

Vaccines and Vaccination for COVID-19

Ramaiah International Centre for Public Health Innovations (RICPHI)
Bengaluru, Karnataka

VACCINATION- COVID 19

Vaccines contain weakened or inactive parts of a particular disease-causing organism (antigen) that triggers an immune response within the body. This weakened version will not cause the disease in the person receiving the vaccine, but it will prompt their immune system to respond much as it would have on its first reaction to the actual pathogen.



Covaxin®
(manufactured by
Bharat Biotech Limited).



Covishield®
(AstraZeneca's vaccine
manufactured by Serum
Institute of India).



**Sputnik vaccine is
produced in Russia
(manufactured in India
by Dr. Reddy's
Laboratories).**

Why get vaccinated?



Vaccination builds protection



It's safer than getting the disease



It will help stop pandemic



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All covid vaccines are safe and have the same efficacy COVID-19 vaccines have undergone rigorous testing in clinical trials to prove that they meet internationally agreed benchmarks for safety and effectiveness. They are regulated by WHO and national regulatory agencies.

Two doses of vaccination is recommended.

Time interval between first and second dose of vaccination is 12-16 weeks if it is Covishield and 4-8 weeks if it is Covaxin

The COVID-19 vaccines are expected to provide at least some protection against new virus variants and are effective at preventing serious illness and death.

Two doses of vaccination are currently administered for age group 18 years and onwards.

All the COVID-19 vaccines that receive license after the clinical trials will have comparable safety and efficacy. However, it must be ensured that the entire schedule of vaccination is completed by only one type of vaccine as different COVID-19 vaccines are not interchangeable.

What to do in case of severe side effects?

In case of any discomfort or complaint, ask the beneficiary to visit the nearest health facility and/or call the health worker whose phone number is given in the Co-WIN SMS received after vaccination.



Pregnant women

- Pregnant people are more likely to get severely ill with COVID-19 compared than non-pregnant people. If you are pregnant, you can receive a COVID-19 vaccine. Getting a COVID-19 vaccine during pregnancy can protect you from severe illness from COVID-19. If you have questions about getting vaccinated, a conversation with your healthcare provider might help.



Lactating mothers

- Based on how these vaccines work in the body, COVID-19 vaccines are thought not to be a risk to lactating people or their breastfeeding babies. Therefore, lactating people can receive a COVID-19 vaccine. Recent reports have shown that breastfeeding people who have received COVID-19 mRNA vaccines have antibodies in their breast milk, which could help protect their babies.

Vaccine registration and administration





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Online registration through CO-Win website(no application needs to be downloaded). Offline registration at the site of vaccination is also available.



Upto 4 people can be registered for vaccination using one mobile number. Registration requires any of the following ID proof- Aadhar card, Driving License, PAN card, Passport, Voter ID.



Search for the nearest vaccine administration site in your locality through Pincode or by selecting a state or district in the Co-win website or Aarogya Setu application and book an appointment in advance. One can also cancel or reschedule the appointment



Vaccination center is responsible for generating your certificate and for providing a printed copy post vaccination on the day of vaccination itself. Please do insist on receiving the certificate at the center.



The vaccination certificate can be downloaded through the Co-Win website, Aarogya Stu application or Digi-Locker.



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Where should I register for the vaccination? Register on the [Co-WIN Portal](https://www.cowin.gov.in/home) and schedule your vaccination appointment.
<https://www.cowin.gov.in/home>

Where can I get the vaccine from? Vaccines are available from Government and Private Health Facilities known as COVID Vaccination Centers (CVCs)

What documents are required for registration of eligible beneficiary? Any ID with Photo may be produced at the time of registration

What medications should be avoided before taking COVID-19 vaccine and for how long? Currently, there is no such instruction. One can take one's regular medication uninterruptedly. Just inform the vaccinator about the medicines you consume.

In how many days will the vaccination create an adequate immune response and protection? Adequate immune response takes 2-3 weeks after completion of the entire vaccination schedule i.e., after the second dose of COVISHIELD® and COVAXIN®.

Should you avoid alcohol after receiving the COVID-19 vaccine? As per experts, there is no evidence of alcohol impairing the effectiveness of the vaccine.

Will the vaccine introduced in India be as effective as the ones introduced in other countries? Yes, the COVID-19 vaccine introduced in India are as effective as any vaccine developed by other countries. Various phases of vaccine trials are undertaken to ensure its safety and efficacy.

How long will I remain protected after vaccination? Longevity of the immune response in vaccinated individuals is yet to be determined. Hence, continuing the use of masks, hand washing, physical distancing and other COVID-19 appropriate behaviour is strongly recommended.

Is it mandatory to take the vaccine? Vaccination for COVID-19 is voluntary. However, it is advisable to receive the complete schedule of COVID-19 vaccine for protecting oneself against this disease and also to limit the spread of this disease.

Developing a vaccine takes years. But this time our scientists have developed a vaccine against the novel coronavirus in such a short time. How was this possible?

