



# DAILY NEWS BULLETIN

LEADING HEALTH, POPULATION AND FAMILY WELFARE STORIES OF THE DAY  
Tuesday 2020818

## Infectious coronavirus mutation

### More infectious coronavirus mutation may be 'a good thing': Expert (The Tribune: 2020818)

<https://www.tribuneindia.com/news/health/more-infectious-coronavirus-mutation-may-be-a-good-thing-expert-127833>

The virus may be more infectious, but appears less deadly now as compared to February

More infectious coronavirus mutation may be 'a good thing': Expert  
Photo for representation only.

An increasingly common mutation of the novel coronavirus found in Europe, North America and parts of Asia may be more infectious but appears less deadly, according to a prominent infectious diseases doctor.

Paul Tambyah, senior consultant at the National University of Singapore and president-elect of the International Society of Infectious Diseases, said evidence suggests the proliferation of the D614G mutation in some parts of the world has coincided with a drop in death rates, suggesting it is less lethal.

"Maybe that's a good thing to have a virus that is more infectious but less deadly," Tambyah told Reuters.

Tambyah said most viruses tend to become less virulent as they mutate.

"It is in the virus' interest to infect more people but not to kill them because a virus depends on the host for food and for shelter," he said.

Scientists discovered the mutation as early as February and it has circulated in Europe and the Americas, the World Health Organization said. The WHO has also said there is no evidence the mutation has led to more severe disease.

On Sunday, Malaysia's director-general of health Noor Hisham Abdullah urged greater public vigilance after authorities detected what they believe was the D614G mutation of the coronavirus in two recent clusters.

Sebastian Maurer-Stroh of Singapore's agency for science, technology and research said the variant has also been found in the city-state but that containment measures have prevented large-scale spread.

Malaysia's Noor Hisham said the D614G strain detected there was 10 times more infectious and that vaccines currently in development may not be effective against this mutation.

But Tambyah and Maurer-Stroh said such mutations would not likely change the virus enough to make potential vaccines less effective.

"(The) variants are almost identical and did not change areas that our immune system typically recognise, so there shouldn't be any difference for vaccines being developed," said Maurer-Stroh.

## **Russia's COVID-19 vaccine:**

**Safety, efficacy main concerns with Russia's COVID-19 vaccine: Nobel laureate Peter Doherty**

**Russian President Vladimir Putin last week announced that his country has developed the world's first vaccine against COVID-19 (The Tribune: 2020818)**

<https://www.tribuneindia.com/news/health/safety-efficacy-main-concerns-with-russias-covid-19-vaccine-nobel-laureate-peter-doherty-127398>

Safety, efficacy main concerns with Russia's COVID-19 vaccine: Nobel laureate Peter Doherty  
Russian President Vladimir Putin last week announced that his country has developed the world's first vaccine against COVID-19

Echoing the scientific community's scepticism over Russia's COVID-19 vaccine rolled out for emergency use, Nobel laureate Peter Charles Doherty says his "big worry" is there could be refusals for other vaccines if doubts over its safety turn out to be true.

Russian President Vladimir Putin last week announced that his country has developed the world's first vaccine against COVID-19, which works "quite effectively" and forms "stable immunity" against the disease. He also disclosed that one of his daughters has already been given the vaccine, named Sputnik V.

"The main concern is if any major safety issues emerge... My bet is that they won't, but that's a guess and, if there is a safety issue, the big worry is that this could cause more vaccination refusal for other vaccines that are made using very different approaches," Doherty told PTI from Melbourne in an email interview.

Sputnik V has been developed by the Gamaleya Research Institute of Epidemiology and Microbiology along with the Russian Direct Investment Fund (RDIF). The vaccine has not been tested in Phase 3 or larger clinical trials.

The Nobel laureate, who is with the Department of Microbiology and Immunology at the Doherty Institute, University of Melbourne, also believes that India with its "great track record in low cost drug manufacturing" can be a major player.

"Given India's great track record in low cost drug and vaccine manufacture, we expect that India will be a major player. This is, after all, the fastest way to return global economic activity," said Doherty, who was awarded the Nobel Prize for Medicine in 1996 for his discovery of how the body's immune system distinguishes virus-infected cells from normal ones.

The Sputnik V vaccine consists of two shots that use different versions of adenoviruses -- virus types some of which cause the common cold -- that the manufacturers have engineered to carry the gene for the surface protein, or spike, of SARS-CoV-2 that causes COVID-19.

"We understand that the Russian vaccine is a prime/boost with two virus-vector products using Ad-26 and Ad-5. These adenoviruses both cause infections in humans and there could be an issue with pre-existing antibody diminishing vaccine efficacy," Doherty explained.

This is a well-established strategy, and one major US group is also well ahead with an Ad-5 vectored vaccine, he said.

He said Russians are evidently in the process of doing a clinical trial, so it is to be seen how quickly they move forward from that. "The main issues with Sputnik V and, indeed, any SARS-CoV-2 vaccine, are safety and efficacy," he added.

Asked whether the world needed a drug to be invented at the moment rather than a vaccine to fight COVID-19, the Nobel laureate said, "A vaccine is the cheapest and quickest way forward but, if that doesn't work (and to treat people anyway) we need specific antiviral drugs. "I understand that this work is being done, but there is little public information to date. Also a possibility are monoclonal antibodies, like those being made by Regeneron in the USA." Monoclonal antibodies are made by identical immune cells which are all clones belonging to a unique parent cell.

Doherty said he is also very aware that vaccines being prepared with the sponsorship of the Switzerland-based Coalition for Epidemic Preparedness Innovations (CEPI) will be made available to poorer countries.

"One of these is the University of Queensland (UQ) protein clamp vaccine developed by Professor Paul Young's group that should be going into Phase 2 clinical trials after a Phase 1 trial that was initiated in July," he said.

"“Apart from being given to Australians and people in the Pacific states, a priority will be to deliver this to the poorer countries because this was developed under the auspices of the CEPI. The CSL (Commonwealth Serum Laboratories) company can make 100 million doses of the UQ vaccine a year in Australia," the 79-year-old said.

The WHO and major vaccine companies are also committed to the necessity that everyone across the globe should be offered vaccination, he added. Vaccine testing typically begins with lab and animal model studies before going on to different stages of human trials.

The human testing phase comprises many phases.

Phase 1 trials are small-scale, usually involving a few participants, to assess whether the vaccine is safe for humans.

Phase 2 trials often involve several hundred subjects, and mainly evaluate the efficacy of the vaccine against the disease.

