COVID-19 BULLETIN

28 JULY 2020

- #CSIRFightsCovid19
- Corona Research Snapshot
- Corona Innovations
- COVID-19 Dashboard
- #Healthy@Home
- Corona Q&A
- COVID-19 Myth Busters

Compiled, Designed & Published by
National Institute of Science Communication & Information Resources (NISCAIR)
www.niscair.res.in; @CSIR_NISCAIR
Council of Scientific & Industrial Research (CSIR)
Dr KS Krishnan Marg, New Delhi-110012
&
14 Satsang Vihar Marg, New Delhi-110067

#CSIRFightsCovid19

Ever since the Coronavirus pandemic broke out, 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. Here are some major developments this week.

Cipla Set to Launch Drug Based on CSIR Technology

Hyderabad-based CSIR-Indian Institute of Chemical Technology (CSIR-IICT) developed a cost-effective process using locally available chemicals to synthesize the Active Pharmaceutical Ingredient (API) for manufacturing Favipiravir. It is an off-patent anti-viral drug originally discovered by Fuji Pharma in Japan and has shown promise in clinical trials for the treatment of COVID-19 patients, especially in mild and moderate cases.

Photo: PTI

CSIR transferred the technology to Cipla Pharmaceuticals which is now all set to launch Favipiravir. Cipla scaled up the process transferred by CSIR-IICT in their manufacturing facility and approached DCGI (Drug Controller General of India) for permission to launch the product in India, which has given approval for restricted emergency use for Favipiravir in the country. Cipla is now all set to launch the product by the name 'Ciplenza' in August at Rs 68 per tablet, which would be about 10% cheaper than the first Favipiravir brand in India 'FabiFlu', launched by Glenmark Pharmaceuticals Ltd. last month.

The CSIR-IICT technology is very efficient and makes it affordable and allows Cipla to make large quantities of the product within a short span of time. CSIR Director General Dr Shekhar C. Mande observed that CSIR is working with the industry in developing quick solutions and products for mitigation of COVID-19 and this partnership with Cipla is an example of how CSIR is committed to bringing repurposed drugs soon.

Clinical Trials to Start on Ventilator Developed by CSIR-NAL at Manipal Hospitals

'SwasthVayu', the first "Made in India" non-invasive ventilator developed by the CSIR-National Aerospace Laboratories (NAL), Bengaluru would be put to clinical trials at the Manipal Hospitals in Bengaluru. SwasthVayu is equipped with advanced features like BiPAP, CPAP, spontaneous modes and 3D printed HEPA-T filter adapter connected directly to the non-ventilated mask.

Foreseeing the large outbreak of COVID-19 cases in India and anticipating large numbers of hospitalized patients requiring ventilators, CSIR had swung into action to innovate and develop an indigenous ventilator that could be ramped up for production. The CSIR-National Aerospace Laboratories (NAL) took up the challenge to develop SwasthVayu – an indigenous, non-invasive, portable ventilator with clinical inputs from well-known pulmonologist Dr Satyanarayana from Manipal Hospitals and Dr Anurag Agarwal, Director, CSIR-Institute of Genomics and Integrative Biology (CSIR-IGIB).

SwasthVayu is equipped with advanced features like Bi-level mode (BiPAP), Continuous Positive Airway Mode (CPAP), Spontaneous modes and 3D printed HEPA-T filter adapter connected directly to the non-ventilated mask. This minimizes the risk of virus spread. The device also has a special provision to connect to the oxygen concentrator externally.

The device has been subjected to trials on artificial lung models and has successfully passed stringent electrical safety, performance, calibration, bio-compatibility tests at NABL accredited laboratory. The device is registered with the CSIR-Central Drug Research Institute (CSIR-CDRI) and Central Drugs Standard Control Organisation (CDSCO) regulatory authorities. The device is ideal to treat patients with respiratory failure in both COVID and non-COVID situations, either in the ICU or non-intensive medical conditions.

Apart from COVID patients, these ventilators could also benefit and support patients suffering from other respiratory disorders like complex sleep-disordered breathing such as the obstructive sleep apnea (OSA), central sleep apnea (CSA) and heart failure (HF).

SwasthVayu Features

- Bi-level mode (BiPAP)
- Continuous Positive Airway Mode (CPAP)
- Spontaneous modes
- 3D printed HEPA-T filter adapter
- Ideal to treat respiratory failure in both COVID and non-COVID situations

CSIR Launches Webinar Series in Indian Languages to Disseminate Information about COVID-19

The COVID-19 pandemic has led to a flurry of research activity and technological innovations to come up with drugs and treatments to combat the pandemic. The highly contagious and deadly nature of the SARS-CoV-2 virus has meant following strict protocols and government-mandated guidelines by the public to prevent rapid transmission of the disease.

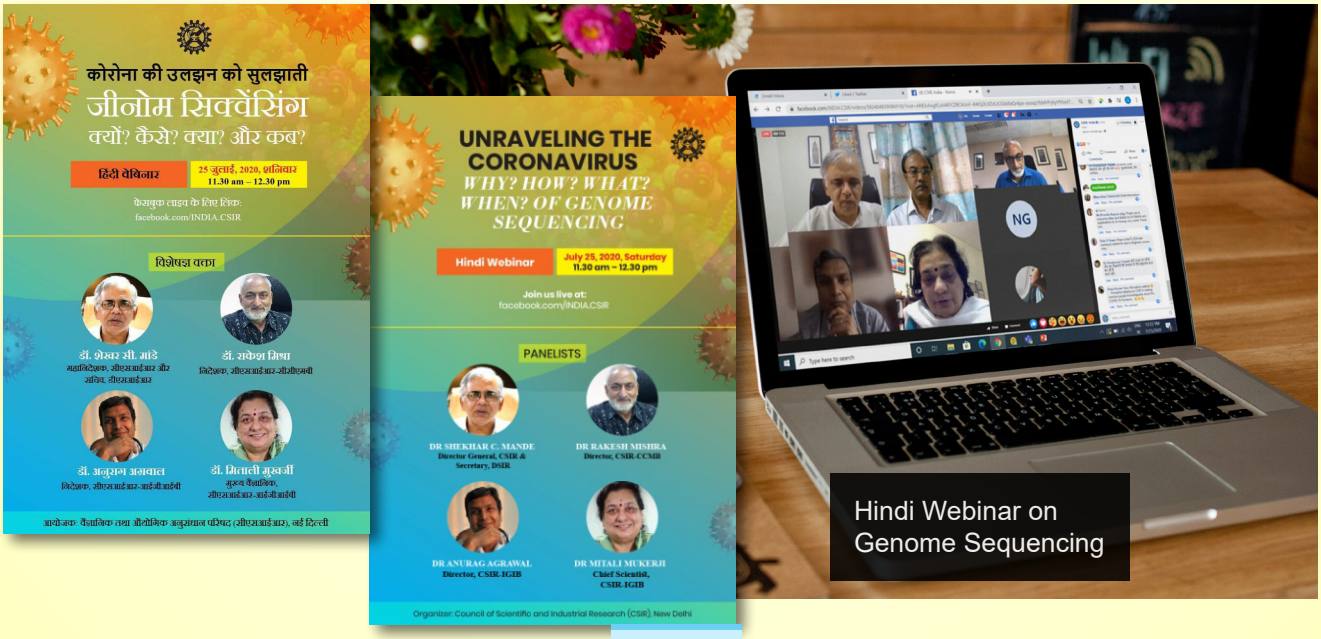
Ever since the pandemic outbreak in the earlier part of the year, the Council of Scientific and Industrial Research (CSIR) has been working on repurposing of drugs and discovery of new drugs and vaccines to fight COVID-19. Innumerable technologies have also been developed by CSIR laboratories like disinfection machines, disinfectants and sanitisers, ventilators & oxygen enrichment units, masks & personal protective equipment and much else.

To disseminate information about the safety precautions and research & development activities happening in the laboratories to the Indian public, CSIR recently launched a Webinar Series in Indian languages to reach out to the citizens in a language they can easily understand and identify with. The Webinars are organized based on specific themes. Eminent experts and specialists from CSIR and other organizations share information and interact and clarify doubts of the general public that participate in these Webinars.

So far, four Webinars have been organized in this series: Marathi Webinar on COVID-19 Global Scene; Bengali Webinar on Plasma Therapy & Vaccines; Kannada Webinar on Personal Protective Equipment, and Hindi Webinar on Genome Sequencing.


একাডেমিয়া, ইন্ডাস্ট্রি এবং বিশেষজ্ঞ চিকিৎসকদের সাথে
প্লাজমা থেরাপি এবং
COVID-19 পরিচালনার একটি গবেষণা ও
আলোচনার জন্য আমাদের সাথে যোগ
Dr Dipyaman Ganguly Principal Scientist, CSIR-IICB
Dr Mithu Raychaudhari Scientist, Bharat Biotech International Ltd
Dr Yogiraj Ray Asst Prof, School of Tropical Medicine
Dr Shekhar Mande Director-General, CSIR
Join us for a discussion in Bengali with experts from academia, hospitals and industry on
Plasma Therapy & Vaccines
AN R&D PERSPECTIVE ON COVID-19 MANAGEMENT
ON JUN 23, 11.30 AM
LIVE ON FACEBOOK
@INDIA.CSIR
Bengali Webinar on Plasma Therapy & Vaccines


ಸ್ವದೇಶಿ ರಕ್ಷಕ ದಿರಿಸಿನ ಕಥೆ
ದಿನಾಂಕ: ಜುಲೈ 18, 2020
11.00 am - 12.30 pm
ಕನ್ನಡ ಜಾಲಗೋಷ್ಠಿ
facebook.com/INDIA.CSIR
ಭಾಗವಹಿಸುವವರು
THE MAKING OF A SWADESHI SUIT
The story of how, inspite of lockdown, scientists joined hands with industry to design an all Indian Protective Suit in a record time
July 18, 2020, Saturday
11.00 am - 12.30 pm
Kannada Webinar
Facebook Live Here
facebook.com/INDIA.CSIR
PANELISTS
Dr. SHEKHAR C. MANDE DG, CSIR & Secretary, DSIR
Dr. Na. SOMESWARA Physician and Popular Science Communicator
Dr. J J JADHAV Director, CSIR-NAL
Sri M J VIJU Sr. VP, MAP Clothing
Dr. G N DAYANANDA Outstanding Scientist, CSIR
Sri M S KAMALESHAIAH Chief Scientist, CSIR-NAL
Organizer : Council of Scientific & Industrial Research, New Delhi
Kannada Webinar on the making of an indigenous personal protective equipment


