Melatonin

This sheet is about exposure to melatonin 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 melatonin?

Melatonin is a hormone made by the body that helps with the natural sleep-wake cycle (circadian rhythm). Melatonin is made by the body mostly during periods of darkness. During pregnancy, the body typically makes more melatonin. Studies suggest that melatonin levels are highest in the third trimester of pregnancy and are expected to return to previous levels after delivery.

Melatonin is also available as a supplement sold over the counter. Taking melatonin supplements during pregnancy has not been well studied. In general, many supplements are not recommended for use during pregnancy unless your healthcare provider has prescribed them to treat a medical condition. This is because supplements are regulated differently than prescription medications and are not well-studied for use in pregnancy. For more detail on supplements, please see our fact sheet at https://mothertobaby.org/fact-sheets/herbal-products-pregnancy/.

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

One older study found that daily doses of melatonin in the 75–300 mg range affected ovarian function in women by lowering levels of key hormones needed to conceive a pregnancy. This could make it harder to get pregnant.

Does taking melatonin increase the chance of miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. Studies that have looked at melatonin use for infertility have not shown an increased chance of miscarriage.

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

It is not known if taking melatonin can increase the chance of birth defects. The few studies that have been done in humans looking at the use of melatonin have not suggested an increased chance of birth defects.

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

Studies have not been done to see if taking melatonin supplements can increase the chance of low birth weight (weighing less than 5 pounds, 8 ounces [2,500 grams] at birth).

One study, among women with Polycystic Ovary Syndrome (PCOS) [now called Polyendocrine Metabolic Ovarian Syndrome (PMOS)] who were given 3 mg of melatonin along with other medication, suggested that melatonin in combination with other treatment might help improve pregnancy outcomes, including lowering the risk of preeclampsia (high blood pressure and problems with organs, such as the kidneys), fetal growth restriction, preterm birth (before 37 weeks of pregnancy), and stillbirth among women with PMOS.

Studies on melatonin use during C-section delivery have shown mixed results, with some studies reporting reduced blood loss and another finding no difference.

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

Studies have not been done to see if taking melatonin supplements can increase the chance of behavior or learning issues for a child.

Breastfeeding while taking melatonin:

Melatonin made by the body is present in breastmilk in higher amounts at night. Taking melatonin supplements while

breastfeeding has not been well studied. Melatonin has been given to infants in doses higher than those expected in breastmilk after maternal supplementation. There is one case report of an infant with a bleeding problem while being breastfed by a woman who was taking a supplement with melatonin and valerian. This bleeding problem has not been reported in other cases, including when melatonin was given directly to infants.

Talk with your healthcare provider before taking any supplements while breastfeeding. Many supplements are not recommended for use during breastfeeding because they are regulated differently than prescription medications and are not studied for use in breastfeeding. Be sure to talk to your healthcare provider about all your breastfeeding questions.

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

It is not known if melatonin supplements could affect male fertility (ability to make healthy sperm) or increase the chance of birth defects. In general, exposures that men 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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