Virtual Exhibition on Awareness about Vaccination & Precautions of Covid-19. Organized by Gujarat University Library.

Register yourself to get vaccine
www.cowin.gov.in


WEAR A MASK


WASH YOUR HANDS FREQUENTLY


COUGH ETIQUETTE
(Cover Your Mouth With Sleeve Or Elbow)


DON'T TOUCH EYES, NOSE OR MOUTH WITH UNWASHED HANDS


CLEAN AND DISINFECT


AVOID CONTACT WITH SICK PEOPLE & MAINTAIN SOCIAL DISTANCING

What is a Virus

Viruses are non-cellular, microscopic infectious agents that can only replicate inside a host cell.

- From a biological perspective, viruses cannot be classified either as living organisms or non-living.
- This is due to the fact that they possess certain defining characteristic features of living organisms and non-living entities.
- In a nutshell, a virus is a non-cellular, infectious entity made up of genetic material and protein that can invade and reproduce only within the living cells of bacteria, plants, and animals.
- They are called non-cellular because they don't have a cell structure, rather only the genetic material.
- Viruses are the border between living and nonliving organisms.
- They act as living organisms when they are present in a host organism (cell),
- Otherwise, they are nonliving organisms.
- They are crystal-like structures when they are outside, and becomes infecting and lethal when they enter a living cell.
- Viruses are inert outside a host cell, and then they are called virions.
- Some viruses partially contain DNA (DeoxyRibonucleic acid) or RNA (Ribonucleic acid) with single or double strands. It can get into the DNA of the host organism.
- Viruses are classified on the basis of genetic material – ds DNA (polio), dsRNA, ssDNA, ssRNA (orthomyxoviruses).
- Viruses cause diseases among animals and plants. Potato mosaic and tobacco mosaic are the common viral diseases among plants; chickenpox, AIDS, and Ebola are the common viral animal diseases.

What is Coronavirus

Coronaviruses are a large family of viruses that are common in various species of animals, such as cattle, camels, bats, and cats. They cause diseases ranging from cold to SARS.

- In some cases, animal coronaviruses can infect humans, which can then spread from person to person.
- This happened in the case of the SARS and MERS coronaviruses. It is also suggested that this might be happening in the current China virus case.
- Coronaviruses cause respiratory infections in humans which are generally mild, but sometimes, can be fatal.
- Coronaviruses are physically large as far as viruses go (26 – 32 kilobases), having a surface of spike projections (which resembles a crown and hence the name 'corona').
- Like the influenza virus, the coronavirus spreads through both direct and indirect contact.
- Direct contact happens through a physical transfer of the microorganism through close contact with oral secretions.
- Indirect contact happens when a person infected with the virus sneezes or coughs, which spreads the virus droplets on surfaces.
- Person-to-person spread occurred with MERS and SARS mainly via respiratory droplets produced when an infected person coughs or sneezes, quite like how influenza and other respiratory pathogens spread.

Wuhan Coronavirus Introduction

- This is a new coronavirus that has been identified for the first time in the city of Wuhan, the capital of the Hubei Province in mainland China.
- It was identified after people developed pneumonia without an evident cause and where current vaccines and treatment methods were not effective.
- There have been around 80000 people infected with the virus in China. There have also been about 4600 fatalities there, exceeding those from SARS.
- Cases have also been reported outside China, in Hong Kong, South Korea, Iran, Italy, Australia, Thailand, France, Spain, Germany, the US, countries in West Asia, etc. totaling over 200 countries. India reported its first case towards the end of January 2020.
- Worldwide, there have been more than 2.18 crore cases and more than 7.72 lakh deaths.
- Some of the worst-effected countries are Brazil, the US, the UK, Spain, India and Italy.
- There is not much known about the new coronavirus, which has been designated 2019-nCoV.
- It is considered a novel virus outbreak because the virus is novel (new – not seen earlier).

Symptoms of the corona virus

- Fever
- Coughing
- Muscle pain
- Fatigue
- Breathing difficulties
- Can cause pneumonia (infection of one or both lungs)
- Can be fatal
- After a slow onset in an infected body, the disease spreads rapidly in the second week.
- Hypoxemia caused due to intensifying lung injury leads to difficulty in breathing and the need for oxygen therapy.
- Another common complication observed is ARDS (acute respiratory distress syndrome).
- Other complications include acute kidney injury, septic shock and virus-induced cardiac injury.
- The incubation period for the virus ranges from 2 to 14 days.
- The incubation period is the time starting from exposure to the virus to developing symptoms.
- During the incubation period, the Wuhan virus is contagious. The virus is believed to have originated in a seafood market in Wuhan that was involved in the illegal sale of wildlife.
- Many early patients of the virus had some link to the market, suggesting an animal-to-human spread.
- A further rise in the number of patients (who have not had exposure to the market) suggests that person-to-person spread is happening. However, at present, it is not clear as to how this spreading occurs between people.

