COVID-19 Vaccines

* Information on COVID-19 vaccines is rapidly evolving, and this fact sheet could become outdated by the time you read it. For the most up to date information, please call MotherToBaby at 866-626-6847.

This sheet is about COVID-19 vaccines in pregnancy and while breastfeeding. This information 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 a virus (called SARS-CoV-2). 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 are COVID-19 vaccines?**

COVID-19 vaccines help protect against the virus that causes COVID-19. Three COVID-19 vaccines are currently approved for use in the United States: two messenger RNA (mRNA) vaccines (Moderna/Spikevax® and Pfizer/Comirnaty®) and a viral vector vaccine (Johnson & Johnson/Janssen). None of these vaccines contain live virus that could cause COVID-19. Since the protection provided by the vaccines starts to decrease over time, booster doses are recommended. COVID-19 vaccines and booster doses are not 100% effective at preventing infection, but can greatly reduce the chance of getting very sick from the virus.

You can learn more about the different vaccines and booster shot recommendations here: https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines.html.

**Are COVID-19 vaccines recommended for people who are pregnant?**

Organizations including the Centers for Disease Control and Prevention (CDC), the American Academy of Pediatrics, and the American College of Obstetricians and Gynecologists (ACOG) recommend that people who are pregnant, recently pregnant, planning a pregnancy, or may become pregnant in the future stay up to date on recommended COVID-19 vaccines and boosters.

Having a COVID-19 infection while pregnant increases the chance of severe illness and pregnancy complications. Studies have shown that pregnant people who are vaccinated are less likely to get COVID-19. If they do get COVID-19, they are less likely to get very sick.

**Does getting a COVID-19 vaccine make it harder to get pregnant or affect fertility treatments?**

There is no evidence that getting a COVID-19 vaccine makes it harder to get pregnant. Several studies of people undergoing in-vitro fertilization (IVF) found that getting a COVID-19 mRNA vaccine did not affect the function of the ovaries (the organ that releases the egg), number of oocytes (immature eggs), hormone levels, or success rates of embryo implantation. The American Society for Reproductive Medicine recommends that people undergoing fertility treatment stay up to date on recommended COVID-19 vaccines and boosters. There is no recommendation to postpone fertility treatment after getting the vaccine or to avoid getting the vaccine after treatment.

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

Since COVID-19 vaccines are not live vaccines, there is no recommendation to wait before trying to get pregnant.

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

Miscarriage can occur in any pregnancy. Studies have found that getting a COVID-19 mRNA vaccine during pregnancy does not increase the chance of miscarriage.

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

Every pregnancy starts out with a 3-5% chance of having a birth defect. This is called the background risk. The available studies have not found an increased chance for birth defects when a person receives a COVID-19 mRNA
vaccine during the first trimester. Fever is a possible side effect of the COVID-19 vaccines. 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 vaccine in pregnancy increase the chance of other pregnancy-related problems?**

Studies have found no increased chance for pregnancy or newborn complications such as stillbirth, preterm delivery (before 37 weeks of pregnancy), babies born smaller than expected, low Apgar scores, NICU admission, or neonatal death when a COVID-19 vaccine is given anytime during pregnancy. The majority of people in these studies received mRNA vaccines (Moderna/Spikevax® or Pfizer/Comirnaty®).

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

It will take time to follow the children of people who were vaccinated in pregnancy in order to answer this question. However, based on what is known about these and other vaccines, getting a COVID-19 vaccine is not expected to cause long-term problems for the child.

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

The antibodies that a person makes after getting the vaccine during pregnancy can pass to the developing baby. Research has shown that getting the vaccine in pregnancy passes more antibodies to the baby than having a COVID-19 infection in pregnancy does. One study found that infants born to women who received their second or third (booster) dose of a COVID-19 mRNA vaccine during the second or third trimester of pregnancy were less likely to be diagnosed with COVID-19 during the first four months of life. Additionally, a study found that completing the initial two-dose series of an mRNA vaccine during pregnancy significantly lowered the chance of the baby being hospitalized with COVID-19 in the first 6 months of life. The same study found that the majority of those infants who were hospitalized with COVID-19 were born to people who were unvaccinated during pregnancy.

**Breastfeeding and COVID-19 vaccines:**

Organizations including the Academy of Breastfeeding Medicine and the American Academy of Pediatrics agree that people who are breastfeeding can receive COVID-19 vaccines. There is no recommendation to postpone breastfeeding or discard breast milk after getting the vaccine.

Small studies have found that mRNA from the 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 the vaccine in people who are breastfeeding or their infants. Less than 10% of people have reported changes in milk supply (more or less milk) after getting the vaccine, but their supply returned to normal within a day or two.

Antibodies against the virus that causes COVID-19 have been found in the breast milk of people who have been vaccinated. More research is needed to know if these antibodies might protect a breastfeeding child against the virus and how long that protection might last. Talk to your healthcare provider about all of your breastfeeding questions.

**If a male gets a COVID-19 vaccine, could it affect fertility (ability to get partner pregnant) or increase the chance of birth defects?**

Two studies 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/.

MotherToBaby is currently conducting an observational study looking at certain COVID-19 vaccines in pregnancy. If you have been vaccinated against COVID-19 and are interested in taking part in this study, please call 1-877-311-8972 or sign up at https://mothertobaby.org/join-study/.

Please click here to view references.