The final, Phase 3, involves thousands of people to further assess the efficacy of the vaccine over a defined period of time, and can last several months. PTI

## **COVID-19 vaccine patent**

### **China grants country's first COVID-19 vaccine patent to CanSino (The Tribune: 2020818)**

<https://www.tribuneindia.com/news/health/china-grants-countrys-first-covid-19-vaccine-patent-to-cansino-127369>

China's vaccine specialist CanSino Biologics Inc has won a patent approval from Beijing for its COVID-19 vaccine candidate Ad5-nCOV, state media reported, citing documents from the country's intellectual property regulator.

It is the first COVID-19 vaccine patent granted by China, state-owned newspaper People's Daily reported on Sunday.

The paper cited documents published by China's National Intellectual Property Administration saying that the patent was issued on August 11.

Saudi Arabia said this month it plans to begin Phase III clinical trials for the CanSino vaccine. CanSino has said it is also in talks with Russia, Brazil and Chile to launch Phase III trials in those countries.

CanSino's Hong Kong shares rose around 14 per cent in Monday's morning session. Its Shanghai shares rose by 6.6 per cent as of midday. Reuters

## Covid-19: What you need to know today (Hindustan Times: 2020818)

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



### R Sukumar

It is yet another mystery surrounding coronavirus disease numbers. South Africa, the S of the expanded BRICS grouping — C, China was where it all began, R, Russia is at #4 in terms of cases, I, India, is at #3, and B, Brazil is at #2 — is the fifth in the world in terms of number of Covid-19 cases. It has seen close to 600,000; yet, the next country from the African continent on the list is Egypt, at #29. Then comes Nigeria at #49. Then starting with Morocco at #52, come another 16 countries within the top 100. Egypt has seen fewer than 100,000 cases; Nigeria, a little less than 50,000. The numbers are all from worldometers.info as of Monday evening.

Experts, including some from Africa, caution against taking the numbers at face value — most African countries aren't testing enough, and record-keeping is poor in many. Others point to the low case fatality rates in South Africa and Nigeria (just around 2% in both) and say the high incidence of infectious diseases in Africa may have given its people some level of protection against the SARS-CoV2 virus which causes Covid-19. Egypt, with a fatality rate of 5.3% is an exception.

The relatively slow march of Covid-19 through Africa, and the low fatality rates have encouraged talk of how countries on the continent could well follow the strategy that the United Kingdom erroneously tried to adopt at the beginning of the pandemic — aspire for herd immunity. It is likely the results of such an approach will be similar to what they were in the UK — a near disaster, and a sharp U-turn into a more conventional test-trace-isolate-treat strategy.

With more countries, and, in India, more states and cities conducting antibody tests on a sample of the population (sero-surveys as they are called) to assess the prevalence of the disease and understand just what proportion of people have antibodies against the virus (and are, therefore, immune), herd immunity is one of those concepts that is always likely to be in the news. Delhi, where a random sero-survey across 11 districts showed that almost one in every four of those examined had been exposed to the disease, has completed its second sero-survey, and its results are expected later this week. It will be interesting to see whether its results match that of the first survey. From Delhi's perspective, the best result will be a number that is higher than the 23% of the first survey (which was conducted in late June and early July; the second survey was conducted in early August; Delhi plans to conduct one every month). A higher number will mean more residents of the Capital have been exposed to the disease, and that the city is a step closer to achieving herd immunity.

A similar exercise in Mumbai (not as representative, though, because of its smaller sample and restricted coverage) came up with the finding that 57% of those surveyed in slums and 16% of those surveyed in apartments (or residential societies) had been exposed to the disease. On Monday, Pune's first sero-survey (covering 1,664 people and conducted in late July and early August) showed consistently high exposure to the virus across the city's five administrative zones (from 36% to 65%), with 56-62% of those who live in slums, 44% of those who reside in bungalows, and 33% of apartment dwellers having been exposed to it. Pune is India's worst affected city after Delhi, but these numbers, while unrepresentative, should bring it some cheer.

Pune's numbers are close to the new estimates for herd immunity that experts are moving towards. A paper released on August 14 in *Science*, based on a mathematical model by researchers at the University of Nottingham and Stockholm University that took into account differences in age and activity levels in a population found that the herd immunity for Covid-19 could be around 40% (a June news report based on the same research put the number at 43%). The model does not take into account two other factors: not everyone exposed to the disease gets infected; and not everyone who gets infected passes it on to others. That would seem to suggest that the actual herd immunity level for Covid-19 may be lower, although this can only be established by more (and deeper) research. Still, if that is the case, and Pune, Mumbai, and Delhi's numbers hold up to scrutiny, they are either safe or on their way there.

## Vaccine

### Govt kick-starts talks to explore vaccine deal (Hindustan: I2020818)

Top panel asks pharmaceutical firms for pricing, production estimates

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

Migrant workers with Covid-19 symptoms being taken for testing, at Anand Vihar Bus Terminal. Over 30 million samples have been tested for Covid so far, the health ministry said on Monday. >>P4ANI

Rhythm Kaul

government took the first steps on Monday to potentially secure a procurement deal for a Covid-19 vaccine, asking officials of five pharma firms, including three that have candidates in clinical trials, to present a road map within three days of how soon they can produce large quantities and what pricing they expect if their shot is approved.

India is yet to strike a pre-production deal with any of the vaccine developers that are in the race for a successful candidate, a strategy several advanced economies such as United States, United Kingdom and some European Union nations have adopted in order to jump what might be a long waiting line.

“Even as scientists are working to develop a Covid-19 vaccine, we are simultaneously working on procuring the final product to ensure availability and access to our population. As part of India’s proactive, pre-emptive and graded response to Covid-19 since January, the expert group is holding consultations with vaccine manufacturers to plan ahead for the production, pricing and distribution of the vaccine, whenever it is ready,” Union health minister Harsh Vardhan said following Monday’s meeting.

The meeting was held between an expert group spearheading India’s vaccine strategy and involved Serum Institute of India, Bharat Biotech and Zydus Cadila – all three have vaccine candidates in human trials. Serum Institute is licensed to produce up to some quantities the Oxford-AstraZeneca vaccine, which is largely considered the front runner globally.

The two others were Biological E and Gennova, both of which have candidates in preclinical phases. All five are Indian companies. Trial data of none of the India-made vaccines is yet to be made available.

The expert group asked the representatives of these companies to prepare and present a comprehensive note on the way forward to the government by Thursday.

“We first need to get a sense of how prepared vaccine manufacturers are. There is no final number at the moment that the government is looking to pre-order, even though initial projections made a few months ago among the various departments involved talked about roughly 680 million vaccines being required, including primary and booster shots,” said a

person aware of the discussions in the vaccine strategy-making process, asking not to be named.

