

COVID-19 BULLETIN

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COVID-19 Dashboard

COVID-19 Cases and Deaths in India & Worldwide

(Data as of 10 May 2020)

	India	Worldwide
Total confirmed cases	62939	3917366
Total confirmed new cases	3277	61578
Total deaths	2109	274361
Total new deaths	128	8499

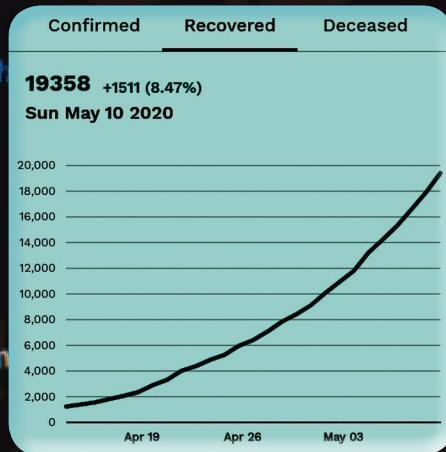
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Graph India

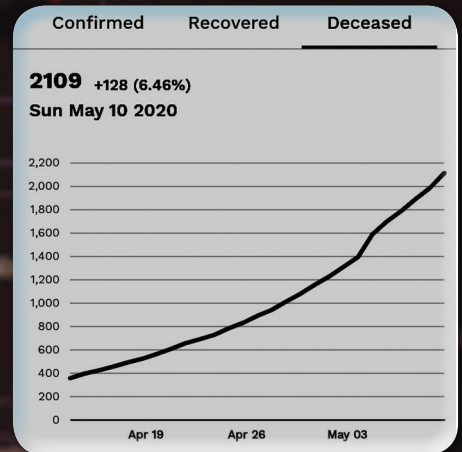
Confirmed Cases



Recovered Cases



Deceased Cases





CORONA RESEARCH SNAPSHOT

➔ Strong antibody in COVID-19 recovered patients

In a study published in MedRxiv, it has been found 1300 people who got recovered from COVID-19 were making new antibodies against the novel coronavirus. Ania Wajenberg and co-researchers from Icahn School of Medicine, New York have found that more than 99% of the recovered individuals were immune to the disease for an unknown length of time, however the immune system could be slow in the process. The researchers have also found that the individual's age and sex didn't affect the chance of developing these antibodies. (Source: medRxiv 2020.04.30.20085613)

➔ Easy-to-use testing method for detecting COVID-19

Researchers at MIT and Harvard have developed a CRISPR gene-editing system that can detect the novel coronavirus within an hour without the need for specialized equipment or trained personnel. The test uses a paper-based strip for the detection of COVID-19 virus RNA, similar to the strip-based pregnancy test. (Source: Nature <https://go.nature.com/35csgqk>)

➔ Imaging a viral enzyme can help in making a drug for novel coronavirus

Prof. Patrick Cramer and his team at Max Planck Institute of Biophysical Chemistry in Gottingen, Germany have used cryo-electron microscopy for imaging the 3D shape of the enzyme which copied the COVID-19 virus's genetic material. These images of a key COVID-19 enzyme in

action help in understanding the process by which a drug attacks a COVID-19 virus. (Source: Nature News and BioRxiv, 2020)

➔ Hospital toilets are potential hotspots for COVID-19 viral RNA

In a detailed study carried out at two hospitals in Wuhan by the researchers of Wuhan University, China high levels of viral RNA were detected in the toilets and changing rooms for staff. However, disinfection of the places ensured the absence of viral RNAs. The presence of airborne RNA suggests that routine disinfection drives are mandatory for preventing COVID-19 spread through toilets and changing rooms. (Source: Nature, 27th April, 2020)



➔ Researchers identify cells that are targets of coronavirus

Researchers at MIT; the Ragon Institute of MGH, MIT, and Harvard; and the Broad Institute of MIT and Harvard have identified specific types of cells that appear to be targets of the coronavirus that is causing the Covid-19 pandemic. Using existing data on the RNA found in different types of cells, the researchers were able to search for cells that express the two proteins that help the SARS-CoV-2 virus enter human cells. They found subsets of cells in the lung, the nasal passages, and the intestine that express RNA for both of these proteins much more than other cells. (Source: <https://www.sciencedaily.com/releases/2020/04/200422132556.htm>)

➔ Two cell types in the nose identified as infection points

Two specific cell types in the nose have been identified as likely initial infection points for COVID-19 coronavirus. Scientists discovered that goblet and ciliated cells in the nose have high levels of the entry proteins that the COVID-19 virus uses to get into our cells. The identification of these cells by researchers from the Wellcome Sanger Institute, University Medical Centre Groningen, University Coted'Azur and CNRS, Nice and their collaborators, as part of the Human Cell Atlas Lung Biological Network, could help explain the high transmission rate of COVID-19. (Reported 23rd April in *Nature Medicine*, <https://www.sciencedaily.com/releases/2020/04/200423130420.htm>)

