

JANUARY
YELM FAMILY
MEDICINE PATIENT
NEWSLETTER



National Birth Defects Prevention Month

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Every 4 ½ minutes, a baby is born with a major birth defect in the United States. They are a leading cause of death among U.S. infants, accounting for about 20% of mortality in the first year of life. In addition, babies born with birth defects have a greater chance of illness and long term disability than babies without birth defects. January is National Birth Defects Prevention Month, a time to focus on raising awareness about the frequency with which birth defects occur in the United States and of the steps that can be taken to prevent them. While not all birth defects can be prevented, there are things a women can do get ready for a healthy pregnancy.

- **Be fit.** Eat a healthy diet and work towards a healthy weight before pregnancy.
- **Be healthy.** Avoid alcohol, tobacco, and illicit drugs. Be sure to consume at least 400 micrograms of folic acid every day before and during early pregnancy. Work to get health conditions, like diabetes, in control before becoming pregnant.
- **Be wise.** Visit a health care professional regularly. Consult with your healthcare provider about any medications, including prescription and over-the counter medications and dietary or herbal supplements, before taking

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HELPFUL HINTS IN THIS ISSUE

them. Managing health conditions and adopting healthy behaviors before becoming pregnancy can increase your chances of having a healthy baby.

As temperatures drop this winter, ten steps people can take to stay safe and warm.

1. **Layer up!** Gloves and a hat will help prevent losing your body heat.
2. **Don't forget your furry friends.** Bring pets indoors.
3. **Remember the three feet rule.** If you are using a space heater, place it on a level, hard surface and keep it least 3 feet away from flammable items.
4. **Requires supervision** – Turn off space heaters and make sure fireplace embers are out before leaving the room or going to bed.

5. Don't catch fire! If you are using a fireplace, use a glass or metal fire screen.

6. Protect your pipes. Run water, even at a trickle, to help prevent your pipes from freezing.

7. Better safe than sorry. Keep the thermostat at the same temperature day and night.

8. The kitchen is for cooking. Never use a stove or oven to heat your home.

9. Use generators outside. Never operate a generator inside the home.

10. Knowledge is power. Don't hook a generator up to the home's wiring.

National Birth Defects Prevention Study (NBDPS) About NBDPS

The NBDPS is one of the largest studies on the causes of birth defects in the United States. NBDPS researchers study information from babies born between 1997 and 2011. Over the course of 14 years of interviews, 43,000 women from 10 states took part in the study. Interviewing mothers of babies in the study stopped in March 2013, but researchers will continue to analyze this rich source of information on birth defects.

NBDPS has made key contributions toward understanding the risk of having a baby with a birth defect when specific medications are used just before and during pregnancy. Data from NBDPS have demonstrated that mothers who are obese have a much higher risk for having a baby with a number of different major birth defects. The study has also confirmed results from previous studies that found that women who smoke cigarettes during pregnancy have a higher risk of having a baby with a cleft lip, cleft palate, or both. Understanding the risks and causes of birth defects can help us prevent them. This study

provides important clues to help us in our journey to ensure that every child is born in the best possible health.

Notable NBDPS Findings

To date, more than 200 scientific papers have been published using data from NBDPS. Some examples of important findings:

Polycyclic Aromatic Hydrocarbons and Oral Clefts – Polycyclic aromatic hydrocarbons (PAHs) are chemicals formed during the burning of coal, oil, gas, garbage, or from smoking cigarettes, cigars, or pipes, or from charbroiling meat. There are many ways to come in contact with PAHs at home or at work. NBDPS researchers looked for evidence of a link between PAHs in a woman's workplace and oral clefts ([clefts of the lip and palate](#)) in their babies.

Among women interviewed for the NBDPS, researchers found that it was not very common for women to work in places with PAHs. PAH exposure occurred most often among women working in food preparation and serving. Pregnant women who worked in places with any PAHs were more likely to have babies with cleft lip with or without a cleft palate. Pregnant women who worked in places with higher PAH levels were even more likely to have babies with cleft lip than women who worked in areas with lower PAH levels. Since this was the first study to show this link, more research is needed to understand it fully.

Butalbital Use and Birth Defects

Butalbital (byoo-TAL-bi-tal) is an ingredient in some medicines (for example, Fioricet®, Fiorinal®) prescribed for the treatment of migraine and tension-type

headaches. Little is known about the safety or risk of using butalbital while pregnant. NBDPS researchers looked to see if there is a link between butalbital use and birth defects. Researchers found that butalbital use is rare among women in NBDPS. Researchers also found a link between using butalbital while pregnant and certain [congenital heart defects](#). The heart defects in the study with this link include tetralogy of Fallot, pulmonary valve stenosis, and atrial septal defects. This study is the first to show these links. More research is needed to learn more about the risks and benefits of butalbital use among pregnant women.

Genetics and Congenital Heart Defects

[Congenital heart defects](#) (CHDs) are the most common type of birth defect, affecting about one in every 100 babies born in the United States. Scientists are working hard to learn the causes of CHDs. Most CHDs are due to a complex relationship among environment, lifestyle, and genetic factors.

Using the genetic samples that NBDPS families provided, NBDPS researchers identified changes (sometimes called variants) in several genes that were linked with CHDs. Variants in four genes were found to increase the risk of heart defects. More research is needed to understand the functions of these genes and to confirm the study findings among different groups. This study is one of the first in NBDPS to study genes from babies and their mother.