Nirmatrelvir/Ritonavir (Paxlovid®)

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

What is nirmatrelvir/ritonavir?

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

Sometimes when women 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 your medication. Your healthcare providers can talk with you about the benefits of treating your condition and the risks of untreated illness during pregnancy.

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 effects on the ability to get pregnant (fertility).

Does taking nirmatrelvir/ritonavir 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 nirmatrelvir/ritonavir can increase the chance of miscarriage.

Does taking nirmatrelvir/ritonavir 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. We look at research studies to try to understand if an exposure, like nirmatrelvir/ritonavir, might increase the chance of birth defects in a pregnancy. Studies have not been done in humans to see if the combination of nirmatrelvir/ritonavir can increase the chance of birth defects. Case reports of use in human pregnancy have not suggested an increased chance of birth defects.

The National Institutes of Health (NIH) recommends that nirmatrelvir/ritonavir not be withheld from women who are pregnant and have COVID-19 if they otherwise qualify to receive this medication. The American College of Obstetricians and Gynecologists (ACOG) states that nirmatrelvir/ritonavir is the preferred treatment for women who are pregnant and have COVID-19 that does not require hospitalization. If you have COVID-19, your healthcare providers can talk with you about what treatment is best for you.

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

Small studies looking at women who took nirmatrelvir/ritonavir for COVID-19 infection during pregnancy have not reported an increased chance of 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). Among the women who had gone on to deliver at the time of these reports, no side effects related to nirmatrelvir/ritonavir were reported in their infants at the time of delivery. Most of the women who had delivered were vaccinated against COVID-19 and received nirmatrelvir/ritonavir in the third trimester.

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 increase the chance of behavior or learning issues for the child.

Breastfeeding while taking nirmatrelvir/ritonavir:
Information on the use of nirmatrelvir/ritonavir during breastfeeding is limited. Nirmatrelvir/ritonavir passes into breast milk in small amounts. No adverse effects were reported in a few case reports on nursing infants. More information is available about ritonavir used by itself during breastfeeding.

Since the amount of nirmatrelvir/ritonavir in the milk is expected to be low, it is not expected to cause side effects in nursing infants. However, if you suspect the baby has any symptoms (such as diarrhea or irritability), contact the child's healthcare provider. Be sure to talk to your healthcare provider about all your breastfeeding questions.

If a man takes nirmatrelvir/ritonavir, could it affect his fertility or increase the chance of birth defects?
Studies have not been done in humans to see if nirmatrelvir/ritonavir could affect male fertility (ability to make healthy sperm) or increase the chance of birth defects. Animal studies on ritonavir have not shown an effect on male fertility. In general, exposures that men 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.

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