➔ Antibodies from llama could help fight COVID-19

A team of researchers from The University of Texas at Austin, the National Institutes of Health and Ghent University in Belgium reported their findings May 5 in the journal *Cell* that on linking two copies of a special kind of antibody produced by llamas they created a new antibody that binds tightly to a key protein on the coronavirus that causes COVID-19. This protein, called the spike protein, allows the virus to break into host cells. Initial tests indicate that the antibody blocks viruses that display this spike protein from infecting cells in culture. (Source: <https://www.sciencedaily.com/releases/2020/05/200501184301.htm>)

Credit: © Countrypixel / Adobe Stock





➔ Bats' super immunity prevents them getting sick from the coronavirus

A University of Saskatchewan (US) research team has uncovered how bats can carry the Middle East respiratory syndrome (MERS) coronavirus without getting sick -- research that could shed light on how coronaviruses make the jump to humans and other animals. In research published in *Scientific Reports*, the team demonstrated for the first time that cells from an insect-eating brown bat can be persistently infected with MERS coronavirus for months, due to important adaptations from both the bat and the virus working together. The MERS coronavirus enters a long-term relationship with the host, maintained by the bat's unique 'super' immune system.

(Source: <https://www.sciencedaily.com/releases/2020/05/200506133614.htm>)

Credit: © Dennis Donohue / Adobe Stock

➔ Nano-medicine to attack COVID-19 viruses in respiratory system

Researchers at the S N Bose Centre for Basic Sciences (SNBNCBS), Kolkata have developed a nanoparticle-based nanomedicine that will specifically target the respiratory system of COVID-19 patients when given to patients with the help of nebulizer. Generally, medicines are being given to patients through the blood. But this nanomedicine uses a nebulizer because the respiratory system is the prime target of the drug. This medicine infuses Reactive Oxygen Species (ROS) in to human cells to make them immune to the the viruses. These ROS can kill the virus even if the dose is high. Prof. Sameer Kumar Pal and his team have



successfully tested this nanomedicine in mice and are eager to test it on other animals. The researchers have applied to the Drug Controller General of India (DGCI) to get the permission for human trials. (Source: <https://pib.gov.in/PressReleasePage.aspx?PRID=1619542>)

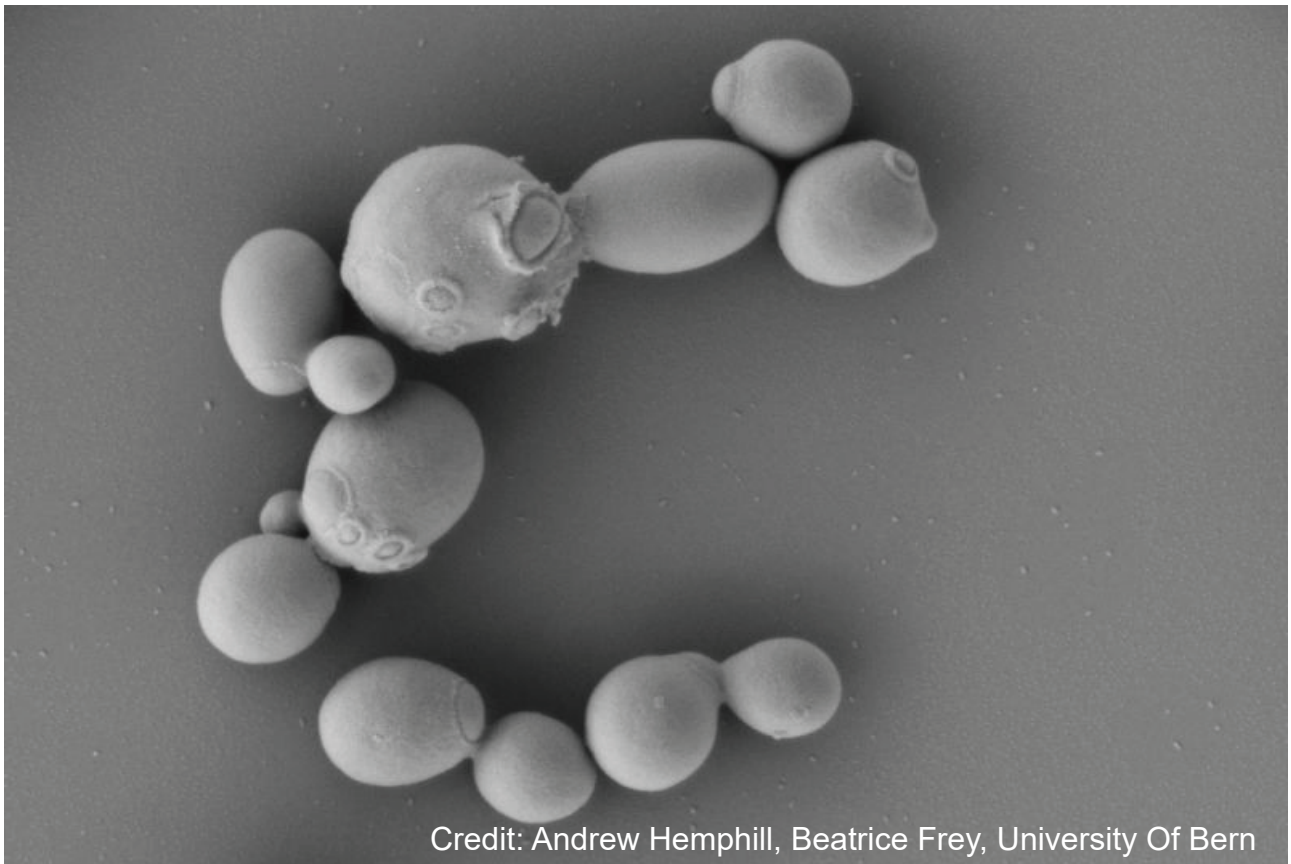
➡ Speedy technique churns out synthetic viruses