कोरोना की उलझन को सुलझाती
जीनोम सिक्वेंसिंग
क्यों? कैसे? क्या? और कब?
हिंदी वेबिनार
25 जुलाई, 2020, शनिवार
11.30 am – 12.30 pm
फेसबुक लाइव के लिए लिंक:
facebook.com/INDIA.CSIR
विशेषज्ञ वक्ता
डॉ. शेखर सी. मांडे
डॉ. राकेश मिश्रा
डॉ. अनुराग अग्रवाल
डॉ. मिताली मुखर्जी
UNRAVELING THE CORONAVIRUS
WHY? HOW? WHAT? WHEN? OF GENOME SEQUENCING
Hindi Webinar
July 25, 2020, Saturday
11.30 am – 12.30 pm
Join us live at:
facebook.com/INDIA.CSIR
PANELISTS
DR SHEKHAR C. MANDE Director General, CSIR & Secretary, DSIR
DR RAKESH MISHRA Director, CSIR-CCMB
DR ANURAG AGRAWAL Director, CSIR-IGIB
DR MITALI MUKERJI Chief Scientist, CSIR-IGIB
Organizer: Council of Scientific and Industrial Research (CSIR), New Delhi
Hindi Webinar on Genome Sequencing

CSIR Media Coverage

REPUBLICWORLD.COM

Go back

YOU ARE HERE: .. / India News / City News

Last updated: July 19, 2020 17:28 IST

CSIR-CMERI, Durgapur, unveils the COVID Protection System (COPS) for Workplace

CSIR-CMERI, Durgapur, unveiled the COVID Protection System (COPS) for workplace as a game-changer in the current pandemic scenario

Written by Digital Desk

Ministry of Science & Technology

CSIR-CMERI, Durgapur, unveils the COVID Protection System (COPS) for Workplace

Posted On: 19 JUL 2020 12:04PM by PIB Delhi

CSIR-CMERI, Durgapur, unveiled the COVID Protection System (COPS) for Workplace as a game-changer in the current Pandemic Scenario. Prof. (Dr.) Harish Hirani, Director, CSIR-CMERI, Durgapur, while unveiling the COPS for Workplace conglomeration of technology, stated that, "Apart from the Healthcare Workers, the frontline Security Guards of any organisation are also very vulnerable to COVID through infected individuals and contaminated objects. CSIR-CMERI, Durgapur, in the near future will be developing a Digital Entry Management Systems whereby workflow would be automated and would be based upon Artificial Intelligence and Internet of Things. The COPS for Workplace includes contactless Solar Based Intelligent Mask Automated Dispensing Unit cum Thermal Scanner (IntelliMAST), Touchless Faucet (TouF) and 360° Car Flusher are now

Research institutes develop a slew of devices to curb Covid

DEBAJYOTI CHAKRABORTY
DURGAPUR, 17 JULY

CSIR-CMERI have developed solar-based intelligent mask, automated dispensing unit-cum-thermal scanner, touchless faucet

The CSIR-Central Mechanical Engineering Research Institute (CMERI) of Durgapur has developed a Covid Protection System (COPS) that include an array of equipments for protection against Covid-19, in workplaces.

The CSIR-CMERI had developed a solar-based intelligent mask, automated dispensing unit-cum-thermal scanner, touchless faucet, 360 degree car flasher etc. Dr. Harish Hirani, director of CSIR – CMERI said apart from health workers, security workers are also vulnerable in these pandemic times.

The institute is working towards developing a digital entry management system with automated work flow based on artificial intelligence and internet of things.

He pointed out, "Under Atma Nirbhar Bharat call of Central government, various start-up companies can avail

COPS at workplace The solar-based 'IntelliMAST' is an intelligent surveillance kiosk which identifies rise in body temperature and verify whether an individual is wearing mask, through customised software solutions.

One is provided with a mask and the price is deducted from the salary.

The inbuilt thermal scanner detects rise in body temperature through forehead scanning and sends audio-visual signal to the security system.

The surveillance kiosk also facilitates identity card based mask dispensing and attendance system. The solar power back up requirement is 45 to 50 watts.

The Statesman Sat, 18 July 2020 https://epaper.thestates

NDTV Coronavirus India Cases: 11,18,043 Recovered: 7,00,087 Deaths: 27,497

Coronavirus | Live TV | Latest | India

CSIR-CMERI Durgapur Unveils COVID Protection System For Workplace

CSIR-CMERI, Durgapur, unveiled the COVID Protection System (COPS) for workplace in the current COVID-19 pandemic scenario.

Jobs Edited by Shihabudeen Kunju S

Updated : July 19, 2020 07:25 pm IST

livemint

Home >News >India >Cipla to launch favipiravir under Ciplenza in August at 68 rupees per pill

Hyderabad: Optimus Pharma Pvt. Ltd Director P. Prashanth Reddy announced Friday, July 24, 2020 that their company had received approval from the Drugs Controller General of India (DCGI) to manufacture the active pharmaceutical ingredient, Favipiravir, through its subsidiary, Optrix Laboratories, and manufacture and market its antiviral drug, Favipiravir tablets. (PTI Photo) (PTI24-07-2020_000145B) (PTI)

Cipla to launch favipiravir under Ciplenza in August at 68 rupees per pill

1 min read . Updated: 24 Jul 2020, 08:00 PM IST

Leroy Leo

• The drug was jointly developed by Cipla and Council of Scientific and

The South Asian Express

CSIR-CMERI, Durgapur, unveils the COVID Protection System (COPS) for Workplace

By SAE News Desk (With Inputs From PIB) on July 19, 2020

CSIR-CMERI, Durgapur, unveiled the COVID Protection System (COPS) for Workplace as a game-changer in the current Pandemic Scenario. Prof. (Dr.) Harish Hirani, Director, CSIR-CMERI, Durgapur, while unveiling the COPS for Workplace conglomeration of technology, stated that, "Apart from the Healthcare Workers, the frontline Security Guards of any organisation are also very vulnerable to COVID through infected individuals and contaminated objects. CSIR-CMERI, Durgapur, in the near future will be developing a Digital Entry Management Systems whereby workflow would be automated and would be based upon Artificial Intelligence and Internet of Things. The COPS for Workplace includes contactless Sola Based Intelligent Mask Automated Dispensing Unit cu Thermal Scanner (IntelliMAST), Touchless Faucet (Touf and 360° Car Flusher are now available for Technolog Transfers and Product Orders."

BusinessLine RESILIENT. READY.

HOME NEWS MARKETS COMPANIES ECONOMY INFO-TECH OPINION SPECIALS PORTFOLIO PREMIUM MORE

Companies

Cost-effective process of Favipiravir developed by CSIR-IICT used by Cipla

Our Bureau | Hyderabad | Updated on July 24, 2020 | Published on July 24, 2020

CSIR-CMERI, Durgapur, unveils the COVID Protection System (COPS) for Workplace

POSTED BY: POINTOUT JULY 19, 2020

New Delhi I CSIR-CMERI, Durgapur, unveiled the COVID Protection System (COPS) for Workplace as a game-changer in the current Pandemic Scenario. Prof. (Dr.) Harish Hirani, Director, CSIR-CMERI, Durgapur, while unveiling the COPS for Workplace

PHARMA TO OPTIMISE PROCESSES AND SAVE COSTS

HOME COVER STORY FEATURES SPECIALS GUEST BLOGS INTERVIEWS EDITOR'S NOTE EVENTS

Home » Latest Updates » CSIR-IICT develops cost effective process technology for Favipiravir

CSIR-IICT develops cost effective process technology for Favipiravir

The research lab announced that its had transferred the technology to Cipla, which has recently DCGI for permission to launch the COVID-19 treatment in India

CSIR Media Coverage

दैनिक भास्कर

इनोवेशन: सीएसआईआर-सीएसआईओ के वैज्ञानिकों ने तैयार की नई तकनीक, कोरोना वायरस से बचाने में मददगार

चंडीगढ़ 4 दिन पहले

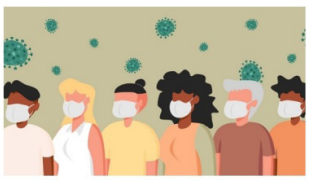
- नोट, फाइल और पर्स पर भी नहीं रहेगा कोरोना वायरस का डर

CSIR to carry study to ascertain is COVID-19 airborne or not

Tweet

By Jyoti Singh New Delhi,

Thursday, July 23, 2020



After World Health Organisation recent acknowledgement that there is emerging evidence of airborne spread of the novel coronavirus whole scientific community has started looking the mode of transmission of novel coronavirus with different perspective. Director

Airborne or not: CSIR to conduct study on transmission of Covid-19

Ayushman Kumar | Correspondent

Updated Jul 15, 2020 | 21:49 IST

After WHO formally acknowledged the possibility of Covid spread in closed air space, CSIR in India is set to conduct a study to ascertain if the transmission is possible via droplets from one place to another.

Key Highlights

- Larger particles of aerosol get settled easily on surfaces but finer particles can still

Cipla all set to launch Favipiravir drug for treatment of COVID patients: CSIR

Commenting on the development, Director of CSIR-IICR S Chandrashekhar said the technology is very efficient and makes it affordable and allows Cipla to make large quantities of the product within a short span of time.

Synopsis

An off-patent anti-viral drug, Favipiravir, originally discovered by Fuji Pharma in Japan, has shown promise in clinical trials for treatment of COVID-19

12:18 46%

Indigenous ventilator to st... TWEET

healthcareradius.in

HEALTHCARERADIUS

Technology

Indigenous ventilator to start human clinical trials at Manipal Hospitals

SwasthVayu is equipped with advanced features like BiPAP, CPAP, spontaneous modes and 3D printed HEPA-T filter adapter connected directly to the non-ventilated sk.

