## If I'm pregnant, should I get a COVID-19 vaccine?

THIS CONTENT WAS DEVELOPED BY UMASS MEDICAL SCHOOL - BAYSTATE AND ADAPTED BY MASSACHUSETTS GENERAL HOSPITAL

#### For pregnant or breastfeeding people, getting a COVID vaccine as soon as possible is the safest choice.

Pregnant and breastfeeding people were not included in vaccine clinical trials. The information below can be used in conversation with your midwife, doctor, and health care team to help inform your decision about receiving the COVID-19 vaccine while pregnant or breastfeeding.

- COVID-19 can be worse and more dangerous for pregnant people
- The risks associated with receiving the COVID-19 vaccine while pregnant are likely small, but not known in full
- Receiving the COVID-19 vaccine while pregnant is recommended
- Your midwife, doctor, and health care team can help you navigate this decision

### **Your Options**

- Get a COVID-19 vaccine
- Delay getting the vaccine until there's more specific information related to pregnant or breastfeeding people

#### What are the benefits of getting vaccinated?

#### COVID-19 is a dangerous virus and can be more dangerous for pregnant people.

- Pregnant people with symptomatic COVID-19 infections are more likely to require treatment in the intensive care use (ICU) and/or be placed on a ventilator.1
- Pregnant people are more likely to die of COVID-19 than non-pregnant people of the same age.<sup>2</sup>
- Pregnant people sick with a severe COVID-19 infection may be more likely to deliver preterm.<sup>2-4</sup> It is not clear whether the risk of other complications like stillbirth and miscarriage are increased.

#### Receiving the vaccine reduces your risk of contracting COVID-19.

- As COVID-19 infections continue to increase in communities, individual risk of getting COVID-19 also increases.
- Getting vaccinated will help prevent you from getting sick with COVID-19 and may also help prevent you from spreading COVID-19 to others.

#### The COVID-19 vaccine doesn't give you COVID-19.

- The vaccine contains no live virus.5
- The vaccine does not include ingredients that have been shown to be unsafe or detrimental to pregnant people or the fetus.
- Many other vaccines—flu, tetanus, diphtheria are encouraged and routinely given to pregnant people and are safe.

#### Are there risks with getting the COVID-19 vaccine?

#### Pregnant people were not included in the clinical trials for the COVID-19 vaccine.

- The vaccines that received Emergency Use Authorization (EUA) (Pfizer/Comirnaty, Moderna, and J+J) and now have full approval (Pfizer/Comirnaty) were tested on tens of thousands of people without serious side effects; however, they were not specifically tested on pregnant people.
- There's no data on whether the vaccine is as effective at preventing infection in pregnant people as it was in the clinical trials that included non-pregnant people. There is evidence that pregnant women make protective antibodies in response to the vaccine, and that those antibodies pass into the umbilical cord blood and breast milk.6
- More than 139,000 pregnant women have been vaccinated, and there have not been any unexpected effects.
- A U.S. surveillance review of data from thousands of pregnant people who received an mRNA COVID-19 vaccine did not raise any clear safety concerns.<sup>7</sup>

#### People who receive the vaccine will likely experience some side effects.8,9

- Based on what we know so far, many people may have mild, short-term side effects after getting a COVID-19 vaccine including:
  - Fever\* Headache
- Joint pain

- Fatique
- Muscle pain
- Some patients may have swelling and redness at the site of the injection that can last for a few days. These are not allergic symptoms but part of the immune response to the vaccine.
- In rare instances, vaccines can cause severe physical reactions.

\*A persistent high fever (over 102° F) during the first trimester may increase the risk of miscarriage or birth defects so you may choose to delay receiving the vaccine until your second trimester. The Centers for Disease Control and Prevention (CDC) recommends taking acetaminophen, like Tylenol, during pregnancy if you experience a high fever.

# If I'm pregnant, should I get a COVID-19 vaccine?

THIS CONTENT WAS DEVELOPED BY UMASS MEDICAL SCHOOL - BAYSTATE AND ADAPTED BY MASSACHUSETTS GENERAL HOSPITAL

### Consider your own personal risk of getting COVID-19

#### Recommendations from the experts

COVID-19 is dangerous and spreads easily. The CDC recommends the COVID-19 vaccine for persons 12 years of age and older (Pfizer/Comirnaty) and 18 years of age and older (Moderna and J&J) in the U.S.