Researchers have used yeast cells to create a synthetic version of the SARS-CoV-2 genome much more quickly than other methods can achieve. The SARS-CoV-2 genome is composed of RNA, but the protocol developed by Joerg Jores and Volker Thiel at the University of Bern in Switzerland and their colleagues uses a dozen overlapping stretches of the SARS-

CoV-2 genome converted into DNA. The technique could be used to assemble viruses rapidly to study the biological effects of new mutations, the researchers say. (Source: *Nature*, <http://doi.org/ggttcr>)

➡ Portraits of a viral enzyme could aid hunt for drugs

Molecular snapshots of a key SARS-CoV-2 enzyme in action provide clues to how drugs, including the experimental therapy remdesivir, attack the virus. A team led by Patrick Cramer at the Max Planck Institute for Biophysical Chemistry in Göttingen, Germany, used an imaging technique called cryo-electron microscopy to map the 3D shape of the enzyme as it copied the virus's genetic material (Source: <http://doi.org/dtgw>).



Credit: Andrew Hemphill, Beatrice Frey, University Of Bern



CORONA INNOVATIONS

➤ Foot-Operated Washing Station will save water



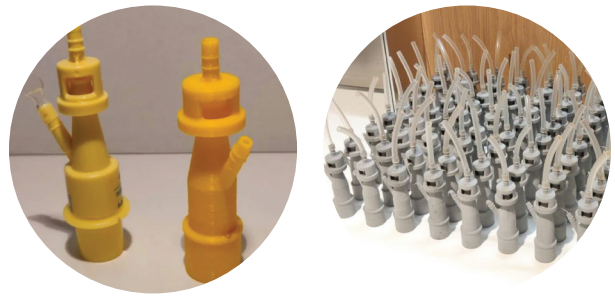
A Foot-operated Washing Station has been developed at the Indian Astronomical Observatory (IAO), Hanle, Ladakh. These foot-operated handwashing stations will control the spread of the disease while reducing amount of water used.

➤ Robots to disinfect N95 masks during COVID-19



Xenex® Disinfection Services™ have designed and manufactured the LightStrike robots. In these robots, pulsed xenon ultraviolet light is used to quickly deactivate microorganisms and disinfect high-touch surfaces in healthcare facilities. The use of this innovative robotic disinfecting technology to clean and preserve N95 masks will which help protect the frontline warriors against COVID-19.

➤ 3D Printed Ventilator Valves to fight Corona



Ventilators cannot function without valves. Massimo Temporelli, founder of FabLab in Italy, has designed 3D printed ventilator valves to tide over the shortage of ventilators during the pandemic. Used to make pressurized oxygen enter the patient's body, these valves are important.

➤ AI-driven virus tracking technology

Digital technology firm BlueDot has come up with a software as a service that is designed to locate, track and predict infectious disease outbreaks. It can gather data on more than 150 diseases and syndromes around the world, searching every 15

minutes and includes official data from organizations such as the World Health Organization. Combining this data with Artificial Intelligence, BlueDot successfully predicted several cities where COVID-19 spread occurred.

➔ Nanoparticles to beat COVID-19

Thomas Webster, a nano-medicine expert and professor of chemical engineering at US-based Northeastern University, has developed nanoparticles that could be attached chemically to the virus, stopping it from spreading. Existing antiviral treatments are only partially effective as they attack viruses when they have already infected the host cells, whereas the nanoparticles have the potential to neutralize viruses and prevent infection.

