

Lead

This sheet is about exposure to lead during pregnancy or while breastfeeding. This information is based on available published literature. It should not take the place of medical care and advice from your healthcare provider.

What is lead and where is it found?

Lead is a heavy metal. It can be found in many places, such as soil, water, cosmetics, children's & costume jewelry, old paint, ceramic glazes, plumbing, batteries, bullets, solders, and gasoline. Lead can pass from pipes into drinking water (called leaching). Living near metal smelters or mining wasters can result in exposure to lead. Some traditional or folk medications (including Ayurvedic medicines) can contain high amounts of lead. Some types of candy can also contain lead.

Some hobbies and jobs can lead to higher levels of lead exposure. Examples include making ceramics, pottery, or jewelry, auto repair, printing, construction, stained-glass work, art restoration, welding, finishing furniture, indoor target practice, or making bullets or fishing lures. When lead paint is sanded or stripped, it gives off dust that contains lead.

In 1978, the U.S. government banned the use of paint containing lead, and the use of lead in gasoline around 1980. Even with attempts to limit sources of lead, lead can still be found in the ground and in water.

How does lead get into the body?

Lead gets into the body by breathing in lead dust, or by swallowing lead particles. Only small amounts of lead get into the body through the skin. If you have been around lead, it is important to carefully wash your body, especially your hands, to keep lead from getting into your mouth.

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 blood.

How can I lower my exposure to lead?

Avoid exposure to any known sources of lead before and during pregnancy. If you are working with lead in your job or hobbies, talk with your healthcare provider about checking your blood lead level.

If you are remodeling a home built before 1978, you could disturb paint that contains lead. To reduce your exposure, avoid removing lead paint yourself. Lead paint should be removed by professionals who are following safety procedures that 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.

A diet poor in calcium, iron, zinc, vitamin C, vitamin D, and vitamin E can be associated with increased lead absorption. It is important to eat a well-balanced diet and to take any recommended vitamin supplements.

How can I find out if I have lead in my body?

A blood lead test can be done to see how much lead is in your blood. However, this is not a routine blood test for all women who are pregnant. While most people will have some lead in their blood, levels greater than 5 micrograms per deciliter (mcg/dL) suggests that there is exposure at home or in the workplace that needs to be addressed and a search for the source of lead should be done. If you think you have been exposed to lead, talk to your healthcare provider to see if you should be tested.

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:

- 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 or use bottled water. Boiling does not remove lead.
- Flooded, private water wells will need to be tested after floodwaters recede. Contact your local or state health department for water testing.
- Speak with your healthcare provider to see if a blood test is needed.
- Walking in floodwaters is not likely to cause a large exposure to lead because only small amounts get through your skin.

I have been exposed to lead. Can it make it harder for me to get pregnant?

Studies have shown mixed results. Some studies suggest that lead levels that are too high or too low might make it harder to get pregnant. Other studies suggest lead might not affect the ability to get pregnant.

Can lead in my body reach the pregnancy?

Lead can cross the placenta and reach the developing fetus. The amount of lead in the blood of the woman who is pregnant and the fetus is almost the same. It is not known how early lead can reach the fetus in pregnancy, but reports have documented lead in a fetus as early as the end of the first trimester.

Does having lead exposure increase the chance of miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. Several studies have reported links between high blood levels of lead during pregnancy and miscarriage.

Does having lead exposure increase the chance of birth defects?

Every pregnancy starts out with a 3-5% chance of having a birth defect. This is called the background risk. Lead exposure in pregnancy has not been associated with an increased chance of physical birth defects.

Does having lead exposure increase the chance of other pregnancy-related problems?

Other problems have been reported with lead exposure in pregnancy, such as low birth weight (weighing less than 5 pounds, 8 ounces [2500 grams] at birth), preterm delivery (birth before week 37), poor growth, preeclampsia (high blood pressure and problems with organs, such as the kidneys) that can lead to seizures (called eclampsia), and stillbirth.

Does having lead exposure in pregnancy affect future behavior or learning for the child?

Lead exposure during pregnancy can have effects on the fetal brain. This can cause learning and behavior problems for the child.

Breastfeeding and lead exposure:

Lead levels in breast milk are typically lower than the levels in the mother's blood. Breastfeeding recommendations vary based on the amount of lead in the mother's blood. It has usually been recommended for a woman with blood lead levels under 40 mcg/dL to continue breastfeeding. However, the infant's blood lead levels might also need to be checked to be sure their levels are not too high.

Lead might also be found in infant formula, or in contaminated water that is used to mix formula. To reduce exposure to lead through water, use bottled/distilled water or, if using tap water, allow it to run for three minutes before using. Be sure to talk to your healthcare provider about all your breastfeeding questions.

If a man has exposure to lead, can it make it harder to get a woman pregnant or increase the chance of birth defects?

Lead in the body can reach the sperm. High levels of lead might cause changes in the shape, size, number, and movement of the sperm. This might impact fertility (ability to get a woman pregnant). People who work with lead can bring lead dust home on their clothes, shoes, or other items. If a woman who is pregnant handles these items, such as

when doing laundry, there could be direct exposure to lead. For more information about paternal exposures, please see the MotherToBaby fact sheet at <https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/>.

Please click here to view references

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at [MotherToBaby.org](https://mothertobaby.org).

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