Healthcare Radius | 23 July 2020

lated Articles

defining Manufacturing

BioVoice

Home › Health › Diagnostic Dose

Health | Diagnostic Dose | News Bytes | Top News

CSIR-CMERI unveils COVID Protection System for workplace

CSIR-CMERI, Durgapur, unveiled the COVID Protection System (COPS) for Workplace as a game-changer in the current Pandemic Scenario

By **BioVoice News Desk** - July 20, 2020 36 0

THE NEW INDIAN EXPRESS

NATION WORLD STATES CITIES BUSINESS SPORT GOOD NEWS MOVIES GALLERIES VIDEOS SUBSCRIBE TO E-PAPER

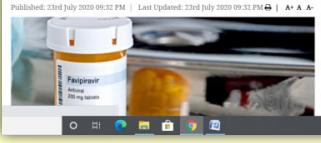
STOCK MARKET BSE 38128.90 -11.57(-0.03%) NSE 11194.15 -21.30(-0.19%)

Home › Nation

Cipla all set to launch Favipiravir drug for treatment of COVID patients: CSIR

An off-patent anti-viral drug, Favipiravir, originally discovered by Fuji Pharma in Japan, has shown promise in clinical trials for treatment of COVID-19 patients, especially in mild, moderate cases

Published: 23rd July 2020 09:32 PM | Last Updated: 23rd July 2020 09:32 PM



Latest

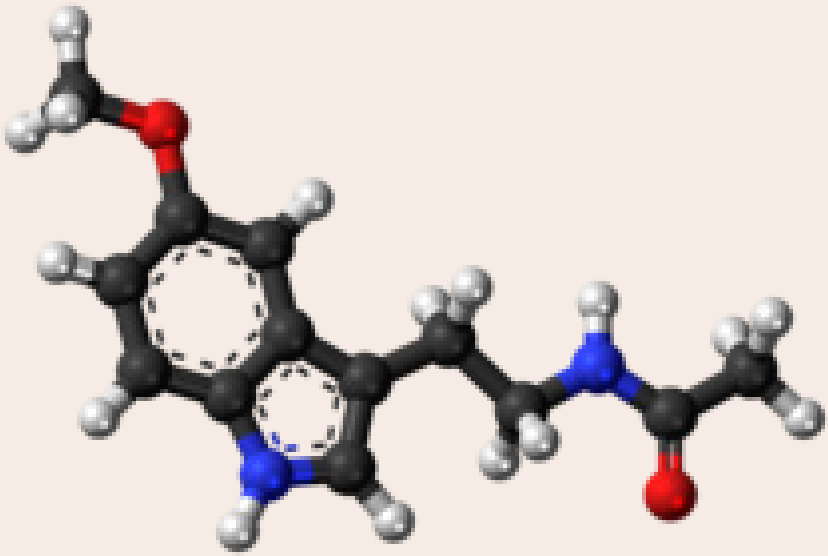
- American film company organises online convention to honour APJ Abdul Kalam
- Bengal man dies by suicide after wife, mother-in-law thrash him with brooms
- Noida: Toddler killed in parents' fight, father arrested

CORONA RESEARCH SNAPSHOT

Melatonin can be useful in restricting the COVID-19 induced Cytokine Storm

According to an editorial report published by researchers of the University of Texas Health San Antonio, USA and their collaborators, Melatonin can be useful to mitigate the Cytokine Storm caused by the severe immune response in case of COVID-19 infection. Cytokine Storm is a hyper-inflammatory response of the immune system against viral attacks. To fight against the viral attacks, immune cells release great amounts of cytokines causing inflammation which subsequently becomes uncontrolled (in case of severe viral attack) and damages the lungs and other related organs. Uncontrolled Cytokine Storm is generally responsible for causing symptoms such as fever, lung injury (causing cough and shortness of breath) including long term complications such as lung fibrosis and death. There are a number of drug molecules proposed and being tested for treatment of COVID-19. Scientists are suggesting one more potential drug molecule – Melatonin – which is synthesized by the human body itself. Melatonin is believed to be produced by most of the cells in all organisms with the help of mitochondria. Due to a potent antioxidant and anti-inflammatory agent, Melatonin would reduce the highly pro-inflammatory Cytokine Strom and neutralise the generated free-radicals subsequently preventing lung damage. The scientists presented the arguments in support of their claim with support of previously published research works. This editorial is published in the journal *Medicine in Drug Discovery*.

(Source: *Medicine in Drug Discovery*; DOI: 10.1016/j.medidd.2020.100044; 2020)



Chemical Structure of Melatonin molecule

(Courtesy: Creative Commons)

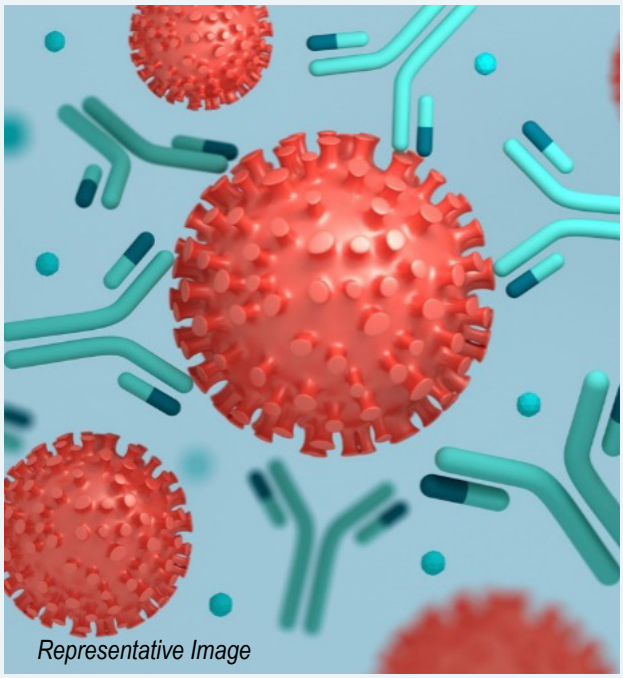
Adenovirus COVID-19 vaccine candidate found safe and generating immune response in phase-2 trial

Adenovirus COVID-19 vaccine (Ad5-nCoV) has been found safe and generating immune response in individuals during phase-2 trials. Adenovirus vaccine is being tested in China. In the phase-2 trial, it has been tested for safety, immune response and dose amounts. A single dose of recombinant adenovirus vaccine (Ad5-nCoV) vector consists of the genetic material which codes for spike glycoprotein of SARS-CoV-2. In phase-2 trials, the vaccine candidate was given to 508 participants in a randomized way. In these randomised trials, the participants didn't know who was given the vaccine and who was given the control or placebo. The vaccine was given in two doses -1×10^{11} viral particles and 5×10^{10} viral particles to 253 and 129 participants respectively. The participants were able to generate rapid immune response in 14 days and significant cellular immune response against the novel coronavirus. The vaccine has been administered to randomized healthy participants of age 18 years or more. The phase-1 trials of this vaccine candidate were not randomised. The participants exhibited side effects like fatigue, fever and headache which are the common symptoms during vaccination. The older participants have shown significantly lower immune response which indicates that they will need higher doses of Adenovirus vaccine. How much dose should be given to the older generation will be tested in phase-2b trials. All the phase-2 trials were carried out in a single centre located in Wuhan, China. The results of the phase-2 trials are published in *The Lancet*.

(Source: *The Lancet*; DOI: 10.1016/ S0140-6736(20)31605-6; 2020)

Representative Image

Diverse group of antibodies are found in the plasma of severely COVID-19 infected patients

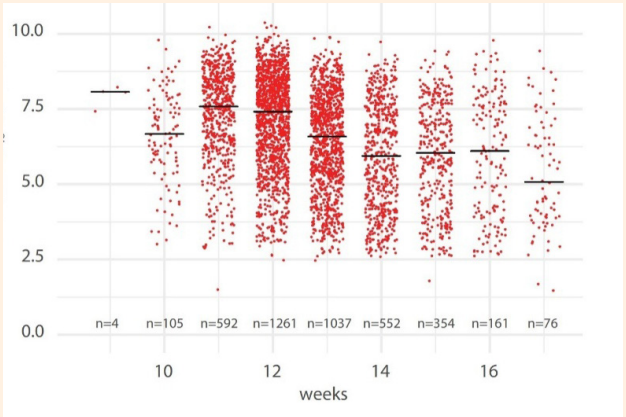


Representative Image

Antibodies are protein molecules released by our immune system to fight against viral attacks. Researchers have identified a diverse group of antibodies that have the ability to block the SARS-CoV-2 viral attack. They have analysed the antibodies extracted from plasma of five patients with severe COVID-19 infection. The scientists from Columbia University and their colleagues have found that the nineteen antibodies are highly effective in preventing the SARS-CoV-2 infection in Syrian Hamsters (*Mesocricetus auratus*). These antibodies attach on the different sites of spike proteins so that they become unable to bind on the ACE2 receptors present on the cell-membrane of the human cells. It is also found that appropriate dose of any of these antibodies is able to prevent the COVID-19 infection. The study has been published in *Nature* after peer review.

(Source: *Nature:* DOI: http://doi.org/d4md; 2020)

Viral loads could be helpful for doctors to choose therapies during treatment of COVID-19 patients



Viral Loads at different time scale

(Figure Courtesy: Jacot*et al.* Preprint at medRxiv; http://doi.org/d4b8; 2020)

The viral load present in the swab collected from the nose and throat of a COVID-19 infected person can help doctors to choose the treatment for the COVID-19 patients. According to the researchers at Lausanne University, Switzerland, the viral RNA amount in the collected swab from nose or throat of a COVID-19 patient indicates the stage of COVID-19 infection. The researchers have analysed the swab samples of more than four thousand COVID-19 patients and noticed that there are two distinct stages of the COVID-19 infection. In the early stage of COVID-19 infection, people are more likely to have higher viral loads. This viral load tends to decline with time and as the disease progresses. At the later stage, decline in the viral load can be a clue to start treating patients with anti-inflammatory drugs. However, researchers could not find any correlation between viral loads and severity of the disease. The research is under peer review and currently available as preprint at medRxiv.