“The target group is likely to be between 18 and 65 years. However, there is no final number decided as yet,” this person added.

The expert panel is headed by Niti Aayog member (health) VK Paul and Union health secretary Rajesh Bhushan. The other members of the panel are department of biotechnology secretary Renu Swarup, Indian Council of Medical Research director general Dr Balram Bhargava, and department of pharmaceuticals secretary PD Vaghela.

In its official release, the health ministry confirmed representatives of the five manufacturers attended the meeting with the expert group. “The National Expert Group on Vaccine Administration today met leading domestic vaccine manufactures — Serum Institute of India, Pune; Bharat Biotech, Hyderabad; Zydus Cadila, Ahmedabad; Gennova Biopharmaceuticals, Pune; and Biological E, Hyderabad. The meeting was mutually beneficial and productive. It provided the National Expert Group with inputs about the present stage of various candidate vaccines being developed by the indigenous manufacturers as well as their expectations from the Union Government,” said a statement.

UK’s Oxford-AstraZeneca and United States’s Moderna-NIAID are the global front runners for a coronavirus vaccine and are undergoing tests in the largest of the trials yet. India too is looking at these options, top government officials told HT earlier.

The national vaccine expert group has referred the matter of selection of the right vaccine candidate for use in the country to the Standing Technical Sub-Committee of National Technical Advisory Group on Immunization (NTAGI). NTAGI is an advisory committee consisting of multidisciplinary groups of experts advising the government on vaccine and immunisation policy based on available evidence.

The government will also closely track the progress of candidates being tested by the Hyderabad-based Bharat Biotech and Ahmedabad-based Zydus Cadila. Pune-based Serum Institute of India (SII) has struck a production and clinical trials deal with AstraZeneca for the AZD1222 vaccine.

The centre has already decided to take charge of procurement of the vaccine as and when it is ready. “The states have been told not to approach companies directly for procurement related requests,” confirmed a second official in the government in the know of things, who did not wish to be identified.

The first meeting of the National Expert Group on Vaccine Administration for Covid-19 was held on August 12 with all states. India has decided to support its key neighbours and development partner countries for Covid-19 vaccines.

India has some of the biggest vaccine makers by volume and is also likely to receive some doses as part of multilateral mechanisms such as the World Health organization-led Covax Facility that is meant to ensure equitable distribution of doses between rich and emerging economies.

“This is just the right time to start planning as the competition for Covid-19 vaccine is going to be steep globally. It makes sense to plan for the logistics now to avoid last minute procurement rush, especially when you do not know which one of these vaccines is going to finally materialise,” said Dr K Srinath Reddy, founder, Public Health Foundation of India.

The health ministry announced earlier that the delivery mechanism will go digital to check last mile delivery on a real-time basis.

### **Virus (The Asian Age: 2020818)**

<http://onlinepaper.asianage.com/articledetailpage.aspx?id=15049418>

■ Virus found active in patients who have recovered 39 -40 days ago

# Recovered patients returning with Covid recurrence : Docs

New Delhi, Aug. 17: Some hospitals in Delhi have said they are seeing recovered coronavirus patients returning to them with recurrence of the infection. Earlier this month, Rajiv Gandhi Super Speciality Hospital saw two instances of patients with relapse of coronavirus, almost one-and-a-half months after they were cured of the infection. In both the instances of relapse, the patients had moderate symptoms.

Aakash Healthcare in Dwarka had also reported a case where a cancer patient recovered from coronavirus and contracted the disease again after a couple of months. The second time proved fatal for the patient who succumbed to the virus. Last month, the case of a Delhi policeman having a relapse of the novel coronavirus had emerged which had left experts baffled. In the same month, a similar case had surfaced in the national capital after a nurse employed at a civic-run dedicated Covid hospital had tested positive again after recovering from the contagious disease.

## Decision on reopening hotels, gyms likely at DDMA meeting

New Delhi, Aug. 17: A decision on whether hotels, gymnasium and weekly markets should be allowed to reopen in the national capital is likely to be taken at a meeting of the Delhi Disaster Management Authority (DDMA) on Tuesday, officials said on Monday.

The Arvind Kejriwal government had earlier this month sent a proposal to L-G Anil Baijal about reopening hotels and weekly markets in view of the current Covid situation in Delhi. Mr Baijal had previously

overturned a similar decision of the AAP dispensation. An official said the DDMA meeting on Tuesday, to be chaired by the L-G, is likely to see the participation of chief minister Arvind Kejriwal, health minister Satyendar Jain, AIIMS director Randeep Guleria and other top officials.

"In the meeting, a decision on whether or not hotels, gymnasium, yoga institutes and weekly markets should be allowed to reopen is expected to be taken," the official said.

— PTI

According to Dr BL Sherwal, medical director of the Delhi government-run hospital, unless the virus is cultured or gene sequencing done, it will be difficult to determine whether it is a different strain of the virus that has infected the person the second time.

"There can be a relapse.

The virus can be isolated from the body particularly from the sputum. We have the evidence that after ninth or tenth day the virus becomes non-infectious and the patients are not tested again," he said.

"However, the virus has been reported to be living in patients who have recovered around 39 to 40 days

back," he added.

Dr Chandragouda Dodagoudar, director of medical oncology at Aakash Healthcare in Dwarka, shared the case of a 65-year-old patient who had stage 2 lymphoma. The patient first visited the health facility in March and was advised chemotherapy but was very apprehensive due to the coronavirus disease.

"The patient delayed the treatment for two and a half months and took alternative medicines and when that medication did not work and she started having pain, she visited the hospital. She had contracted Covid by then and the lymphoma had progressed from Stage 2 to Stage 4. We could not administer chemotherapy while she was undergoing Covid treatment," he said.

The doctor said after the patient recovered from virus, she was administered a slight dose of chemotherapy and became better and was discharged. But after a month, she had a relapse of Covid and ended up in a critical condition and succumbed last month.

— PTI

**New Cases (The Asian Age: 2020818)**

<http://onlinepaper.asianage.com/articledetailpage.aspx?id=15049423>

# 787 new cases take Delhi's Covid tally to 1.53L

AGE CORRESPONDENT  
NEW DELHI, AUG. 17

The number of coronavirus tests in Delhi has gone down in August as compared to July, with the government attributing it to the decrease in Covid infections in the national capital.

The authorities conducted over 2.58 lakh Covid tests in Delhi between August 1 and 15, whereas the figure stood at over 3.13

lakh in the same period in July. Between July 16 and 31, over 2.96 lakh tests were conducted in Delhi.