What can you do to protect yourself against the virus

In addition to social distancing, here are some important things you can do to protect yourself:

Precaution for People to overcome from Corona virus

When should you wear a mask?

Wear a mask if you are sneezing, coughing, taking care of someone who is infected with the coronavirus, or if you are going out of your house to buy essential items like food and medicines. If possible wear gloves too while going outdoors.

Why is social distancing important?

As this virus is extremely contagious it can transmit from person to person at a great speed. Therefore, to protect yourself from catching the virus, it is important to practice social distancing. Social distancing involves, staying indoors at home and avoiding public places where many people can gather together.

If you do have to go outside the house to buy essential items like food or milk, it is important to maintain a distance of at least 6 feet from other people.

What is a lockdown?

Why it is Important to overcome from corona virus

A lockdown is a measure taken by the government that prevents people from leaving an area. To fight the coronavirus, the Indian Government issued a nation-wide lockdown on 24th March 2020 onwards. In fact, India was one of the first countries in the world to put a nation-wide lockdown in place to fight against coronavirus.

During this time, important essential services that help people like food and medicine shops, banks, police stations and hospitals continue to work and be open. The movement of people, however, is restricted to stop the spread of the virus.

The extent to which the movement of people is restricted depends on if their locality falls in a red, orange or green zone.

Red zones are areas with a high number of COVID-19 cases and the number of cases is doubling quickly.

Orange zones are areas with only a few COVID-19 cases.

Green zones are areas with no COVID-19 cases for 21 days.

As of the middle of May, 1.4 million people across the world have recovered from a COVID-19 infection and in India, approximately 24,300 people have recovered!
Science is a great tool in our hands to help improve health and well-being around the world. Whenever we're faced with a virus outbreak like this, it is important to stay calm and exercise precautionary measures diligently!

The government authorities have taken many measures to prevent the further spread of virus.

- Travel advisories are being revised as and when new updates are being confirmed about the coronavirus.
- Anyone with a travel history to China since 15th January could be kept in quarantine.
- The government has also issued a travel warning to China and urged people to refrain from visiting the country.
- E-Visa facilities have been blocked for the time being for Chinese nationals. E-Visa already issued will also be invalid.
- Further, the online facility for submitting an application for a physical visa from China is also suspended.
- Chinese nationals who have a compelling reason to visit India are being asked to contact the Indian consulate at Shanghai or Guangzhou, or the embassy in Beijing.
- The Ministry of Civil Aviation has issued instructions to all national and international airlines to comply with the above advisory for their operations from China.
- The Indian government has evacuated its nationals (around 650 in number) from Wuhan in two batches. Air India flights fetched the Indian nationals who were stranded in Wuhan, along with 7 Maldivian nationals as well.
- Most of the Indians were students who were pursuing studies in China. The rescued people were subject to quarantine on arrival for medical examinations.

The government authorities have taken many measures to prevent the further spread of virus.

- The government has also evacuated its citizens from many other countries where the virus has caused a lot of damage, like Italy, Iran, etc. More than 2000 citizens have been evacuated from different countries including China.
- Airports are screening passengers in 21 airports, international seaports and border crossings, especially with Nepal.
- All flights from Thailand, Singapore, China, Hong Kong, Japan, Nepal, Indonesia, Malaysia and Vietnam were being screened.
- Currently, universal screening at all international airports and sea-ports are being conducted using thermal imagery equipment. The passengers will also have to mandatorily fill forms of places visited by them abroad.
- Additionally, 28,529 people in various Indian states and UTs are under community surveillance.
- In airports, dedicated aerobridges are already in place for flights from China, South Korea, Japan, Italy, Iran, Singapore, Thailand, Hong Kong, Vietnam, Nepal and Indonesia. Now, with the rising number of cases in the USA, Spain and France, India has decided to have separate aerobridges for flights from these 3 countries also.
- To meet the rising demands of health workers in airports, more doctors, paramedics and nurses have been deployed.

Aarogya Setu Mobile App - Tracking COVID-19

Prime Minister Narendra Modi launched Aarogya Setu. The mobile app has been developed by the National Informatics Centre (NIC) that comes under the Ministry of Electronics and Information Technology.

