Ask an Expert: What Are the Risks of Birth Defects?

Q: I am pregnant and feeling concerned that my baby might have a birth defect. There is some history of birth defects in our family. Is it possible to know if my daughter or son will have a birth defect? What is the risk and how can I learn more?

A: All women who become pregnant have a 3 percent to 5 percent chance of having a baby born with a birth defect.

Birth defects can be caused by problems in the chromosomes, by abnormal changes in genes, and by the environment. Some are inherited and others are not. However, we often do not know what causes birth defects.

There are a number of things that women can do to help decrease the chance that their baby will have a birth defect.

• Talk to your health care provider before becoming pregnant to discuss any current health problems a woman has that could impact a pregnancy
• Eating a healthy diet
• Exercise
• Get enough folic acid by taking a daily vitamin
• Don’t smoke or drink alcohol

All are good things to do.

A small number of birth defects, such as spina bifida (opening of the spine) and Down syndrome, can be diagnosed during pregnancy. Both screening tests and diagnostic tests are available that can look for some of these birth defects.

The March of Dimes has an excellent review of birth defects, some of the causes, and ways to decrease the changes of having a baby with a birth defect.

Genetic Counseling

You mentioned that there is a history of birth defects in your family. You may want to consider getting genetic counseling.

Genetic counseling provides information, education and support to individuals and families with a medical history or increased personal risk for a genetic condition, or those at risk for having a child with a birth defect or genetic condition.

Medical geneticists and genetic counselors have specialized training and experience and can give information and supportive counseling concerning many disorders or abnormalities.

Genetic specialists should have certification from the American Board of Genetic Counseling or the American Board of Medical Genetics.

Genetic counseling is not about preventing the occurrence of a genetic disorder. Rather, the objective is to provide education and counseling with a birth defect or genetic condition.

Genetic services

In Northeast Ohio, genetic services are available at:

• University Hospital Case Medical Center
• MetroHealth Medical Center
• The Cleveland Clinic Foundation

This week’s NetWellness column is authored by Anne Matthews, RN, PhD, director, Genetic Counseling and Family Studies, Department of Genetics, Case Western Reserve University.

Ask experts your own questions in the Inherited Disorders and Birth Defects health topic.

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about the possible risks, complications, and implications of genetic conditions.

Counseling also is designed to provide support and educate families about available resources. Persons at risk for a genetic disorder, or those at risk for giving birth to a child with a birth defect or genetic disease, may feel overwhelmed sorting through other factors that may affect a person's decision making process. Those factors include:

• Race
• Gender
• Cultural beliefs
• Religion
• Attitudes toward medicine and health

By providing expert information and helping individuals explore possibilities, genetic counselors can reduce confusion and promote informed decision-making.

The counselor also serves as an advocate, offering support regardless of the choices made. The goal is to help you arrive at a decision with which you are comfortable.

What You Can Expect From a Visit to a Counselor

During the visit, depending on the issue or condition, you may be asked to supply:

• Medical records
• Results from previous medical testing
• Family photographs
• Information about your medical and family history
• Family tree, also known as a pedigree

If the issue relates to the diagnosis of a genetic condition, the members of the genetics team will discuss how the condition can be managed and what the long-term implications are of having the condition. The genetic counselor can educate you about tests that determine whether or not a person is a "carrier," that is, someone who has an abnormal gene that could cause birth defects or disease in her children. If you are a carrier, genetic counseling can help determine the likelihood of passing on an abnormal gene. If you have a disorder or carry genes that may increase the chance you could develop a genetic disorder, genetic expertise can help determine the likelihood (recurrence risk) of the disorder arising in other family members or in yourself.

Tags: Akron Children's Medical Center, birth defects, Case Western Reserve University, Cleveland Clinic, genetics, MetroHealth Medical Center, University Hospital Case Medical Center

In addition to these facilities, the National Society of Genetic Counselors can help you find a genetic counselor near you.