Midazolam

This sheet is about exposure to midazolam 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 provider.

What is midazolam?

Midazolam is a medication that has been used to help patients relax, be calm, and sleep before medical procedures, dental work, or surgeries. It has also been used to treat seizures and anxiety. Two brand names for midazolam are Versed® and Seizalam®. Midazolam is in a class of medications called benzodiazepines. MotherToBaby has a general fact sheet on anxiety at https://mothertobaby.org/fact-sheets/anxiety-fact/.

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 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 take midazolam. Can it make it harder for me to get pregnant?

Studies have not been done in humans to see if taking midazolam could make it harder to get pregnant. In an experimental animal study, midazolam did not affect fertility (ability to get pregnant).

Does taking midazolam increase the chance of miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. Studies have not been done to see if midazolam could increase the chance of miscarriage.

Does taking midazolam 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 published data to try to understand if an exposure, like midazolam, might increase the chance of birth defects in a pregnancy. Studies have not been done in humans to see if midazolam can increase the chance of birth defects. Animal studies did not find a higher chance of birth defects with exposure to midazolam.

Does taking a benzodiazepine increase the chance of birth defects, such as cleft lip and palate?

Some of the first studies that looked at the use of other benzodiazepines in pregnancy suggested a slight increased chance of cleft lip and/or cleft palate (opening in the upper lip and/or the roof of the mouth) if taken during the first trimester. Since these early reports, there have been other studies and reviews that have not found an increased chance of birth defects with the use of benzodiazepines during the first trimester.

Does taking midazolam in pregnancy increase the chance of other pregnancy-related problems?

Studies have not been done to see if midazolam can increase the chance of other 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).

If used near the end of a pregnancy, will midazolam cause symptoms in my baby after birth?

The use of midazolam as part of a C-section can cause temporary symptoms in newborns such as trouble breathing soon after birth. Not all babies exposed to midazolam will have this issue. There have been reports of use of midazolam during C-section without problems for the newborn. C-section itself can cause temporary breathing problem in the baby.

Does taking midazolam in pregnancy affect future behavior or learning for the child?

Studies have not been done to see if midazolam can increase the chance of behavior or learning issues for the child. Animal studies have reported that midazolam, in combination with other medications for general anesthesia, might affect the developing brain. Based on this, the US Food and Drug Administration (FDA) has suggested that midazolam be avoided for use as general anesthesia and sedation during the third trimester of pregnancy for surgeries not related to delivery of the baby. If needed for a C-section, the baby would be exposed only for a short period of time; this has not been associated with learning issues. For more general information on anesthesia, please see the MotherToBaby fact sheet at https://mothertobaby.org/fact-sheets/general-anesthesia-pregnancy/.

Breastfeeding while taking midazolam:

Midazolam has not been well studied for use while breastfeeding. Small amounts of midazolam can get into breast milk after single intravenous (IV) doses. If midazolam is given as part of general anesthesia (including for C-section), or as a single dose, breastfeeding can be restarted as soon as the mother is ready to nurse and once any side effects, such as feelings of sleepiness, have passed. Some professional organizations recommend delaying breastfeeding for at least 4 hours after midazolam is used during a procedure. If more than one IV dose is given during breastfeeding, watch the baby for sleepiness (hard to wake for feeding), low energy, or poor suckling. If you suspect the baby has any symptoms, contact the child's healthcare provider. Be sure to talk with your healthcare provider about all your breastfeeding questions.

If a man takes midazolam, could it affect fertility or increase the chance of birth defects?

Studies have not been done to see if midazolam could affect men's fertility (ability to get a partner pregnant) or increase the chance of birth defects. In general, exposures that fathers or sperm donors have are unlikely to increase 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.

North American Antiepileptic Drug (AED) Pregnancy Registry: There is a pregnancy registry for women who take antiepileptic medications, such as midazolam. Please see the registry website for more information: https://www.aedpregnancyregistry.org/introduction/.

National Pregnancy Registry for Psychiatric Medications: There is a pregnancy registry for women who take psychiatric medications, such as midazolam. For more information you can look at their website: https://womensmentalhealth.org/research/pregnancyregistry/.

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