



## How to Reduce Your Exposure to **ARSENIC & LEAD IN SOIL**

**You can protect yourself and your family from coming into contact with arsenic and lead in soil.**

### **Why is exposure to arsenic and lead a concern?**

Arsenic and lead are naturally found in soil. The amount, or levels, of lead and arsenic in soil vary depending on the region. Natural processes, like weathering, or human processes, like mining or agriculture, can expose a person to unhealthy levels of arsenic or lead.

At high doses, arsenic exposure can cause skin problems, abdominal pain, and nausea. Over many years, arsenic exposure also raises the risk of bladder, lung, liver, and skin cancers. Lead exposure at high doses can cause anemia, abdominal pain, muscle weakness, and damage to the brain and kidneys. In children, even low doses of lead can affect IQ, ability to pay attention, and cause behavioral problems.

### **How can you be exposed to arsenic and lead?**

Not all arsenic or lead present in soil is in a form that can harm your health. A contaminant must be able to move into the body (exposure) and then be absorbed inside the body to have an effect on health. Routes of exposure to arsenic or lead in soil include:

- Swallowing contaminated soil and dust (especially for children, who put objects and hands in their mouths).
- Eating unwashed foods grown in contaminated soil.
- Breathing in soil particles or dust.
- Absorbing contaminants through the skin (low risk).

### **What are the health effects of arsenic and lead exposure?**

Symptoms of arsenic exposure include:

- Nausea and/or vomiting
- Abdominal pain
- Diarrhea
- Skin changes (such as darkening of the skin and the appearance of warts or corns)
- Abnormal heart rhythm
- Facial swelling
- Tingling in the fingers and toes

Symptoms of lead exposure include:

- Delayed or slow learning and development
- Slowed or stunted growth
- Behavioral problems
- Hearing problems
- Damage to the brain and nervous system

## What are ways to reduce your exposure to arsenic and lead?

- Practice safe gardening. Wash and peel all vegetables and root crops that are in direct contact with soil.
- Clean tools, gloves, and shoes before bringing them indoors.
- Bathe pets that go outside regularly.
- Wash hands after handling soil.
- Use wet mopping/dusting indoors.
- Be aware of other possible lead sources (e.g. drinking water, lead paint).

## Are there medical tests to show if you have been exposed lead and arsenic?

### Lead

Most lead poisoned children do not act or look sick. The only way to know if your child has lead poisoning is to have a blood lead test. Children 6 years and younger are more likely to have lead poisoning. If you think a child of any age has come in contact with lead, then ask your doctor to test that child's blood for lead.

### Arsenic

A urine test for arsenic is the most reliable test to show if you have been exposed in the last few days. Tests on hair and fingernails can measure exposure to high levels of arsenic over the past 6-12 months. These tests can determine if you have been exposed to above-average levels of arsenic. They cannot predict whether the arsenic levels in your body will affect your health.



The only way to know if your child has lead poisoning is to have a blood lead test. If you think a child of any age has come in contact with lead, then ask your doctor to test that child's blood for lead.

## Helpful Resources

Agency for Toxic Substances and Disease Registry  
[www.atsdr.cdc.gov](http://www.atsdr.cdc.gov)

## For More Information

**Georgia Department of Public Health**  
Environmental Health Section  
Chemical Hazards Program  
(404) 657-6534  
[www.dph.georgia.gov/chemical-hazards](http://www.dph.georgia.gov/chemical-hazards)

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