In the fight against Coronavirus COVID-19 in India, the Government launched a mobile application Aarogya Setu to connect essential health services with the citizens of India.

Aarogya Setu is a COVID-19 tracking app that uses GPS and Bluetooth features of smartphones to track the infection. It helps in determining whether the person has been in close contact with any other infected person or not.

To take a step forward for protecting the citizens, the government has launched the app in 11 different languages (Now 12). Through Aarogya Setu people will be able to know or track the infection in close vicinity more accurately and effectively.

Objectives of Aarogya Setu

The Aarogy Setu is developed keeping in mind the following objectives:

- To spread awareness of the novel Coronavirus outbreak among Indian citizens.
- To augment the Government of India's initiatives, particularly the Department of Health, in proactively reaching out to the users and informing them about the risks, best practices and relevant advisories relating to the containment of COVID-19.
- To establish a connection between the government and the people of India for health services, facilities and updates from the health ministry nationally and state-wise.

CAWACH - Centre for Augmenting WAR With COVID-19 Health Crisis

Department of Science & Technology has approved setting up of a Centre for Augmenting WAR with COVID-19 Health Crisis (CAWACH).

- The Centre for Augmenting WAR with COVID-19 Health Crisis (CAWACH) is an initiative by National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science and Technology (DST), Government of India.
- DST has approved the setting up of CAWACH to scout, evaluate and support the innovations and startups that address COVID-19 challenges.
- The Society for Innovation and Entrepreneurship (SINE), a technology business incubator at IIT Bombay supported by the Department of Science and Technology has been identified as the implementing agency of the CAWACH.
- The CAWACH's mandate will be to extend timely support to potential startups by way of the requisite financial assistance and fund deployment targeting innovations that are deployable in the market within the next 6 months.
- SINE will source and support startups having solutions to fight pandemic COVID-19 by way of funding.
- SINE will be supported by Indian STEPs and Business Incubator Association (ISBA) in implementation of the program.

CAWACH - Centre for Augmenting WAR With COVID-19 Health Crisis

The main objective of CAWACH is to scout, evaluate and support the innovations and start-ups that address COVID-19 challenges.

The Centre for Augmenting WAR with COVID-19 health crisis aims to tap challenges faced by the country due to the severe impact of Coronavirus disease.

CAWACH will identify up to 50 innovations and startups that are in the area of the novel, low cost, safe and effective ventilators, respiratory aids, protective gears, novel solutions for sanitizers, disinfectants, diagnostics, therapeutics, informatics and any effective interventions to control COVID-19.

It will provide access to pan India networks for testing, trial and market deployment of these products and solutions in the identified areas of priority COVID-19 solutions

Mission COVID-19 Suraksha

- The Government of India has sanctioned Rs.900 crores for the Phase I of the Mission COVID Suraksha, for a period of 12 months
- This mission will accelerate the development of approximately 5-6 vaccines for coronavirus. However, a total of 10 vaccine candidates have been supported by DBT till now
- Complete focus on the preclinical and clinical development of the vaccine is to be taken care of, for quick release and to restrict any further spread of the Novel coronavirus in the country
- With an end-to-end focus from preclinical development through clinical development and manufacturing and regulatory facilitation for deployment, would consolidate all available and funded resources towards an accelerated product development
- The grant for Research and Development (R&D) of the Indian COVID-19 vaccine will be provided by the Department of Biotechnology (DBT)
- It will be implemented by a dedicated Mission Implementation Unit at the Biotechnology Industry Research Assistance Council (BIRAC)
- Development of an indigenous, affordable and accessible vaccine to curb the spread of the coronavirus is one of the biggest targets which the Government of the country aims to achieve. The success of this mission will complement the Indian aspiration of Atmanirbhar Bharat Abhiyan.

Mission COVID-19 Suraksha

Objectives of Mission COVID Suraksha
The main objectives of this mission include:

- Funding the candidate vaccines with their testing, manufacturing, licensing, and distribution in the market
- Establishing clinical trial sites, strengthening the existing laboratories, and assisting with the internal and external quality management system
- Supporting the development of common harmonized protocols, training, data management systems, and regulatory submissions
- Capabilities for process development, cell line development and manufacturing of GMP batches for animal toxicology studies and clinical trials will also be supported under the Mission
- The development of a suitable Target Product Profile is another key element of the mission. This will ensure that the vaccines being introduced through the mission have preferred characteristics applicable to India

Why Vaccination is Important and his Importance

A vaccine is a preparation that improves immunity to a particular disease. It is a biologically prepared product which contains typical agents resembling a microorganism that causes diseases, made from weakened or dead forms of the microbes, one of its surface proteins or its toxins. It helps in the stimulation of the immune system and to identify the invaded microbes as the foreign agent and destroy it so that the immune system can be recognized and to destroy any microorganism encountered later.

