



The American College of
Obstetricians and Gynecologists



FREQUENTLY ASKED QUESTIONS
PREGNANCY
FAQ146

Reducing Your Risk of Birth Defects

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What is a birth defect?

A birth defect is a problem that is present at birth and affects how the baby looks, functions, or both. A birth defect also is called a congenital disorder. More than 4,000 different birth defects are known, ranging from mild to severe.

Some birth defects can be seen right after the baby is born, such as a **clubfoot** or extra fingers or toes. Special tests may be needed to find others, such as heart defects or hearing loss. Some birth defects are not noticed until later in life.

What causes birth defects?

Some birth defects are caused by errors in **genes** or **chromosomes**. Those caused by genes can be inherited—passed down by parents to their children (see the FAQ [Genetic Disorders](#)).

Other birth defects result from the **fetus** being exposed to harmful agents, such as medications, chemicals, and infections. Whether a woman or her baby is harmed depends on how much of the agent they have been exposed to, when during her pregnancy a woman is exposed to the agent, and for how long.

Sometimes, a mixture of factors is the cause. For many birth defects, the exact cause is not known.

Who is at an increased risk of having a baby with birth defects?

You may be at an increased risk of having a baby with a birth defect if you

- are 35 years or older when the baby is due
- have a family or personal history of birth defects
- have previously had a child with a birth defect
- used certain medicines around the time you became pregnant
- have diabetes

- use illegal drugs or drink alcohol

If you have a personal or family history of birth defects, counseling and testing may be recommended. However, most birth defects occur when there is no history of problems in the family.

Can vitamin supplements have an effect on birth defects?

Folic acid—a form of a B vitamin—can help prevent **neural tube defects**. To be effective, it must be taken before pregnancy and up through the first 3 months.

Very high levels of vitamin A have been linked to severe birth defects. Your prenatal multivitamin should contain no more than 5,000 international units of vitamin A. Some supplements have up to 25,000 international units of vitamin A in each dose.

Does obesity increase the risk of birth defects?

Women who are obese before becoming pregnant are at increased risk of having babies with birth defects. Obesity is defined as having a body mass index (BMI) of 30 or greater. Among the most common obesity-related birth defects are neural tube defects, heart defects, and abdominal wall defects. It also may be more difficult to diagnose fetal defects with **ultrasound** when the mother is obese. In addition to birth defects, obesity is linked to many pregnancy problems, including gestational diabetes, preeclampsia, cesarean deliveries, and infections.

How does smoking affect pregnancy?

Smoking has been linked to pregnancy problems, such as problems with the placenta and **premature rupture of membranes** (see the FAQ [It's Time to Quit Smoking](#)). Health risks for infants born to a mother who smoked during her pregnancy include sudden infant death syndrome, hospitalization, and developmental problems. Even exposure to secondhand smoke can be harmful during pregnancy and to a newborn baby.

If I have a medical condition and I want to become pregnant, how can I reduce the risk of birth defects?

If you have a medical condition, seeing your health care provider before you become pregnant is important. Ask what changes you need to make in diet, medication, or other areas to bring your condition under control before you try to get pregnant. For example, people with diabetes have high levels of sugar (**glucose**) in their blood. This extra glucose can damage organs in the mother's body as well as in her baby's body. Keeping glucose levels at or near normal levels with diet, medication, and exercise before pregnancy can help reduce the risk of birth defects.

Can the use of alcohol during pregnancy cause birth defects?

Alcohol use during pregnancy is a leading cause of mental retardation and other birth defects. One of the most serious effects of drinking during pregnancy is **fetal alcohol syndrome**. It is not clear how much, if any, alcohol is safe to drink during pregnancy. For this reason, pregnant women should avoid drinking any alcohol.

What defects are caused by illegal drug use?

Some illegal drugs cause growth problems in the baby; others may cause brain injury and long-term emotional, behavioral, and learning problems. Many drugs increase the risk of **preterm** birth and other serious birth problems. Avoiding illegal drugs before and during pregnancy is critical to your and your baby's health.

