



COVID-19 VACCINE MYTHBUSTERS

Released: January 5, 2021

MYTH: COVID-19 vaccine is not safe and led by politics.

FACT: mRNA vaccine technology has been studied for more than a decade. This technology was perfected with the SARS-1 and MERS outbreaks starting in the early 2000's but these coronaviruses were short lived and had limited spread so the vaccine was not able to be tested and implemented.

Pharmaceutical companies had the technology ready and waiting to plug in the COVID-19 virus.

The United States Government pre-paid multiple pharmaceutical companies to manufacture vaccine. Therefore, there was zero financial risk to the pharmaceutical companies if the vaccine failed. Profitability and financial risk is often a deterrent for vaccine manufacturing and that barrier was removed with the COVID-19 vaccines.

The Pfizer and Moderna vaccines were studied in placebo controlled trials in nearly 90,000 patients to establish the safety and efficacy. Thousands of healthcare workers have been vaccinated in the weeks post vaccine launch and there have been very few unexpected adverse effects. Expected reactions are mild and are characterized by injection site pain for a few days and some mild, self resolving symptoms such as low grade fever and muscle aches that usually last less than 24 hours and are a positive sign that the body is manufacturing an appropriate antibody response against the virus.

MYTH: I don't have to wear a mask if I get vaccine.

FACT: One must still wear a mask. It is still not clear if one can carry the virus and spread to others even if vaccinated.

MYTH: There is a microchip in the vaccine.

FACT: There is no "tagging" in the vaccine and there is no metal in vaccine. A microchip is too large to be embedded in the vaccine.

MYTH: I can't get the vaccine if I am pregnant, want to become pregnant or I am breastfeeding. The vaccine causes infertility.

FACT: A now-blocked Facebook post that went viral claimed the coronavirus vaccine could cause infertility. It suggested (incorrectly) that the vaccine teaches the body to attack a protein involved in placental development. In reality, the protein the vaccine spurs the body to make and attack bears little resemblance to the one in the placenta.

Both American College of Gynecology and Society for Maternal Fetal Medicine recommend the mRNA vaccine in pregnancy, after a discussion between the doctor and the patient on its pros. Researchers believe there is minimal risk to the fetus or the infant from breastmilk. The Children's Hospital of The King's Daughters milk bank accepts breast milk from mothers who have been vaccinated.

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MYTH: My DNA will be changed.

FACT: The mRNA vaccines from Pfizer and Moderna have no impact on the human DNA.

MYTH: I will contract COVID-19 if I get the vaccine.

FACT: This vaccine is not made from live or attenuated virus. Instead, the vaccine teaches the immune system to find and destroy the virus “spike protein” which is how the virus attaches to human cells and infects the host. The mRNA is rapidly destroyed by the cell leaving no permanent trace.

MYTH: The vaccine uses fetal tissue.

FACT: The mRNA COVID-19 vaccines produced by Pfizer and Moderna do not require the use of any fetal cell cultures in order to manufacture the vaccine.

MYTH: The virus has mutated so what is the point of getting the vaccine?

FACT: Most viruses mutate over time. Even with mutations, the “spike protein” used to attach to human cells is the same. Scientists are confident that the vaccine will be active against the virus mutations.

MYTH: I already had COVID, thus I don’t need the vaccine.

FACT: It is unclear how long your natural immunity will last after having COVID, thus you still need to have vaccine to prevent future infection.

MYTH: Once I get the vaccine, I will have life-long immunity.

FACT: It is too early in the use and study of the vaccine to know the longevity of the vaccine effectiveness.

MYTH: The vaccine will give me Bell’s Palsy.

FACT: Four patients who received the vaccine in clinical trials developed Bell’s Palsy. There is no evidence this was related to receipt of the vaccine and because the trials were so large, the occurrence rate is similar to what would be expected in the general population.

These facts were compiled by Sentara clinical experts through a thorough review of some trusted medical sources including New England Journal of Medicine, Society of Maternal Fetal Medicine, National Center for Biotechnology Information, CDC, and others.