➔ AI-driven Covid-19 screening tools working through digital stethoscopes

To aid the health service response to the COVID-19 pandemic, EkoHealth is using its telehealth technology and infection control tools to allow healthcare professionals to deliver cardiac and pulmonary care to patients. During the outbreak of COVID-19, the firm is providing its AI technology and cardiac screening tools to clinicians, offering them real-time visualizations and the ability to analyze and share heart and lung sound data.

➔ SurakshaKawach – An IoT device for Corona patient tracking

DRDO has developed an IoT device 'SurakshaKawach' for Corona patient tracking and surveillance. It is an ankle/arm band based custom IoT solution. SurakshaKawach is a tamper-proof solution



for tracking the COVID-19 patients. It is a GSM and GPS enabled rugged system for real-time tracking. It is enabled with geo-fencing, tamper detection, battery status monitoring, mechanism for alerts to urban local bodies, police and distributed alert mechanism. The device can also be integrated with ArogyaSetu or any other mobile app through server feeds or by introducing a Bluetooth low energy chip in the current design. The unit has battery capacity to withstand quarantine period of 21 days or more, so the device need not be removed for charging purpose. Cost of the device will be Rs. 5000.

➔ India's First "Covid-19 Test Bus" in Mumbai

IIT ALUMNI COUNCIL
LAUNCH OF COVID 19 TEST BUS

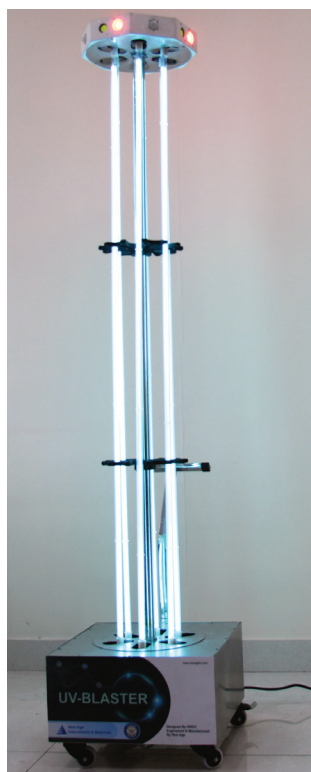
C19 Test Bus (Exterior and Interior)



In an initiative to combat the surging coronavirus cases in Mumbai which is one of the worst-hit areas, an IIT Alumni Council has launched India's first "Covid-19 Test Bus in Mumbai". The Covid-19 Test Bus is based on the indigenous Kodoy Technology Stack and executed by partner organisations led by IIT Alumni. To accelerate the rate of testing, the bus will roam around the city collecting test samples for rapid testing. (Source: <https://www.businessinsider.in/india/news/iit-launches-a-covid-19-test-bus-in-mumbai-capable-of-conducting-5-million-tests-per-month/articleshow/75546462.cms>)

➔ UV Blaster — UV Disinfection Tower

Laser Science & Technology Centre (LASTEC), DRDO with the help of M/s New Age Instruments and Materials Private Limited, Gurugram has designed and developed a UV based area sanitiser and named it as 'UV Blaster'. UV Blaster is an Ultra Violet (UV) disinfection tower for rapid and chemical-free disinfection of high infection-prone areas including airports, shopping malls, metros, hotels, factories, offices, etc. The UV Blaster is also effective for high tech surface like computers, electronic items, etc. (Source: <https://pib.gov.in/PressReleasePage.aspx?PRID=1620919>)



➔ "COVID KATHA" — A Multimedia Guide for Mass Awareness



On the occasion of 50th DST Foundation Day, Union Minister of Science & Technology, Health & Family Welfare and Earth Sciences, Dr Harsh Vardhan launched "COVID KATHA", a multimedia guide on COVID-19. To make people aware about the COVID-19 pandemic in an interactive manner, the National Council for Science & Technology Communication (NCSTC), Department of Science and Technology (DST), Government of India in association with Dr Anamika Ray Memorial Trust (ARMT), an educational and research organisation, has come up with this instructive multimedia guide on COVID 19 which makes people aware about the health and social crisis. (Source: https://dst.gov.in/sites/default/files/COVID%20KATHA_DST_NCSTC_ARMT_ENGLISH.pdf)

➔ eCovSens — Non-invasive Bio-Sensor Testing Device

Researchers at the National Institute of Animal Biotechnology (NIAB), Hyderabad, have developed 'eCovSens', a portable device that can be used as a diagnostic tool for detecting COVID-19 antigens from saliva samples of suspected novel

coronavirus patients in 30 seconds. The biosensor can identify a particular protein of the SARS-CoV-2, even when the proteins are available in low concentration in human saliva. (Source: <https://telanganatoday.com/hyderabad-based-niab-develops-tool-to-detect-covid>)