Why Vaccination is Important and How it works

Vaccines are Safe and Effective

Vaccines are the perfect defense against a preventable and contagious disease that can be deadly. Vaccines are one of the safest medical products available, but there are some preventive measures one should adopt. Precise information about the values of vaccines along with their possible side-effects assists people to make decisions on vaccines.

How Well Do Vaccines Work?

No medicine can be labeled as perfect, but most of the vaccines produce immunity for about 90-100% of the cases. Certainly, better sanitation and hygiene can help prevent the spread of diseases, but the germs that are responsible, still stay around. The germs continue to make people sick as long as their existence.

Every vaccine has to be licensed by the Food and Drug Administration abbreviated by FDA before being brought into use in the United States. A vaccine needs to go through extensive tests to confirm that it is safe before the approval of FDA. Among these tests are the clinical tests trials that compare groups of people who get a control such as a placebo with the group of people who get a vaccine. A vaccine is approved only when FDA confirms that it is safe for intended use.

When you look at a history of disease that can be prevented by a vaccine, you will see that the number of cases starts to go down when a vaccine is licensed.

Vaccines save millions of lives every year. When a particular section of a city or town is immunized against a communicable disease, several members of the same community are shielded against the diseases as the opportunity for an outbreak is minimized. The principle of immunity refers to the control of various contagious diseases that involve rabies, mumps, influenza, measles and pneumococcal disease.

Why Vaccination is Important and his Importance

Getting vaccinated is safer than getting infected

Vaccines train our immune system to recognize the targeted virus and create antibodies to fight off the disease without getting the disease itself. After vaccination, the body is ready to fight the virus if it is later exposed to it, thereby preventing illness.

Most people who are infected with SARS-CoV-2, the virus that causes COVID-19, develop an immune response within the first few weeks, but we are still learning how strong and lasting that immune response is, and how it varies between different people.

People who have already been infected with SARS-CoV-2 should still get vaccinated unless told otherwise by their health care provider. Even if you've had a previous infection, the vaccine acts as a booster that strengthens the immune response. There have also been some instances of people infected with SARS-CoV-2 a second time, which makes getting vaccinated even more important.

Why Vaccination is Important and his Importance

❖Vaccine doses

For some COVID-19 vaccines, two doses are required. It's important to get the second dose if the vaccine requires two doses.

For vaccines that require two doses, the first dose presents antigens – proteins that stimulate the production of antibodies – to the immune system for the first time. Scientists call this priming the immune response. The second dose acts as a booster, ensuring the immune system develops a memory response to fight off the virus if it encounters it again.

Because of the urgent need for a COVID-19 vaccine, initial clinical trials of vaccine candidates were performed with the shortest possible duration between doses. Therefore an interval of 21–28 days (3–4 weeks) between doses is recommended by WHO. Depending on the vaccine, the interval may be extended for up to 42 days – or even up to 12 weeks for some vaccines – on the basis of current evidence.

There are many COVID-19 vaccines being developed and produced by different manufacturers around the world. WHO recommends that a vaccine from the same manufacturer be used for both doses if you require two doses. This recommendation may be updated as further information becomes available.

Why Vaccination is Important and his Importance

Safety against infection and transmission after vaccination

Available clinical trials have shown COVID-19 vaccines to be safe and highly effective at preventing severe disease. Given how new COVID-19 is, researchers are still looking into how long a vaccinated person is likely to be protected from infection, and whether vaccinated people can still transmit the virus to others. As the vaccine rollout expands, WHO will continue to monitor the data alongside regulatory authorities.

Safe and effective vaccines are making a significant contribution to preventing severe disease and death from COVID-19. As vaccines are rolling out and immunity is building, it is important to continue to follow all of the recommended measures that reduce the spread of SARS-CoV-2. This includes physically distancing yourself from others; wearing a mask, especially in crowded and poorly ventilated settings; cleaning your hands frequently; covering any cough or sneeze in your bent elbow; and opening windows when indoors.

COVID-19 Vaccine

According to the WHO, there are over 50 vaccine candidates for COVID-19 in various stages of clinical trials.
Currently, the following vaccines are under trial in India for the fight against COVID-19:

❖ COVAXIN

- This is India's first indigenously developed COVID-19 vaccine.
- It is developed by Bharat Biotech in collaboration with Indian Council of Medical Research (ICMR) – National Institute of Virology (NIV).
- The vaccine received approval for phase I & II human trials from July 2020.
- Then, after phase III trials, in January 2021, the vaccine received approval from the Drug Controller General of India (DCGI) for restricted use in emergency situation.

