



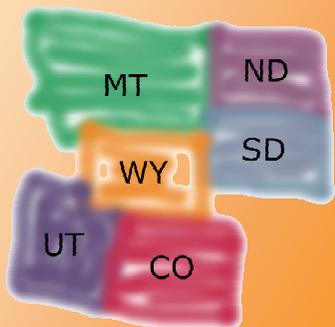
## Pediatric Environmental Health Specialty Unit

A Network of Experts in Children's Environmental Health

Denver Health & Hospital/ Rocky Mountain Poison & Drug Center/ National Jewish Medical & Research Center, Denver, CO

# Arsenic Information & Resources

The Rocky Mountain Region Pediatric Environmental Health Specialty Unit serves Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.



## Arsenic Is Dangerous To Children...

All poisons can affect children differently. Infants and young children are more likely to place contaminated objects into their mouths and they are known to consume greater amounts of arsenic for their body size. Children are also less able to eliminate arsenic from their bodies. Together with their developing brains and nervous systems, children are more vulnerable to the effects of arsenic than adults.

## What Is Arsenic?

Arsenic is a metal found in small amounts within nature. Most forms of arsenic do not have a special taste or smell. Arsenic is used in some pesticides, herbicides (weed killers), and wood preservatives. High levels in food or water can be harmful or fatal.

## Where Is Arsenic Found?

Arsenic is found in two different forms within nature: organic and inorganic. The less toxic organic arsenic is found in plants and animals. The more toxic inorganic arsenic is found mixed with oxygen, chlorine, and sulfur. In the Rocky Mountain region, arsenic can be found in copper and lead ores.

## How Does Arsenic Enter The Body?

Children can get arsenic in their bodies if they:

- Breathe sawdust or smoke from burning wood that contains arsenic
- Eat soil, drink well water or breathe dusts in areas where arsenic is naturally present at high levels or arsenic pesticides have been used
- Breathe cigarette or tobacco smoke

## Should Your Children Be Tested For Arsenic?

Tests can measure exposure to arsenic. The test cannot predict whether or not harmful effects from the exposure will occur. These tests are not commonly performed in a doctor's office.

## Common Sources of Arsenic

- Soil (especially in mining areas)
- Well water (in areas with arsenic in soil)
- Pesticides
- Herbicides
- Wood preservatives
- Treated wood (especially if unsealed)
- Things made from unsealed treated wood (decks, swing sets, wood chips, etc.)
- Cigarettes and tobacco smoke
- Seafood (though mostly non-toxic arsenic)
- Red wine

## How Does Arsenic Affect Children?

High levels of arsenic in food or water can be fatal. Arsenic damages many tissues including nerves, skin, stomach and intestines. Breathing high levels of arsenic can cause sore throat and lung irritation. Lower levels of arsenic may cause nausea and vomiting, anemia, abnormal heart rhythms, damage to blood vessels, or a 'pins and needles' sensation in the hands and feet. Direct skin contact may cause redness and swelling. Long-term exposure to some forms of arsenic can lead to darkening of the skin and the appearance of small warts on the palms, soles, and body. Arsenic is known to increase the risk of lung cancer, skin cancer, bladder and kidney cancer, and liver cancer.

## What Can You Do To Protect Your Family?

If you suspect your home or living area have arsenic hazards (in the soil), you can take immediate steps to protect your family:

- Wash hands and toys, and wet mop/dust your home often.
- Choose wood preservatives or treated wood that do not contain arsenic.
- Seal arsenic treated lumber with an oil-based sealant.
- Do not allow children to play in soil if it contains high levels of arsenic.
- Do not allow your children to play on or around unsealed, treated wood structures (which may contain copper chromated arsenate preservatives).
- Do not garden in or around wood structures containing these preservatives.
- Protect your children from exposure to cigarette and tobacco smoke.
- Have well water tested for arsenic if you live in an area with high levels of arsenic in the soil.

## Where Can You Get More Information On Arsenic?

### The Agency for Toxic Substances Disease Registry (ATSDR)

- 1-888-42-ATSDR

### The EPA's Safe Drinking Water Hotline

- Call 1-800-426-4791 for information about drinking water.

### The Consumer Products Safety Commission Hotline

- 1-800-638-2772

### Local Poison Center

- Call 1-800-222-1222 if you think your child may have been exposed to arsenic.

### Local Public Health Department

- Colorado Dept of Public Health & Environment  
1-800-886-7689
- Montana Department of Environmental Quality  
406-444-2544
- North Dakota Department of Health  
701-328-5150
- South Dakota Department of Environment & Natural Resources  
605-773-3151
- Utah Department of Environmental Quality  
801-536-4400
- Wyoming Department of Environmental Quality  
307-777-7758

**CALL ANYTIME FREE!**  
**1-877-800-5554**

Rocky Mountain Pediatric Environmental Health Line



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