

COVID-19 Vaccines & Infertility

There is no evidence that the COVID-19 vaccine can lead to infertility. The American College of Obstetricians and Gynecologists (ACOG), the American Society for Reproductive Medicine (ASRM), and the Society for Maternal-Fetal Medicine (SMFM) has issued a [joint statement](#) to address this claim: “While fertility was not specifically studied in clinical trials of the vaccine, *no loss of fertility has been reported among trial participants or among the millions who have received the vaccines since they were authorized, and no signs of infertility appeared in animal studies.*”

Can you tell me more about the COVID-19 vaccine and infertility claim?

The Claim:

The Pfizer and Moderna mRNA COVID-19 vaccines work by providing our cells with temporary instructions on how to make a protein found on the surface of the virus that causes COVID-19, which is called the spike protein. Our cells then present these spike proteins to our immune system, which will teach the body how to recognize and destroy the virus that causes COVID-19 if you are ever exposed in the future.

Syncytin-1, also known as enverin, is a protein that is found in the brain and is also needed for placental formation. It is fundamental for successful pregnancies in humans and other mammals.

The claim spread widely on social media suggests that mRNA COVID-19 vaccines may cause the body’s own immune system to target and attack syncytin-1 because it has some similarities to the spike protein, and this could theoretically lead to infertility.

Addressing the Misinformation:

In reality, the coronavirus spike protein shares only a slight similarity to syncytin-1 (just a few amino acid sequences, which are the building blocks of proteins). Dr. Stephanie Langel, an immunologist and expert in maternal and neonatal immunity at Duke University, has [stated](#): “The two proteins share only a minuscule stretch of material; mixing them up would be akin to mistaking a rhinoceros for a jaguar because they are wearing the same collar.” Further, the genetic sequence from the spike protein is too short, and it is not plausible that it would lead to an autoimmune response to syncytin-1. Additionally, given that there are only 20 different types of amino acid that make up proteins, it is not surprising that many share some similarities.

Where did this claim come from?

The claim that the COVID-19 vaccine caused infertility appears to originate from a blog called Health and Money News in December of 2020. The blog’s unfounded claims and the misinformation it

presented has been shared thousands of times on social media and continues to circulate even though the claim has been [widely debunked](#).

The original post includes comments attributed to Michael Yeadon. The blog states that Yeadon is the “Head of Pfizer Research” in the original blog post. *This is not true*. Michael Yeadon is *not nor has he ever been the head of Pfizer Research*. He is actually a retired British doctor and former Pfizer employee who has been repeatedly criticized for his [misleading views on coronavirus](#). Additionally, according to his [LinkedIn profile](#), Yeadon worked on allergy and respiratory research for Pfizer - NOT vaccine research and development. Further, he left the company in 2011, eight years before the start of the COVID-19 pandemic.

Do we have any data on the use of COVID-19 vaccine and infertility?

COVID-19 vaccines are both safe and effective. Over 125 million doses of vaccine have been administered in the U.S. under the most intensive safety monitoring in our [history](#). Results from these monitoring efforts are reassuring that COVID-19 vaccine is [not associated](#) with infertility. Additionally, the CDC is monitoring 30,000 pregnant women who have received a COVID-19 vaccine. No unexpected pregnancy or infant outcomes have been [observed](#), including miscarriages, related to COVID-19 vaccine during pregnancy.

Development and reproductive toxicity (DART) studies, which use animal models, were conducted to ensure safety of vaccines prior to use in pregnant women. [Results](#) from DART studies for the Pfizer, Moderna, and Johnson & Johnson COVID-19 vaccines have shown no safety concerns in pregnancy.

It is also important to consider that compared to non-pregnant women with COVID-19 who are the same age, pregnant COVID-19 patients are at [higher risk](#) for ICU admission, use of mechanical ventilation, preterm birth, and death. The [CDC](#), [ACOG](#), and [SMFM](#) have stated that pregnant women should be offered COVID-19 vaccine and have strongly refuted the claim that the vaccine may cause infertility.

Where can I find more information?

There are a number of reputable resources which have addressed the topic of COVID-19 vaccine and infertility. For more information, check out the following links:

- [COVID-19: No evidence that vaccines can affect fertility, says new guidance | The BMJ](#)
- [Medical Experts Continue to Assert that COVID Vaccines Do Not Impact Fertility | ACOG](#)
- [Information about COVID-19 Vaccine for People who Are Pregnant or Breastfeeding | CDC](#)