"It is wrong to say that the number of tests in Delhi has dipped in the last few days. We are doing sufficient number of tests in Delhi. There can be fluctuations over short time periods, but overall we have been consistently doing 19,000-20,000 tests daily for months now," an official said.

**AS MANY as 787 new cases and 18 deaths were reported in the last 24 hours. Of the total 1,53,367 cases in the city, 10,852 are active and 1,38,301 patients have recovered.**

As many as 787 new cases and 18 deaths were reported in the last 24 hours. Of the total 1,53,367 cases in the city, 10,852 are active and 1,38,301 patients have

recovered. The virus-related fatalities has gone up to 4,214. The official said the number of tests was low on some days in August due to festivals and celebrations such as Rakshabandhan, Janmashtami and Independence Day.

According to the official, people do not go out for Covid test during festivals unless and until it is absolutely necessary. Also, testing is lower on Saturdays and Sundays.

The tests in Delhi are being conducted strictly as per Indian Council of Medical Research (ICMR) guidelines, the official added. August 1 saw over 18,000 tests being conducted, while the figures on subsequent days — August 2 (12,730), August 3 (10,133) and August 4 (9,295) were significantly lower than the average number of tests being conducted on a daily basis, which is 20,000.

## Saliva test for coronavirus

### A better test: on rapid, inexpensive, saliva test for coronavirus (The Hindu: 2020818)

India should quickly adopt the rapid, inexpensive, and sensitive saliva test

On August 15, six and a half months after the first novel coronavirus case was reported in the country, India crossed another grim milestone — 50,000 deaths. The total number of cases reported as on Saturday stood at nearly 2.6 million; India has been reporting the most fresh cases in a day in the world since August 2. More than the total death toll, now 51,045, what is troubling is the shorter time taken for the death toll to double. The toll count crossed 25,000 on July 16 and doubled to over 50,000 in just 30 days. It is certain that there is some extent of underreporting of deaths across the country, especially when deaths have occurred outside the health-care system. For instance, reporting of COVID-19 cases and deaths by States such as Gujarat, West Bengal and Telangana have been suspect right from the beginning; the pandemic-defying trend seen in these States is in stark contrast to the rest of the country. No combination of factors can explain the low daily mortality figures in Gujarat and Telangana. In fact, in the last one month, the death toll on any single day in Telangana has never crossed 15 and has been in single digits on many days; the State even reported zero deaths on July 26, while in Gujarat, deaths have never crossed 30, except on one day. However, under-reporting notwithstanding, it is unlikely to be huge enough to change the death toll several-fold.

Like in most Southeast Asian countries, deaths per million population have been low in India. While the case fatality rate too has been low, the continuous dip in the rate might be due to more cases, including asymptomatic ones, being detected due to increased testing with rapid antigen tests. Also, large cities that witnessed strained health-care infrastructure due to the surge in cases, leading to more deaths, seem to have passed the peak. A big shortcoming of rapid antigen tests is their low sensitivity, and despite the ICMR's recommendation, most States have very low rates of validation of negative test results using the molecular method. Relying mostly on rapid antigen tests will result in many of the infected continuing to spread the virus. If speed, low cost and constraints of molecular testing capacity are the reasons why many States have embraced rapid antigen testing, the emergency use authorisation granted recently by the U.S's FDA for a saliva test developed by Yale University should be good news for India. This rapid, inexpensive, non-invasive and highly sensitive test that uses saliva samples will not only help detect more cases but also reduce the need for trained care workers to collect samples. With the testing protocol made freely available, India should facilitate rapid

adoption of the tests by States, after local validation. Early results of the saliva test have been encouraging and India will hugely gain by embracing it in lieu of the unreliable rapid antigen test, particularly when the virus spreads to rural areas.

## **Health-care centres**

### **Hospitals afire: on lack of safety in health-care centres (The Hindu: 2020818)**

Health-care centres lack fire safety because governments pay lip service to regulation. The shocking deaths of at least 19 people in special facilities for COVID-19 management in Vijayawada and Ahmedabad have exposed the deep rot in regulatory processes for institutional and commercial building safety. While 11 died in the Andhra Pradesh incident, where a hotel had been taken over by a private hospital to run a COVID-19 care centre, nine patients perished in the blaze in a Gujarat hospital intensive care unit (ICU). These ghastly incidents which claimed the lives of those who were getting treatment or recovering from an infection in supposedly secure conditions lay bare the lack of preparedness among States to manage the expanding pandemic, and hasty contracting procedures. In a familiar pattern, civic and fire authorities who were expected to monitor the safety of such buildings have sought to pin responsibility for the carnage on the owners of the properties. They are being held responsible for failure to obtain a no objection certificate or, in the case of the hotel-turned-COVID-19 care centre, carrying out electrical upgrades for safety. This is clearly untenable, as the Supreme Court of India observed about a decade ago in the Uphaar cinema fire tragedy case in Delhi, pulling up authorities including the Union Home Ministry for abdicating responsibility and passing the buck on to the management of the institution. In the Ahmedabad ICU blaze, patients expected the institution to offer the highest levels of safety, but suffered as it was ill-equipped to fight a fire.

Safety regulation of buildings used for health-care delivery is a subset of the overall need to regulate hospitals, and States should use the recent deadly fires as the occasion to launch much-delayed reform. In the absence of safety systems, many died of fire and smoke inhalation, while those who survived had nothing but luck to count on. This situation cannot be allowed to continue. The National Building Code of India, with additional fire safety provisions for hospitals, is the basis for hospital accreditation systems, but these should be made mandatory and enforced in all States. If smoke alarms and sprinkler systems, along with local fire-fighting aids are available, loss of life can be eliminated. All patients should also be covered by substantial life insurance. Evacuation systems for ICU patients need to be part of the building design. Often, hospital buildings are regularised for unapproved constructions by State governments acting thoughtlessly. Schemes introduced to regularise building violations are clearly anti-social in character. The many fires in institutional buildings and their terrible toll should lead to a full inspection of all such facilities for safety, with civil society keeping up the pressure on governments to act.

## **Better health**

### **For better health (The (Indian Express: 2020818)**

<https://indianexpress.com/article/opinion/editorials/for-better-health-6557607/>

National ID would improve medical care, patient experience. Challenges of privacy, doctor shortages will have to be addressed.

Chauhan was a popular man in the team, with his full-throated laughter and a rare ability to laugh at himself.