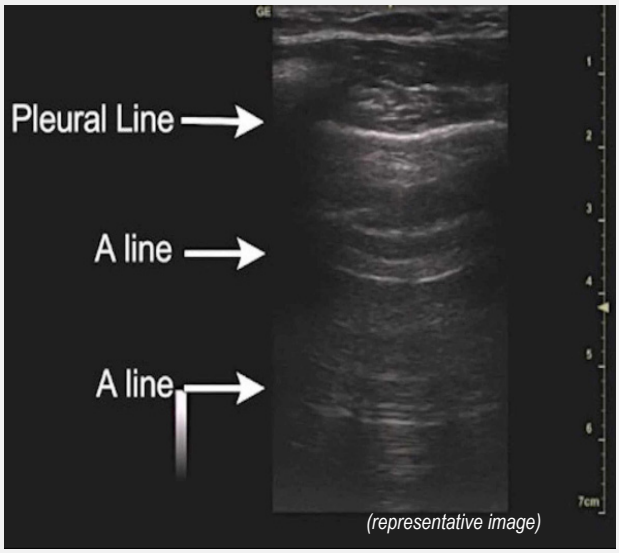
(Source: Preprint at medRxiv; http://doi.org/d4b8; 2020)

Fever is not the predominant COVID-19 infection symptom

Thermal Scanning
(Image Courtesy: Getty Images)

According to a study, AIIMS, New Delhi researchers have found that fever is not the predominant symptom of COVID-19 infection and over-emphasis on thermal scanning of individuals can miss the severe COVID-19 cases. The study is based on 144 patients' data analysed by the researchers. Out of these patients 93 percent (134) were male and 10 patients were foreign nationals. According to this study, fever was present in only 17 percent of the patients. This is in contradiction to another study from China which states that 44% of the patients had fever at the time of their reporting at hospital and fever was developed in 88% of the patients during their hospital stay. It is now a concern that asymptomatic people are the main carriers of the SARS-CoV-2. It is also found that the younger population has more asymptomatic individuals who tested negative in PCR tests and didn't need intensive care during infection. The detailed study is published in the *Indian Journal of Medical Research* after peer review.

Lung ultrasound shows the severity and duration of the COVID-19 infection



Lung Ultrasound
(Image Courtesy: Raheja *et al.* Cureus 11(7): doi:10.7759/cureus.5233)

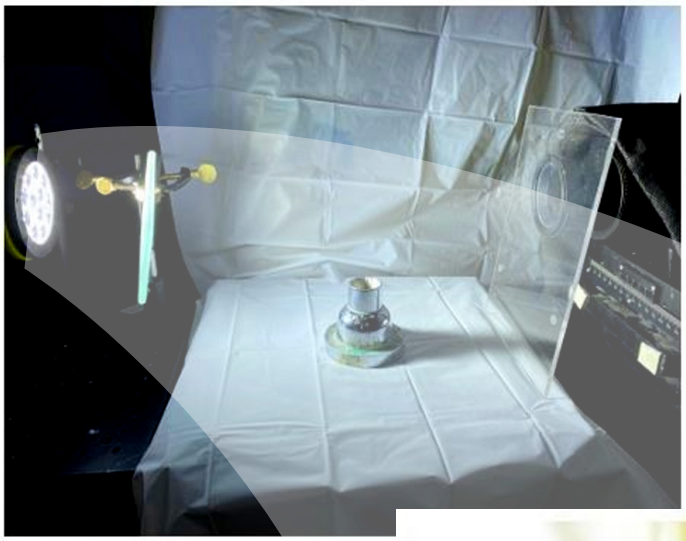
A new study has found that the lung ultrasound is highly sensitive for detecting severity of COVID-19 infection with the help of B-lines, thickened pleural line and pulmonary consolidation like commonly observable features in the ultrasound images. The researchers crosschecked the ultrasound data with the RTPCR results of COVID-19 patients to confirm their hypothesis. The lung ultrasound and chest CT data of 28 patients ranging from 21 to 92 years' age demonstrated the presence of B-lines in all patients (100%), pulmonary consolidation in 67.9% patients and thickened lines in 60.7% patients. This study suggests that the lung ultrasound can be a useful tool in determining the severity and duration of the COVID-19 infection. The study has been published in *American Journal of Roentgenolgy* after peer review.

(Source: *American Journal of Roentgenology*, DOI: 10.2214/AJR.20.23513; 2020)

Tracking aerosols during eye surgeries

There is growing evidence that the novel coronavirus, SARS-CoV-2, could spread through aerosols – tiny droplets that can remain suspended in the air for hours in closed spaces. Aerosols generated during surgeries and out-patient procedures can be risky to healthcare workers. To investigate how aerosols are generated during routine eye procedures, doctors at Narayana Nethralaya, an eye hospital in Bengaluru, have collaborated with researchers at the Indian Institute of Science (IISc). They used high-speed imaging and aerodynamic models to visualise the generation of droplets during procedures such as cataract and LASIK surgeries.

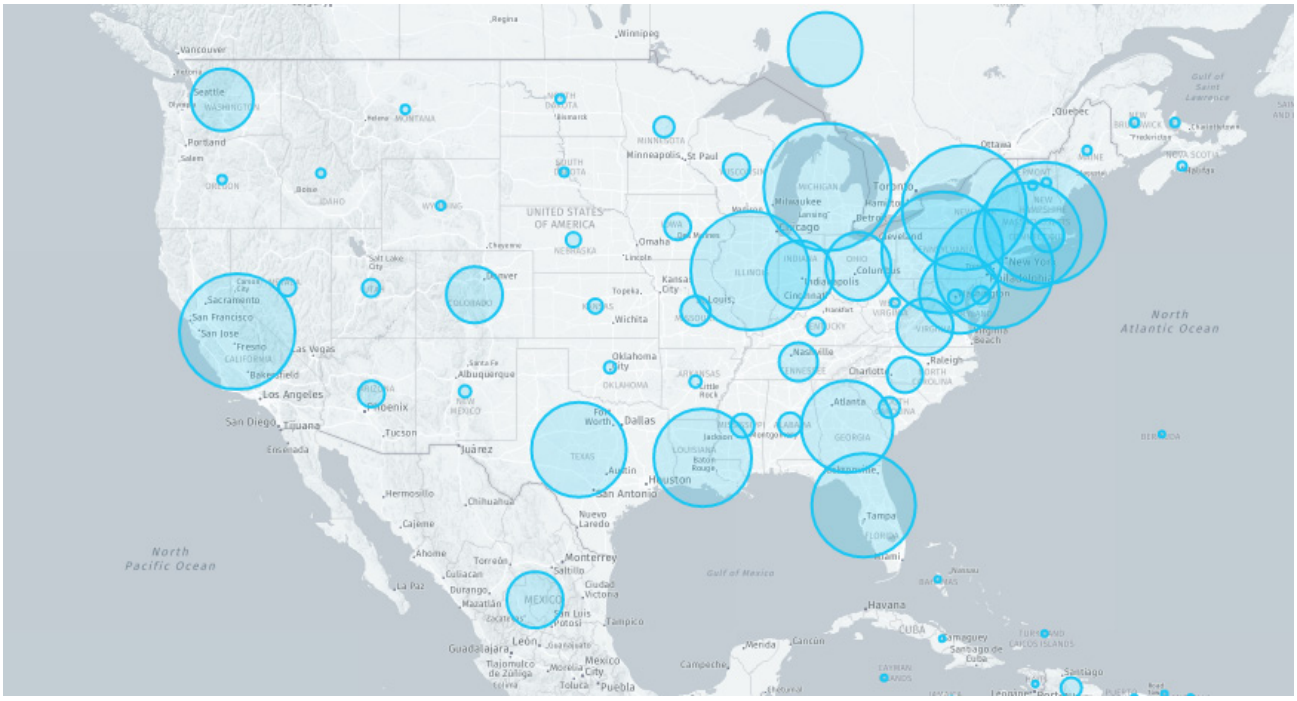
Source: IISc, Press Release



High-speed imaging setup

(Image Credit: Narayana Nethralaya Foundation)

CORONA INNOVATIONS



A snapshot of Verizon's COVID-19 dashboard

New tools for COVID-19 data queries

Authentic online data is very much needed to trace the COVID cases. Verizon Media has developed three new resources for developers and data teams to help them better organise and understand publicly available COVID-19 data. The resources comprises of a dataset, API and dashboard that help engineers analyse and navigate COVID-19 data. This data resource is powered by the Yahoo Knowledge Graph.

The Yahoo Knowledge COVID-19 dataset provides worldwide locations, cases, deaths and recoveries at the state and county level. The information is compiled from government websites and healthcare organizations such as World Health Organisation. Verizon Media has also launched an API which can be used by the developers to explore the dataset and build their own coronavirus charts, simulations and applications. The index is designed to allow medical professionals and researches to have quick access to information about the coronavirus.

This dashboard has an interactive map to help people learn about the spread of the virus. It also allows users to visually hone in on their countries or states and view the breakdown of cases, along with sources for all of the data and rates of change.

(Source: https://www.datanami.com)

Snood with germ trap technology fights Coronavirus

Carrington Textiles and its main manufacturing facility in the UK, Pincroft, have collaborated with a UK biotech firm 'Virustatic' and developed a snood with technologies that are said to prevent and protect against airborne virus transmission, including infections like influenza, MERS, SARS, the common cold and also COVID-19.

This Virustatic Shield is the result of 10 years extensive research and collaborative work with academics from the Manchester Institute of Biotechnology, to create an innovative anti-viral fabric coating applied to a light, easy to wear snood that guarantees a 360 degree and 96% protection against germs in the air.

The shield acts as a barrier that traps and kills viruses in droplets invisible to human eye. The masks are safe to wear and according to the developers, the virus becomes inactive after touching the fabric.

