



MotherToBaby

Medications & More During Pregnancy & Breastfeeding  
Ask The Experts

Fact Sheet

by the **Organization of Teratology Information Specialists (OTIS)**

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## General Anesthesia and Pregnancy

In every pregnancy, a woman starts out with a 3-5% chance of having a baby with a birth defect. This is called her background risk. This sheet talks about whether exposure to general anesthesia 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 general anesthesia?***

General anesthesia is used for medical procedures that require you to be “put to sleep”. It involves the use of a medicine (either through breathing in gases through a mask or intravenously (IV)), which produces unconsciousness and an inability to feel pain. Often a combination of inhaled gases and intravenous medications are used in general anesthesia.

Anesthesia given by inhalation can include halothane, enflurane, isoflurane and nitrous oxide. Some commonly used IV medicines include fentanyl, propofol and ketamine. General anesthesia is given by expert health care providers and the patient is carefully monitored throughout the procedure. It is estimated that 2% of women require surgery during pregnancy. There are different types of anesthesia that can be used for surgery or during labor and delivery. These choices should be discussed with your health care provider.

### ***Can general anesthesia in the first trimester of pregnancy cause a birth defect?***

There have been at least 5 studies that have looked at the risk for birth defects in women who had surgery and anesthesia in the first and early second trimester of pregnancy. None of the studies showed an increased risk for birth defects.

### ***Can exposure to anesthesia from a surgery cause a miscarriage?***

A review of the same 5 studies suggests there may be a small increase in miscarriage in women who had surgery in the first half of pregnancy. However, it is unclear whether the anesthesia, the reason for the surgery, or an illness in the mother impacted the pregnancy.

### ***I work in an office that uses general anesthesia. Would that affect the baby?***

Larger facilities, such as hospital operating rooms, generally have ventilation systems that lead to minimal exposures. While there were early studies that suggested that exposure to inhaled anesthetic gases, particularly to nitrous oxide, could lead to an increase in miscarriage, later studies did not confirm this. It is possible that the original studies were done in areas with poor ventilation systems, so that exposure levels were much higher than they are today. Women who work in dental or veterinary offices may not have ventilation systems that work the same way as large facilities. For more information on your specific risks, call a MotherToBaby counselor at 1-866-626-6847.

### ***I am breastfeeding and need to have anesthesia for a procedure. Can I continue to breastfeed?***

Yes. Most anesthetic medications are removed from the body quickly. Although there are few studies looking at breastfeeding after a procedure, most experts suggest that breastfeeding can be restarted as soon as the mother recovers from the anesthesia and is feeling well enough to breastfeed.

Be sure to talk to your health care provider about all your choices for breastfeeding.

### ***What if the father of the baby needs to have a procedure with anesthesia?***

There are no studies looking at possible risks to a pregnancy when the father has anesthesia. In general, exposures that fathers have are unlikely to increase risks to a pregnancy. For more information, please see the MotherToBaby fact

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