COVID-19 mRNA Vaccine (Moderna/Spikevax® and Pfizer/Comirnaty®)

This sheet is about exposure to a COVID-19 mRNA vaccine in pregnancy and while breastfeeding. This information is based on published research studies. It should not take the place of medical care and advice from your healthcare provider.

What is COVID-19?

COVID-19 (short for Coronavirus Disease 2019) is an illness caused by the SARS-CoV-2 virus. The virus easily spreads from person to person through respiratory droplets that come from our mouths and noses when we breathe, talk, cough, or sneeze. For more information on COVID-19, please see the MotherToBaby fact sheet at https://mothertobaby.org/fact-sheets/covid-19/.

What is a COVID-19 mRNA vaccine?

A COVID-19 messenger RNA (mRNA) vaccine helps protect against the virus that causes COVID-19. It is often called a "COVID vaccine." Brand names of COVID-19 mRNA vaccines in the United States are Moderna/Spikevax® and Pfizer/Comirnaty®. COVID-19 mRNA vaccines do not contain live virus that could cause COVID-19. While no vaccine is 100% effective at preventing COVID-19, it can greatly lower the chance of getting very sick from the virus.

For more information on another type of COVID-19 vaccine, please see the MotherToBaby fact sheet at https://mothertobaby.org/fact-sheets/covid-19-protein-subunit-vaccine/.

Are COVID-19 mRNA vaccines recommended for women who are pregnant?

Medical organizations including the American College of Obstetricians and Gynecologists (ACOG) and the Society for Maternal-Fetal Medicine (SMFM) recommend that women who are planning a pregnancy, pregnant, or recently pregnant stay up to date with the latest COVID-19 vaccines. A COVID-19 mRNA vaccine can be given at any time in pregnancy.

Having a COVID-19 infection while pregnant increases the chance of severe illness and pregnancy complications. Studies have shown that women who are up to date with COVID-19 vaccines in pregnancy are less likely to get very sick or have pregnancy complications from a COVID-19 infection than women who are not up to date.

Can getting a COVID-19 mRNA vaccine make it harder for me to get pregnant or affect fertility treatments?

Some women have reported changes in their menstrual cycle (period) after getting a COVID-19 mRNA vaccine, such as having a slightly longer or heavier period or starting their next period sooner than expected. Studies have found that if these changes happen, they are temporary and do not affect the woman's fertility (ability to get pregnant).

Studies of women undergoing in-vitro fertilization (IVF) have found no effect of COVID-19 mRNA vaccines on the function of the ovaries (the organ that releases the egg), number of oocytes (immature eggs), hormone levels, or success rates of embryo implantation. Most studies have not found differences in pregnancy rates between recently vaccinated and unvaccinated women undergoing fertility treatments. There is no recommendation to postpone fertility treatment after getting a COVID-19 mRNA vaccine or to avoid getting the vaccine during or after treatment.

I just got a COVID-19 mRNA vaccine. How long do I need to wait before I get pregnant?

There is no recommendation to wait before trying to get pregnant after getting a COVID-19 mRNA vaccine.

Does getting a COVID-19 mRNA vaccine increase the chance of miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. Studies have not found a higher chance of miscarriage after getting a COVID-19 mRNA vaccine anytime in pregnancy.

Does getting a COVID-19 mRNA vaccine increase the chance of birth defects?

Birth defects can happen in any pregnancy for different reasons. Out of all babies born each year, about 3 out of 100 (3%) will have a birth defect. We look at published data to try to understand if an exposure, like a COVID-19 mRNA vaccine, might increase the chance of birth defects in a pregnancy. Studies have not found a higher chance of birth defects after getting a COVID-19 mRNA vaccine anytime in pregnancy.

Fever is a possible side effect of getting a COVID-19 mRNA vaccine. A high fever in the first trimester can increase the chance of certain birth defects. Acetaminophen is usually recommended to reduce fever during pregnancy. For more information about fever and pregnancy, see the MotherToBaby fact sheet about fever/hyperthermia at https://mothertobaby.org/fact-sheets/hyperthermia-pregnancy/.

Does getting a COVID-19 mRNA vaccine in pregnancy increase the chance of other pregnancy-related problems?

Studies have not found an increased chance of pregnancy-related problems or newborn complications such as stillbirth, preterm delivery (birth before week 37), babies born smaller than expected, low Apgar scores, admission to a neonatal intensive care unit (NICU), or neonatal death when a COVID-19 mRNA vaccine is given anytime during pregnancy.

Having a COVID-19 infection during pregnancy does increase the chance of pregnancy-related problems, such as preterm delivery.

Does getting a COVID-19 mRNA vaccine in pregnancy affect future behavior or learning for the child?

Studies comparing thousands of children whose mothers received COVID-19 mRNA vaccines during pregnancy to children whose mothers did not get the vaccine in pregnancy found no differences in development at 12-18 months of age.

Does getting a COVID-19 mRNA vaccine during pregnancy protect the baby from COVID-19 after delivery?

When a woman gets a COVID-19 mRNA vaccine during pregnancy, antibodies can pass to the fetus and may provide protection for the baby after delivery. Infants born to women who are vaccinated against COVID-19 during pregnancy are less likely to be hospitalized and die from a COVID-19 infection for up to 6 months after delivery.

Breastfeeding and COVID-19 mRNA vaccines:

Small studies have found that mRNA from COVID-19 mRNA vaccines is unlikely to enter the breast milk. If any small amounts of vaccine ingredients did enter the breast milk, they would most likely be destroyed in the baby's stomach. Studies have not reported serious adverse reactions to COVID-19 mRNA vaccines in women who are breastfeeding or their infants. Less than 10% of women reported changes in milk supply (more or less milk) after getting a COVID-19 mRNA vaccine, but their supply returned to normal within a day or two.

Organizations including the Academy of Breastfeeding Medicine (ABM) and the American Academy of Pediatrics (AAP) agree that women who are breastfeeding can receive a COVID-19 mRNA vaccine. There is no recommendation to postpone breastfeeding or discard breast milk after getting a COVID-19 mRNA vaccine.

Antibodies that protect against the virus that causes COVID-19 have been found in the breast milk of women who have received an mRNA vaccine. More research is needed to know how these antibodies might protect a breastfeeding child against the virus. Talk to your healthcare provider about all of your breastfeeding questions.

If a man gets a COVID-19 mRNA vaccine, could it affect fertility or increase the chance of birth defects?

Studies have found no differences in sperm production before and after getting a COVID-19 mRNA vaccine. In general, exposures that fathers or sperm donors have are unlikely to increase risks to a pregnancy. For more information, please see the MotherToBaby fact sheet Paternal Exposures at https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/.

If you have received a dose of a COVID-19 mRNA vaccine in the last 2 months while pregnant, you might be a good match for our COVID-19 mRNA vaccine study. Help us help other pregnant people. If you are interested in learning more about this study, please call 1-877-311-8972 or visit: https://mothertobaby.org/join-study/.

Please click here for references.

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at MotherToBaby.org.