



Calcium Carbonate

In every pregnancy, a woman starts out with a 3-5% chance of having a baby with a birth defect. This is called the background risk. This sheet talks about whether exposure to calcium carbonate may increase the risk for birth defects over that background risk. This information should not take the place of medical care and advice from your health care provider.

What is calcium carbonate?

Calcium carbonate is a dietary supplement used to increase calcium in your body. Calcium is needed for healthy bones, muscles, nervous system and heart. Also, calcium carbonate is used as an antacid to relieve heartburn, acid indigestion and upset stomach. Calcium carbonate comes in different forms, including tablet, chewable tablet, capsule, and liquid. It can also be an ingredient in other over the counter products.

I just found out I am pregnant. Should I stop taking calcium carbonate?

You should always talk with your healthcare provider before making any changes in your medications. When taken as directed, recommended doses of calcium carbonate have not been associated with any known risks during pregnancy.

Can use of calcium carbonate during pregnancy cause birth defects?

No. Studies have shown that women taking calcium carbonate during the first three months of pregnancy do not have a higher chance to have a baby with a birth defect. In fact, taking calcium carbonate at recommended doses any time during a pregnancy has not been associated with negative effects.

What are the dangers of taking too much calcium carbonate?

The Recommended Dietary Allowance (RDA) of calcium for pregnant and breastfeeding women is 1,000 mg to 1,300 mg. The use of calcium carbonate in more than the recommended amount can lead to lower fetal weight, and has been associated with milk-alkali syndrome. Milk-alkali syndrome is caused by increased levels of calcium in the blood. This might lead to the breakdown of calcium in other body tissues, and may cause kidney failure. There have been a few case reports of newborns with seizure, possibly due to high doses of calcium carbonate that the mother took at the end of her pregnancy. Don't forget to discuss all your medications, including over the counter medications, with your healthcare providers.

Can I use calcium carbonate while breastfeeding?

Calcium is found in breast milk. When calcium carbonate is used at recommended doses, it is unlikely to be harmful to a nursing baby. Be sure to talk to your health care provider about all of your breastfeeding questions.

What if the father of the baby takes calcium carbonate?

There are no studies looking at possible problems with getting pregnant or risks to a pregnancy when the father takes calcium carbonate. In general, exposures that fathers have are unlikely to increase risks to a pregnancy. For more information, please see the MotherToBaby fact sheet Paternal Exposures and Pregnancy at

<https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/pdf/>.

Selected References:

- Anderka M, et al, and the National Birth Defects Prevention Study. 2012. Medications Used to Treat Nausea and

- Vomiting of Pregnancy and the Risk of Selected Birth Defects. *Birth Defects Res (Part A)*; 94:22-30.
- Borkenhagen JF, et al. 2013. Neonatal hypocalcemic seizures due to excessive maternal calcium ingestion. *Pediatr Neurol.* 48(6):469-71.
 - Fairney A, Weir AA. 1970. The effect of abnormal maternal plasma calcium levels on the offspring of rats. *J Endocr* 48:337-345.
 - Ito M, et al. 1994. Prevention of preeclampsia with calcium supplementation and vitamin D3 in an antenatal protocol. *Int J Gynaecol Obstet* 47(2):115- 120.
 - Heinonen OP, et al. 1977 *Birth Defects and Drugs in Pregnancy*. Littleton, Mass.: John Wright-PSG, pp 444, 479, 498.
 - Kolnick L, et al. 2011. Hypercalcemia in pregnancy: a case of milk-alkali syndrome. *J Gen Intern Med.* 26(8):939-42.
 - Lagarto A, et al. 2013. Prenatal effects of natural calcium supplement on Wistar rats during organogenesis period of pregnancy. *Exp Toxicol Pathol.* 65(1-2):49-53.
 - Merialdi M, et al. 2003. Nutritional interventions during pregnancy for the prevention or treatment of impaired fetal growth: an overview of randomized controlled trials. *J Nutr* 133(5 Suppl 2):1626S-1631S.
 - Morton A. 2002. Milk-alkali syndrome in pregnancy, associated with elevated levels of parathyroid hormone-related protein. *Intern Med J* 32: 492-494.
 - Picolos MK, et al. 2004. Milk-alkali syndrome in pregnancy. *Obstet Gynecol* 104:1201-4.
 - Thornton MD, et al. 2013. Neonatal seizures: soothing a burning topic. *Pediatr Emerg Care.* 29(10):1107-10.
 - Ulliam ME, Linas SL. 1988. The milk-alkali syndrome in pregnancy. Case report. *Miner Electrolyte Metab* 14:208-10.

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