Emory SCDP COVID-19 ECHO Program

The COVID-19 Vaccine for EMS Personnel – March 11, 2021

Questions & Answers

How the Vaccines Work

Does the vaccine prevent the spread, if so what are the statistics? / I was told that the vaccine does not stop you from carrying and therefore spreading the virus, so if this is the case, why should I be vaccinated?

Current data indicate that a vaccinated person is less likely to transmit the disease to others than an unvaccinated person. Two Israeli studies published recently showed that the Pfizer vaccine reduced infection in asymptomatic cases by almost 85% and in symptomatic cases by 93.7%. This suggests the vaccine blocks viral transmission significantly. This is because a vaccinated person who becomes infected with COVID-19 will likely shed less virus and therefore be of less risk to people around them.

Importantly, during the Johnson & Johnson vaccine trials, there were no reports of hospitalization following 100 days from time of vaccination. The goal of vaccines is not to prevent disease by 100% but to ensure severe cases and hospitalization are limited.

If an individual had COVID-19 in the past, how long after their initial infection can the individual receive the vaccine?

Once someone who had the disease has recovered, it has been more than 10 days since their first symptom, and they have completed the requisite isolation time-period, they can receive the vaccine from a medical standpoint.

How long is the vaccine considered effective? Will this become a yearly vaccine similar to a flu vaccine?

We do not know yet whether we will need booster shots in the future. That may depend on the variants that could evolve over time. If vaccines later prove less effective against specific variants, we may need booster shots against those variants.

Is one dose of the Pfizer of Moderna vaccines effective enough? How can I best respond if someone asks me this question?

There are studies looking at effectiveness of one dose regimens, but the original trials that generated the spectacular results were based on two-dose regimens. This is because the first dose primes the immune system and the second dose is a booster that revs up the immune response. We do not advise that people only receive one dose of the Pfizer or Moderna vaccines as data is limited and it is likely the effectiveness is less than 50%.

If I have a choice, should I try to get one type of vaccine over another?

Across the clinical trials, all three vaccines (Pfizer, Moderna, and Johnson & Johnson) proved very effective at preventing severe cases of COVID-19, and no study participants died of COVID-19.

There is no reason to prefer one vaccine over the other. It is most important to take the first vaccine that is available to you.

Vaccine Side Effects/Reactogenicity

I've heard that the Moderna vaccine has more reactions, especially for women, than the Pfizer vaccine. What is the causative factor(s)?

In general, the mRNA vaccines (Pfizer and Moderna) are more reactogenic than the Johnson and Johnson vaccine; about 80% of patients notice some side effects (sore arm, aching, etc.) with Pfizer and Moderna, compared to 40-50% of patients with Johnson & Johnson. However, these are short-lived effects that usually subside within 24-72 hours. There are no major reports of different reactions between sexes in the medical literature.

Moderna has been shown to have more reactogenicity than Pfizer; both are both mRNA vaccines, but the amounts differ between the two brands, which may account for some of the difference in reactogenicity.

Should one take Tylenol or Ibuprofen prior to receiving the vaccine or wait until after the vaccine is administered?

For most people receiving the vaccine, it is fine to take Tylenol or Ibuprofen with hydration. It is also fine to alternate Tylenol and Ibuprofen throughout the day.

Are there any special considerations EMS personnel should make when scheduling their vaccine to account for possible reactogenicity?

Consider scheduling the vaccine for a Friday or before your days off, if you can, to allow time for recovery before returning to work.

Service leaders in charge of scheduling vaccines for their staff can also consider staggering appointments, so that their entire team is not receiving the vaccine on the same day. That way, if staff experience any side effects, many people are not calling out sick at the same time.

Are there any long-term side effects of taking an mRNA vaccine?

Long-term side effects from any type of vaccine are rare. We have no evidence at this time to show that that mRNA vaccines would have long-term side effects.

Vaccine Safety

Have there been any updates or information on receiving the vaccine during pregnancy, and any concerns with breastfeeding women who receive the vaccine?

The American College of Obstetrics and Gynecology (ACOG) says there is no evidence that a woman who is pregnant or breastfeeding should not receive the vaccine. Additionally, there is no evidence that the COVID-19 vaccines affect fertility for anyone considering getting pregnant.

You can read more from ACOG on the vaccines during pregnancy and breastfeeding here.

I'm eligible to receive the vaccine, but others in my household are not eligible yet. Should I be concerned about potentially giving my family members COVID-19 if I get the vaccine?

Current data indicate that a vaccinated person is less likely to transmit the disease to others than an unvaccinated person. This is because a vaccinated person who becomes infected with COVID-19 will likely shed less virus and therefore be of less risk to people around them. Therefore, getting vaccinated has a protective effect on the people around them. However, a vaccinated individual should still take general precautions around high-risk family members who have not received the vaccine yet.

In terms of reactogenicity to the vaccine, it is only the person who receives the vaccine who may experience some side effects, and there is no risk to other people in the household.

Is the vaccine safe for children under 5? What is the expected the timeline to be for young children to receive the vaccine?

Currently there are no authorized pediatric vaccines. There are ongoing trials that are enrolling patients in so-called age de-escalation trials, beginning with 12 years and older and then will ultimately perform trials in 5-11-year-olds. We don't yet know when data will be available from these trials but it is likely we will not have a pediatric vaccine by the beginning of the new school year in the fall of 2021.

Have there been any studies related to the theories that vaccines contribute to Autism?

There is no connection between vaccines and autism.

Addressing Misinformation and Concerns about the Vaccines

Some people in my community resist vaccination because they fear the vaccine will alter their DNA. What can I tell them to reassure them?

The mRNA in the Moderna and Pfizer vaccines do not alter our own DNA. The proteins found in vaccines will breakdown quickly and naturally in the body, so there is no way they will become incorporated into our bodies and DNA. However, the vaccines do teach our bodies to recognize and fight those proteins should they ever be encountered again, and that is how vaccines prevent/reduce illness.

I've encountered people who are hesitant to get the vaccine due to distrust of government and historical events, like the Tuskegee study. I have no good way to counter this. Any suggestions?

First, it is important to acknowledge this history, understand where these fears are coming from, and validate people's concerns. Then you can educate people about vaccines on a level that makes sense for them, drawing information from credible sources. The CDC has important information about vaccines geared towards both the community and healthcare workers that you can access here.

It is also very important to engage community leaders, such as faith leaders, fraternity/sorority leaders, or other influential figures, as advocates. These known and trusted figures are instrumental in engaging underserved communities in this conversation around vaccines.

Also, we can point out the incentives to getting vaccinated, like the updated CDC guidance that fully vaccinated adults can start to socialize indoors without masks with other fully vaccinated adults.

As an EMS worker, you have the opportunity to be an example for your families and communities. Talk about the vaccine, be open with your family and friends, and share your personal experience getting the vaccine. There may be community members you engage with regularly while on the job. We suggest starting conversations with people, such as, “How are you doing? Feeling ok? Did you get your vaccine? I got mine! My experience was…”