It's fitting that the launch of the National Digital Health Mission (NDHM) was the centrepiece of Prime Narendra Modi's speech on the country's 74th Independence Day. With comorbidities — most of them lifestyle diseases that Indians have become increasingly prone to in the past 15 years — emerging as one of the main causes of mortality in the ongoing COVID-19 pandemic, the salience of a repository that can alert the physician to a patient's medical history at the click of a computer key cannot be overstated. "Every Indian will be given a health ID that will work like a health account. This account will contain details of every disease, the doctors you visited, the medicines you took and the diagnosis," PM Modi said. The health ID will allow patients to virtually share files between hospitals and doctors. The creation of a digital ecosystem for healthcare and the attempt to leverage IT to enhance the well-being of people in the country will, however, require surmounting challenges, including correcting some of the medical sector's longstanding problems.

In 2017, the National Health Policy underlined the need for a repository of medical information of the country's citizens. A year later, the Niti Aayog proposed the creation of a National Health ID "to reduce the risk of preventable medical errors and significantly increase the quality of medical care". This urge to create a patient-centric system has, by all accounts, informed conversations on the NDHM in the past three years. The welcome endeavour has, however, not given adequate attention to a fundamental problem of the country's healthcare system — the shortage of medical personnel. Despite improvements in the past six years, at 1:1,450, the country's doctor-population ratio does not meet the WHO's norm of one doctor for 1,000 people. The situation is compounded by the poor state of primary health centres in much of the country. There are fears, therefore, that tasking the already strained medical system with digital documentation would affect the success of the health ID scheme. In fact, physician burnout is one of the main reasons for the digital health ecosphere remaining a work in progress in technologically advanced countries, such as the US.

The core building blocks of the NDHM — the Health ID and Health Facility Registry — shall be owned, operated and maintained by the government. However, private operators will have equal opportunities to integrate with these systems and create products for the market. Such linkages across public and private players could enhance medical efficiency and improve the patient's experience. Patients can choose the documents they would like to share, with whom and for how long. Even then, given the asymmetrical relations between health service providers — doctors, hospitals, insurance companies — and medical care seekers, apprehensions of privacy breaches are not unfounded. The country's data protection law — in the works for almost three years — will have to factor in such concerns, arm patients with safeguards. In the coming months and years, the government and the country's legal, IT and medical systems will have to come together to translate the NDHM's patient-centric vision into reality.

## **Health complications during COVID19**

### **Health complications during COVID19: What precautions should be taken before seeking treatment at hospitals? (New Kerala: 2020818)**

<https://www.newkerala.com/news/2020/145594.htm>

For many people with preexisting medical issues, staying at home isn't an option amid the COVID-19 pandemic. Patients in the middle of chemotherapy or need a liver transplant, or heart patients can't postpone their checkups indefinitely.

Their medical requirements will bring them straight to the hospital, where they are more likely to encounter an infected person. Understandably, people are worried about visiting hospitals, but hospitals and doctors are doing their best to alleviate these fears and are taking measures during the coronavirus pandemic to help prevent the spread of COVID-19.

Major hospitals have enforced enhanced protocols for the safety of patients and health personnel while facing the unprecedented challenge of COVID-19. Despite hospital measures, there are a few ways patients can safeguard themselves while visiting the hospital, read on to find out how.

Precautions Patients should take during hospitalization against COVID-19

Before booking an appointment for a procedure, it's important to inform the doctor or hospital staff about your health and ensure you opt for a COVID-19 test.

It's important for all patients to wear a mask before entering the hospital. Please ask the hospital to provide one in case you forget.

Contact the hospital before visiting and ask them about their safety procedures before making an appointment.

Ensure that the hospital has increased the cleaning frequency for all high traffic surface areas with certified coronavirus killing disinfectants and thorough cleansing is done after each patient is checked to ensure the safety of the next patient.

Check if all patient care equipment is thoroughly disinfected after use on each patient.

Importantly, make sure that patients suffering from COVID-19 are isolated in a separate part of the hospital so non-infected people have less chance of coming into contact with them.

Tele-Consultation

If it is not a medical emergency, but there is a need to consult a doctor, there are numerous teleconsultation facilities like DocsApp, Practo and 1mg.

However, it would be better to book a teleconsultation appointment with a reputed multi-specialty hospital. Sri Ramakrishna Hospital, which has over 45 years of experience and a team of over 200 experienced doctors offers tele consultation from anywhere in India.

Consulting an experienced doctor from a renowned multi-specialty hospital is better and safer than consulting a random doctor through an online platform. Patients can visit the hospital's website ([www.sriramakrishnahospital.com](http://www.sriramakrishnahospital.com)) to book appointments if they are located in containment zones or are worried about stepping out of their homes.

#### Note Patients with Chronic Illnesses

People with illnesses like liver disease, heart disease, and high blood pressure are at risk of developing complications if they are infected by COVID-19.

People with such illnesses can take the following measures in addition to frequent handwashing and social distancing. Patients taking hepatitis B or hepatitis C, or other medications should make sure they have plenty of medications stocked at home to avoid unnecessary trips to health care or pharmacies.

While we recommend such precautions, keep in mind that the disease and its impact varies from patient to patient. It's important to consult a doctor if you notice any abnormal symptoms.

#### Doctors Advice The Pandemic Shouldn't Hinder Treatment

"Individuals should not allow the fear of coronavirus to discourage them from accessing the healthcare they need. Especially, if they have serious health conditions, chronic ongoing pain, or life-threatening symptoms. We are 24/7 ready to help you. If people need a procedure, it's perfectly safe to come in and have that procedure done now," said Dr. Sukumaran Dean of Sri Ramakrishna Hospitals.

He also added that experts in infectious disease prevention are working closely with care teams across hospitals to make sure they are safe for patients. Remember that there is no reason to panic or get stressed out.

Healthcare providers are already making sure to get you the best treatment possible at minimum risk of COVID-19 exposure. Hospitals continue to adapt to this challenging scenario, with the primary objective of keeping patients and staff safe.

This story is provided by BusinessWire India. ANI will not be responsible in any way for the content of this article.

### **Dementia mimics**

### **New diagnostic criteria shine light on early dementia mimics? (New Kerala: 2020818)**

<https://www.newkerala.com/news/2020/145441.htm>

In a recent study, experts estimate up to one-third of people attending specialist memory clinics could have a condition that is commonly mistaken for early dementia.

In a paper published in the journal, *Brain*, UK academics and clinicians have collaborated to develop a diagnostic definition of the widely recognised but poorly understood condition, Functional Cognitive Disorder (FCD).

