientific discoveries into meaningful clinical advances that save patients' lives.

In analyzing these samples, the researchers also showed the tool is effective in identifying subpopulations of cancer cells within the tumor based on copy number differences, as confirmed by experiments in triple-negative breast cancers.

"By using CopyKAT, we were able to identify rare subpopulations within triple-negative breast cancers that have unique genetic alterations not widely reported, including those with potential therapeutic implications," Gao said.

"We hope this tool will be useful to the research community to make the most of their single-cell RNA-sequencing data and to drive new discoveries in cancer," Gao added.

The tool is freely available to researchers here. The authors note that the tool is not applicable to the study of all cancer types. Aneuploidy, for example, is relatively rare in pediatric and hematologic cancers.

## **Vaccination**

### **Experts advise people to avoid alcohol during vaccination (New Kerala: 20210119)**

<https://www.newkerala.com/news/2021/10551.htm>

Alcohol intake should be avoided after getting the first jab of the Covid-19 vaccine for some days and abstinence should also be maintained after the second jab for some days, health experts said on Monday, as alcohol can hinder the effect of the vaccine.

According to experts, drinking alcohol, especially heavy drinking, may reduce your body's ability to build immunity in response to a virus.

"First of all, consumption of alcohol is not advisable at all in any condition. But, drinking alcohol can reduce your body's ability to build immunity in response to a virus," Satish Kaul, HOD and Director, Internal Medicine, Narayana Hospital, Gurugram told IANS.

According to healthline.com, a Russian health official last month advised citizens being vaccinated with the country's Sputnik V vaccine that they should abstain from alcohol for two months.

However, the developer of the vaccine, Alexander Gintsburg, later commented that this advice is too extreme.

In a tweet from the Sputnik V account, Gintsburg advised refraining from alcohol for three days after each injection, guidance that he says applies to all vaccines.

"Excessive alcohol intake can reduce the immune responses to the vaccine. Since Russians are known for heavy drinking, their government has advised them to avoid drinking for two weeks prior to the first dose and six weeks after the second dose.

"The Sputnik vaccine is given in two doses 21 days apart. Occasional glass of wine or beer will not interfere with the immune response," said Sudhir Bhandari, principal and controller at the SMS Medical College in Jaipur.

Currently, India is banking on two vaccines -- Serum Institute of India's 'Covishield' and Bharat BioTech's 'Covaxin' -- and four more are in the pipeline to be rolled out in the country, according to Prime Minister Narendra Modi.

To date, a total of 447 Adverse Events Following Immunisation (AEFI) have been reported in the last two days of the massive inoculation drive against Covid-19 that is now underway in the country.

"The consumption of alcohol, sleepless nights or any other unhealthy activities like smoking etc. should be avoided in order to get maximum benefit of any vaccine," Kaul informed.

People who have taken the vaccine must ensure a healthy lifestyle and avoid binge drinking around the time of the vaccination.

"Some neurological symptoms like dizziness have been reported after vaccination, therefore, it is suggested not to take alcohol for 24-48 hours after vaccination so that patient can appreciate any side effect of vaccination," said Manoj Goel, Director, Pulmonology, Fortis Memorial Research Institute, Gurugram.

"To ensure healthy lifestyle, alcohol consumption should be avoided," added Harshal R Salve, Associate Professor at Centre for Community Medicine, AIIMS.

## **Eczema**

### **Study: Environmental allergens linked to acute itching in eczema patients (New Kerala: 20210119)**

<https://www.newkerala.com/news/2021/10474.htm>

A new research has indicated that itching often doesn't respond to antihistamines because the itch signals are being carried to the brain along a previously unrecognized pathway that current drugs don't target.

New research from Washington University School of Medicine in St. Louis indicates that allergens in the environment often are to blame for episodes of acute itch in eczema patients.

The new findings, published in the journal Cell, point to a possible new target and strategy to help eczema patients cope with those episodes of acute and severe itch.

"Years ago, we used to think that itch and pain were carried along the same subway lines in the nerves to the brain, but it turned out they weren't, and these new findings show there's another pathway entirely that's causing these episodes of acute itching in eczema patients," said principal investigator Brian S. Kim, MD, a dermatologist and an associate professor of medicine.

"The itch can be maddening. Patients may rate their chronic itch at around a 5 on a scale of 10, but that goes up to 10 during acute itch flares. Now that we know those acute flares are being transmitted in an entirely different way, we can target that pathway, and maybe we can help those patients," added Kim.

The typical pathway for itching in eczema patients involves cells in the skin that are activated and then release histamine, which can be inhibited with antihistamine drugs. But with this acute itching, a different type of cell in the bloodstream transmits itch signals to the nerves.