➔ “NSafe” — Reusable Antimicrobial Mask



An IIT Delhi startup “Nanosafe Solutions” has launched an antimicrobial and washable face mask “NSafe”, which is reusable up to 50 launderings, thus greatly cutting down the cost of use. NSafe mask is a highly

engineered triple-layered product consisting of an inner hydrophilic layer for comfort, a middle layer having antimicrobial activity and an outer most layer having water and oil repellent behaviour. NSafe mask has 99.2% bacterial filtration efficiency (at 3 microns) and complies with ASTM standards of breathability and splash resistance. (Source: <http://www.iitd.ac.in/content/iit-delhi-startup-launches-%E2%80%98reusable-antimicrobial-mask%E2%80%99>)

➔ Textile with antimicrobial material

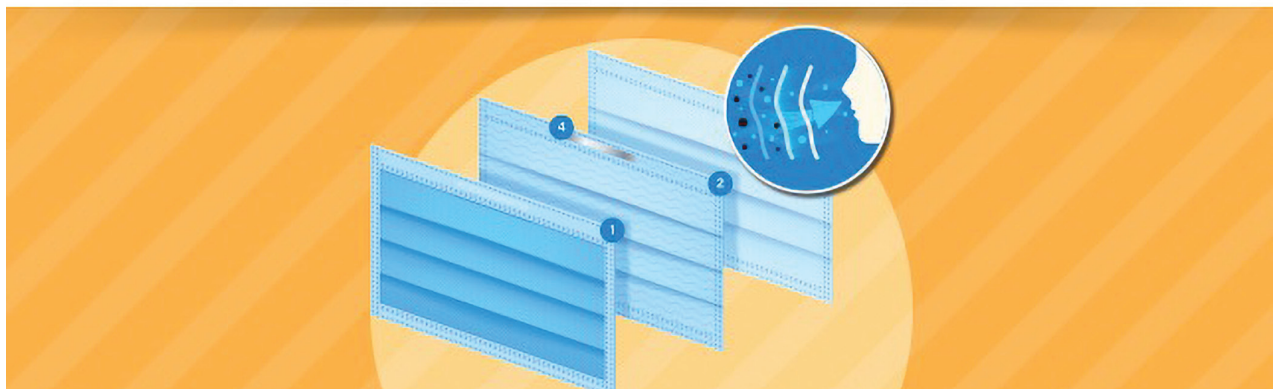
IIT-Madras incubated startup, Muse Wearables, has created coated-textile with antimicrobial material to be used in the manufacturing of N95 masks, surgical masks, PPE, food packaging bags, etc. The coatings are expected to be effective up to 60 wash cycles, thereby making the textiles re-usable. (Source: <https://www.newindianexpress.com/cities/chennai/2020/may/04/iit-madras-startup-creating-textile-with-antimicrobial-material-to-tackle-coronavirus-2139045.html>)

IIT-MADRAS

startup is creating textile with

ANTIMICROBIAL MATERIAL

to manufacture N95 masks, surgical masks, PPE, food packaging bags, etc.





CORONA Q & A

Why are the lockdown and social distancing not enough to break the transmission chain of COVID-19?



Lockdown and social distancing are important efforts to break the transmission chain of COVID-19. Incubation period of this disease ranges from 1-14 days. The incubation period means the period between infection of virus and the beginning of symptoms of disease in the infected persons.

Epidemiologists suggest that testing, quarantine and treatment measures implemented during lockdown can work. Therefore health experts are of the view that lockdown alone will not be enough to break the transmission chain of the novel coronavirus. Strong containment (disease control) measures together with mitigation measures (patient recovery) will ensure flattening the epidemic. The containment measures include identifying all the positive cases of COVID-19 and also identifying their contacts. Positive cases will have to be isolated and their contacts will have to be placed under quarantine. Both containment and mitigation need to go hand-in-hand.

Why N95 Mask is a useful Personal Protective Equipment (PPE) to protect health workers from COVID-19?

N95 is a surgical mask also known as a medical respirator. Healthcare authorities recommend this respirator only for use by healthcare workers who are involved in surgery. The healthcare workers who are dealing with suspected or confirmed COVID-19 patients can use standard N95 respirators. The respirator covers the nose and mouth to reduce the wearer's risk of inhaling hazardous airborne germs, infectious pathogens or gases. N95 respirator is capable enough to filter out at least 95% of extremely small (of size 0.3 micron) infectious agents or particles including bacteria and virus.



Why hand hygiene and 20-second hand washing with soap are necessary to remove novel coronavirus?

To remove dust particles, hand washing with water is enough. But if there are germs in the dust, they may not be removed with water only. The flu, common cold and novel coronavirus can be spread through our hands. While sneezing, coughing or touching the infected surfaces our hands can get such viruses. They may stay on our hands for hours and enter our body if we touch our face, nose and mouth with the hands.