Dr Harriet Ball from the University of Bristol, first author of the paper, said providing diagnostic criteria was an incredibly important step toward improving diagnosis, management and research into FCD and other cognitive disorders.

"Dysfunction of day-to-day thinking processes is a feature of FCD but it is often misdiagnosed as early dementia. We estimate up to a third of people attending specialist memory clinics have FCD. While FCD involves impairment of thinking processes, unlike dementia, it is not expected to progress. From a patient's point of view, that is a very different prognosis and one that requires different management.

"As clinicians, our aim is to unravel the causes of early memory symptoms, and importantly, identify those that can improve over time rather than deteriorate towards dementia. Having clear diagnostic criteria for FCD will enable us to better characterise the condition and better explain it - and its prognosis - to patients and their families," said Dr Ball.

The position paper Functional cognitive disorder dementia's blind spot is the collaborative effort of 25 of the UK's leading experts on the topic and represents the first agreed clinical definition of FCD.

This definition will allow a new phase of research into FCD as researchers can now consistently identify patients for studies. The next stage for this work, which has already begun, involves assessing clinical markers and understanding the epidemiology, all of which will help to build treatment studies.

"While some people do spontaneously recover, this is often related to how long it has gone on for and how entrenched it has become. Treatment up to now has focused on the management of aspects that we know can help in general, for example cutting down medications that might be making things worse, working on better sleep patterns, but in future, we'd like to test specific cognitive therapies which could prove much more successful," said Dr Ball.

Dr Ball said the definition also had important benefits in terms of strengthening research into dementia.

"With a clear operational definition, we'll be better at picking the right people for trials against, for example, Alzheimer's proteins - because if lots of people with FCD are in those trials, it is much harder to show any treatment effect against Alzheimer's." (ANI)

## **Bone health**

### **All you need to know about bone health? (New Kerala: 2020818)**

<https://www.newkerala.com/news/2020/145431.htm>

All you need to know about bone health

Amid the pandemic, work from home, social shielding and discreet outdoor ventures have not only disrupted our emotional well-being but have also drastically affected our physical health. As people are confined to their homes with reduced physical activity there is rapid bone resorption (loss) as muscles and bones are not getting adequate stimulation.

Also lack of exposure to sun during the pandemic has critically affected vitamin D levels in our body. People are frequently feeling tired with lack of energy and strength. Everyone needs to be cautious about the health of their bones as much as their other needs.

Dr Dipesh Mahendra Waghmare, Medical Advisor Executive to Millennium Herbal Care, shares some measures that can take care of your bones during the pandemic.

Eat a well-balanced diet rich in calcium and vitamin D

Good sources of calcium include low-fat dairy products, green leafy veggies and dry fruits. Good sources of vitamin D include fortified cereals, egg yolks, saltwater fish, liver and milk. Calcium and vitamin D work together to protect your bones - calcium helps to build and maintain bones; while vitamin D helps your body to effectively absorb calcium.

Get exposure to sunlight to make enough vitamin D

Regular sun exposure is the most natural way to get enough vitamin D. The sun's ultraviolet B (UVB) rays hit cholesterol in the skin cells, providing the energy for vitamin D synthesis. Vitamin D has a significant role in calcium homeostasis and metabolism.

As per pan-India study the best time to get exposed to the sun is between 11am and 1pm since the wavelength of ultraviolet B (UVB) rays is 290-320nm during this period which is essential for skin to make vitamin D.

Get plenty of physical activity

Like muscles, bones become stronger with exercise. The best exercises for healthy bones are strength-building and weight-bearing exercise like walking, climbing stairs, lifting weights and dancing. Try to get 30 minutes of exercise each day.

Strength-building and weight-bearing exercise provides stimulation to bone cells and helps to increase bone mineral density and bone size thus reducing the risk of osteoporosis.

Live a healthy lifestyle

Smoking and excessive alcohol intake contributes to bone loss and weakened bones. These unhealthy habits unknowingly reduce blood supply to the bones, slow down the production of bone-forming cells and impair the absorption of calcium. By avoiding these habits, you can lower your rate of bone loss and protect your bones from negative impacts.

### Ayurveda and phytomedicines for bone health

There are several herbs and phytomedicines mentioned in Ayurveda for promoting bone health. Herbs like Hadjod, Salai guggul, Ashwagandha and Bala are clinically proven to reinstate bone cell homeostasis (osteoblast and osteoclast) and to improve bone mineral density. While herbs like Arjuna, Methi, Lakha serve as an organic source of bio-available calcium, phosphorus, vitamin C, mucopolysaccharides, minerals and phytoestrogen, of which all are essential components for healthy bones.

The best approach to bone health is adopting proper lifestyle and restoring the healthy balance of bone forming cells (Osteoblast) and bone resorption cells (Osteoclast). As with aging this balance shifts in a negative direction, favoring greater bone loss. Ayurvedic herbs augment bone mass formation and increase its natural healing abilities. Natural or phyto-medicines are free from any kind side effects, can be continued for long term and have sustained benefits for the holistic wellness of your bone health.

## **Nitrate supplementation**

### **Study reveals nitrate supplementation could help in breathing, lung clearance in the elderly(New Kerala: 2020818)**

New research shows that nitrate improves function in the diaphragm, the muscle involved in coughing and breathing, by improving power. The study was done in old mice, if replicated in humans, could provide a strategy for helping elderly people clear the lungs more effectively and avoid infection.

The study was published in The Journal of Physiology

Previous studies showed nitrate was helping muscles by improving the use of calcium in the muscle. This finding that it's additionally affecting power is significant, especially in the context of COVID-19, because the diaphragm is the primary inspiratory muscle used for breathing and coughing, the latter being relevant for clearing the lungs.

The research team at the University of Florida found that dietary nitrate supplementation elicited a pronounced increase in contractile function (power) of the diaphragm, a respiratory muscle, of old mice.

They made their measurements during maximal activation, so the effects observed seem to be caused by an improvement in the function of contractile proteins rather than calcium handling.

Few short-term interventions have such a profound impact on muscle contractile function, as was observed in this study.

Dietary nitrate is readily available for humans and could be used, under proper supervision, to improve respiratory muscle dysfunction that contributes to shortness of breath and morbidity in the elderly.

The researchers gave sodium nitrate to old mice in their drinking water daily for 14 days. The control group received regular water. Diaphragm muscle contractile function cannot be assessed directly in live animals or humans. Thus, they tested diaphragm function in muscle tissues under controlled conditions for muscle stimulation and oxygenation.

The main limitations are that mouse and human diaphragm have different percentages of fast and slow muscle cells. Mouse diaphragm consists of 90% fast muscle cells; the human diaphragm consists of 25-50% fast muscle cells depending on several factors that include age and sex.

