



MotherToBaby

Medications & More During Pregnancy & Breastfeeding  
Ask The Experts

Fact Sheet

by the **Organization of Teratology Information Specialists (OTIS)**

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## Lead and Pregnancy

In every pregnancy, a woman starts out with a 3-5% chance of having a baby with a birth defect. This is called her background risk. This sheet talks about whether exposure to lead may increase the risk for birth defects over that background risk. This information should not take the place of medical care and advice from your health care provider.

### *What is lead and where is it found?*

Lead is a heavy metal. It can be found in many places such as cosmetics, children's & costume jewelry, old paint, gasoline, and in many types of hobbies and industry. In 1978, the United States government banned the use of paint containing lead, and they started to limit the use of lead in gasoline around 1980. Lead is still used in making pottery, and in various industries such as battery manufacturing, auto repair, and printing. Some traditional or folk medications can contain high amounts of lead, as well as some types of candy made in Mexico. Lead can leach out of pipes into drinking water. Even with attempts to limit sources of lead, lead can still be found in the ground and in water.

### *How does lead get into my body?*

Lead can be absorbed through the lungs and gut. When lead paint is sanded or disturbed it produces dust that contains lead. If you breathe in that dust, the lead can get into your lungs. It can also get into your body through the gut if you swallow lead paint chips, medications, soil, water, or other items that contain lead. Only small amounts of lead get into the body through the skin. It is important to carefully wash your body, especially hands, if you have been exposed to lead. This is to keep lead from getting into your mouth from your hands.

Because lead is found in many places in our environment, most people have small amounts of lead in their blood. When a person is exposed to lead over a long period of time or at a high level the body will store lead in the bones and teeth. Lead can stay in the bones and teeth for many years. During pregnancy and breastfeeding, lead can leave bone and move back into the bloodstream.

### *Is there anything I can do to lower my exposure to lead?*

Yes. Avoid exposure to any known sources of lead before and during pregnancy. If you are working with lead in your job or have a hobby such as making jewelry or stained glass, have your health care provider check your blood lead level.

If you are fixing up an older home you may disturb paint that contains lead. Avoid this activity, and be sure that the people working on your home are following safe procedures to protect you and your family from lead exposure.

Water from public sources is regularly tested for lead. You can get information about your drinking water from your local board of health. Houses that use well water should have the water tested regularly for lead and other possible contaminants.

Some researchers have found that a diet poor in calcium, iron, zinc, vitamin C, vitamin D and vitamin E can be associated with increased lead absorption. Therefore, it is important for pregnant woman to eat a well-balanced diet and take prenatal vitamins.

### *Is there a test to tell how much lead I have been exposed to?*

Yes, a blood lead test can be done to see how much lead is present. Although most people will have some lead in their blood, levels greater than 10 micrograms per deciliter (mcg/dL) indicate that there is some exposure at home or in the workplace that needs to be addressed. While there is no clear safe level of lead in the body, the goal is to have the lowest level possible. Women who had exposure to lead in the past should have levels checked before and during pregnancy. The Centers for Disease Control and Prevention recommend that public health actions (such as a search for

the source of lead) be initiated when blood lead levels are above 5 mcg/dL.

### ***Can lead make me sick?***

Since lead is stored in bone, it can build up throughout a person's life. In adults, very high levels of lead in the blood can cause serious health problems to the brain and the kidneys.

### ***Can lead in my body reach the baby?***

Yes, lead can cross into the baby starting at about the 12th week of pregnancy. The amount of lead in the blood of the mother and baby are almost the same.

### ***What effects could lead have on my baby?***

High levels of lead during pregnancy can cause miscarriage and stillbirth. Other pregnancy problems such as low birth weight and premature delivery can also occur.

The most serious effects of high maternal lead levels are learning and behavior problems in exposed babies. There might be mild effects on learning in babies exposed to small amounts of lead.

It is unlikely that exposure to lead during pregnancy would significantly increase the chance for major physical birth defects.

### ***Is there concern about lead if I am breastfeeding?***

A mother should not stop breastfeeding unless her blood lead level is very high (over 40 mcg/dL). Lead levels in breast milk are usually lower than levels in mother's blood. Lead may also be found in infant formulas. If also using a local water supply that has high levels of lead, baby can be exposed to lead through formula feeding. Be sure to talk to your health care provider about all your choices for breastfeeding.

### ***Is it a problem if the father of the baby is exposed to lead?***

Lead in the body can reach the sperm. High levels of lead may cause changes in the shape, size, number and movement of the sperm. This may make it harder for you to get pregnant. Fathers who work with lead can bring lead dust home on their clothes, shoes, or other items. If a pregnant woman handles these items, such as in doing laundry, she could have a direct exposure to lead.

In general, exposures that fathers have are unlikely to increase risks to a pregnancy. For more information, please see the MotherToBaby fact sheet Paternal Exposures and Pregnancy at: <http://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/pdf/>.

### ***How can I protect myself and my family from lead exposure after a hurricane or flood?***

After a hurricane or flood, lead can be found in the floodwaters. You can prevent a harmful amount of lead from getting to you or your baby by following these safety measures:

- Listen to and follow public announcements that tell you if tap water is safe to drink or to use for cooking or bathing. If the water is not safe to use, follow local instructions to use bottled water. Boiling does not remove lead
- Flooded, private water wells will need to be tested after floodwaters recede. If you suspect that your well may be contaminated with lead, contact your local or state health department.

Walking in floodwaters is not likely to cause a large exposure to lead because only small amounts get through your skin.

### **References Available By Request**

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