Nirmatrelvir/Ritonavir (Paxlovid®)

This sheet is about exposure to nirmatrelvir/ritonavir in pregnancy and while breastfeeding. This information should not take the place of medical care and advice from your healthcare provider.

What is nirmatrelvir/ritonavir?

Nirmatrelvir and ritonavir are medications that have been used together to treat COVID-19, the illness caused by a virus called SARS-CoV-2. The combination of nirmatrelvir/ritonavir is sold under the brand name Paxlovid®. To be most effective, nirmatrelvir/ritonavir treatment should be started as soon as possible after diagnosis of COVID-19 and within 5 days of the start of symptoms. For more information on COVID-19, please see the fact sheet at https://mothertobaby.org/fact-sheets/covid-19/.

Sometimes when people find out they are pregnant, they think about changing how they take their medication, or stopping their medication altogether. However, it is important to talk with your healthcare providers before making any changes to how you take this medication.

I need to take nirmatrelvir/ritonavir. Can it make it harder for me to get pregnant?

Studies have not been done in humans to see if nirmatrelvir/ritonavir can make it harder to get pregnant. Animal studies on ritonavir have not shown an effect on ability to conceive a pregnancy (fertility).

Does taking nirmatrelvir/ritonavir increase the chance for miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. Studies have not been done in humans to see if nirmatrelvir/ritonavir increases the chance for miscarriage.

Does taking nirmatrelvir/ritonavir 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. Studies have not been done to see if the combination of nirmatrelvir/ritonavir increases the chance for birth defects in humans. Case reports of use of ritonavir in human pregnancy have not suggested an increased chance for birth defects.

Despite limited data, experts do not suggest nirmatrelvir/ritonavir be withheld from people who are pregnant and who otherwise qualify for this therapy due to concerns with COVID-19 infection. According to the American College of Obstetricians and Gynecologists (ACOG), patients who are pregnant can receive oral SARS-CoV-2 protease inhibitor therapy, such as nirmatrelvir/ritonavir. Your healthcare providers can talk with you about the benefits of treating your condition and the risks of untreated illness during pregnancy.

Does taking nirmatrelvir/ritonavir in pregnancy increase the chance of other pregnancy-related problems?*

Based on the available data, it is not known if nirmatrelvir/ritonavir increases the chance for pregnancy-related problems such as preterm delivery (birth before week 37) or low birth weight (weighing less than 5 pounds, 8 ounces [2500 grams] at birth).

One small study looked at 27 people who were pregnant and took nirmatrelvir/ritonavir for a COVID-19 infection. Most of the people were vaccinated, and most received treatment in the third trimester. Overall, an increased chance for a pattern of pregnancy-related problems was not seen in this study.

Having a COVID-19 infection in pregnancy can increase the chance of pregnancy problems such as stillbirth and preterm delivery.

Does taking nirmatrelvir/ritonavir in pregnancy affect future behavior or learning for the child?

Studies have not been done to see if nirmatrelvir/ritonavir can cause behavior or learning issues for the child.

Breastfeeding while taking nirmatrelvir/ritonavir:
No information is available on the use of nirmatrelvir alone or the combination of nirmatrelvir/ritonavir during breastfeeding. Ritonavir passes into milk and low levels of the medication have been found in the blood of some breastfed infants. Side effects in breastfed infants have not been reported. Nirmatrelvir is not well absorbed by the body, and the amounts of ritonavir in milk are expected to be low, so this combination is not expected to cause side effects in a nursing infant.

If you suspect the baby has any symptoms, contact the child’s healthcare provider. Be sure to talk to your healthcare provider about all of your breastfeeding questions.

If a male takes nirmatrelvir/ritonavir, could it affect fertility (ability to get partner pregnant) or increase the chance of birth defects?

Studies have not been done in humans to see if nirmatrelvir/ritonavir could affect fertility or increase the chance of birth defects above the background risk. Animal studies on ritonavir have not shown an effect on fertility. In general, exposures that fathers or sperm donors have are unlikely to increase the risks to a pregnancy. For more information, please see the MotherToBaby fact sheet Paternal Exposures at https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/.

Please click here for references.