Mpox/Smallpox Vaccine (JYNNEOS™)

This sheet is about exposure to the JYNNEOS™ mpox/smallpox vaccine in pregnancy and while breastfeeding. This information is based on published research. It should not take the place of medical care and advice from your healthcare providers.

What is mpox?

Mpox (which used to be called monkeypox) is an illness caused by a virus. The virus belongs to a group of viruses called orthopoxviruses. The virus spreads from person to person through body fluids. The virus can also pass from a woman who is pregnant to their fetus. For more information about mpox, please see the MotherToBaby sheet at https://mothertobaby.org/fact-sheets/mpox/. The Centers for Disease Control and Prevention (CDC) has information on mpox here: https://www.cdc.gov/mpox/index.html.

What is the JYNNEOS™ mpox/smallpox vaccine?

The JYNNEOS™ vaccine (also known as Imvamune® or Imvanex®) helps protect against mpox, smallpox, and other diseases caused by orthopoxviruses. JYNNEOS™ does not contain live virus that could cause mpox or smallpox. JYNNEOS™ is a MVA-BN (Modified Vaccinia Ankara – Bavarian Nordic) vaccine made from a weekend vaccinia virus strain. This is a weakened form of a related virus, which cannot make copies of itself (cannot replicate) in the body and does not cause illness. Getting JYNNEOS™ helps the body's immune system learn how to protect itself (make antibodies) against orthopoxviruses in general.

JYNNEOS™ can be given before or after exposure to an orthopoxvirus to help prevent illness or reduce symptoms. Most people require 2 doses (shots) given 4 weeks apart. When there is a chance of being exposed to the virus that causes mpox or another orthopoxvirus, it is important to continue taking other steps to avoid exposure even after being vaccinated.

At this time, JYNNEOS™ is only recommended for people ages 18 years old or older and are at high risk of mpox but can be considered for others who have been exposed to or are at high risk of being exposed to the virus that causes mpox. The vaccine can be given even if a woman is planning pregnancy or is already pregnant. Pregnancy alone is not a reason to avoid getting the vaccine if someone is otherwise recommended to receive it.

I received JYNNEOS™, but I would like to get pregnant.

There is no recommendation to wait before trying to get pregnant after getting JYNNEOS™. If someone gets their first dose of JYNNEOS™ and then becomes pregnant, there is no recommendation to avoid or postpone the second dose in pregnancy.

I received JYNNEOS™. Can it make it harder to get pregnant?

Studies have not been done in humans to see if JYNNEOS™ can make it harder to get pregnant. Experimental animal studies did not find that JYNNEOS™ affected female fertility (ability to get pregnant).

Does getting the JYNNEOS™ vaccine increase the chance of miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. Studies have not been done in humans to see if getting the JYNNEOS™ vaccine would increase the chance of miscarriage. Animal studies did not report an increased chance of miscarriage.

Does getting the JYNNEOS™ 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. Studies have not been done in humans to see if getting the JYNNEOS™ vaccine could increase the chance of birth defects. Animal studies did not show an increased chance of birth defects.

Fever is an uncommon but possible side effect of the JYNNEOS™ 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 sheet about fever/hyperthermia

at https://mothertobaby.org/fact-sheets/hyperthermia-pregnancy/.

Does getting the JYNNEOS™ vaccine in pregnancy increase the chance of other pregnancy-related problems?

Studies have not been done in humans to see if getting the JYNNEOS™ vaccine in pregnancy would increase the chance of other 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). Animal studies did not report other pregnancy problems.

Does getting the JYNNEOS™ vaccine in pregnancy affect future behavior or learning for the child?

Studies have not been done to see if getting the JYNNEOS™ vaccine in pregnancy could affect future behavior or learning for the child.

Does getting the JYNNEOS™ vaccine during pregnancy protect the baby from mpox after delivery?

It is not known if getting the JYNNEOS™ vaccine during pregnancy would protect the baby from mpox after delivery.

Breastfeeding and the JYNNEOS™ vaccine:

Studies have not been done to see if the JYNNEOS™ vaccine passes into breast milk. There is 1 report on milk samples collected from 1 woman who received the JYNNEOS™ vaccine, and there was no evidence that the vaccine passed into the milk. Because the weakened virus in the vaccine does not replicate and spread through the body, it is not expected to enter the breast milk. Breastfeeding alone is not a reason to avoid getting the JYNNEOS™ vaccine for someone who is otherwise recommended to receive it. Talk to your healthcare provider about all of your breastfeeding questions.

If a man gets a JYNNEOS™ vaccine, could it affect fertility or increase the chance of birth defects?

Studies have not been done in men to see if getting the JYNNEOS™ vaccine could affect fertility (ability to make healthy sperm) or increase the chance for birth defects above the background risk. In general, exposures that men have are less likely to increase risks to a pregnancy. For more general information, please see the MotherToBaby sheet Paternal Exposures at https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/.

Please click here for references.

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