All soaps (solid, liquid or scented) are effective in removing the viruses because the basic structure and chemicals present in all soaps is essentially the same. They are usually made by alkali (e.g. sodium hydroxide) with naturally occurring fat or fatty acids.

We know that water and oil do not mix but the soap can mix with both oil and water. This is because soap molecule has two different ends – one is hydrophilic or water loving (polar end) that binds with water and the other is hydrophobic or water fearing (non-polar hydrocarbon tail) that binds with greasy dirt or oil. When the greasy dirt or oil is mixed with soapy water, tiny clusters are formed – these are called micelles. Hydrophilic part of the soap molecules stick to water and form the outer surface of the micelle. The hydrophobic part sticks to oil in the centre where it cannot come into contact with water. In this way, the greasy dirt or oil is rinsed away along with soapy water.

The genetic materials of coronaviruses are covered by a membrane of fat and protein. Soap molecules disrupt virus's fat and protein membrane disintegrating the virus body. Viruses may cling to the corners of our hand, fingers or wrist. Therefore, chemical reaction between soap, water and virus's outer membrane takes a little time. That is why to get rid of viruses one needs to wash the hand for at least 20 seconds with soap!

Why the washing of fruits and vegetables with soap is unsafe during COVID-19 outbreak?



Washing vegetables with soap could be dangerous as one could end up ingesting some of the soap. It is better to wash fruits and vegetables with lukewarm water or even cold water. If any virus remains, it will be killed while cooking. But we must wash our hands before and after handling the fruits and vegetables.

Why co-morbidity (pre-existing diseases) proves fatal in COVID-19?

Older people are more vulnerable to infectious diseases because of their weak immune system. COVID-19 is a new disease and there is limited knowledge related to risk factors. Based on currently available research findings, older people of 60 plus age are vulnerable. Also people of any age who have co-morbidity or pre-existing diseases (heart, lung, kidney diseases, diabetes, etc.) might be at higher risk for severe illness from COVID-19.

#CSIRFightsCovid19

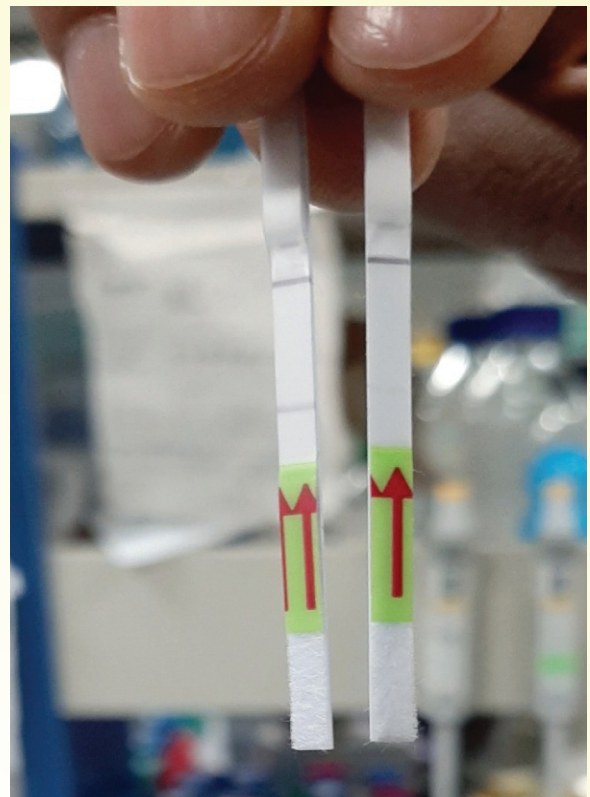


CSIR has mounted a strategic, well-coordinated and integrated approach towards mitigating the Coronavirus outbreak ranging from containing the spread of the virus by providing sanitisation and disinfection solutions to equipping the frontline workers and health warriors with protective gear, and from exploring repurposing of existing drugs to discovering new drugs and vaccines. Some major developments this week.

- A technical obstacle to understanding the molecular and pathological characteristics of SARS-CoV-2 is to grow the virus outside the human host. The CSIR-Center for Cellular and Molecular Biology (CSIR-CCMB), Hyderabad will attempt to grow SARS-CoV-2 in human cell lines *in vitro*. This is expected to enable the testing of potential drugs and vaccines against COVID-19. For this CSIR-CCMB has entered into a collaboration with Eystem Research Private Limited. The research team will use the human lung epithelial cell culture system provided by Eystem as part of its anti-covid screening (ACS) platform. Eystem's cell culture system expresses the ACE2 receptor and other genes which are essential determinants of viral input and replication.
- Hyderabad-based CSIR-Indian Institute of Chemical Technology (CSIR-IICT) has synthesised the key starting materials (KSMs) for Remdesivir, the first step to develop the active pharmaceutical ingredient in a drug. IICT has also begun technology demonstrations for drug manufacturers such as Cipla so that manufacturing can begin in India, if required. Remdesivir, manufactured by Gilead Sciences, is the first drug to treat COVID-19 approved for emergency use in the US based on clinical data.



