



## **HAZARDOUS CHEMICALS**

This podcast is presented by the Centers for Disease Control and Prevention. CDC – safer, healthier people.

Chemicals are a part of our daily lives, providing many products and modern conveniences. Some hazardous chemicals are used in industry; for example: chlorine, ammonia, and benzene. Others are found in nature, such as poisonous plants. Some can also be made from everyday items, such as household cleaners.

With more than three decades of experience, the Centers for Disease Control and Prevention has been in the forefront of efforts to protect and assess people's exposure to environmental and hazardous chemicals; as a result, CDC can measure the amount that actually gets into people from all environmental sources, such as air, soil, water, dust, or food.

Just because people have an environmental chemical in their blood or urine does not mean that the chemical causes disease. The toxicity of a chemical is related to its dose or concentration in addition to a person's individual susceptibility.

Two chemicals found in the human body, nature, and the environment, that fall into this category, are lead and mercury. For some chemicals, such as lead, research studies provide a good understanding of health risks. Lead is a soft, heavy, blue-gray metal. It occurs naturally in the earth's crust, and human activities, such as burning fossil fuels, mining, and manufacturing, have spread it throughout the environment, including our homes and workplaces. Exposure to lead should be avoided. Lead is highly toxic to humans, especially young children. It has no known physiologic value to the human body. Nearly half a million children living in the United States have blood lead levels high enough to cause irreversible damage to their health. Because of these health concerns, great effort has been undertaken in the United States over the last two decades to remove lead from gasoline, paints, and many other products. However, lead is still found in ammunition, some batteries, and medical and scientific equipment. Because lead does not breakdown or decompose, lead from past products, such as old paints and discarded batteries, remains in the environment.

Here are some helpful tips to protect your family:

- If you rent, notify your landlord of peeling or chipping paint.
- Clean up paint chips immediately, using a mop, sponge, or paper towel with warm water and a general all-purpose cleaner or a cleaner made specifically for lead.
- Thoroughly rinse sponges and mop heads after cleaning dirty or dusty areas.
- Wash children's hands often, especially before they eat and before nap time and bed time.
- Keep play areas clean. Wash bottles, pacifiers, toys, and stuffed animals regularly.

- Keep children from chewing window sills or other painted surfaces.
- Make sure children eat nutritious, low-fat meals high in iron and calcium, such as spinach and dairy products. Children with good diets absorb less lead.

Mercury is a naturally occurring element and exists in various forms. The most common way people in the United States are exposed to mercury is by eating fish containing methylmercury. Other exposures may result from using or breaking products containing mercury. Most people have at least trace amounts of methylmercury in their tissues, reflecting its widespread presence in the environment. The factors that determine how severe the health effects are from mercury exposure include:

- the chemical form of mercury;
- the dose;
- the age of the person exposed, with the fetus being the most susceptible;
- the duration of exposure;
- the route of exposure, such as inhalation, ingestion, or dermal contact; and
- the health of the person exposed.

CDC is committed to decreasing the threat from exposures to hazardous chemicals through increased awareness and education.

To access the most accurate and relevant health information that affects you, your family and your community, please visit [www.cdc.gov](http://www.cdc.gov).