

# Immunization Dialogue on COVID Vaccines

Arun Wadhwa

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## 1. When is the corona vaccine likely to be available?

Probably the Government will get it by January and the private market by March.

## 2. Do we all need to take it?

Yes, all should take it.

## 3. Who will get it first?

It will be prioritized. First frontline workers and first responders like paramedical staff, civil servants, police, army, politicians, and their relatives will get it first. People >50 years of age and those with comorbidities like diabetes, HT, transplant, and chemotherapy patients will get it next. Then will be healthy adults, teenagers, children, and lastly neonates if at all.

## 4. How will it be given?

Through public and private centers, by doctors, dentists, nurses, and trained paramedics.

## 5. What is the recommended dose and schedule?

Two doses were given 21 or 28 days apart depending on the vaccine used.

## 6. I heard that the vaccine itself can cause COVID?

No, it cannot. None of the currently available are live virus vaccines, thus cannot multiply and cause disease in the vaccinee.

## 7. What if I take only one dose?

One dose will give you only partial protection of maybe 60–80% and will not last long enough. For complete protection, you must take two doses at recommended intervals.

## 8. What if I forget to take the second dose? Should I take the first again?

Just take the second dose at the earliest. No need to repeat the first dose.

## 9. Are both doses same?

In most of the vaccines, it will be the same dose given twice. However, Sputnik-V vaccine has both doses as different vector viruses, so will be marked as dose 1 and 2. Oxford-AZ vaccine may also come out with the first dose as half dose.

## 10. Do you need to take it even if you had corona? After how many days of getting cured?

Yes. But that will be last on the priority list. You can let others take who probably need more than you. You might need it earlier if you did not develop an antibody response.

## 11. Can it be administered to an individual who has received plasma as a treatment for COVID?

The donor plasma contains anti-COVID-19 antibodies and may suppress the immune response to the vaccine. As it is, those who have recovered from COVID-19 may not need the vaccine in the early phases.

New Delhi, India

**Corresponding Author:** Arun Wadhwa, New Delhi, India, Phone: +91 9810067928, e-mail: arun@drwadhwasclinic.com

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## 12. Can a pregnant lady or a lactating mother take the vaccine?

No company has yet tested the vaccine in pregnancy. CDC has advised against giving the vaccine to pregnant and lactating mothers. UK authorities have advised women not to get pregnant for 2 months after the shot. Since the vaccines available till now are not live vaccines, it should not cause any problem if given inadvertently.

## 13. Can a diabetic patient take the vaccine?

Yes, in fact, diabetes has been established as a risk factor for severe disease and all diabetic patients must get vaccinated on priority.

## 14. If offered a choice of vaccines, which one should I take?

All vaccines are offering equal efficacy, although local reactions may be different. Take whatever available. Think positive that at least you are being offered a vaccine ahead of others. Indian-manufactured vaccines will be more suitable for our population as they are cheaper and can be kept at 2–8°C. The mRNA vaccines require a storing temp of –70 (Pfizer) and –20 (Moderna) which may be difficult to maintain in summer months.

## 15. If I take two shots of a vaccine today and next year there is a better vaccine should I take that too?

No. These vaccines have shown >90% efficacy and there should be no need for another dose. If we ever need a booster dose, it will be better to take the same vaccine as a booster.

## 16. How many days after getting the vaccine, would I develop protection?

Best protection starts 10 days after the second dose. Efficacy is around 70–90% against all severity and 100% against hospitalization. Immediate aim is to prevent hospitalization and mortality.

## 17. Can I take my flu shot along with it on the same day?

COVID vaccine can be given along with any other vaccine. It is also not required to have a gap of 1 month from any other vaccine given before.

