

# Monkeypox/Smallpox Vaccine (ACAM2000®)

---

This sheet is about the ACAM2000® monkeypox/smallpox vaccine in pregnancy and while breastfeeding. This information should not take the place of medical care and advice from your healthcare provider.

## **What is monkeypox?**

Monkeypox is an illness caused by a virus. The virus belongs to a group of viruses called orthopoxviruses. Monkeypox spreads from person to person through body fluids. The virus can also pass from a person who is pregnant to their developing baby. For more information about monkeypox, please see the MotherToBaby fact sheet at <https://mothertobaby.org/fact-sheets/monkeypox/>.

## **What is the ACAM2000® monkeypox/smallpox vaccine?**

The ACAM2000® vaccine helps protect against monkeypox, smallpox, and other diseases caused by orthopoxviruses. ACAM2000® does not contain live virus that could cause monkeypox or smallpox. It contains another live virus from the orthopoxvirus family called vaccinia virus. Getting ACAM2000® helps the body's immune system learn how to protect itself (make antibodies) against orthopoxviruses in general.

ACAM2000® can be given before or after exposure to an orthopoxvirus to help prevent illness or reduce symptoms. It is given as a single dose with a special kind of needle that makes multiple skin pricks on a small area. The area forms a small wound or lesion that may take up to 6 weeks to fully heal. During that time, the lesion must stay clean and covered since vaccinia virus can spread from this area to other parts of the body or to other people before the lesion is fully healed.

When there is a chance of being exposed to monkeypox or another orthopoxvirus, it is important to continue taking steps to avoid exposure even after being vaccinated. The Centers for Disease Control and Prevention (CDC) have prevention information here: <https://www.cdc.gov/poxvirus/monkeypox/prevention.html>

Since ACAM2000® contains live vaccinia virus that can make copies of itself (replicate) in the body, there is a small chance that getting the vaccine could cause illness in certain people. The CDC does not recommend ACAM2000® for most people who are pregnant or breastfeeding, have weakened immune systems or certain underlying health conditions, or for those who live with or have close contact with these groups of people. Another type of monkeypox/smallpox vaccine is available (see below).

JYNNEOS™ is another type of monkeypox/smallpox vaccine available in the United States. You can read more about JYNNEOS™ on the MotherToBaby fact sheet

<https://mothertobaby.org/fact-sheets/monkeypox-smallpox-vaccine-jynneos/>. The CDC has information about both of these vaccines and how they are used here:

<https://www.cdc.gov/poxvirus/monkeypox/considerations-for-monkeypox-vaccination.html>

## **Is the ACAM2000® vaccine recommended for people who are pregnant?**

ACAM2000® is not recommended for most people who are pregnant because of the chance of a rare but serious infection in the developing baby called fetal vaccinia. ACAM2000® is also not recommended for those who live with or have close contact with people who are pregnant. Another type of monkeypox/smallpox vaccine is available that is not associated with fetal vaccinia (see above). Talk with your healthcare provider about what vaccine is right for you.

## **Does getting the ACAM2000® vaccine make it harder to get pregnant?**

Studies have not been done in humans to see if ACAM2000® can make it harder to get pregnant.

## **I just got the ACAM2000® vaccine. How long do I need to wait before I get pregnant?**

To avoid the chance of fetal vaccinia, it is recommended to wait 4 weeks after getting ACAM2000®, and until the lesion from the vaccine has fully healed, before trying to get pregnant.

## **Does getting the ACAM2000® vaccine increase the chance of miscarriage?**

Miscarriage is common and can occur in any pregnancy for many different reasons. The ACAM2000® vaccine itself is not associated with an increased chance of miscarriage. However, cases of fetal vaccinia have been associated with miscarriage.

***Does getting the ACAM2000® 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. Limited information on pregnancies accidentally exposed to ACAM2000® does not suggest an increased chance for birth defects. This information includes people who received the vaccine before they knew they were pregnant or conceived within 4 weeks of getting the vaccine.

Fever is a possible side effect of the ACAM2000® 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 the ACAM2000® vaccine in pregnancy increase the chance of other pregnancy-related problems?***

The ACAM2000® vaccine itself is not associated with an increased chance of pregnancy-related problems, such as preterm delivery (before 37 weeks of pregnancy) or low birth weight (weighing less than 5 pounds, 8 ounces (2500 grams) at birth). However, cases of fetal vaccinia have been associated with stillbirth, preterm delivery, and infant death. Infants who survive fetal vaccinia can have scars on the skin from the pox marks caused by the virus.

***Does getting the ACAM2000® vaccine in pregnancy affect future behavior or learning for the child?***

Studies have not been done to see if ACAM2000® affects future behavior or learning for the child.

***Does getting ACAM2000® during pregnancy protect the baby from monkeypox after delivery?***

It is not known if getting the ACAM2000® vaccine during pregnancy would protect the baby from monkeypox after delivery.

***Breastfeeding and the ACAM2000® vaccine:***

Studies have not been done to see if ACAM2000® passes into breast milk. However, a vaccinated person could pass the vaccinia virus to an infant through close contact until the lesion from the vaccine is completely healed. For this reason, and because another kind of monkeypox/smallpox vaccine is available, the CDC recommends that ACAM2000® not be given to most people who are breastfeeding. If you received the ACAM2000® vaccine and are breastfeeding or pumping, talk to your healthcare provider about the best way to feed your baby until the lesion from the vaccine is completely healed.

It is not known if the antibodies (protection) a person makes after getting an ACAM2000® vaccine can pass through the breast milk and protect the baby against monkeypox.

Talk to your healthcare provider about all of your breastfeeding questions.

***If a male gets the ACAM2000® vaccine, could it affect fertility (ability to get partner pregnant) or increase the chance of birth defects?***

Studies have not been done in males to see if the ACAM2000® vaccine could affect fertility or increase the chance of birth defects above the background risk.

People who get ACAM2000® could pass the vaccinia virus to their partners through close contact or through shared items like towels and bedding until the lesion caused by the vaccine is completely healed. If a partner who is pregnant is exposed to the virus in this way, it could increase the chance of serious complications if the baby develops fetal vaccinia. For this reason, and because another type of monkeypox/smallpox vaccine is available, it is generally recommended that partners of people who are pregnant not get ACAM2000®.

If a male does get the ACAM2000® vaccine, it is recommended to wait 4 weeks after getting the vaccine, and until the lesion from the vaccine has fully healed, before trying to get a partner pregnant. If their partner is already pregnant, they should isolate from their partner for 4 weeks after getting the vaccine, and until the lesion from the vaccine is fully healed. They should also take steps to keep their clothing, bedding, bandages, and other contaminated items

away from their partner.

For more information on paternal exposures, please see the MotherToBaby fact sheet Paternal Exposures at <https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/>.

**Please click [here](#) to view references.**

**Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at [MotherToBaby.org](https://mothertobaby.org).**

---

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). *OTIS/MotherToBaby recognizes that not all people identify as “men” or “women.” When using the term “mother,” we mean the source of the egg and/or uterus and by “father,” we mean the source of the sperm, regardless of the person’s gender identity.* Copyright by OTIS, July 22, 2022.