COVID-19 VACCINE FAQs AT DEACONESS

July-August 2021

Below is a Q&A of the most commonly asked questions about the COVID-19 vaccines that doctors have been hearing from patients at Deaconess. These answers were provided/reviewed by Dr. Majed Koleilat, Deaconess Clinic Allergist and Immunologist, and Deaconess clinical pharmacists. Content related to pregnancy and fertility was reviewed by Dr. Brennan Fitzpatrick, Maternal/Fetal Medicine Specialist at Tri-State Perinatology, and CMO at The Women's Hospital.

HOW DO WE KNOW THESE VACCINES ARE SAFE?

The Pfizer and Moderna vaccines, which use mRNA, have been in development for more than 30 years and have gone through clinical trials before COVID, targeting other coronaviruses; the COVID-19 clinical trials have been among the largest in medical history. Additionally, we know more about these vaccines than any vaccine ever before in advance of full FDA approval; as of this printing, more than 330 million vaccine doses have been administered in the United States—and more than a billion people around the world have taken a COVID vaccine. No other vaccine has had so much preliminary data for the FDA to review and approve.

America's drug safety system works. The pause of the Johnson & Johnson vaccine earlier this year shows that even rare complications or concerns will be immediately investigated and publicized.

Those participating in these trials are still being carefully monitored, and no long-term negative effects have been noted. All current COVID-19 vaccines are proven to prevent serious COVID-related hospitalizations and death nearly 100% of the time. Often, people don't hear this positive (even amazing) news, as headlines tend to focus on negatives because more people will read or watch negative news.

Additionally, the first individuals who were encouraged to be vaccinated, and then voluntarily received the vaccine, were health care workers. Health care workers know the risks of COVID-19. And no company, organization, government or even individual would benefit from harming the U.S. health care workforce. If the vaccines weren't safe, health care workers wouldn't have been encouraged to take them.

ARE THERE FERTILITY RISKS WITH THESE VACCINES?

There is no evidence at all that any of the COVID-19 vaccines prevent conception or lead to miscarriages, problems in pregnancy or birth defects. A pregnancy/vaccine-related study was published June 17, 2021, in the New England Journal of Medicine. The study included more than 30,000 U.S. women who were pregnant at the time of vaccination and more than 5,000 who have become pregnant since being vaccinated; those participating in studies after receiving the mRNA COVID-19 vaccines show outcomes that correlate with pregnancies in 2019, prior to the pandemic. There were no major safety concerns to mother or child from either of the mRNA COVID-19 vaccines.

It should be noted that pregnancy itself is a high-risk condition for COVID-19, with increased risk for complications. A growing baby requires a great deal of oxygen, and when a pregnant woman's lungs are compromised from COVID-19, it can lead to poor outcomes, including the mother being hospitalized and ventilated, pre-term labor, and death of the mother and/or baby. Women who have COVID-19 while pregnant are also at higher risk of having long-term symptoms (often called "long COVID"), making postpartum recovery and caring for an infant more difficult.

Leading obstetric and reproductive professional organizations have recommended that pregnant or childbearing-age women be vaccinated for COVID-19. *None* of these groups would make this recommendation if they believed the vaccine presented a risk to a woman's ability to become pregnant or to have a healthy pregnancy. You can read statements from the largest professional group of OB/GYNs at www.acog.org.

Additionally, vaccination during pregnancy may also protect the baby after birth. Some of the COVID-19 variants that are now circulating in the US have caused many deaths in infants in countries where the variants have spread.

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WHAT ABOUT MYOCARDITIS IN TEENAGERS?

You may have heard news about a small number of teens/young adults who experienced temporary heart inflammation (called myocarditis) after receiving the mRNA COVID-19 vaccine.

These cases are being carefully studied to see if there is any link to the vaccine, as a small number of myocarditis cases occur in young people without the vaccine as well. At this time, the CDC has added a warning label regarding the possible side-effect of myocarditis in young patients receiving the Pfizer or Moderna vaccine. The cases are usually mild and do not require hospitalization, and the analysis of the data still shows that the benefit of the vaccine outweighs the risk. COVID-19 infection can also cause myocarditis and other heart issues.

The American Academy of Pediatrics has more information on their website at healthychildren.org and continues to recommend the COVID-19 vaccine to patients ages 12 and older. Parents with concerns are encouraged to talk with their child's doctor.

WHAT DO VARIANTS HAVE TO DO WITH THE VACCINE?

The current vaccines are offering good protection for the variants in our region and in the U.S. As of this writing, the Delta variant is rapidly spreading throughout the U.S. This variant is up to 80% more transmissible (contagious) and twice as likely to lead to hospitalization or death than any other variant so far.

As the virus mutates, these variants change their genetic makeup. Fortunately, the current COVID-19 mRNA vaccines (Pfizer and Moderna) teach the body's immune system to recognize outer proteins on the virus, rather than the virus' genetic makeup.

This means two important things:

1. **Those who were infected with earlier forms/ variants of the coronavirus do not have adequate antibody protection to new variants.**
2. **Those who are unvaccinated now are at greater risk of serious illness and death than at this time last year.**

As we increase vaccination here and around the world, we reduce the risk of increasingly dangerous variants. Each time the coronavirus replicates (makes a copy of itself), it has the opportunity to mutate into a new variant. These mutations are making the virus more transmissible, more deadly, and less likely to respond to current medications used to treat COVID-19. If we can reduce infection/spread in the U.S., we reduce the likelihood of a new variant here.

IT SEEMS LIKE COVID-19 IS PRETTY MUCH GOING AWAY LOCALLY. DON'T WE HAVE HERD IMMUNITY? WHY SHOULD I BE VACCINATED?

While the numbers are lower in the Tri-State area, COVID-19 is a real threat to unvaccinated people (as mentioned in the question above). In our hospitals, we continue to have patients who are in ICUs on ventilators. Many patients who have had COVID-19 over the past year are continuing to experience long-term symptoms, such as fatigue, headaches, breathlessness and heart-related issues that affect their daily lives.

We have had no vaccinated individuals who have required hospitalization or have died since we began administering the vaccine in December.

We are nowhere near herd immunity (the number of people in a society who are immune, essentially stopping the spread of illness). Currently, less than half of adults in our area have been vaccinated. And due to the growing number of coronavirus variants, those who were previously infected with earlier forms of the virus aren't protected from new infections. (See the question above about variants.)

There are adults and children who have compromised immune systems due to organ transplants, certain chronic illnesses, etc. who won't be able to be vaccinated or who can't build a sufficient immune response to protect themselves. If the rest of society will be vaccinated, these vulnerable people will be protected. This isn't just about our own risk for COVID-19, but also about protecting those who can't be vaccinated.

For more COVID-19 vaccine information, or to schedule an appointment to be vaccinated, visit www.deaconess.com/vaccine. You can also scan the QR codes below for information from leading physician groups about COVID-19 vaccination.

American Academy of Family Physicians (AAFP)

American Academy of Pediatrics (AAP)

American College of Obstetricians and Gynecologists (ACOG)