Developing a vaccine generally involves years of research. First, we need a vaccine candidate that is evaluated in animals for its safety and efficacy. After a vaccine candidate passes a pre-clinical trial, it enters the clinical trial phase. While scientists have worked round the clock in the laboratory, even regulatory approvals which used to take several months have been fast tracked. It helped eliminate all the time lapses between the pre-clinical and clinical trial stages. Earlier, the vaccine development involved a series of steps, but in the case of the coronavirus vaccine, the scientists and regulators worked in tandem, accelerating the whole process without compromises on any protocols and any step.



Is it necessary for a COVID-19 recovered person to take the vaccine? And if I had COVID-19 infection and was treated, why should I receive the vaccine?

Yes, it is advisable to receive the complete schedule of COVID-19 vaccine irrespective of past history of infection with COVID-19. This will help in developing a strong immune response against the disease. Development of immunity or duration of protection after COVID-19 exposure is not established therefore it is recommended to receive vaccine even after COVID-19 infection. Wait for at least 4-8 weeks after recovery from COVID symptoms before getting the vaccine. Recent guidelines suggest getting Covishield 6 months after an active infection.

What are the contraindications for receiving a vaccine for COVID-19?



Persons with history of

- Allergic (Anaphylactic) reaction to a previous dose of COVID-19 vaccine
- Immediate or delayed-onset allergic reaction to vaccines or injectable therapies, pharmaceutical products, food-items etc.



Provisional / temporary contraindications

- In these conditions, COVID-19 vaccination is to be deferred for at least 4-8 weeks after recovery for Covaxin and 6 months for Covishield.
- Persons having active symptoms of SARS-CoV-2 infection.
- SARS-COV-2 patients who have been given anti-SARS-CoV-2 monoclonal antibodies or convalescent plasma
- Acutely unwell and hospitalized (with or without intensive care) patients due to any illness.



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If I have received a vaccine as a health worker, how will my family members receive the vaccine (as they are exposed as well)? The people at highest risk of exposure such as health care and frontline workers have received the vaccine on priority. These personnel are also a likely source of infection of their family members. Other family members will be vaccinated according to the age specific prioritization by the Government of India.

Which vaccine is better between Covisheild and Covaxin? There is no head-to-head comparison done between the two vaccines. Both would work fine in preventing the infection as well as prevent a person from going into severe state of the disease. As a long-term effect, it would be preventing death for elderly people or those who have comorbidities.

Does vaccination protect me against newer strains/ mutated virus of SARS-CoV 2? The body responds to vaccination by making more than one type of antibodies to virus parts including spike protein. Therefore, all vaccines are expected to provide reasonable amount of protection against the mutated virus also. Based on the available data the mutations as reported are unlikely to make the vaccine ineffective.

Is it important for me to receive the same vaccine during the second dose? As the vaccines available are not interchangeable, it is important to receive the second dose of the same vaccine as the first one. The Co-WIN portal is also going to help to ensure that everyone receives the same vaccine.

Are there any preventive measures and precautions that one needs to follow at the session site?

You are required to rest at the vaccination centre for at least half an hour after taking the COVID-19 vaccine. Inform the nearest health authorities/ANM/ASHA in case you feel any discomfort or uneasiness subsequently. Remember to continue following key COVID-19 appropriate behaviours like wearing of mask, maintaining hand sanitization and physical distance.

Is the vaccine contraindicated in person with chronic diseases like Cancer, Diabetes, Hypertension, chronic kidney disease, heart disease, lipid disorders etc.?

Chronic diseases and morbidities like the cardiac, neurological, pulmonary, metabolic, renal and malignancies etc. are not contraindicated. In fact, Persons with one or more of these comorbid conditions are considered among the high-risk category for COVID-19 illness. The benefit of COVID-19 vaccines to reduce the risk of severe COVID-19 disease and death is for those who have these comorbidities. They need to get COVID-19 vaccination. Overall, the vaccine is safe and efficacious in adults with comorbidity.



Are there any common side effects of this vaccine?

The COVID 19 vaccines will be safe and effective but may have minor side effects like fever, pain, etc. at the injection site. These effects can happen in any vaccine.



Covishield®

- Some mild symptoms may occur like injection site tenderness, injection site pain, headache, fatigue, myalgia, malaise, pyrexia, chills and arthralgia, nausea. Very rare events of demyelinating disorders have been reported following vaccination with this vaccine but without the causal relationship establishment.



Covaxin®

- Some mild symptoms AEFIs may occur like injection site pain, headache, fatigue, fever, body ache, abdominal pain, nausea and vomiting, dizziness-giddiness, tremor, sweating, cold, cough and injection site swelling. No other vaccine-related serious adverse effects have been reported.

Claims on social media suggested that COVID-19 vaccine could affect female fertility. Is it true?

Rumours or social media posts suggesting that COVID-19 vaccines could cause infertility are not true and totally baseless. Such rumours were floated in the past against other vaccines also e.g., polio and measles. None of the available vaccines affects fertility. All vaccines and their constituents are tested first on animals and later in humans to assess if they have any such side effects. Vaccines are authorized for use only after their safety and efficacy is assured.



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References

- https://www.mohfw.gov.in/covid_vaccination/vaccination/faqs.html
- [https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-\(covid-19\)-vaccines](https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-(covid-19)-vaccines)
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