COVID-19 Vaccines, Fertility and Menstruation: Key Studies

This document provides a summary of recent published research demonstrating that COVID-19 vaccines do not interfere with male or female fertility.

1. COVID-19 vaccination does not reduce fertility among couples trying to become pregnant

A study of more than 2,000 U.S. and Canadian couples trying to conceive found that COVID-19 vaccination did not affect their fertility. Researchers found no differences in the chances of becoming pregnant if either or both the male or female partner had been vaccinated, compared to unvaccinated couples. However, couples in which the male partner had a positive test for COVID-19 within 60 days of a given cycle were 18% less likely to become pregnant in that cycle. The short-term decline in male fertility associated with SARS-CoV-2 infection could potentially be avoided by vaccination.


2. COVID-19 vaccination does not affect ovarian function or implantation

In four separate studies of female patients undergoing in vitro fertilization, no meaningful association between COVID-19 vaccination and implantation rates, stimulation characteristics, embryological outcomes or ovarian follicular function was found.

- Morris RS. SARS-CoV-2 spike protein seropositivity from vaccination or infection does not cause sterility. F&S Reports. 2021;2(3):253-255. doi:10.1016/j.xfre.2021.05.010

3. COVID-19 vaccination does not affect male fertility

Two studies in couples undergoing fertility treatments and one in the general population found no appreciable difference in semen volume, sperm concentration, or motility measures before and after COVID-19 vaccination.
4. COVID-19 vaccination is associated with a small, temporary change in menstrual cycle length but not menses length. Temporary changes in menstruation do not indicate problems with current or future fertility.

COVID-19 vaccination was associated with a less than one-day change in menstrual cycle length in the one to two cycles that followed the first and second vaccine doses, compared with pre-vaccine menstrual cycles. No difference was observed on the number of days of menstrual bleeding between participants who were vaccinated and participants who were not vaccinated. A subset of people who received both vaccine doses in a single cycle had, on average, a two-day increase in their cycle length compared with people who were not vaccinated. Differences were adjusted for age, race, body mass index, educational attainment, parity and relationship status. All changes were temporary and could not be detected by the third post-vaccination cycle. Temporary changes in menstrual cycle length do not indicate long-term fertility issues but may cause false hope or concern among individuals who notice these events.

Position Statements

In addition to the studies cited above, several professional medical organizations have released position statements strongly supporting COVID-19 vaccination in people who are pregnant, are breastfeeding or may want to become pregnant in the future.


The NYC Health Department may change recommendations as the situation evolves. 2.11.22