COVID-19 Vaccine

According to the WHO, there are over 50 vaccine candidates for COVID-19 in various stages of clinical trials.
Currently, the following vaccines are under trial in India for the fight against COVID-19:

❖ Covishield

- Covishield is co-developed by the University of Oxford and British-Swedish company AstraZeneca in collaboration with the Serum Institute of India (SII).
- This vaccine has also been approved under the restricted use in emergency situation.
- The government of India signed a purchase order of 11 million doses with SII for Covishield.

COVID-19 Vaccine

According to the WHO, there are over 50 vaccine candidates for COVID-19 in various stages of clinical trials.
Currently, the following vaccines are under trial in India for the fight against COVID-19:

❖ Sputnik V

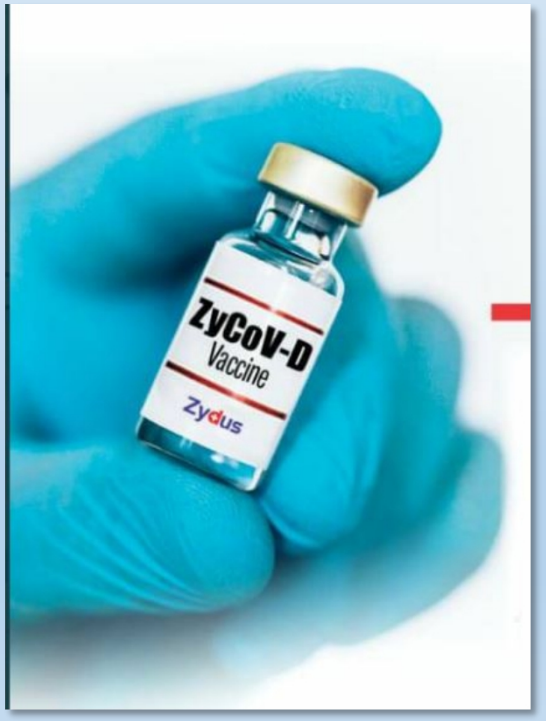
- Sputnik V is the first registered vaccine against Covid-19 created on a human adenoviral vector platform.
- It was developed by Russia's Gamaleya Research Institute.
- The Russian Direct Investment Fund (RDIF), Russia's sovereign wealth fund, is investing in the production and promotion of the vaccine abroad.
- In India, it has tied up with Dr. Reddy's Laboratories.
- Currently, phase II human trials are going on.

COVID-19 Vaccine

According to the WHO, there are over 50 vaccine candidates for COVID-19 in various stages of clinical trials.
Currently, the following vaccines are under trial in India for the fight against COVID-19:

❖ ZyCoV-D

- His vaccine has been developed by pharmaceutical company Zydus Cadila and it is the third vaccine in India to receive the DCGI nod for phase III human trials.
- This is India's first DNA plasmid vaccine.



Cowin Covid-19 Vaccine Intelligece Network

The government has created CoWIN (Covid-19 Vaccine Intelligence Network) which is a repurposed version of eVIN (Electronic Vaccine Intelligence Network). The goal is to ensure last-mile delivery of Covid vaccine following launch of the world's largest vaccination drive in January 16.

Cowin Covid-19 Vaccine Intelligece Network

How to register for COVID-19 vaccine on portal,Know all about the second phase of COVID 19 vaccination process in India here. The article below discusses the features of the Co-WIN App, its usage, how to register on the portal cowin.gov.in and all about the coronavirus vaccination drive.

- Login: Citizens need to login their identification. A detailed process has been listed below.
- Schedule Vaccine Appointment: Choose a date and enter the details for the appointment
- Confirmation of Appointment: Complete the appointment process by choosing the centre from the availability list
- Completion of Vaccination: Get vaccinated on the date

Cowin Covid-19 Vaccine Intelligece Network

❖ Co-WIN Portal: How to register

- STEP 1: Visit the website on your mobile or log on through your dekstop on cowin.gov.in.
- STEP 2: Enter your mobile number to get an OTP. Once you get the OTP enter it and click on the "Verify" button on your screen
- STEP 3: You are then redirected to registration section on the vaccination page
- STEP 4: The citizen would then be asked to choose one photo ID proof. They would need to fill their name, age, gender and upload an identity document along with it.
- STEP 5: The citizens would also be asked in case they have any co-morbidities. In case they have, they must upload a photo proof for the same (a doctor's certificate)
- STEP 6: The citizens would have to enter their account details and also have an option to choose multiple members for vaccination(3 additional)

Cowin Covid-19 Vaccine Intelligece Network

- STEP 7: Now the citizen must enter the 'schedule appointment' date and choose the option most suitable for himself and book an appointment.
- STEP 8: Once the registration is completed the citizen would receive a message with the vaccination appointment.
- STEP 9: One can also reschedule an appointment anytime he/she may wish but before the vaccination day allotted to him/her.
- The citizens must know that after the first dose the second dose would automatically be scheduled.