The Society for Maternal-Fetal Medicine (SMFM), the American College of Obstetricians and Gynecologists (ACOG) and other pregnancy experts recommend that pregnant and lactating people be vaccinated against COVID-19. The CDC also recommends vaccination for "all people aged 12 years and older, including people who are pregnant, breastfeeding, trying to get pregnant now, or might become pregnant in the future."

The recommendation for vaccination in pregnancy came after the recommendation for people who are not pregnant because pregnant people were not included in the clinical trials. This is a standard practice for new drugs and not due to a concern with this vaccine in particular.

The SMFM reports no reason to think the vaccine affects the safety of breast milk.<sup>8</sup> When people have an infection or receive a vaccine, their bodies make antibodies to fight the infection. The antibodies from vaccines during pregnancy do transfer into breast milk and then the baby. Since the COVID-19 vaccine doesn't contain live virus, there's no risk for COVID-19 to be present in breast milk.<sup>1</sup>

As you consider this decision, learn as much as you can about COVID-19 and the vaccine from a trusted source, like your midwife, doctor or health care team.

More information about the vaccine can also be found on massgeneral.org/news/coronavirus/vaccine.

# The risk of contracting and becoming sick with COVID-19 is higher if:

- You have contact with people outside of your immediate household
- Your community has a high rate of infection and spread of COVID-19
- You work in health care or another frontline, essential profession <sup>11</sup>
- You have other medical issues like diabetes, high blood pressure or heart disease
- You are a smoker
- You are overweight
- You are 35 years of age or older

## Even after you are vaccinated, it is important to follow the CDC's guidance to reduce the risk of COVID infection:

- Wear a mask when around people outside of your immediate household
- You and the people you who live with you should follow social distancing guidelines for the length of your pregnancy



### When you decide to get the COVID-19 vaccine

- You'll receive a "V-safe information sheet" with instructions for reporting symptoms after your vaccine. You can help researchers track side effects and learn more about the experience of pregnant people with the vaccine.
- Was this decision-making tool helpful?
- We'd like to hear your feedback at https://collaborate.tuftsctsi.org/redcap/surveys/index.php?s=RNAW39NCLL

## If I'm pregnant, should I get a COVID-19 vaccine?

THIS CONTENT WAS DEVELOPED BY UMASS MEDICAL SCHOOL - BAYSTATE AND ADAPTED BY MASSACHUSETTS GENERAL HOSPITAL

#### Footnotes and credits:

Intended Use: This decision aid is intended for use by pregnant Individuals (and individuals planning on becoming pregnant) who are considering getting the COVID-19 vaccine, as well as their health care providers, and their friends and family. It was created by the Shared Decision-Making: COVID Vaccination in Pregnancy working group at the University of Massachusetts Medical School – Baystate. This group consists of experts in the fields of OB/GYN, Maternal-Fetal Medicine, Shared Decision-Making and risk communication, Emergency Medicine, and current COVID-19 research. Questions should be directed to Dr. Elizabeth Schoenfeld, Elizabeth.Schoenfeld@bhs.org. (Working group members include Lauren Westafer, DO, MS, MPH; Kathaleen Barker, MD, FACOG; Elizabeth Morgan, MD, MS; Corina Schoen, MD, FACOG; Liza Smith, MD; Ashley Deutsch, MD; and others)



This decision aid can be reproduced and distributed without additional permission. Updated September 30, 2021

With the permission of the authors, this tool was adapted for local use at Massachusetts General Hospital on December 28, 2020 and updated April 21, 2021 and September 12, 2021. Feedback regarding the utility of this decision aid can be directed through the survey.