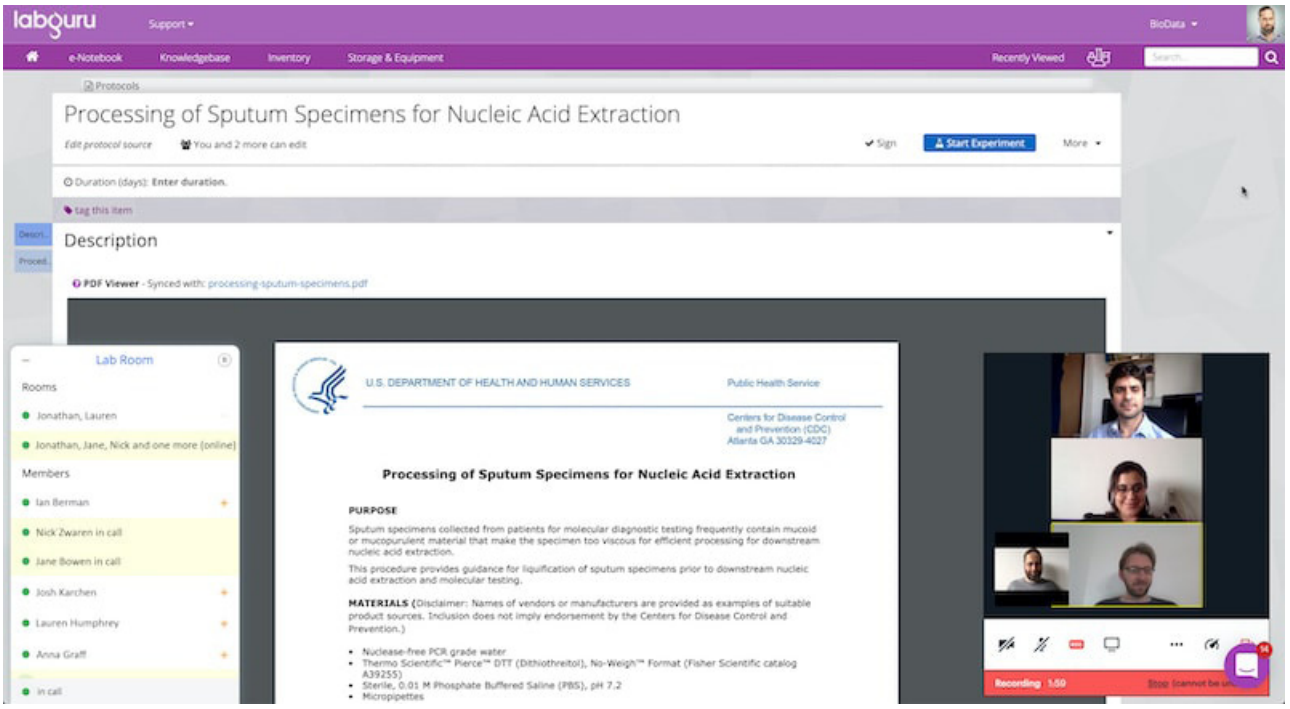
(Source: Tweet from Cufflink.io)

Code Against COVID-19

Codementor, an online education platform for software developers, has launched a Code against COVID-19 to match volunteers with software projects to fight the pandemic. Through this initiative, Codementor wants to connect coders with universities, non-profits, local government agencies and other organizations. The goal of 'Code Against COVID-19' is to connect organizations in need of development help for their projects directly with mentors and freelance developers.

Some of the programs Code Against COVID-19 is currently working with include Safe Paths and Covid Watch, both of which are developing tools to stop the spread of COVID-19. In this initiative, personal privacy safeguard concern is taken care of. It has also connected developers to grassroots projects working on a geofencing app to stop the spread of the novel coronavirus.

(Source: https://techcrunch.com)



Free Video Conferencing at LabGuru ELN Platform

BioData, the Electronic Laboratory Notebook (ELN) pioneer, has introduced a new video conferencing service in its leading Labguru ELN platform, free of charge for all customers. This LabRoom tool facilitates live global collaboration, experiment planning and tracking. This tool also performs data collation and analysis, all within the Labguru electronic web notebook.

The key feature of LabRoom is its ability to work within the Labguru ELN platform. It captures all the powerful data tracking, management and analysis capabilities within the application. Its features include one-click video chat, video data encryption, real time delegate availability indication, screen sharing via Google Chrome, a session recording option and critically at this time instant access, with no need to download, verify or install new software.

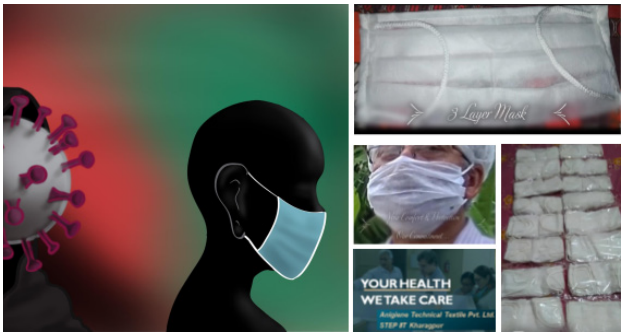
The applications, including video, directly within Labguru electronic web notebook allow all data to be auto-saved in the app for instant retrieval and information sharing. This new automation delivers valuable time savings and improves accuracy of reporting, audit control and compliance.

The shift from a paper-based laboratory and paper notebooks to a cloud-based laboratory data and collaboration platform is already in progress globally. Easy recording of experiments and audit trail, lab inventory, automating routine procedures, remote collaboration and now video are just some of the ways in which Labguru's electronic lab notebook revolutionizes lab work for thousands of scientists across the world.

With this online video conferencing service, scientists and researchers can design experiments and workflows, capture structured and unstructured data, manage projects and share their research findings efficiently. Labguru is available on PCs and mobile devices via the cloud.

(Source: https://instrumentbusinessoutlook.com)

Low-cost surgical face masks



Keeping in mind the quality and affordability of masks by low-income groups, an IIT Kharagpur incubated start-up has developed a three-layered surgical face mask. "We have kept in mind typically the needs of the people who are economically challenged while strictly avoiding any compromise on the part of health protection. Our product also caters to the health workers," said Dr Satyabrata Ghosh, Research Associate at the Department of Biotechnology at IIT Kharagpur and Director of Anigiene Technical Textiles.

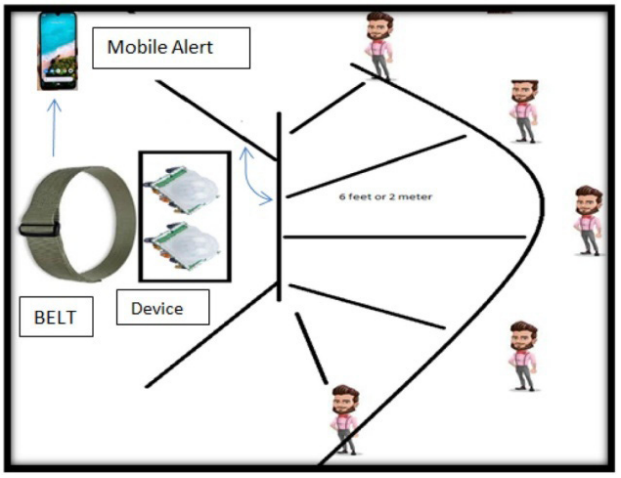
(Source: https://kgpchronicle.iitkgp.ac.in/)

A food technologist innovates immunity booster bakery

A Srinagar-based girl who did MTech in food technology has come up with an innovative idea to produce immunity booster healthy bakery products to fight COVID-19. The lab report says that the products are enriched with Vitamin A, Vitamin E, B 6, Omega 3, Omega 6 as per the food technologist.

Source: India Today

A smart device to detect COVID-19



A young US-based team of Indian researchers and a collaborating partner in Delhi has come up with a smart social-distancing device to combat the pandemic spread. The device is a mix of machine learning, Artificial Intelligence, and practicality which can track people with higher temperature and alert others by buzzing an alarm when coming in the range of six feet.

Source: Deccan Herald

Smart goggle — 'Nimo'

A startup based in Kochi, Nimo Planet, is introducing the world's first everyday smart goggle named 'Nimo', which is a new computer designed to help people to work from anywhere productively and securely with multi-screens. In the time of COVID, such devices will help to work comfortably and effectively.

Source: Newindianexpress

Guidelines for Home Isolation of
Very Mild/Asymptomatic COVID-19 Cases

mygov
मेरी सरकार

When to Seek Medical Attention

Patient /Caregiver to keep monitoring their health. Immediate medical attention must be sought if serious signs or symptoms develop. These could include:

- Difficulty in breathing
- Dip in oxygen saturation (SpO2 < 95%)
- Persistent pain/pressure in the chest
- Mental confusion or inability to arouse
- Slurred speech/seizures
- Weakness or numbness in any limb or face
- Developing bluish discolorations of lips/face

Excessive screen use and gaming during #COVID19

World Health Organization
REGIONAL OFFICE FOR THE Eastern Mediterranean

Hundreds of millions of people worldwide are required to stay at home to protect themselves and prevent the spread of the disease, including young people. Children have been out of school and as a result, many of them may be spending more time on screens to complete online activities as part of homeschooling, socializing with peers or playing video games given that outdoor activities may be restricted due to lockdowns.

What you need to know

Young people are vulnerable to the harms of excessive screen use and gaming including unhealthy sedentary lifestyles (e.g. physical inactivity), reduced sleep or day-night reversal, malnutrition, headaches, neck pain, exposure to harmful content (violent or sexual), misinformation about COVID-19, cyberbullying, development of gaming disorder, and engagement in online gambling.


Physical inactivity


Day-night reversal


Malnutrition


Headaches, neck pain


Cyberbullying

Excessive screen use and gaming affects a person's mood, and ability to focus, complete school tasks and control outbursts. It negatively impacts their relationships with family members and peers, and takes priority over the basic functions (e.g. eating, sleeping, personal hygiene, exercise).

Screen use including playing video games is not recommended for 1-year old infants, **should be limited** to no more than 1 hour per day for children 2–4 years old, and **should be managed** in older age groups as well.

One hour
2-4 year olds

Children diagnosed with gaming disorder. Continue treatment during this pandemic. Keep in touch with your child's therapist or other medical caregiver by email, phone or other remote communication methods.

Cyberbullying can happen on different digital platforms (phones, apps, social media, online interactive games). Be vigilant about warning signs of cyberbullying in your children (e.g. using their device more or less than before, becoming withdrawn, anxious or depressed).

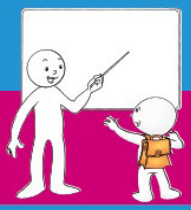
Increasingly, online games include gambling-like elements (e.g. loot boxes, microtransactions) and vice versa. Marketing of video games has increased during this pandemic. Games with gambling-like elements may have financial implications and increase the risk of migration to gambling.

Recognize the signs of excessive screen use and take immediate action to ensure online safety for young people during this COVID-19 pandemic.

31 May 2020
www.emro.who.int/mnh

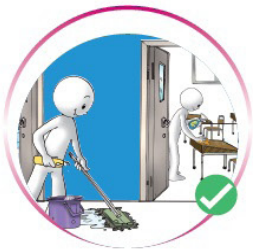
Coronavirus Disease 2019 (COVID-19)

How to protect students and staff in schools and nurseries

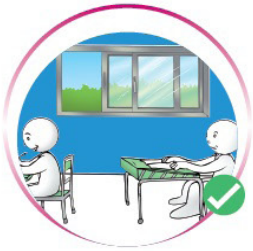


Students and staff should wash their hands with soap and running water for 40–60 seconds when hands are visibly dirty. If their hands are not visibly dirty they can use an alcohol-based hand rub or soap and water.