Can over-the-counter or prescription medications increase the risk of birth defects?

Some medications can cause birth defects. Tell anyone who prescribes drugs for you that you are pregnant or thinking of becoming pregnant. That includes any health care providers you see for non-pregnancy problems, mental health providers, and your dentist. Do not stop taking a medicine prescribed for you without talking to your health care provider. Also, check with your health care provider before taking any over-the-counter drug, such as pain relievers, laxatives, cold or allergy remedies, vitamins, herbal products, and skin treatments.

Which infections during pregnancy increase the risk of birth defects?

Rubella (German measles) during pregnancy can cause deafness, mental retardation, heart defects, and blindness in a newborn. There is a vaccine against rubella, but it should not be given while you are pregnant.

Toxoplasmosis is a disease caused by a parasite that lives in the soil and is transmitted by eating raw or undercooked meat, unwashed vegetables, or coming into contact with animal feces, especially that of cats. It can cause birth defects, including hearing loss, vision problems, and mental retardation. To protect against toxoplasmosis, make sure that you eat well-cooked meat and wear gloves while gardening or handling unwashed vegetables. If you have an outdoor cat that uses a litter box, have someone else empty the litter box or use gloves and wash your hands well after doing so.

Sexually transmitted diseases (STDs) can cause serious birth defects. For instance, syphilis or herpes infection can cause severe problems in infants, including blindness and death.

Cytomegalovirus (CMV) is the most common viral infection in newborn babies. Most CMV infections cause no significant problems, but in severe cases the infection may cause mental retardation, deafness, and loss of vision.

Can products in my living or working environment cause birth defects?

Exposure to toxic agents such as lead, mercury, or radiation can cause birth defects. Some women may be exposed to these agents at work. Some harmful agents are found in the home. Some are even in the food we eat. Not all of the harmful agents are known.

Should I avoid eating certain kinds of fish during pregnancy?

Yes. Some types of fish have high mercury levels. Mercury is a natural substance that can build up in certain types of fish. If eaten in very large amounts, it can harm a woman and her baby. The fish to avoid are shark, swordfish, king mackerel, and tilefish. You can eat up to 12 ounces per week of fish (about two average meals) that are low in mercury, such as shrimp, canned light tuna, salmon, pollock, and catfish. Albacore (“white”) tuna and tuna steaks have higher mercury levels, so you should eat only up to 6 ounces of these fish per week.

What prenatal tests can be done to screen for or detect birth defects?

A number of tests are available. See the FAQs [Screening Tests for Birth Defects](#) and [Diagnosing Birth Defects](#).

Glossary

Chromosomes: Structures that are located inside each cell in the body and contain the genes that determine a person’s physical makeup.

Clubfoot: A birth defect in which the foot is misshaped and twisted out of position.

Fetal Alcohol Syndrome: A pattern of physical, mental, and behavioral problems in the baby that are thought to be due to alcohol abuse by the mother during pregnancy.

Fetus: The developing offspring in the uterus from the ninth week of pregnancy until the end of pregnancy.

Genes: DNA “blueprints” that code for specific traits, such as hair and eye color.

Glucose: A sugar that is present in the blood and is the body’s main source of fuel.

Neural Tube Defects: Birth defects that result from incomplete development of the brain, spinal cord, or their coverings.

Premature Rupture of Membranes: A condition in which the membranes that hold the amniotic fluid rupture before birth.

Preterm: Born before 37 weeks of pregnancy.

Sexually Transmitted Disease: A disease that is spread by sexual contact.

Toxoplasmosis: An infection caused by *Toxoplasma gondii*, an organism that may be found in raw and rare meat, garden soil, and cat feces and can be harmful to the fetus.

Ultrasound: A test in which sound waves are used to examine internal structures. During pregnancy, it can be used to examine the fetus.

If you have further questions, contact your obstetrician–gynecologist.

FAQ146: Designed as an aid to patients, this document sets forth current information and opinions related to women’s health. The information does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations, taking into account the needs of the individual patient, resources, and limitations unique to institution or type of practice, may be appropriate.

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