Dietary nitrate seems to exert a greater impact on the contractile function of fast muscle cells. Thus, the benefits to the human diaphragm may not as pronounced as was observed in mice. They also only tested male mice, and the benefits for females is unknown.

Leonardo Ferreira, senior author on the study said

"Our findings are especially important in light of the current COVID-19 pandemic as they suggest that, if replicated in humans, dietary nitrate is useful to improve respiratory muscle dysfunction that contributes to difficulty in weaning patients from mechanical ventilation."

## **Combination therapy**

### **Combination therapy to improve survival outcomes in certain patients with acute myeloid leukemia: Study**

<https://www.newkerala.com/news/2020/145248.htm>

According to a recent study, a combination regimen of venetoclax and azacitidine was safe and improved overall survival (OS) over azacitidine alone in certain patients with acute myeloid leukemia (AML).

Adding targeted therapy to chemotherapy in the Phase III trial is safe, according to new research led by The University of Texas MD Anderson Cancer Center.

The results of the Phase III trial were presented in the virtual 25th European Hematology Association (EHA) Annual Congress and were published in the New England Journal of Medicine.

The addition of venetoclax, an inhibitor of the BCL-2, to azacitidine resulted in a median OS of 14.7 months compared to 9.6 months in patients receiving azacitidine alone. Additionally,

66.4 per cent of patients receiving the combination therapy achieved complete remission, while azacitidine alone achieved a 28.3 per cent complete remission rate.

The responses to treatment were both rapid and durable 43 per cent of patients in the combination therapy group exhibited a response to treatment during the first cycle, and the observed median duration of remission was 17.5 months.

Treating a subgroup of AML patients without effective therapeutic options Although there is not yet a reliable standard treatment regimen for AML, many patients receive chemotherapy and/or a stem cell transplant. However, not all patients are eligible for these therapies.

"A large portion of patients with AML, including those older than 75 or those who have medical comorbidities, cannot tolerate existing treatment strategies, and the patients with AML who are ineligible for intensive chemotherapy often experience poor prognoses," said Courtney D. DiNardo, M.D., lead investigator and associate professor of Leukemia.

"We launched the VIALE-A trial to evaluate whether we could safely use a combination therapy to treat this critical patient population," the researcher added.

In this multi-institution trial, 431 patients were randomized in a 2:1 ratio to receive either the combination of venetoclax and azacitidine or azacitidine plus placebo. The primary objective was to evaluate whether the combination improved OS compared to azacitidine, with additional goals to examine the safety of the combination therapy.

A combination treatment shows positive safety results. These results demonstrate that the combination of venetoclax and azacitidine has a safety profile similar to that of both drugs separately. The most common adverse events in both the experimental and placebo treatment groups were hematologic and gastrointestinal.

In general, rates of adverse events were consistent between the two treatment groups, although a higher frequency of neutropenia (42 per cent vs. 29 per cent) and febrile neutropenia (42 per cent vs. 19 per cent) was observed with the combination therapy compared to azacitidine and placebo.

"The primary adverse events seen with azacitidine and venetoclax are related to increased cytopenias, including neutropenia and neutropenia-related infections. Key management guidelines include dosing interruptions between cycles to allow for count recovery in the setting of a leukemia-free marrow, and the use of granulocyte colony-stimulating factor as an adjunct to improve neutrophil count once a patient is in remission," said DiNardo.

This research is likely to be practice-changing for the treatment of some groups of patients with AML. Additional research is needed to evaluate how new therapies, including this combination therapy, can improve outcomes for all patients with AML.

"While this combination represents a key advance in AML therapy, improving both remission and survival rates in newly diagnosed patients with AML, many unfortunately will still relapse. Our next steps include an evaluation of azacitidine and venetoclax as a backbone to which additional novel therapeutics are being evaluated in particularly high-risk populations," said DiNardo.

## Corona Simptom

कोरोना के लक्षणों पर वैज्ञानिकों को मिली नई जानकारी, पहले की अपेक्षा जल्दी ठीक हो पाएंगे मरीज (Amarujala: 2020818)

<https://www.amarujala.com/photo-gallery/lifestyle/fitness/scientist-reveals-new-coronavirus-symptoms-series-research-study-helps-in-covid-19-treatment-big-breakthrough-on-sars-cov-2>

कोरोना वायरस का बढ़ता संक्रमण दुनियाभर के लिए चिंता का सबब बना हुआ है। राहत की बात यह है कि भारत समेत कई देश इसकी वैक्सीन बनाने के काफी नजदीक हैं। रूस ने तो पहली वैक्सीन बना लेने का दावा किया है। वहीं दूसरी ओर इसके इलाज के लिए अब कई दवाएं भी उपलब्ध हैं। वैक्सीन और दवा से इतर वैज्ञानिक इस वायरस को और ज्यादा गहराई से समझने के लिए लगातार शोधरत हैं। इसी क्रम में वैज्ञानिकों और शोधकर्ताओं ने कोरोना पीड़ितों में लक्षण दिखने के संभावित क्रम का पता लगा लिया है। दावा किया जा रहा है कि कोरोना महामारी से निपटने में यह शोध मददगार साबित होगी।

अगली स्लाइड देखें

## New Cases

Corona in India State wise List: देश में कोरोना संक्रमितों का आंकड़ा 27 लाख पार, पिछले 24 घंटों में नए केस से ज्यादा रिकवरी (Navbharat Times: 2020818)

<https://navbharattimes.indiatimes.com/india/corona-status-in-india-state-wise-list-and-all-updates-on-18-august-2020/articleshow/77603405.cms>

Corona India Latest Updates : पिछले 24 घंटों में वायरस से संक्रमण के 53,941 नए केस आए और देश में अब तक संक्रमितों की संख्या बढ़कर 27,01,604 पर पहुंच गई। इन 24 घंटों में कोविड-19 महामारी से पीड़ित 56,406 मरीज ठीक भी हो गए।

देश में कोरोना केस का आंकड़ा 27 लाख को पार कर गया है। अच्छी बात यह है कि रिकवरी रेट भी तेज रफ्तार से बढ़ रही है। पिछले 24 घंटों में वायरस से संक्रमण के 53,941 नए केस आए और देश में अब तक संक्रमितों की संख्या बढ़कर 27,01,604 पर पहुंच गई। इन 24 घंटों में कोविड-19 महामारी से पीड़ित 56,406 मरीज ठीक भी हो गए। जहां तक बात महामारी के कारण हुई मौतों का है तो इस दौरान कोरोना ने 1,004 लोगों को मौत की नींद सुला दी। आइए देखते हैं अब तक के कुल कोरोना केस, ठीक हुए मरीजों और मौतों का राज्यवार ब्योरा...