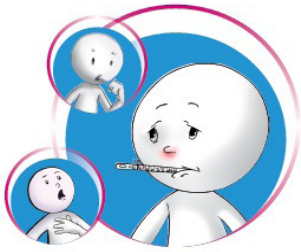
Educate students and staff on the importance of covering their mouth and nose with their upper sleeve or a disposable tissue when they sneeze or cough. Dispose of tissue properly in a closed bin.



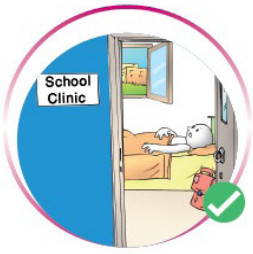
Bathrooms, floors, tables, chairs and toys and other surfaces, such as door and window handles, should be regularly cleaned with disinfectant.



Keep classroom windows open, or at least during break times, even during cold weather, to ensure good ventilation.



Watch out for the main symptoms: fever, cough or difficulty breathing.



If a student suddenly develops symptoms, separate him/her from classmates and inform parents and a health care provider as soon as possible.

Make sure that students and staff with symptoms stay away from school.

Plan students' entry and exit to and from classrooms as much as possible to minimize unnecessary crowding.

Encourage students and staff not to hug or kiss when greeting, especially if the students show some symptoms.

Tell students and staff to avoid sharing items, such as cups and towels, and to avoid touching their eyes, nose or mouth with unwashed hands.

Design and illustration by IVAT Communication WHO-EM/CSR/267/E

emro.who.int/cov
/WHOEMRO
@WHOEMRO
/WHOEMR

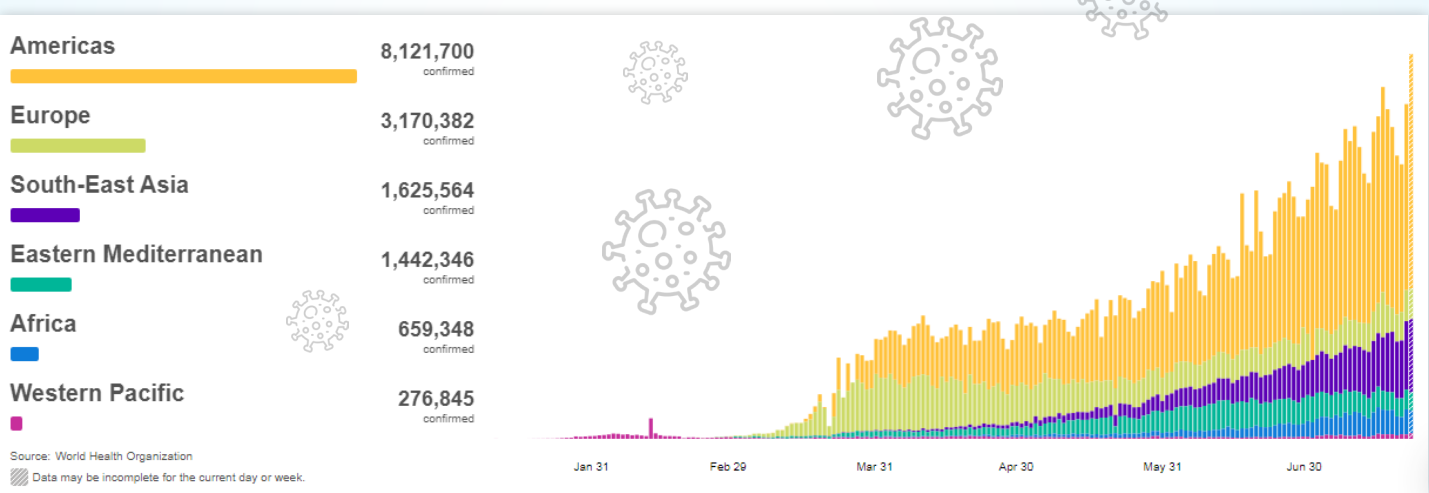
World Health Organization
REGIONAL OFFICE FOR THE Eastern Mediterranean

COVID-19 Dashboard

Global COVID-19 Cases and Deaths

(Data as of 24 July 2020)

	Worldwide
Total Confirmed Cases	15296926
New Cases	284196
Total Death	628903
Total New Death	9753



INDIA

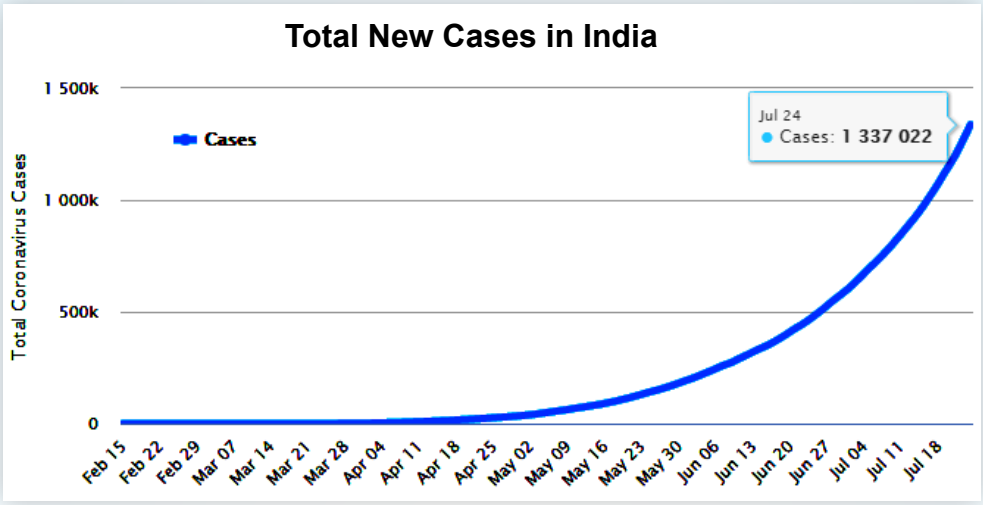
(Data as of 25 July 2020)

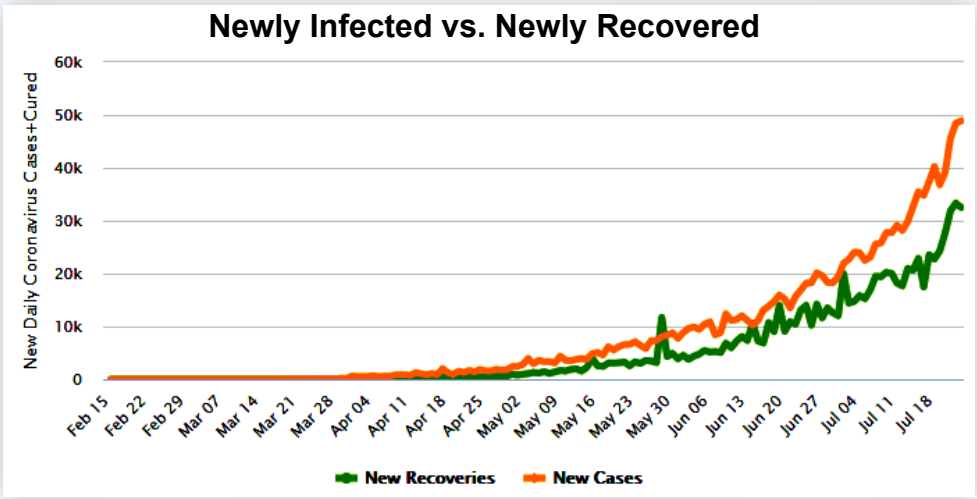
4,40,135	8,17,208	30,601	1
Active Cases	Cured / Discharged	Deaths	Migrated

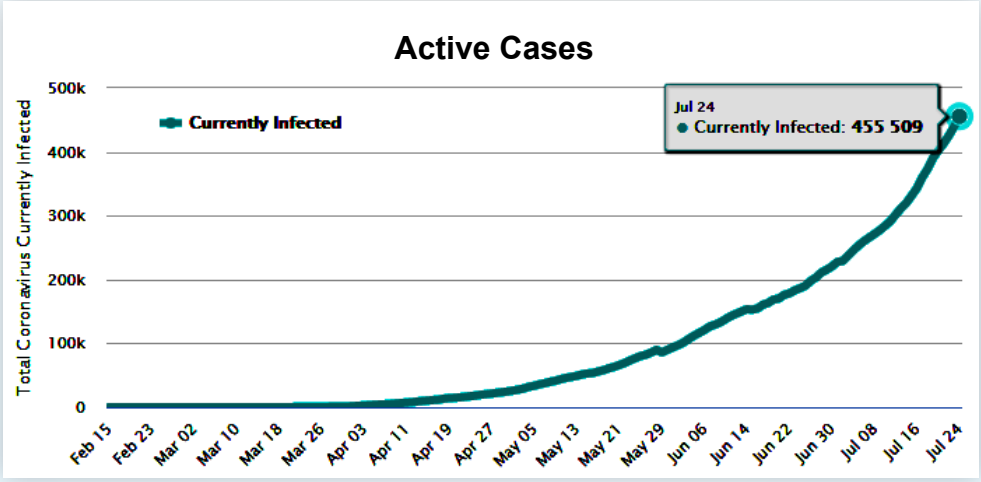
Source: www.mygov.in

Graph
INDIA

(Data as of 25 July 2020)







CORONA Q&A

Is it safe to strike up the band in the time of coronavirus?


Credit: HYBRID IMAGES CULTURA/NEWSCOM

A new study suggests that if wind instruments were covered in cloth, they could produce less of the particles that can carry the new coronavirus. The study at the University of Colorado (CU), Boulder finds that although musical instruments do generate airborne particles that could carry SARS-CoV-2, the risks for performers and audience may be manageable. The initial results showed for the first time that the instruments can produce aerosols in the range of sizes that can carry the COVID-19 virus. These aerosols can also stay airborne for long periods of time, and different instruments produced different amounts. For instance, the trumpet and clarinet, which run straighter from the mouthpiece to the instrument opening, had higher concentrations of aerosols. To reduce the spread of aerosols, the researchers tested instrument covers, such as a cloth covering for the opening or a sack covering an entire clarinet; both effectively reduced aerosols, in some cases by half, without deadening their sound. Based on the initial findings, the study recommends that indoor rehearsal rooms and performance venues use HEPA filters and increase circulation, and that musicians use instrument covers. They also recommend 2 meters of distancing and that performers face the same direction, which could limit band or orchestra size.

www.sciencemag.org

How long does immunity last?