- 18. How long will the vaccine provide immunity?**  
It is a new virus, a new technology vaccine, so we do not know. After follow-ups of these vaccinated population and their antibodies for a couple of years, we would be wiser. The need for boosters and when will they be required, will be decided after these follow-ups and mathematical modeling.
- 19. Children of what age can be vaccinated? Is the dose the same as that of adults or a lesser dose to be given?**  
Trials done till now have been for adults above 18 only. Now trials for children above 12 have started. Doses will be decided only after trials are done on younger children and infants.
- 20. Can it be given to immunocompromised individuals?**  
The mRNA vaccine and inactivated vaccines are safe. AZ and Sputnik-V adenovirus vector vaccines are also safe as they are non-replicating viral vector vaccines. Live vaccines and replicating viral vector vaccines will have to be avoided.
- 21. What are the side effects expected?**  
The side effects reported by the trial population are mostly mild COVID-like symptoms like some fever and fatigue. Local injection site pain and induration are also reported. Reports of transverse myelitis and facial palsy are not related to the vaccine. Generally, all vaccines are safe. Although these vaccines have been made in record time, the testing methodology and procedures have not been compromised.
- 22. I am allergic to eggs. Can I take the vaccine?**  
Egg cell lines are not used for the production of these vaccines. They can be taken safely even if you are allergic to eggs.
- 23. There are news items that it is causing severe allergic reactions. Should people with a history of allergies take the vaccine?**  
The trials have included people with allergies and excluded only with an allergy to any vaccine or its components. As of December 19, 2020, only 6 out of 272,001 vaccine recipients developed an allergy, i.e., 0.002% which is extremely rare. As an abundant precaution, people with a history of any severe allergy, should take the vaccine in the hospital setting and wait for at least 30 minutes before leaving the facility.
- 24. I heard that it has pig or monkey products? I am a pure Vegetarian.**  
The new vaccines manufactured these days are devoid of any such products.
- 25. In the past vaccines have been linked to Autism. What about these?**  
In 1985, there was a paper linking MMR with autism. Millions of children followed up after that have conclusively proven that there is no relationship between vaccines and autism. All vaccines are extremely safe with minimal temporary side effects.
- 26. There are messages going around that mRNA from vaccine gets incorporated into the human genome and alters our genetic structure. Is that true?**  
mRNA vaccine carries a message to the cell to produce spike protein which induces antibody production. It does what it is directed to do. To date, there have been no adverse events reported.
- 27. I heard that I will be chipped when taking the vaccine.**  
This baseless message started going around after a US company claimed that they were making pre-filled syringes for the COVID vaccine that have an RFID tag. So, a chip if any gets thrown away with the syringe! Moreover, the chips today are still too large to be injected into patients.
- 28. Read another message from Pfizer's head that the company's shots will make women sterile.**  
The message is absolutely fake as the person mentioned never held the position "head of research" and moreover left the company in 2011. Anyway, it will not cause sterility in women, it is just to whip up anti-vaccine hysteria.
- 29. What is the interaction of alcohol and the COVID vaccine?**  
Excessive alcohol can reduce the immune responses to vaccines. Since Russians are known for heavy drinking, their government has advised to avoid drinking 2 weeks before the first dose and 6 weeks after the second dose. The Sputnik vaccine is given in two doses 21 days apart. An occasional glass of wine or beer will not interfere with the immune response.
- 30. Soon the virus will mutate and we will need another vaccine. Should we not wait? Till now the virus has not shown a tendency to mutate like the flu virus. Moreover, the vaccines being developed have considered this and should still work.**
- 31. What if I do not want to take the vaccine? Will it be made mandatory?**  
In the majority of countries, it will not be mandatory. You have to choose between the new viral disease with no specific treatment and a new vaccine. The choice is yours. As initially there will be a huge demand-supply gap, by not taking a vaccine you can help others.
- 32. If I fall in the category of the priority list by being a senior citizen or with a comorbid condition, how do I contact the appropriate vaccination authority?**  
Soon there will be a website and an app "CoWIN" where you will be able to register with your relevant details.
- 33. What is CoWIN?**  
It is the world's first, digital, end-to-end, vaccine distribution and management system. It includes beneficiary registration, authentication, document verification, session allocation, AEFI reporting, and certificate generation. Once the vaccine is available, it will generate an SMS informing the beneficiary. The vaccine center itself will be managed by five people and will give a maximum of 100 vaccines per day. The vaccine recipient has to wait for 30 minutes before leaving the center post-vaccination.
- 34. What are the different types of corona vaccines likely to be available for use in the near future?**  
Covishield, by Serum Institute of India (Oxford AstraZeneca), is a non-replicating viral vector vaccine. These are viruses that have been modified to act as delivery systems that carry the viral antigens to our immune cells. Chimpanzee adenovirus is the vector used to deliver the coronavirus antigen in the SII vaccine and human adenoviruses in Sputnik V (Russian vaccine, made in India by Dr Reddy's lab).

Covaxin, by Bharat Biotech India Ltd, is a whole-cell inactivated vaccine. Most of the current vaccines being used in pediatric immunization are made by this technology. Since these are killed viruses, they produce immunity, but cannot cause the disease.

Pfizer and Moderna vaccines from the USA consist of messenger RNA molecules. They carry the coded message which induces the human cell to manufacture spike protein of the coronavirus. These proteins are recognized by our immune system to produce antibodies. Other Indian companies like Biological E, Cadila Healthcare, and Genova are also in an advanced stage of vaccine development.

**35. Can I roam around without a mask once I am vaccinated?**

No, not as of now. One may do so only when the majority of the population has either got the disease or received the vaccine. This means the population has developed herd immunity.

**36. Are newer and better COVID vaccines expected in near future?**

As of December 2020, >250 vaccines are under trial in different phases. A lot of research is underway to develop newer delivery methods also. The nasal spray vaccine is probably the most promising. A multidose nasal spray delivery device can be very convenient and economical. It will produce local IgA antibodies and block the virus at the entry itself. It will reduce nasal colonization and thus prevent transmission of disease also. Unfortunately, since it will be a live vaccine, it will need maximum and most stringent trials and thus will take the longest time to hit the market.

COVID-19 is still a new disease and we are still learning. The facts mentioned above are as of December 14, 2020. Please re-check the facts before taking a COVID vaccine shot.

No vaccine gives 100% protection. Also, a vaccinated person may not develop the disease but may transmit it to others. Please continue to wear a mask, observe physical distance, and sanitize hands for some more time.