



A CUP OF HEALTH WITH CDC

Beating Birth Defects

National Birth Defects Prevention Month and Folic Acid Awareness Week – January 2013

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[Announcer] This program is presented by the Centers for Disease Control and Prevention.

[Dr. Gaynes] Welcome to *A Cup of Health with CDC*, a weekly feature of the *MMWR*, the Morbidity and Mortality Weekly Report. I'm your host, Dr. Robert Gaynes.

Each year in the US, one in 33 babies is affected by a major birth defect. Women can greatly improve their chances of giving birth to a healthy baby by avoiding some of the risk factors for birth defects before and during pregnancy.

Dr. Stuart Shapira is a researcher and pediatrician with CDC's National Center on Birth Defects and Developmental Disabilities. He's joining us today to discuss ways to improve the chances of giving birth to a healthy baby. Welcome to the show, Stuart.

[Dr. Shapira] Thank you, Bob. It's quite a pleasure to be here.

[Dr. Gaynes] Stuart, let's start with what are birth defects?

[Dr. Shapira] Well, birth defects are problems with the structure of organs or parts of the body, such as the heart, the brain, the face, the arms, or the legs. These problems with the structure lead to problems with function, like how the organs or body parts work. Birth defects occur during the pregnancy, usually in the first two months of a pregnancy, so they're present before the baby's born.

[Dr. Gaynes] What are the most common types of birth defects?

[Dr. Shapira] The most common types are defects of the heart, which occur in about one in one hundred babies. Other common birth defects are gaps in the upper lip or in the palate, which is the roof of the mouth. These birth defects are known as cleft lip and cleft palate and they occur in about one in six hundred babies. Another common type of birth defect is known as a neural tube defect. This defect occurs in the brain or the spine; they don't form correctly and they protrude out through the skull or the backbone. These neural tube defects occur in about one in fifteen hundred babies. There are many other types of birth defects but most are less common than heart defects, cleft lip and cleft palate, and neural tube defects.

[Dr. Gaynes] What are the impacts of these birth defects?

[Dr. Shapira] Well, birth defects are common, but they're also critical and costly. They're critical because birth defects are a leading cause of infant death. In fact, every year, birth defects cause one in five infant deaths. Birth defects are costly because of the amount of

medical care needed. Babies with birth defects usually need surgery to try and correct the birth defects. Often, it takes more than one surgery, and sometimes several surgeries are necessary. In the US, the total hospital cost to care for children with birth defects exceeds \$2.6 billion every year. Even after surgery, children with birth defects often have lifelong physical, and sometimes intellectual, disabilities and challenges. These challenges, as well as the many hospitalizations and surgeries impact the entire family.

[Dr. Gaynes] Stuart, what are the leading risk factors for birth defects?

[Dr. Shapira] Some birth defects are caused by genetic changes in genes or chromosomes. Other causes of birth defects are known as environmental causes. These are certain things that the baby is exposed to in the mother's womb during the pregnancy. One type of environmental cause is certain drugs, or medications. However, in many instances, we don't know the exact cause of a birth defect but we do know that some women have a higher chance, or a higher risk, to have a baby with a birth defect. Specifically, it's women who smoke cigarettes or drink alcohol during their pregnancy, women who are obese, and women who have diabetes that's not well treated during their pregnancy. In addition, women who are deficient in one of the B vitamins, known as folic acid, have a higher chance to have a baby with a birth defect, particularly one of the neural tube defects.

[Dr. Gaynes] How can a woman *improve* her chances of giving birth to a healthy baby?

[Dr. Shapira] There are specific things that a woman can do to lower her risk of having a baby with a birth defect. However, since most birth defects occur during the first two months of pregnancy, which is often before a woman realizes that she's actually pregnant, these behaviors should start even before a woman becomes pregnant and continue throughout the pregnancy. Number one – don't smoke. Number two – don't drink alcohol if you're pregnant or planning to become pregnant. Number three – if you're overweight, work to reach a normal weight before becoming pregnant. Number four – if you have diabetes, get treatment and keep your blood sugar under control. And number five – talk with your health care provider about prescription and over-the-counter medications, as well as herbal supplements that you're taking in order to make sure that you're taking the safest medications for both you and your baby. And finally, get at least 400 micrograms of folic acid every day from foods or from a multivitamin or a combination of foods and a vitamin.

[Dr. Gaynes] What types of foods contain folic acid?

[Dr. Shapira] Well, green leafy vegetables, like spinach, are a good source, as are beets, lentils, peas and beans, eggs, broccoli and asparagus, and some fruits, like oranges and cantaloupes. However, a woman has to eat a lot of these foods to get the recommended daily amount. In the US, breakfast cereals and breads are enriched with folic acid to make it easier for a woman to get the recommended daily amount. However, one should still check food labels.

[Dr. Gaynes] Stuart, where can listeners get more information about birth defects?

[Dr. Shapira] Listeners can go to cdc.gov/birthdefects, where ‘birthdefects’ is one word. On the website is a wealth of information on the causes of birth defects and what couples can do to improve their chance to have a healthy baby.

[Dr. Gaynes] Thanks, Stuart. I’ve been talking today with CDC’s Dr. Stuart Shapira about ways to prevent birth defects.

Remember, women can greatly improve their chances of giving birth to a healthy baby by consuming 400 micrograms of the B vitamin, folic acid, every day before and during pregnancy; maintaining a healthy weight; controlling diabetes; and abstaining from alcohol and tobacco during pregnancy.

Until next time, be well. This is Dr. Robert Gaynes for *A Cup of Health with CDC*.

[Announcer] For the most accurate health information, visit www.cdc.gov or call 1-800-CDC-INFO.