The immune system's memory is rather like our own – it remembers some infections clearly, but has a habit of forgetting others. Measles is highly memorable – one bout should give life-long immunity (as the weakened version in the MMR vaccine does). However, there are many others that are pretty forgettable. Children can get RSV (respiratory syncytial virus) multiple times in the same winter.

The new coronavirus, Sars-CoV-2, has not been around long enough to know how long immunity lasts, but there are six other human coronaviruses that can give a clue. Four produce the symptoms of the common cold and immunity is short-lived. Studies showed some patients could be re-infected within a year. Research at King's College London also suggested levels of antibodies that kill coronavirus waned over the three month study. But even if antibodies disappear, the cells that manufacture them, called B cells, may still be around. B cells for Spanish Flu have been found in people 90 years after that pandemic. If the same is true with COVID, then a second infection would be milder than the first.

www.bbc.com

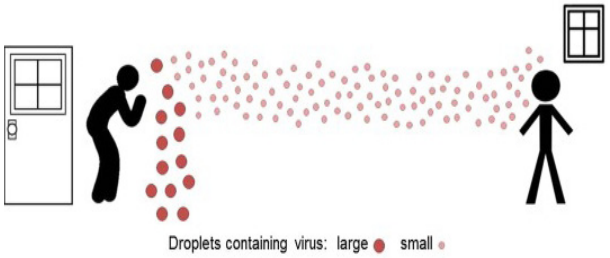
What is an immunity passport or a risk-free certificate?

Some governments have suggested that the detection of antibodies to the SARS-CoV-2, the virus that causes COVID-19, could serve as the basis for an "immunity passport" or "risk-free certificate" that would enable individuals to travel or to return to work assuming that they are protected against re-infection. At this point in the pandemic, there is not enough evidence about the effectiveness of antibody-mediated immunity to guarantee the accuracy of an "immunity passport" or "risk-free certificate". That is, there is currently no evidence to determine whether or not people who have recovered from COVID-19 and have antibodies are protected from a second infection.

www.who.int

What is the difference between droplet spread and airborne spread?

When talking about diseases, there are many ways for them to spread. With COVID-19, the main transmission methods we are looking at are contact, droplet, and airborne spread. The World Health Organization separates droplet and airborne spread largely based on particle size. For airborne spread to occur, viral particles must be present in droplets smaller than 5 microns in diameter, either as droplet nuclei or aerosolized viral particles (solid particles suspended in air). These tiny particles can be carried over



Credit: sciencedirect

distances greater than 1 meter (roughly 3 feet), and may hang suspended in the air for several hours. Droplet spread is far more limited. Droplets with diameters larger than 5 microns that contain the virus are much heavier, settling on surfaces much quicker than droplet nuclei or aerosols and traveling much shorter distances. Transmission occurs when particles land on bodily openings, such as the eyes, nose, or mouth, or the particles are inhaled.

The line between airborne spread and droplet spread is very thin, and it can be hard to identify with certainty that viral particles can be aerosolized and remain viable. Just because viral RNA is found in the air or on particulate matter does not mean that the virus is airborne. Viruses are not technically living, and the presence of RNA does not automatically mean the virus is still infectious. Only if the virus is found in sufficiently small particles and is still infectious will it be considered airborne. Likewise, the virus may only be viable in amounts insufficient to infect an individual. The repercussions of airborne spread make it crucial to identify the transmission pathways of COVID-19. Some of the world's most contagious diseases (think measles and tuberculosis) are airborne diseases, so we need to know if we have an airborne pandemic on our hands. Unfortunately, identifying these pathways is not always easy.

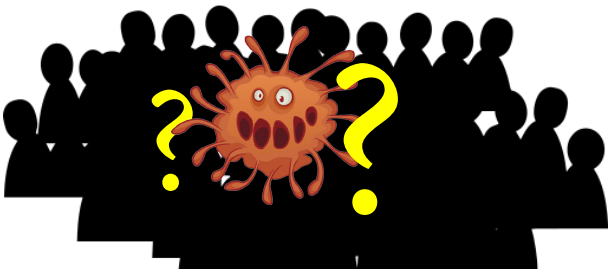
www.learn.kaiterra.com

Can HEPA air purifiers capture the Coronavirus?

Air purifiers with HEPA filtration efficiently capture particles the size of (and far smaller than) the virus that causes COVID-19. Although, it remains unclear how much practical impact the machines could have. Researchers have expressed that the virus may be transmitting through the air, among other ways. What's less clear is whether a HEPA purifier could catch the virus prior to the point of infection, or for that matter, what level of exposure to the virus causes an infection to begin with. It's possible HEPA purifiers will prove only marginally useful in the fight against coronavirus. HEPA purifiers must not be considered a first line of defense against the COVID-19 virus.

www.nytimes.com

Who are "Silent Spreaders" of COVID-19 and how much do they contribute to the spread of infection?



We have been talking about the transmission of COVID-19 infection from the beginning itself and much aware of the symptoms of the infection like cough, fever, loss of taste & smell, etc. but what about asymptomatic carriers? Would it be fine just to identify & isolate the positive or symptomatic carriers to control the outbreak? When it comes to asymptomatic condition, it becomes hard to beat. Asymptomatic carriers are called the "Silent Spreaders" of the infection. Asymptomatic carriers are the ones who do not develop any symptom for the disease but yet are infected and can transmit the infection. However, the pre-symptomatic carriers are those who exhibit symptoms after a few days; the pre-symptomatic phase is the duration between catching the virus and displaying the symptoms.

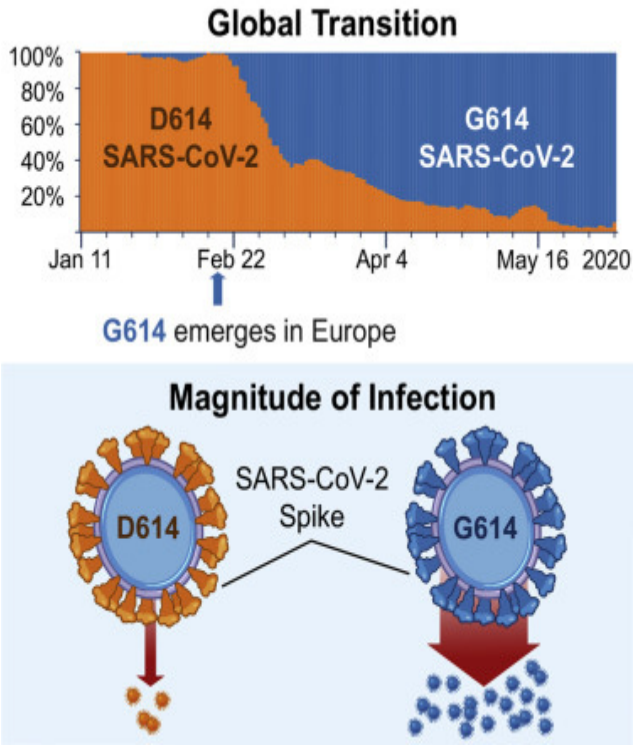
Now, how much are asymptomatic and pre-symptomatic carriers contributing to the spread of the disease? Researchers at York University and the Yale School of Public Health attempted to answer this question by examining and evaluating pre-symptomatic and asymptomatic contribution to the transmission of the disease. And their study published in *Proceedings of the National Academy of Sciences* (PNAS) (https://doi.org/10.1073/pnas.2008373117) says that "*the majority of incidences may be attributable to silent transmission from a combination of the pre-symptomatic stage and asymptomatic infections. Consequently, even if all symptomatic cases are isolated, a vast outbreak may nonetheless unfold." We further quantified the effect of isolating silent infections in addition to symptomatic cases, finding that over one-third of silent infections must be isolated to suppress a future outbreak below 1% of the population. Our results indicate that symptom-based isolation must be supplemented by rapid contact tracing and testing that identifies asymptomatic and pre-symptomatic cases, in order to safely lift current restrictions and minimize the risk of resurgence*."

Is mutation making COVID-19 virus more infectious?

The deadly COVID-19 virus has been spreading all over rapidly and yes it is not the same which attacked initially, it's mutating and raising many questions including its severity, potency, transmission and above all: will it threaten the success of the future vaccine. Unlike other viruses, the virus is changing slowly and hence giving researchers fewer mutations to investigate. According to a study conducted at Scripps Research Institute in Florida, the mutated variant is more infectious. The mutation occurred in the portion of the genome coding for Spike's Protein which gives the coronavirus a crown shape appearance and allows its binding to the target. The mutation changed the amino acid (614) from "D" (aspartic acid) to "G" (glycine) [D614 G614].

As per the institute's official statement, Scripps Research virologist Hyeryun Choe, PhD, senior author of the study says, "*The mutation had the effect of markedly increasing the number of functional spikes on the viral surface."* Also, co-author Michael Farzan, PhD, co-chairman of the Scripps Research Department of Immunology and Microbiology explains that *"the spikes give the coronavirus its crown-like appearance and enable it to latch onto target cell receptors called ACE2. The mutation, called D614G, provides greater flexibility to the spike's backbone.*"

Similarly, a study titled "Tracking Changes in SARS-CoV-2 Spike: Evidence that D614G Increases Infectivity of the COVID-19 Virus" (https://doi.org/10.1016/j.cell.2020.06.043), published in the journal *Cell*, says "*A SARS-CoV-2 variant carrying the Spike protein amino acid change D614G has become the most prevalent form in the global pandemic*".