Those cells produce too much of another non-histamine substance that triggers itch therefore antihistamines don't work in response to such signals.

"We've connected acute itching in eczema to allergic reactions transmitted by an entirely different population of cells," said Kim, also the co-director of the Center for the Study of Itch and Sensory Disorders.

"In patients who experience episodes of acute itching, their bodies react in the same way as in people with acute allergy. If we can block this pathway with drugs, it might represent a strategy for treating not only itch but other problems, including perhaps hay fever and asthma," added Kim.

In recent years, several clinical studies have tested a strategy that involves blocking Immunoglobulin E (IgE), a substance produced by the immune system in response to allergens. Patients with allergies produce IgE, causing allergic reactions, but its role in itch has been unclear.

Reviewing data from clinical studies of drugs aimed at treating chronic itching, Kim found a pattern in which patients reported episodes of acute itching, often after exposure to environmental allergens.

He also found that eczema patients who make IgE in response to allergens in the environment were more likely to experience those episodes of severe, acute itch.

"Environmental allergens actually promote this type of itch. Say a patient with eczema goes to Grandma's house, where there's a cat, and that person's itching just goes crazy. Its likely cat dander is activating IgE, and IgE is activating itch," he said.

Kim's team took these observations to the laboratory. Studying the animals, they found that when the mice made IgE, they began to itch. But unlike standard itch signals, in which cells in the skin called mast cells release histamine, the IgE in mice with eczema activated a type of white blood cell called a basophil.

Those cells then activated an entirely different set of nerve cells than the cells that carry itch signals that respond to antihistamines.

The discovery that acute itching in eczema is linked to exposure to allergens may help them avoid things that make them itch intensely, including animals, dust, mold, or certain foods. Meanwhile, it also offers drug companies new targets for treating itch in eczema patients, including proteins and molecules Kim's team has identified along this newly identified neuro-immune pathway.

## **Vaccination (Hindustan: 20210119)**

[https://epaper.livehindustan.com/imageview\\_583468\\_86090886\\_4\\_1\\_19-01-2021\\_0\\_i\\_1\\_sf.html](https://epaper.livehindustan.com/imageview_583468_86090886_4_1_19-01-2021_0_i_1_sf.html)

स्वास्थ्य मंत्रालय ने बताया, तीसरे दिन 25 राज्यों में 1.48 लाख से ज्यादा लोगों का टीकाकरण

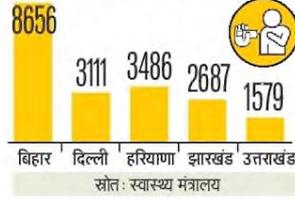
# पौने चार लाख को टीका पर गंभीर दुष्प्रभाव नहीं

नई दिल्ली | विशेष संवाददाता

कोरोना टीकाकरण में सुखद खबर सामने आई है। स्वास्थ्य मंत्रालय ने सोमवार को बताया कि बीते तीन दिनों में पौने चार लाख लोगों को टीके लगाए जा चुके हैं लेकिन किसी में भी कोई गंभीर दुष्प्रभाव नहीं दिखा।

स्वास्थ्य मंत्रालय के अतिरिक्त सचिव मनोहर अगनानी ने बताया कि सोमवार को 25 राज्यों में 7704 केंद्रों पर 1,48,266 लोगों को टीके दिए गए। इसके साथ ही अब तक 3,81,305 लोगों का टीकाकरण हो चुका है। सिर्फ 580 लोगों में

## कहां-कितना टीकाकरण



मामूली दुष्प्रभाव दिखा। इनमें सात को अस्पताल में भर्ती करना पड़ा। दिल्ली में भर्ती तीन लोगों में दो को छुट्टी मिल गई है। एक व्यक्ति पटपड़गंज स्थित मैक्स अस्पताल में

भर्ती है। एम्स त्रिभुवनेश व छत्तीसगढ़ के राजनंदगांव के मेडिकल कॉलेज में एक-एक व्यक्ति भर्ती कराया गया है। कर्नाटक में दो मामले हैं जिनमें से एक टीका हो चुका है तथा उसे

## मुरादाबाद में मौत की वजह टीका नहीं : मंत्रालय

स्वास्थ्य मंत्रालय के मुताबिक, अब तक दो मौतों की सूचना प्राप्त हुई है। एक 52 वर्षीय पुरुष की मुरादाबाद में 17 जनवरी को मौत हुई है। मेडिकल बोर्ड ने पोस्टमार्टम किया है जिसमें मृत्यु का कारण कार्डियोपल्मोनरी डिजीज बताई गई है। इस मौत का टीके से कोई संबंध स्थापित नहीं हुआ है। कर्नाटक के बेल्लारी में एक 43 वर्षीय व्यक्ति की 18 जनवरी को मौत हुई है तथा उसने 16 जनवरी को टीका लगवाया था। इसकी मौत का कारण इंटेरियर वाल संक्रमण पाया गया है।