❖ Co-WIN App: Features

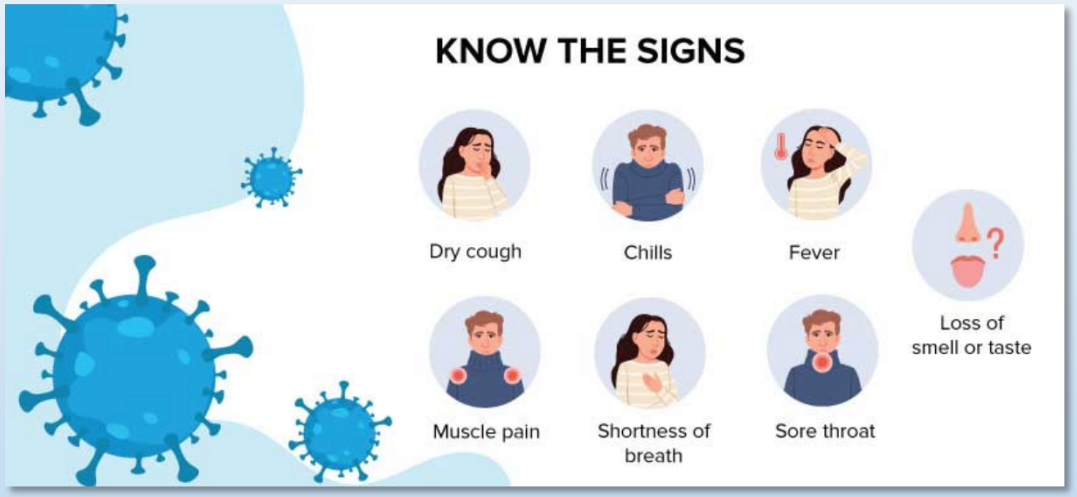
- It is considered to be the digital backbone of the vaccination drive in India
- The App is only for administrators as informed by the Ministry of health and would facilitate registration and scheduling of vaccination sessions.
- The new version of the Co-WIN app has an advanced feature of a GPS-enabled settin

Tips to combat COVID-19 at home

The upsurge in Coronavirus cases, many people are opting for homecare for their loved ones who have been infected with the virus. With proper care, support and vigilance, one can easily combat COVID-19 at home.

As per reports, most people have mild illness and are able to recover at home. However, people with severe illness, including old people and those of any age with serious underlying medical conditions, should call a health care provider as soon as the symptoms start.

Tips to combat COVID-19 at home



If you're caring for somebody with COVID-19 at home, follow these steps to protect yourself and others from the virus:

❖ Provide Support

- Quarantine the person with COVID-19 to stop the spread of virus
- Provide a separate bedroom and washroom to them
- Ensure that the person rests well, drinks plenty of fluids and eats nutritious food
- Help the person follow their doctor's instructions for medicines and care
- Monitor the person's temperature, oxygen levels and blood pressure frequently
- Contact the hospital immediately if the patient's oxygen levels are below 90

Tips to combat COVID-19 at home

❖ Limit Contact

- Try to stay at least 6 feet away from the person with COVID-19
- Wash your hands with soap and water for at least 20 seconds if you've been in contact with the person or their surroundings
- Avoid touching the person and their belongings
- Caregivers and others at home should self-monitor their health with daily temperature checks

❖ Sanitise

- Disinfect surfaces like tables, doorknobs, light switches, handles, desks and toilets regularly
- Wash the patient's clothing, bedding and towels with detergent in hot water
- Wear a mask and gloves when in the same room as the COVID-19 patient. Discard it post-use
- Use gloves while handling the patient's belongings