Graphical Abstract

(Image credit: https://doi.org/10.1016/j.cell.2020.06.043)

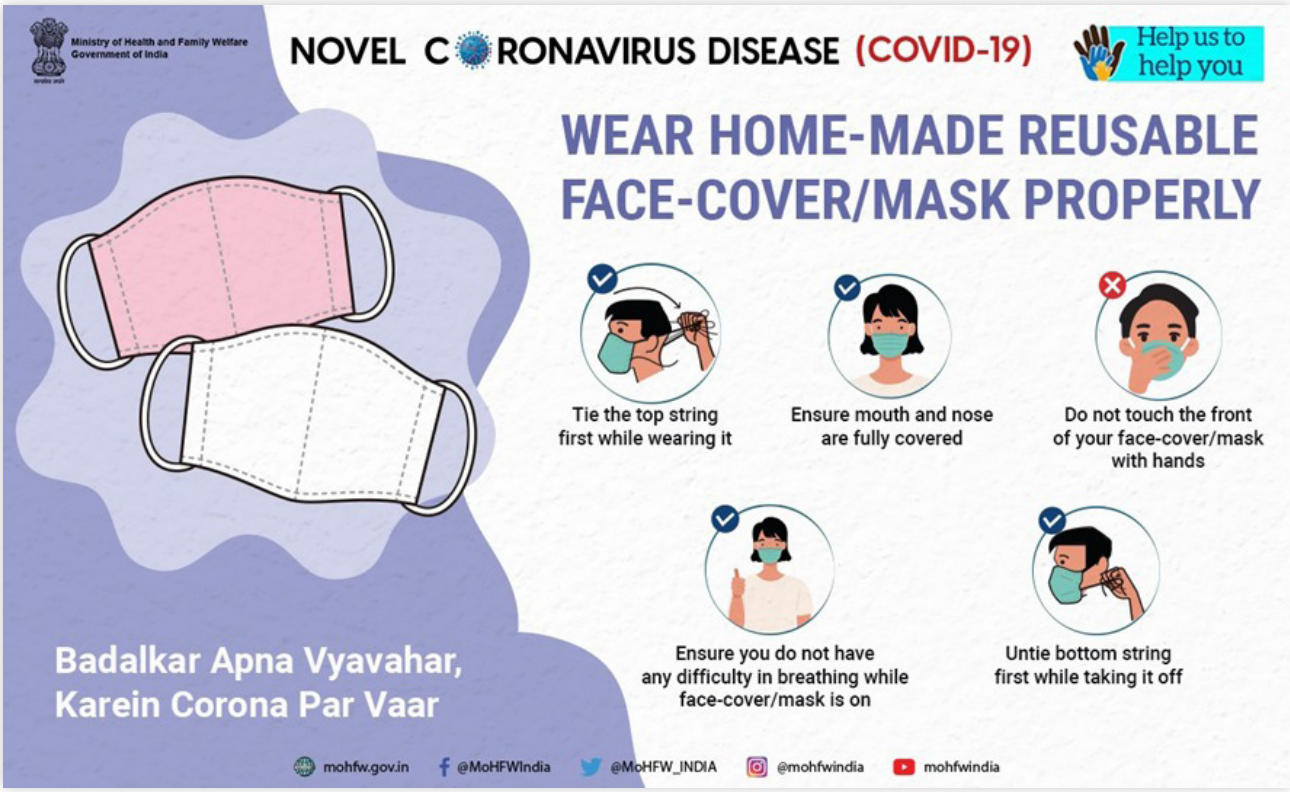
Since it's still unclear about the severity of the mutation, researchers are trying to understand the implications of the mutation in the virus more clearly apart from lab settings which could be different in the real world.

Why experts are warning against the use of valve masks?

The use of masks has now become a new normal to reduce the risk of spread of coronavirus, but there are still many doubts about the choice of masks. Health experts have recently warned against the use of N95 masks with a respiratory valve which may harm rather than doing good. The valve in the mask filters the air, removes dust and facilitates comfortable breathing but this one-way valve is protecting the wearer only not the people around as it may propel the virus further by exhaling the air.

According to an article titled "A Certain Type of N95 Mask May Do More Harm Than Good" published in *Healthline*, Dr Ali Raja, executive vice-chair of the department of emergency medicine at Massachusetts General Hospital and an associate professor at Harvard Medical School said, "*The virus can be transmitted through the valves, which offer no filtration at all*." He also added that "*Any mask with a one-way valve is only going to protect the person wearing it. It won't protect anyone around that person from potential exposure to virus particles they exhale*."

According to CDC (Centres for Disease Control and Prevention), the clinical and laboratory studies have shown that the cloth covering during COVID-19 can also solve the purpose as they can reduce the spray of droplets when one is covering the nose and mouth properly.



#Healthy@Home

Indoor Air in Homes

Ensuring proper ventilation with outside air can help reduce airborne contaminants, including viruses, indoors. However, by itself, increasing ventilation is not enough to protect people from exposure to the virus that causes COVID-19. When used along with other best practices (such as social distancing, frequent hand washing, and surface disinfection) recommended by the CDC, increasing ventilation can be part of a plan to protect yourself and your family.

Increase Ventilation

- Open the windows, or screened doors. Do not open windows and doors if doing so poses a safety or health risk to children or other family members (e.g., risk of falling or triggering asthma symptoms).
- Operate a window air conditioner that has an outdoor air intake or vent, with the vent open (some window air conditioners do not have outside air intakes).
- Ventilation can be further increased through cross-ventilation, by opening windows (or doors) at opposite sides of a home (but preferably not directly opposite of each other), and keeping internal doors open.
- Consider using indoor fans in combination with open doors or windows to further increase ventilation.

- Operate the Heat Recovery Ventilator (HVR) or Energy Recovery Ventilator (ERV) if your home has one.
- To help reduce risks of airborne transmission, direct the airflow of the fan so that is does not blow directly from one person to another.

Evaporative coolers

- Evaporative coolers (sometimes referred to as swamp coolers) are used in dry climates. They use water to provide cooling and increase relative humidity indoors. They can be whole-house permanent systems, or less expensive portable units.
- When operating as intended (with open windows), these devices produce substantial increases in ventilation with outdoor air. Some evaporative coolers can be operated without using water when temperatures are milder, to increase ventilation indoors.
- Avoid using evaporative coolers if air pollution outside is high and the system does not have a high-efficiency filter.

Use HVAC system

- If you have an HVAC system, run the system fan for longer times, or continuously, as HVAC systems filter the air only when the fan is running. Many systems can be set to run the fan even when no heating or cooling is taking place.
- Check to be sure the filter is correctly in place and consider upgrading the filter to a higher efficiency filter or the highest-rated filter that your system fan and filter slot can accommodate.
- Open the outside air intake; if your system has one (this is not common for home systems). Consult your HVAC manual or an HVAC professional for details.
- If your HVAC system has an energy-efficient air-to-air heat exchanger, heat recovery ventilator (HRV) or energy-recovery ventilator (ERV) use it, as they increase ventilation.

Use a portable air cleaner or air purifier

- When used properly, air purifiers can help reduce airborne contaminants including viruses in a home or confined space. However, by itself, a portable air cleaner is not enough to protect people from COVID-19. When used along with other best practices. Operating an air cleaner can be part of a plan to protect yourself and your family.
- Place the air cleaner in the room you spend the most time in or where vulnerable people spend the most time. To help reduce risks of airborne transmission, direct the airflow of the air cleaner so that is does not blow directly from one person to another.

www.epa.gov

FACT CHECK

COVID-19 MYTH BUSTERS

MYTH ✗

I'll be safe if I maintain a 6 feet distance from everyone

FACT ✓

It's true that by maintaining a distance of at least 6 feet from other people, not touching others, not touching your face, and not touching items that others have touched will all reduce your risk of catching the novel coronavirus. But a reduced risk only means that you're relatively safer compared to someone who doesn't participate in social distancing. It is not the same as a negligible risk, and the risks of assuming you're safe when you're not can literally be deadly.

www.forbes.com

You're not at risk of dying unless you have pre-existing conditions

As it's true that you're at an elevated risk of dying from COVID-19 if you have a pre-existing condition. But even otherwise healthy people of all ages have experienced enormous complications from this disease: stroke, renal failure, lung scarring, heart damage, digestive problems, and neurocognitive impacts. Yes, most of the people who are hospitalized with COVID-19 do have at least one pre-existing condition, but a substantial percentage of severe patients (and a substantial fraction of coronavirus-related deaths) come from patients who had no pre-existing conditions at all.

www.forbes.com

MYTH ✗

Recirculated air on a plane can make you sick

Image : www.popularmechanics.com

FACT ✓

In-flight oxygen is probably of higher quality than the air in your home. If you have an infected person in the front of the plane, and you're in the back of the plane, your risk is close to zero simply because the area of exposure is thought to be roughly six feet from the infected person. Besides, most modern aircraft have recirculation systems, which recycle up to 50% of cabin air. The recirculated air is usually passed through HEPA (high-efficiency particulate air) filters, of the type used in hospital operating theatres and intensive care units, which trap dust particles, bacteria, fungi and viruses.

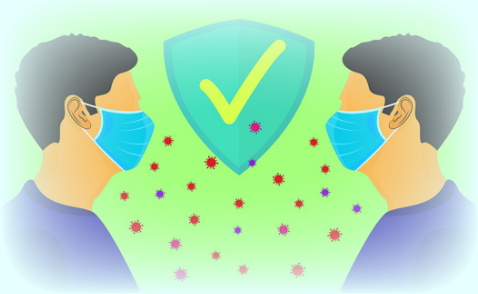
www.marketwatch.com

Kids don't need to get tested

While children are less susceptible to COVID-19, they can still catch the disease and spread it to others, though not as efficiently as adults do. Since kids are less likely to wear masks and wash their hands properly or socially distance sufficiently from others, testing them is even more critical if they're exposed to or exhibit symptoms of the virus. Children typically present with slightly different symptoms like headache, rash, and in rare cases, blood vessel inflammation called Pediatric Inflammatory Multi-system Syndrome (PIMS), which further complicates the complex puzzle of COVID-19's impact on them. Since many viruses in kids appear the same and there are no clinical criteria that can be used alone to diagnose COVID-19, widespread testing remains critical to assess whether an unwell child has COVID-19.

www.fastcompany.com

Droplet precautions will protect you



This is a myth that persists and unfortunately the one that has the gravest ramifications for health care providers. Public health officials reinforce this notion that droplets laced with the new coronavirus don't remain aloft for long, that they only travel 6 feet at most before falling to the ground, and that droplet precautions will provide ample protection. It spreads from person to person through small droplets from the nose or mouth which are spread when a person with COVID-19 coughs or exhales. Utilize airborne precautions. But even more so, recognize that anyone at any time could be infected with the virus.

Content in this bulletin has been compiled from various sources, and wherever available, due credit has been given to the original source.