

CDC's National Birth Defects Prevention Study

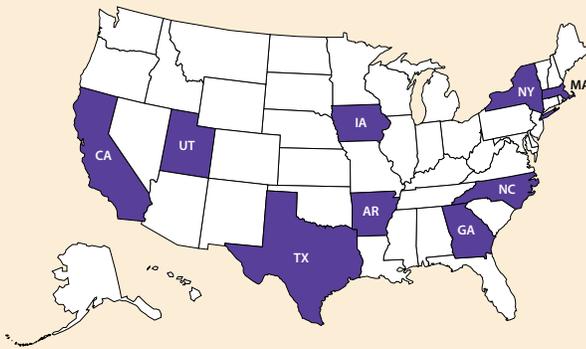
- Established by Congress in 1996, nine study sites in the U.S. currently collaborate on the National Birth Defects Prevention Study.
- The National Birth Defects Prevention Study is the largest, population-based U.S. study looking at potential risk factors and causes of birth defects.

Understanding Birth Defects

- **One in every 33 babies in the U.S. is born with a birth defect.**
- **Birth defects are a leading cause of infant mortality in the U.S., accounting for 1 in 5 infant deaths.**
- **In the U.S. each year, the total costs for hospital care of children with birth defects exceed \$2.6 billion.**
- **Babies who survive and live with birth defects are at increased risk for many lifelong physical, cognitive, and social challenges.**



CDC-funded National Birth Defects Prevention Study Centers, 2012



Researching Birth Defects

The Centers for Disease Control and Prevention (CDC) funds and coordinates the Centers for Birth Defects Research and Prevention. CDC collects data along with researchers in these centers across the country to collaborate on the National Birth Defects Prevention Study. Participating sites have included Arkansas, California, Georgia, Iowa, Massachusetts, New Jersey, New York, North Carolina, Texas, and Utah. Each center collects data and conducts research to identify the causes of and risk factors for birth defects and suggests areas for further investigation.

Importance of the National Birth Defects Prevention Study

The size and scope of this study provides the nation with a vast resource to look at possible causes of birth defects. The valuable information we get from the study guides development of effective programs to prevent birth defects. Study findings include the following preventable risk factors for major birth defects:

- **Diabetes and Obesity:** Women who have poor control of diabetes or who are obese prior to and at the time of pregnancy have an increased chance of having a baby with a birth defect.
- **Smoking:** Women who smoke during pregnancy have an increased chance of having a baby born with certain birth defects such as cleft lip.
- **Medications:** Certain medications a woman takes before or during pregnancy can increase the risk for birth defects.

These issues are particularly important given the significant increase in the number of women of reproductive age who are obese or have diabetes. In addition, the average number of medications used in pregnancy has increased over time, despite the limited data available on the safety or risk of specific medications.

Now is the time for action. CDC's greatest strength is our ability to rapidly translate findings into prevention strategies to impact the most people. Because of our recent findings on diabetes, obesity, smoking, and medications, we are poised to develop and implement effective ways to reduce, control, and modify the risks associated with these exposures so that more babies are born healthy.

National Birth Defects Prevention Study

Researchers from the National Birth Defects Prevention Study provide expertise in key specialty areas such as medication use during pregnancy, environmental exposures, and genetic risk factors. This research can be used to develop recommendations, laws, messages, and programs to prevent birth defects.

Arkansas

The Arkansas center leads efforts to study genetic risk factors for congenital heart defects. Congenital heart defects are the most common type of birth defect, affecting nearly 1% of infants born in the U.S.



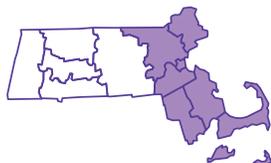
Georgia (CDC)

The CDC provides technical and administrative support to the National Birth Defects Prevention Study. The CDC is also the site for the Georgia center which leads efforts to study fertility treatments and birth defects. Additionally the center investigates the link between occupational exposures and birth defects.



Massachusetts

The Massachusetts center leads efforts to understand the risk of medication use during pregnancy. Over half of pregnant women take at least one prescription medication during pregnancy, so it is very important to understand the risk of these medications.



North Carolina

The North Carolina center leads efforts to understand complex genetics pathways and how they relate to birth defects. The center also provides expertise on nutritional factors such as dietary fat intake and their association with birth defects.



Utah

The Utah center leads efforts to understand the risk of maternal infections during pregnancy, particularly in relation to congenital heart defects and gastroschisis. Gastroschisis is a serious birth defect in which the intestines are outside of the infant's body.



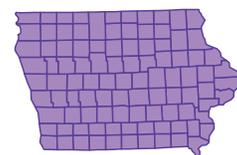
California

The California center leads efforts to study the nutritional and hormone-related causes of birth defects. Diet is complex—the center has investigated many nutrients for their potential to prevent birth defects.



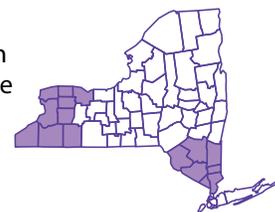
Iowa

The Iowa center leads efforts to understand the causes of cleft lip and cleft palate and conducts studies of longer term outcomes among affected children. This center also explores the possible agricultural exposures, such as pesticides, during pregnancy.



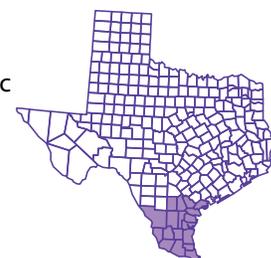
New York

The New York center leads efforts to understand the relationship between chronic diseases a mother might have during pregnancy and birth defects. These chronic diseases include hypertension, asthma, and thyroid disorders.



Texas

The Texas center leads efforts to understand the higher risk for some types of birth defects among Hispanic women, such as neural tube defects (major birth defects of the brain and spine). The center is also involved in exploring environmental exposures, such as air pollution.



**For more information on NBDPS activities,
go to www.cdc.gov/birthdefects**

National Center on Birth Defects and Developmental Disabilities

For more information please contact the Centers for Disease Control and Prevention

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