Tips to combat COVID-19 at home

❖ Stay Separated

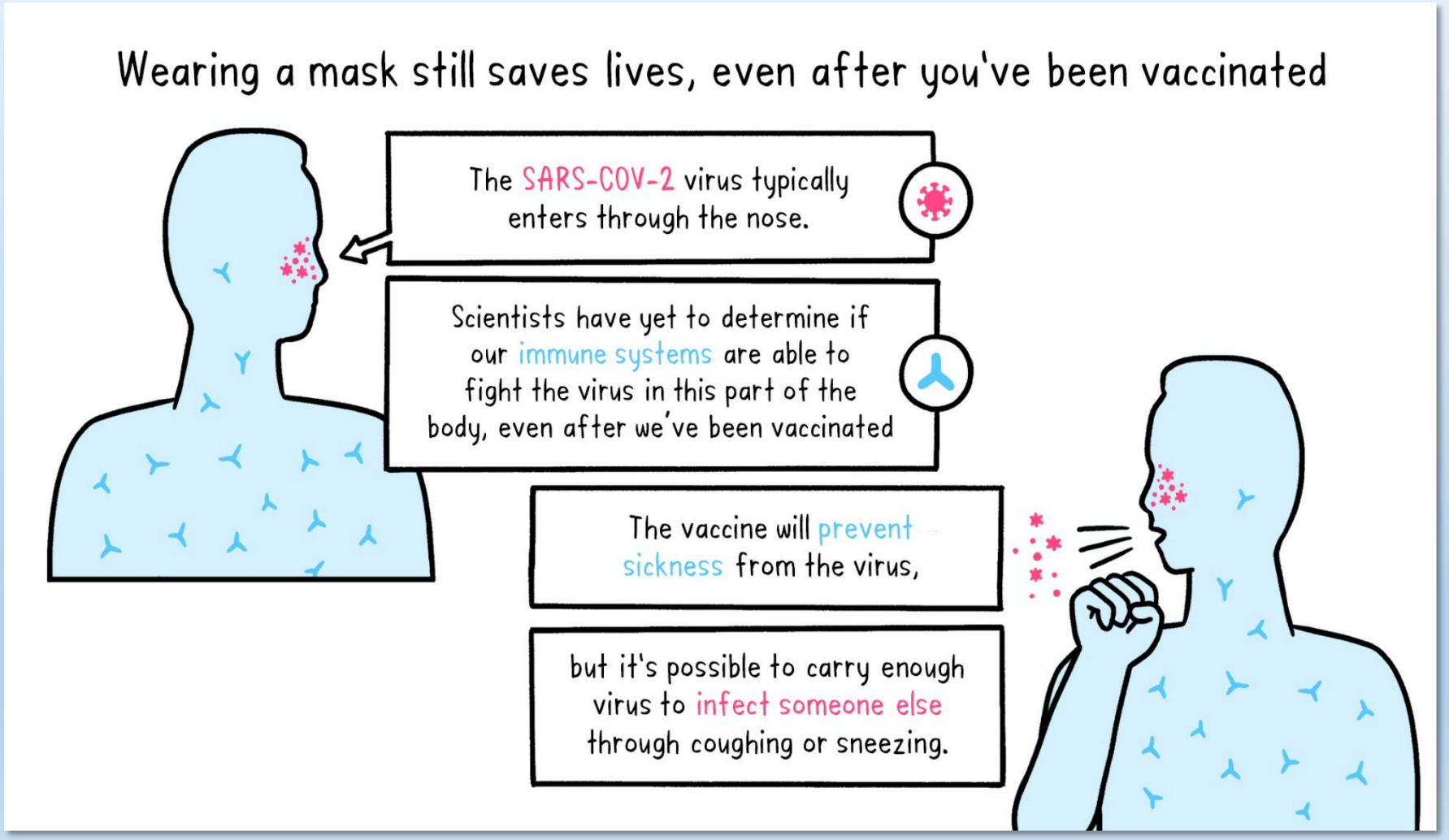
- Use separate dishes, utensils, towels and bedsheets for the concerned person
- If you're a caregiver, isolate yourself and avoid meeting people
- Avoid having guests or visitors at home
- Keep a track of your health for 14 days after the start of the patient's symptoms

❖ End your isolation on time

- As per the government guidelines, you can be around people after:
- -10 days since the symptoms first appeared
- -24 hours with no fever without the use of fever-reducing medications
- -Other symptoms of COVID-19 are improving
- Loss of taste and smell may persist for weeks or months after recovery and need not delay the end of isolation
- Be in regular touch with your doctor when to end home isolation