- CSIR-IICT, Hyderabad has developed a convenient and cost-effective synthetic process for Favipiravir, another promising drug to treat COVID-19. CSIR-IICT transferred the entire process and significant quantities of pharma grade API of Favipiravir to Cipla. Cipla will be conducting investigations prior to launching it for COVID-19 treatment as Ciplenza.
- CSIR laboratories across the country have helped support their state governments by sharing their COVID-19 samples testing load. A total of 2152 samples were tested across 5 CSIR labs (IIIM – 758, IMTECH – 727, NEERI – 301, IHBT – 222 and CCMB – 144). In addition, CSIR-CFTRI has helped the state government hospitals by providing their RT-PCR machines to conduct the tests.
- While RT-PCR is now the most widely used and validated method of testing for COVID-19, it requires time and infrastructure. Currently, this step takes about 40% of the entire sample processing time. Scientists at CSIR-CCMB as well as CSIR-IGIB are trying to optimize the protocol to reduce the time and efforts spent at this stage.



- CSIR-IGIB had developed a cost-effective, portable and rapid paper strip based test kit called FELUDA. CSIR and Tata Sons have now signed an MoU for licensing the technology for scale-up and deployment in usable kits.
- CSIR labs are also working towards the development of Lateral Flow Devices for rapid and reliable detection of coronavirus at primary health centres and testing facilities. CSIR-IITR, IMTECH, CSIO, CFTRI, NIIST and CEERI are involved in designing such a point of care device.
- CSIR-CDRI, Lucknow has joined hands with the King George's Medical University (KGMU) for development of a vaccine for COVID-19. CDRI is already collaborating with the KGMU in three research projects – molecular research to know the reasons for disease causation; finding treatment methodologies and the third to develop a vaccine for the virus.

Combatting COVID-19 with AYUSH based interventions.

Hon'ble Health Minister Sh. Harsh Vardhan and Hon'ble AYUSH Minister Sh. Shripad Yesso Naik will jointly launch three AYUSH based studies related to COVID-19 situation on 07th May 2020 in New Delhi.

The AYUSH based studies include:

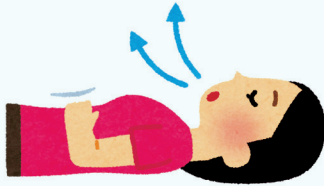
- Studies on Ayurveda interventions as prophylaxis and as an add-on to standard care to COVID 19.
- Population-based interventional studies on the impact of AYUSH based prophylactic interventions.
- AYUSH Sanjivani App-based study for impact assessment of acceptance and usage of AYUSH advisories in prevention of COVID-19.

- CSIR has submitted 53 genome sequences of the virus to the GISAID (Global Initiative on Sharing All Influenza Data) and is planning to submit 450 more genome sequences. The sequencing will help in understanding the origins of the virus which will further aid in developing vaccines.
- CSIR and Cadila have received regulatory approval for initiating clinical trials to evaluate efficacy of an existing gram-negative sepsis drug called Sepsivac for COVID-19 patients.
- Hon'ble Health Minister Dr Harsh Vardhan and Hon'ble Minister of AYUSH Shri Shripad Yesso Naik launched three interdisciplinary studies involving AYUSH interventions for COVID-19. These trials are being done jointly by CSIR, ICMR and Ministry of Ayush. The three studies include: Studies on Ayurveda interventions as prophylaxis and as add-on to standard care to COVID-19; Population-based interventional studies on the impact of AYUSH-based prophylactic interventions; and AYUSH Sanjivani App-based study for impact assessment of acceptance and usage of AYUSH advisories in prevention of COVID-19.
- CSIR-IICB, Kolkata has established a new 'Epidemic Immune Monitoring' lab indispensable for the CSIR Plasma Therapy Trial. CSIR has taken a major initiative to pursue the convalescent plasma therapy. The West Bengal State Govt. approved the proposal of CSIR-IICB for Convalescent Plasma Therapy programme on April 9, 2020.
- CSIR is exploring a native herb as a biological medicine or "phytopharmaceutical", which is already being tested as medicine for dengue, for its efficacy to combat COVID-19. CSIR is hopeful to get approval from Drug Controller General of India (DGCI) to conduct a clinical trial on humans of the herb, which is used as native medicine in the country.
- CSIR through its NMITLI program has approved a project towards development of human monoclonal antibodies (hmAbs) that can neutralize SARS-CoV-2 in patients. This project on generation of neutralizing human monoclonal antibodies as a therapeutic strategy will be implemented by a multi-institutional and multi-disciplinary team. The team comprises of academic institutes and industry with participants from NCCS, IIT-Indore, PredOmix Technologies and Bharat Biotech International.