► ब्योरा पेज 09

चित्रदुर्ग के जिला अस्पताल में निगरानी में रखा गया है। दूसरा भी जनरल अस्पताल में है।

► लक्ष्य से दूर अभियान पेज 05

► खतरा टला पेज 09

**CoronaVaccination (Hindustan: 20210119)**

# दूसरे दिन भी लक्ष्य से दूर रहा कोरोना टीकाकरण

हिन्दुस्तान  
पड़ताल

सोमवार को टीकाकरण के दूसरे दिन शनिवार के मुकाबले कम लोगों ने टीका लगवाया। सोमवार को 44% लोगों को टीका लगा, जबकि शनिवार को 53% ने टीका लगवाया था। 26 लोगों में टीके के हल्के दुष्प्रभाव मिले। वहीं लोकनायक अस्पताल में टीका लगवाने वालों को जैसे ही नहीं पहुंचा। हिन्दुस्तान टीम की रिपोर्ट...

**3598** लोगों को सोमवार को टीका लगाया गया, शनिवार को 4319 को लगा था टीका

लोगों तक नहीं पहुंचा एसएमएस

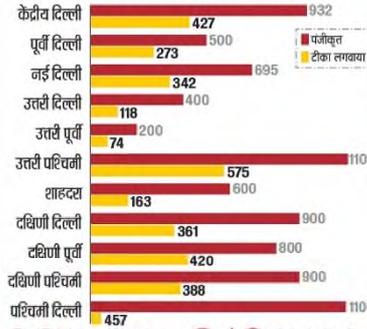
01:00 बजे दोपहर  
लोकनायक अस्पताल

टीकाकरण के दूसरे दिन सोमवार को लोकनायक अस्पताल में दोपहर 1:15 बजे तक केवल छह लोगों को टीका लगाया जा सका था। इन छह लोगों में एक खुद लोकनायक अस्पताल के कोरोना वैक्सिनेशन प्रोग्राम कोऑर्डिनेटर प्रियकांत शर्मा थे। जिन्हें टीका लगना था, उन तक एसएमएस नहीं पहुंचा। अस्पताल में काफी समय तक टीका लगाने के लिए लोग नहीं पहुंचे, जिसके बाद सूची देखकर लापरवाही को फोन किया गया। पता चला कि जिन लोगों को टीका लगना था, उन्हें न तो कोई मैसेज गया था और न ही किसी ने फोन किया था। इस वजह से उन्हें कोई जानकारी ही नहीं थी। ऐसे में जो लोग अस्पताल में मौजूद थे, वो तो टीका लगवाने पहुंच गए, लेकिन जो लोग दूर थे, उन्होंने बाद में टीका लगवाने की बात कही।

अस्पताल के कोविड वैक्सिनेशन प्रोग्राम कोऑर्डिनेटर और सुपरवाइजर प्रियकांत शर्मा ने उम्मीद जताई है कि आने वाले दिनों में वैक्सीन लगवाने वाले लोगों की संख्या बढ़ेगी।

**पहले दिन टीका लगवाने वालों को ही गया मैसेज** : अस्पताल के सूत्रों ने बताया कि कोविन एप में गड़बड़ी के चलते सोमवार को टीका लगवाने वाले स्वास्थ्यकर्मीयों के पास कोई मैसेज नहीं पहुंचा। साफ्टवेयर से उन लोगों के पास दोबारा मैसेज चला गया, जिन्होंने पहले दिन टीका लगवाया था। हालांकि अस्पताल प्रशासन ने टीका लगवाने वाले लोगों को रोज फोन करने की योजना बनाई है।

किस जिले में कितने लोगों ने टीका लगवाया



08 लोगों को एस में टीका लगा, सी को लगना था | 249 लोगों को कोविड-सी का टीका लगवाया गया



पटपट्टाजंज के एक निजी अस्पताल में सोमवार को कोरोना वैक्सीन कोविड-सी लगाया जा रहा है।

## 12 बजे तक नहीं हो पाई थी शुरुआत

09:00 बजे सुबह

राजीव गांधी सुपर स्पेशियलिटी

राजीव गांधी सुपर स्पेशियलिटी अस्पताल में दोपहर 12 बजे तक टीकाकरण शुरू नहीं हुआ था। शनिवार के मुकाबले सोमवार को कम उत्साह दिखा। केंद्र पर तो पर्याप्त व्यवस्था की गई थी, लेकिन टीका लगवाने गिनती के लोग पहुंच रहे थे। दोपहर 12:30 बजे तक 10 लोगों को ही टीका लगा था। प्रशासन की ओर से यहाँ 100 लोगों की सूची भेजी गई थी, लेकिन लोगों ने टीका लगवाने में रुचि नहीं दिखाई। टीका लगाने से पहले लोगों को बताया जा रहा था कि उन्हें कौन सा टीका

