

# COVID19 Vaccine FAQ

Dear Team Members, Families and Friends,

As we get very close to actually getting the COVID vaccine, I wanted to review with all of you the data and evidence that we have to date for those who may (or may not) have concerns regarding safety, etc.

1. **How many people have been given the vaccine?**

- Approximately **100,000** patients have participated in the vaccine trials between the Pfizer, Moderna, and AstraZeneca trials (the 3 vaccines that are in process for approval very soon)
  - Pfizer: 43,661 total folks (30% -- ie 13,000 were black); 45 % between ages 56-85
  - Moderna vaccine – 30,000 folks;
  - AstraZeneca – 23,848

2. **How many people have had severe adverse events?**

- a. **NONE** – none of the people that got the vaccine had any related severe adverse events. There were MORE serious events (deaths and hospitalizations) in the **non-vaccinated** group.

3. **How effective is it?**

- a. Very effective – of the patients in the study who unfortunately ended up getting COVID 95% of them had gotten the placebo – only 8 patients who actually got the vaccine in the Pfizer study (the vaccine coming next week) – the study included approximately 40,000 patients – got COVID19.
- b. For the Moderna vaccine: Only 5 patients who got the vaccine out of the thousands in the study got COVID19.
- c. **Also, for those few people who got the vaccine and did end up getting COVID, NONE of them had severe COVID; NONE of them died; ALL of them recovered;**

4. **What about the fact that it is a “new” type of vaccine – what does that mean? Can I trust it?**

- a. This type of vaccine is NOT new technology – it has been around and studied since 2005. The main reason we have not used it for other vaccines is because RNA/DNA vaccines have to be kept so so cold (subzero) right up until a few hours before being given. That makes these vaccines very hard to transport across the country and also very hard for doctors offices, pharmacies, etc to store them. Everyone would have to buy super expensive transporter refrigerator, etc. However, these vaccines can be made very fast. Under normal circumstances, we don't have to make a lot of vaccine all at once – we make chickenpox, rubella, pneumococcal etc the slower way but less expensive way – the kind of vaccine that can be put in the regular refrigerator. But for COVID19, we needed a vaccine that can be made more quickly (ie does not have to be cultured or grown in cells in a lab for a long time)

5. **Why does the mRNA vaccine have to be refrigerated?** The mRNA is very fragile and can break apart and become ineffective. This does NOT pose any health risk – it just means that the vaccine, if not maintained the way it should be, MIGHT not work to give you immunity.

6. **Should/Can I get the vaccine if I already had COVID or might have had COVID?** YES – approximately 10% of the people in the trials had evidence that they had already had it. They had

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NO problems with getting the vaccine. It also looks like the vaccine MIGHT be able to protect you longer than just having had COVID19 disease yourself.

7. **What happened to the people in the trial who got the vaccine but still got COVID? Why did that happen? How bad was their illness?** People who get the vaccine have LESS SERIOUS COVID disease if they are in the very small percentage that get it. In the Pfizer study, of the 10 cases of SEVERE COVID – only 1 of those was in the vaccine group.
8. **What about long-term problems with the vaccine that don't show up for months or years?** We have had vaccines since the 1790s (ie over 225 years – that is longer than we have had antibiotics and lots of other medical treatments). In the 225 years of experience with vaccines, the safety issues that have come up happen EARLY – within the first days to months – NOT months to years later. There is no vaccine where we have been able to find a problem that occurs years later because of the vaccine (ie people aren't getting cancer years later because they got a mumps vaccine or a flu vaccine). The risk we are concerned about are overactive immune responses primarily – allergic reactions, anaphylaxis, etc – and that shows up immediately. So while we can't say for absolute certainty that there aren't long-term problems from the vaccine, it would be similar to saying that roller coaster ride you went on 1 year ago and had no problems since then suddenly caused you to have a back problem today. It is just super unlikely and probably not something to be really worried about.
9. **Why do we have to have 2 doses for some of the vaccines?** The main reason is to boost the immunity (ie booster) since we are not sure how long immunity would last after just one shot. Also, in the vaccine studies, NO one got hospitalized with COVID19 after getting 2 shots; There were 2 patients in the UK that got hospitalized with COVID (recovered without need for ventilator) after just getting 1 shot.
10. **Can the vaccine give you COVID? NO – NOT at all;** The vaccine does not have “real virus” or “alive virus” – it absolutely cannot give you COVID19 or any other viral infection.
11. **What are the most likely things that will happen if I get the vaccine? Do you feel anything?** Muscle pain, fatigue, headache, achiness – usually 24 hours or less; Some people get a mild fever after the second dose.
12. **Why shouldn't I just wait and see and get the vaccine later?** The risks of death, significant health problems such as stroke, blood clots, to yourself and your family are **100x higher** if you get COVID (even if you are young and healthy) than if you get the vaccine. As a point of reference, not wearing a seat belt puts you at a 2X higher risk of getting seriously injured or dying in a car accident. This vaccine is 50 times better at protecting your life than a seat belt for a car accident. Just as you never think you are going to get into a car accident, similarly, no one knows when/if they are going to get COVID19 – better to be as protected as you can be as soon as possible – ie get the vaccine as soon as you can.

Sincerely,

*Dr. Liam Fry, MD, CMD, FACP*