## Myths vs. Facts: How the Vaccine Will Impact Me COVID-19 Vaccine

Myth: The COVID-19 vaccine will cause infertility.

FACT: There is no evidence COVID-19 vaccines cause issues with current or future pregnancies or fertility.

The Society for Maternal-Fetal Medicine and the American College of Obstetricians and Gynecologists (ACOG) have both recommended that people who are pregnant have access to COVID-19 vaccines and during the clinical trials several people actually became pregnant, and now, estimates show that more than 100,000 pregnant people have been vaccinated in the United States. After the administration of nearly 300 million doses of COVID-19 vaccines and more than six months of national experience, the Centers for Disease Control and Prevention (CDC) has not reported any serious vaccine effects on reproductive health. Some myths about the vaccine and infertility may have resulted from confusion between the spike protein associated with the virus that causes COVID-19 and a different spike protein involved in the growth and attachment of the placenta during pregnancy. Spike protein is a general term, and these are two unrelated spike proteins. Safety has been a top priority throughout the vaccine development and approval process. Scientists continue to study the safety of COVID-19 vaccines, as they do all other vaccines.

Myth: Natural immunity is better than vaccine immunity.

**FACT:** Evidence shows immunity provided by the COVID-19 vaccines outlasts natural immunity. Of the two paths to immunity, vaccination versus infection, vaccination is much better, not just because it avoids unnecessary illness and deaths that can be expected from illness with COVID-19, but because vaccination with the remarkable vaccines we have available in the United States appears to elicit a more consistently strong and lasting immune response.

Myth: We are close to herd immunity so I don't need to get the vaccine.

FACT: Widespread vaccination is the best way to protect yourself and your community, and is necessary for the world to reach protective immunity.

There are some real challenges with defining and predicting herd immunity. First, the percentage of people who need to be immune to achieve herd immunity varies with each disease. For example, herd immunity against measles requires about 95% of a population to be vaccinated. The remaining 5% will be protected by the fact that measles will not spread among those who are vaccinated. The number for COVID-19 isn't yet known. Secondly, some scientists doubt we can eradicate COVID-19 through vaccination like we did smallpox, and so we prefer to talk about the "protective immunity" we can gain from widespread vaccination. We have lots of examples of vaccination protecting us from serious illnesses

without necessarily eradicating the disease – polio, tetanus, measles, mumps, rubella, Haemophilus influenzae type b (Hib), whooping cough, rotavirus, and diphtheria. The only way to reach that level of immunity is for everyone who can get vaccinated to do so.

Myth: COVID-19 vaccines can shed or leak outside of my body.

FACT: COVID-19 vaccines do not shed or release their components outside your body.

This is referred to as "vaccine shedding" or "viral shedding" and is seen in some vaccines which contain a live virus. None of the COVID-19 vaccines authorized for use in the United States are live viruses, and none of them shed components outside of the patient's body, or have an impact on those around them.

Myth: Tons of people have died from the vaccine, so it's not worth the risk.

## FACT: The CDC has not found a general cause and effect link between COVID-19 vaccinations and death.

Between Dec. 14, 2020 and May 24, 2021, over 285 million doses of the COVID-19 vaccines were administered in the United States. During this time, the national Vaccine Adverse Event Reporting System (VAERS) received more than 4,800 reports (less than 0.002%) of death following a COVID-19 vaccination. As of June 7, 2021, almost 600,000 people had died in the United States due to COVID-19 infection. Reports to VAERS of death following a vaccination do not mean the vaccine caused the death. The CDC reviewed this data and the only link to the COVID-19 vaccines has been with thrombosis with thrombocytopenia syndrome (TSS), a very rare but serious event associated with the Johnson & Johnson vaccine that can be deadly. This risk has not been seen with the Pfizer or Moderna vaccines. After a pause of the vaccine and thorough safety review, the CDC and FDA determined that the vaccine's known and potential benefits outweigh its potential risks and have allowed the vaccine to resume in the United States. Women under age 50 should be aware of the risk and seek immediate treatment if they develop symptoms of TSS.

Myth: If I get the COVID-19 vaccine, I won't be able to donate blood.

## FACT: People who received the COVID-19 vaccine can still donate blood, platelets, and AB Elite plasma.

The FDA says COVID-19 vaccine recipients can donate blood. There is no deferral time, meaning vaccine recipients can donate right away if they are symptom-free and feeling well at the time. This applies to eligible blood donors who are vaccinated with a non-replicating inactivated or RNA-based COVID-19 vaccine. In the United States, this includes all three of the authorized vaccines: Pfizer, Moderna, and Johnson & Johnson. Blood donors will be asked to share the date of vaccination and the manufacturer of the vaccine received at the donation center. The manufacturer of the vaccine received is listed on your COVID-19 vaccination card.

Myth: COVID-19 vaccines can cause COVID-19 variants.

## FACT: COVID-19 variants occur randomly and independently of vaccine activity.

All viruses mutate, and new variants of a virus are expected over time. Sometimes new variants emerge and disappear. Other times, those variants remain. A mutation is a change in an organism's genetic material. When a virus moves from host to host, not every copy is identical. These small mutations accumulate as the virus is passed on and copied. The effect of COVID-19 vaccines against these variants

are being studied by scientists and public health experts, but so far the vaccines used in the United States remain very effective against the variants.

Myth: Being around someone who received the COVID-19 vaccine will affect my menstrual cycle.

FACT: Being around someone who received their COVID-19 vaccine will not affect your menstrual cycle.

Menstrual cycles can be altered due to many things, including stress, sickness, or changes in your routine. Being around someone who received a COVID-19 vaccine will not directly affect your menstrual cycle.

Myth: COVID-19 vaccines contain metals and microchips that cause you to be magnetic.

FACT: COVID-19 vaccines do not contain microchips or make you magnetic.

Safety has been a top priority throughout the vaccine development and approval process. All of the vaccines are metal-free and do not contain any materials that produce an electromagnetic field or attraction, including microchips. According to the CDC, even if a vaccine contained a magnetic metal, the dosage is too small to cause a magnet to attract. You can learn more about each vaccine's ingredients on the CDC's Ingredients included in COVID-19 vaccines feature.

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For additional information, visit <u>coronavirus.ohio.gov</u>.

Want to find more information about myths and the facts behind them? Check out our other Myths vs. Facts document.

For answers to your COVID-19 questions, call 1-833-4-ASK-ODH (1-833-427-5634).

Your mental health is just as important as your physical health. If you or a loved one are experiencing anxiety related to the coronavirus pandemic, help is available 24 hours a day, seven days a week. Call the COVID-19 CareLine at 1-800-720-9616.