किसी के पेट में दर्द तो किसी के परिवार में मौत हो गई थी

जब अस्पताल से सूची में दर्ज लोगों को फोन किया गया तो उन लोगों ने टीकाकरण के लिए न आने की वजह पेट दर्द, परिवार में किसी की अकास्मिक मौत जैसी वजहें बताईं। जानकारों की मानें तो लोगों में टीका लगवाने को लेकर अब भी संशय बना हुआ है। यहाँ स्थानीय जिला प्रशासन की कार में दो फोल्ड स्टोरेज डिब्बों में वैक्सीन अस्पताल लाई थी। यहाँ सीरम इंस्टीट्यूट की वैक्सीन कोविड-सी टीका लगाई गई।

लगाया जा रहा है। विधानसभा स्पीकर के आने की सूचना मिलने के बाद अस्पताल के गार्ड, आईटी विभाग के कर्मचारी समेत अन्य लोगों को टीके के लिए राजी कर लाया गया।

**लोग टीका लगवाने आगे आए** : टीकाकरण केंद्र का निरीक्षण करने के

बाद विधानसभा स्पीकर ने कहा कि संख्या कम जरूर है, लेकिन यह धीरे-धीरे सुधरेगी। उन्होंने लोगों से अपील की कि वह घबराएं नहीं और टीका लगवाने के लिए आगे आए। पहले दिन सबसे पहले टीका लगवाने वाले डॉ. विकास डोगरा से उन्होंने मुलाकात की।

पहला टीका



मैं इसलिए टीका लगवाने आगे आया, क्योंकि अस्पताल में इयूटी के दौरान संक्रमण का खतरा बना रहता है। मुझे गर्व है कि शुरुआती चरण में मेरा चुनाव किया गया।



शुक्रिया अदा करता हूँ। 28 दिन बाद फिर टीका लगवाने आऊंगा।

## कोविड से स्वस्थ

01:00 बजे दोपहर

डॉ. हेडगेवार आरोग्य संस्थान

कडकड़-डूमा में शनिवार को 36 लोगों को टीका लगाया गया था, जबकि यहाँ सोमवार को टीका लगवाने वालों की संख्या 48 तक पहुंच गई। टीका लगवाने



Plastic and Burn Surgery Deptt. (Hindustan: 20210119)

[https://epaper.livehindustan.com/imageview\\_583473\\_86442996\\_4\\_1\\_19-01-2021\\_5\\_i\\_1\\_sf.html](https://epaper.livehindustan.com/imageview_583473_86442996_4_1_19-01-2021_5_i_1_sf.html)

# एम्स में सौ बेड का प्लास्टिक सर्जरी और बर्न ब्लॉक शुरू



केंद्रीय स्वास्थ्य मंत्री हर्षवर्धन ने सोमवार को एम्स के बर्न और प्लास्टिक सर्जरी ब्लॉक का उद्घाटन किया। इस दौरान एम्स निदेशक रणदीप गुलेरिया मौजूद रहे। • अमल केएस

## नई दिल्ली | वरिष्ठ संवाददाता

दिल्ली एम्स में नए बर्न और प्लास्टिक सर्जरी ब्लॉक का सोमवार को केंद्रीय स्वास्थ्य मंत्री हर्षवर्धन ने उद्घाटन किया गया। मंगलवार से यह ब्लॉक आम जनता के लिए शुरू हो जाएगा।

यहां जलने के मामलों से पीड़ित मरीजों को बेहतर इलाज मिल सकेगा। अभी तक लोगों को जले हुए मामलों के लिए सफदरजंग अस्पताल पर निर्भर होना पड़ता था। एम्स के बर्न और

60 जनरल बेड की सुविधा उपलब्ध होगी। इस ब्लॉक में 30 आईसीयू बेड 30 अलग अलग कमरों में होंगे। छह ऑपरेशन थिएटर की सुविधा भी है।

**त्वचा बैंक भी होगा:** अस्पताल के बर्न ब्लॉक में त्वचा बैंक भी उपलब्ध होगा। हालांकि, अभी इसे तैयार किया जाना बाकी है। त्वचा बैंक में त्वचा स्टोर की जा सकती है।

**सालभर में पांच हजार से अधिक मरीज भर्ती किए जा सकेंगे:** हर्षवर्धन ने कहा कि यहां एक साल में लगभग