COVID-19 MYTH BUSTERS

MYTH ❌

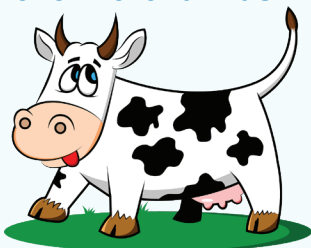
Being able to hold your breath for 10 seconds or more without coughing or feeling discomfort means you are free from the coronavirus



Eating non-vegetarian food increases risk of infection



Cow urine or cow dung can protect you from the novel Coronavirus



Taking a hot bath protects you from the new coronavirus disease



FACT ✅

The most common symptoms of COVID-19 are dry cough, tiredness and fever. Some people may develop more severe forms of the disease, such as pneumonia. The best way to confirm if you have the virus producing COVID-19 disease is with a laboratory test. You cannot confirm it with this breathing exercise, which can even be dangerous.

www.who.int

Eating well cleaned and cooked non-vegetarian or vegetarian food is not risky. The process of cooking destroys or inactivates viruses.

www.indscicov.in

There is no evidence to show that cow urine or cow dung will kill the novel coronavirus. Moreover, using or consuming these animal excretions may be dangerous as they may cause other health problems.

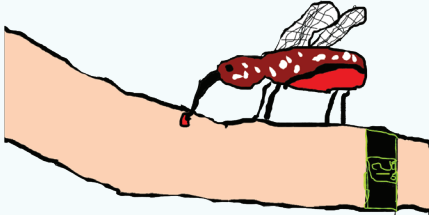
www.indscicov.in

Taking a hot bath will not prevent you from catching COVID-19. Your normal body temperature remains around 36.5°C to 37°C, regardless of the temperature of your bath or shower. Actually, taking a hot bath with extremely hot water can be harmful, as it can burn you.

www.who.int

MYTH 

The new coronavirus can be transmitted through mosquito bites



Eating garlic can help prevent infection with the new coronavirus



The novel coronavirus variety in India is less dangerous



Ultra-violet (UV) lamps disinfect hands or other areas of your skin

**FACT** 

Till date there has been neither information nor evidence to suggest that the new coronavirus could be transmitted by mosquitoes. The new coronavirus is a respiratory virus that spreads primarily through droplets generated when an infected person coughs or sneezes, or through droplets of saliva or discharge from the nose.

www.who.int

Garlic is a healthy food that may have some antimicrobial properties. However, there is no evidence from the current outbreak that eating garlic has protected people from the new coronavirus.

www.who.int

One study claimed that the virus in India is “weaker”. However, it is premature to make this claim because it is based on very little data (a single viral genome with a few mutations); and no one has tested whether these mutations affect how the virus infects humans. We need much more work to be done in India.

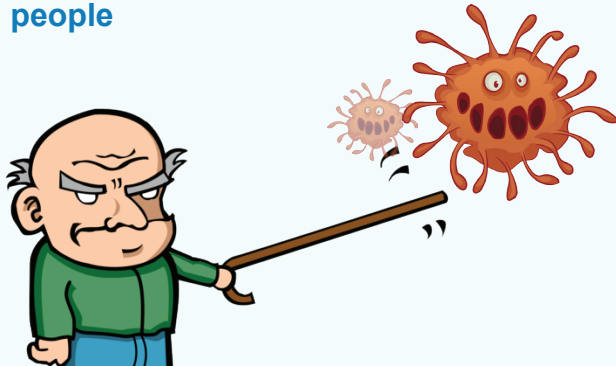
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UV radiation can cause skin irritation and damage your eyes. Cleaning your hands with alcohol-based hand rub or washing your hands with soap and water are the most effective ways to remove the virus.

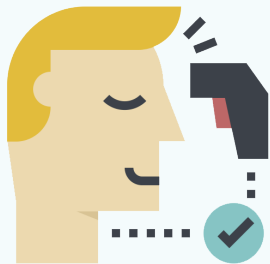
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MYTH 

The new coronavirus affects only older people



Thermal scanners can detect people infected with the new coronavirus

**FACT** 

People of all ages can be infected by the new coronavirus (2019-nCoV). Older people, and people with pre-existing medical conditions (such as asthma, diabetes, heart disease) appear to be more vulnerable to becoming severely ill with the virus. WHO advises people of all ages to take steps to protect themselves from the virus, for example by following good hand hygiene and good respiratory hygiene.

www.who.int

Thermal scanners are effective in detecting people who have developed a fever (i.e. have a higher than normal body temperature) because of any infection. However, they cannot detect people who are infected but are not yet sick with fever. This is because it takes between 2 and 10 days before people who are infected become sick and develop a fever.

www.who.int