Ketamine

This sheet is about exposure to ketamine 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 ketamine?

Ketamine is an anesthetic medication. Anesthetics are used with medical procedures, such as surgery, to help lower a person's ability to feel pain and to make them less aware of what is happening. Ketamine has been used to treat pain and for other medical conditions, such as asthma and major depressive disorder. This sheet will focus on the use of ketamine for medical purposes.

MotherToBaby has fact sheets on:

- General anesthesia – https://mothertobaby.org/fact-sheets/general-anesthesia-pregnancy/.
- Asthma – https://mothertobaby.org/fact-sheets/asthma-and-pregnancy/
- Depression – https://mothertobaby.org/fact-sheets/depression-pregnancy/.

I use ketamine and I just found out that I am pregnant. What should I do?

Talk with your healthcare provider as soon as possible. Stopping ketamine should be done under the supervision of a healthcare provider. Stopping suddenly (called "cold turkey") could cause withdrawal. It is not known what effect, if any, withdrawal could have on a pregnancy.

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

It is not known if using ketamine could make it harder to get pregnant.

Does taking ketamine increase the chance of miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. A few studies suggest a small increased chance of miscarriage in people who had surgery with general anesthesia in the first half of pregnancy. However, it is unclear if this small risk is due to anesthesia, the body's response to surgery, illness in the person who was pregnant, or other factors.

Does taking ketamine 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 ketamine, might increase the chance of birth defects in a pregnancy.

It is not known if ketamine can increase the chance of birth defects. Some studies suggest exposure to ketamine in pregnancy can impact brain development of the fetus.

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

It is not known if ketamine 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).

When used as an anesthetic at the time of delivery, there might be changes in uterine tone as well as frequency and strength of contractions. Changes in fetal heart rate or breathing trouble in the newborn have been reported. There have been reports of babies born with more muscle tone (hypertonia) after ketamine was used for minor surgery

during pregnancy. There are also reports of births without these issues.

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

Some studies suggest that exposure to ketamine can affect fetal brain development. This might increase the chance of learning or behavior issues in the child. However, people who are pregnant and need surgery, especially for life-threatening conditions, should not be discouraged from the use of general anesthesia. Talk with your healthcare providers about the risks and benefits of your treatment options.

What about misuse of ketamine?

Ketamine has also been used without a prescription or without the supervision of a healthcare provider (misused). Slang names for ketamine use include K, K-Hole, Super K and Special K. Misuse of ketamine in pregnancy and breastfeeding have not been well-studied and should be avoided.

Some studies suggest exposure to ketamine in pregnancy can impact brain development of the fetus, which might impact growth and development. There is a case report of a baby born with low muscle tone (called hypotonia or "floppy baby syndrome") who was exposed to ketamine misuse throughout the pregnancy. The baby's muscle tone improved over the first month of life. If you have been misusing ketamine, talk with your healthcare provider or contact the National Drug Helpline at http://drughelpline.org/ or 1-888-633-3239.

Breastfeeding while taking ketamine or having received ketamine during labor and delivery:

Ketamine has not been well studied for use while breastfeeding. Small amounts of ketamine get into breastmilk. There are four case reports of infants who did not have side effects from breastfeeding after ketamine was given during labor. If you suspect the baby has any symptoms (such as being too sleepy, trouble eating, or poor weight gain), contact the child's healthcare provider. Be sure to talk to your healthcare provider about all your breastfeeding questions.

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

A study of 40 men with normal semen samples were exposed to ketamine. Results showed lower sperm motility (movement). This could affect men's fertility (ability to get a partner pregnant). 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.

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