Be Alert | Be Supportive | Be Kind

Some Glimpse of Precaution on Covid-19



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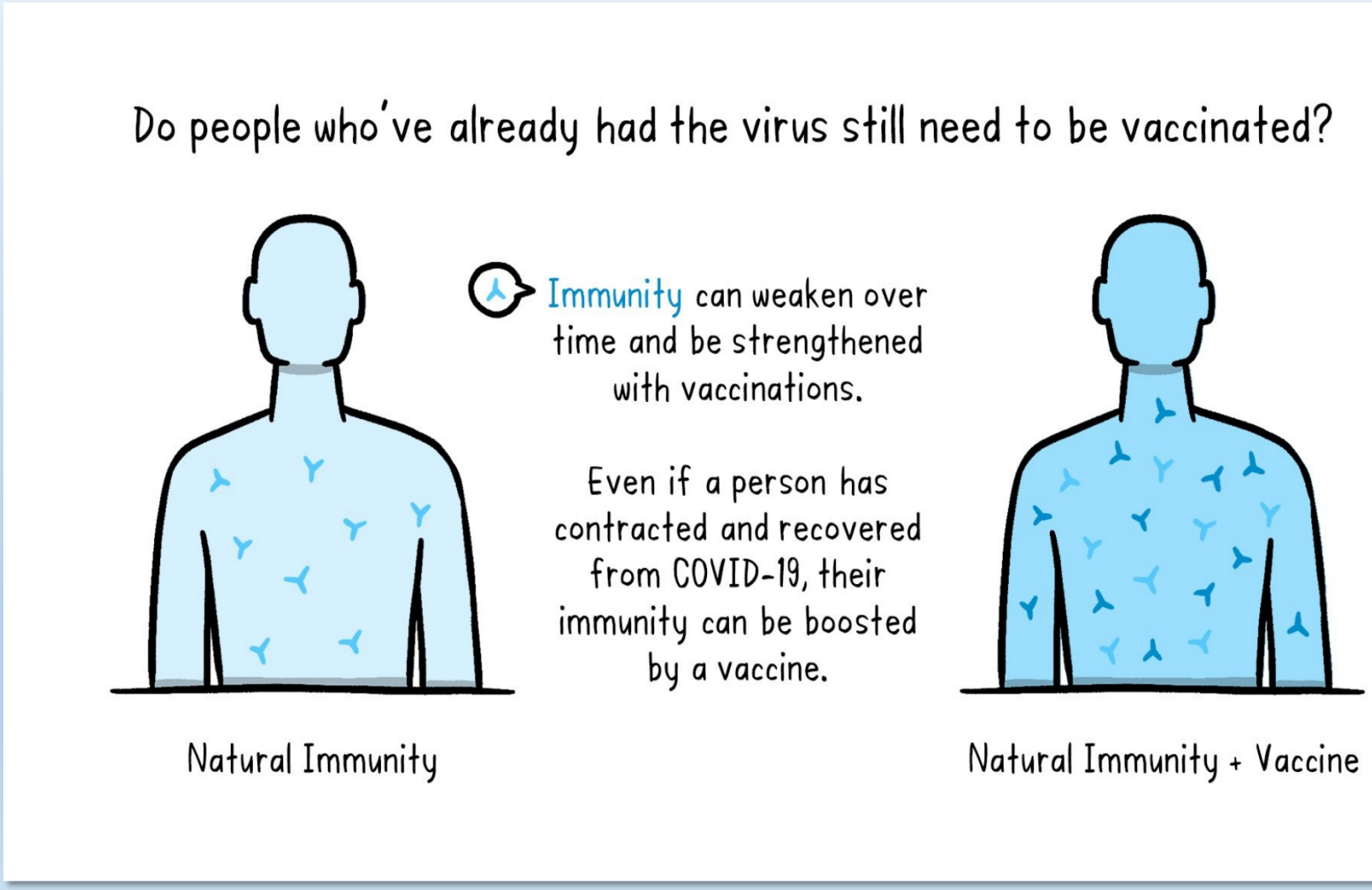

Some Glimpse of Precaution on Covid-19

Source of Information References

https://blog.byjus.com/uncategorized/what-you-should-know-about-coronavirus/

https://byjus.com/govt-exams/aarogya-setu/

https://byjus.com/free-ias-prep/wuhan-coronavirus/#Measures%20taken%20to%20combat%20the%20Wuhan%20Coronavirus

https://byjus.com/govt-exams/cawach-india/

https://byjus.com/current-affairs/mission-covid-suraksha/

https://www.jagranjosh.com/general-knowledge/co-win-20-all-about-2nd-phase-of-covid-19-vaccination-process-in-india-how-to-register-benefits-1614585792-1

https://www.who.int/news-room/feature-stories/detail/getting-the-covid-19-vaccine