## किस राज्य में कोरोना के कितने केस

	राज्य	कुल केस	ठीक हुए लोग	मौतें
1.	अंडमान निकोबार	2,445	1,325	29
2.	आंध्र प्रदेश	2,96,609	2,09,100	2,732

3.	अरुणाचल प्रदेश	2,741	1,893	5
4.	असम	79,668	56,735	197
5.	बिहार	1,06,668	76,706	542
6.	चंडीगढ़	2,216	1,183	30
7.	छत्तीसगढ़	16,025	10,598	150
8.	दादरा एवं नगर हवेली/दमन एवं दीव	1,908	1,480	2
9.	दिल्ली	1,53,367	1,38,301	4,214
10.	गोवा	11,994	8,058	111
11.	गुजरात	79,816	62,679	2,800
12.	हरियाणा	48,040	30,610	550
13.	हिमाचल प्रदेश	4,174	2,834	18
14.	जम्मू-कश्मीर	28,892	21,296	548
15.	झारखंड	24,067	15,348	255
16.	कर्नाटक	2,33,283	1,48,562	4,071
17.	केरल	46,140	30,025	170
18.	लद्दाख	1,966	1,368	14
19.	मध्य प्रदेश	46,385	35,025	1,128
20.	महाराष्ट्र	6,04,358	4,28,514	20,265
21.	मणिपुर	4,687	2,734	17
22.	मेघालय	1,420	679	6
23.	मिजोरम	789	372	0
24.	नगालैंड	3,435	1,530	7
25.	ओडिशा	62,294	43,780	406
26.	पुदुचेरी	8,029	4,627	114

27.	पंजाब	32,695	20,180	862
28.	राजस्थान	62,630	47,654	887
29.	सिक्किम	1,187	701	1
30.	तमिलनाडु	3,43,945	2,83,937	5,886
31.	तेलंगाना	92,255	70,132	703
32.	त्रिपुरा	7,219	5,286	59
33.	उत्तराखंड	12,493	8,485	158
34.	उत्तर प्रदेश	1,58,216	1,04,808	2,515
35.	पश्चिम बंगाल	1,19,578	89,703	2,473
	भारत में कुल	27,01,604	19,76,248	51,925

## Anti Corona Nasal Spray

**Anti Corona Nasal Spray: एंटीबॉडीज से तैयार किया इनहेलर, कोरोना को नाक में ही रोक लेता है**  
**((Navbharat Times:: 2020818))**

अमेरिकी वैज्ञानिकों ने एक ऐसा इनहेलर बनाने का दावा किया है, जो कोरोना वायरस को नाक में पहुंचने पर आगे नहीं बढ़ने देगा। इसे विकसित करनेवाली टीम का कहना है कि यह इनहेलर पीपीई किट से भी अधिक प्रभावी है...

### nasal-spray-1

कोरोना वायरस को हर तरह से प्रभावहीन करने पर पूरी दुनिया में काम चल रहा है। हर फील्ड से जुड़े शोधकर्ता अपने-अपने तरीके से इस वायरस को खत्म करने के नए-नए तरीके खोज रहे हैं। इसकी क्रम में ताजा खबर अमेरिका से आई है। अमेरिकी वैज्ञानिकों का दावा है कि उन्होंने नैनोबॉडीज युक्त एंटी कोरोना स्प्रे तैयार किया है, जिसे इनहेलर की तरह उपयोग किया जाएगा।

एक बार इनहेल करने के बाद इसकी नैनोबॉडीज कोरोना संक्रमण फैलानेवाले वायरस को नाक में पहुंचते ही रोक देंगे। इस तरह वायरस गले में होते हुए हमारे शरीर में प्रवेश नहीं कर पाएगा। ऐसा इसलिए संभव है क्योंकि यह नेजर स्प्रे कोरोना वायरस की ऊपरी प्रोटीन परत को ब्लॉक कर लेता है।

कोरोना एंटीबॉडीज से किया तैयार

-कोरोना वायरस को प्रोटीन के जरिए ब्लॉक करनेवाले इस नेजल स्प्रे का निर्माण कैलिफोर्निया यूनिवर्सिटी में किया गया है। शोधकर्ता टीम का कहना है कि इस इनहेलर को तैयार करने में कोरोना एंटीबॉडीज का उपयोग किया गया है।

### nasal-spray-2

कोरोना को नाक से आगे नहीं बढ़ने देता ये इनहेलर

मलेरिया के नए परजीवी ने बढ़ाई आफत, इस पर बेअसर हो रही है दवा

-सबसे पहले ऐंटिबॉडीज से नैनोबॉडीज का निर्माण किया गया। लैब में नैनोबॉडीज को विकसित करते समय इन्हें जेनेटिकली मॉडिफाई किया गया है। ताकि ये खासतौर पर कोरोना वायरस को रोकने का काम करें। इनका प्रभाव मुख्य रूप से कोरोना वायरस की बाहरी परत पर होता है, जो प्रोटीन से निर्मित है।

कैसे बनाई ऐंटी कोरोना नैनोबॉडीज?

- शोधकर्ता टीम की तरफ से कहा गया है कि इस इनहेलर को बनाने में जिन नैनोबॉडीज का उपयोग किया गया है, वे लामा और ऊंट जैसे जानवरों में पाई जानेवाली ऐंटिबॉडीज से विकसित की गई हैं। ये शरीर की रोग प्रतिरोधक क्षमता को कई गुना बढ़ाने का काम करती हैं।

हृदय को स्वस्थ रखने के लिए भोजन में शामिल करें ये 7 चीजें, नियंत्रण में रहेगा कॉलेस्ट्रॉल  
ह्यूमन ट्रायल की तैयारी

-इसे बनानेवाली टीम अब इस नेजल स्प्रे के बड़े स्तर पर ह्यूमन ट्रायल की तैयारी कर रही है। यदि यह ह्यूमन ट्रायल सौ फीसदी सफल रहता है तो कोरोना वायरस के कारण फैली महामारी को रोकने में यह नेजल स्प्रे एक आसान और प्रभावी तरीका साबित होगा।

डार्क फूड्स के हैं कई फायदे, शगर से लेकर हार्ट डिजीज तक सब पर कंट्रोल रहेगा

मध्य प्रदेश में तैयार हो गई हैं इम्युनिटी बूस्टर साड़ियां, नाम है आयुर्वेद