- 1. Gray KJ, Bordt EA, Atyeo C, Deriso E, Akinwunmi B, Young N, Medina Baez A, Shook LL, Cvrk D, James K, De Guzman R, Brigida S, Diouf K, Goldfarb I, Bebell LM, Yonker LM, Fasano A, Rabi SA, Elovitz MA, Alter G, Edlow AG. COVID-19 vaccine response in pregnant and lactating women: a cohort study. Am J Obstet Gynecol. 2021 Mar 24:S0002-9378(21)00187-3. doi: 10.1016/j.ajog.2021.03.023. Epub ahead of print. PMID: 33775692; PMCID: PMC7997025.
- 2. Adhikari EH, et al. Pregnancy outcomes among women with and without severe acute respiratory syndrome coronavirus 2 infection. JAMA Network Open 2020 Nov 3(11):e2029256.
- **3.** Woodworth KR, Olsen EO, Neelam V, et al. Birth and Infant Outcomes Following Laboratory-Confirmed SARS-CoV-2 Infection in Pregnancy SET-NET, 16 Jurisdictions, March 29-October 14, 2020. MMWR Morb Mortal Wkly Rep. 2020 Nov 6;69(44):1635-1640. doi: 10.15585/mmwr.mm6944e2. PMID: 33151917; PMCID: PMC7643898.
- **4.** Handley SC, Mullin AM, Elovitz MA, Gerson KD, Montoya-Williams D, Lorch SA, Burris HH. Changes in Preterm Birth Phenotypes and Stillbirth at 2 Philadelphia Hospitals During the SARS-CoV-2 Pandemic, March-June 2020. JAMA. 2020 Dec 7. doi: 10.1001/jama.2020.20991. Epub ahead of print. PMID: 33284323.
- 5. Abbasi J. COVID-19 and mRNA Vaccines First Large Test for a New Approach. JAMA. 2020;324(12):1125–1127. doi:10.1001/jama.2020.16866
- **6.** Footnote: Gray KJ, Bordt EA, Atyeo C, Deriso E, Akinwunmi B, Young N, Medina Baez A, Shook LL, Cvrk D, James K, De Guzman R, Brigida S, Diouf K, Goldfarb I, Bebell LM, Yonker LM, Fasano A, Rabi SA, Elovitz MA, Alter G, Edlow AG. COVID-19 vaccine response in pregnant and lactating women: a cohort study. Am J Obstet Gynecol. 2021 Mar 24:S0002-9378(21)00187-3. doi: 10.1016/j.ajog.2021.03.023. Epub ahead of print. PMID: 33775692; PMCID: PMC7997025.
- 7. Shimabukuro TT, Kim SY, Myers TR, Moro PL, Oduyebo T, Panagiotakopoulos L, Marquez PL, Olson CK, Liu R, Chang KT, Ellington SR, Burkel VK, Smoots AN, Green CJ, Licata C, Zhang BC, Alimchandani M, Mba-Jonas A, Martin SW, Gee JM, Meaney-Delman DM; CDC v-safe COVID-19 Pregnancy Registry Team. Preliminary Findings of mRNA Covid-19 Vaccine Safety in Pregnant Persons. N Engl J Med. 2021 Apr 21. doi: 10.1056/NEJMoa2104983. Epub ahead of print. PMID: 33882218.
- 8. https://www.cdc.gov/vaccines/acip/recs/grade/covid-19-pfizer-biontech-etr.html (Accessed Dec 14, 2020)
- 9. https://www.cdc.gov/vaccines/acip/recs/grade/covid-19-moderna-etr.html (Accessed Dec 20, 2020)
- 10. SMFM statement on COVID vaccination in pregnancy: https://www.smfm.org/publications/339-society-for-maternal-fetal-medicine-smfm-statement-sars-cov-2-vaccination-in-pregnancy
- **11.** Mutambudzi M, Niedwiedz C, Macdonald EB, et al. Occupation and risk of severe COVID-19: prospective cohort study of 120 075 UK Biobank participants. Occupational and Environmental Medicine Published Online First: 09 December 2020. doi: 10.1136/oemed-2020-106731
- **12.** https://www.nejm.org/doi/full/10.1056/NEJMoa2104983
- 13. https://s3.amazonaws.com/cdn.smfm.org/media/3061/COVID vaccine Patients Aug 23 2021 Eng.pdf
- 14. https://www.acog.org/womens-health/faqs/coronavirus-covid-19-pregnancy-and-breastfeeding
- 15. https://www.cdc.gov/coronavirus/2019-ncov/vaccines/fully-vaccinated.html