

# What Can I Do To Reduce my Exposure To Soil in my Yard?

## WHAT DOES IT MEAN TO BE EXPOSED?

In order to be exposed to chemicals in soil, you need to come into direct contact with soil that is contaminated and the chemicals need to get into your body. There are several ways you could be exposed to chemicals in soil in your yard:

- ◆ Ingestion
  - ⇒ Putting items into your mouth that have soil on them such as fingers, food, or toys.
  - ⇒ Eating food grown in contaminated soil that has not been completely washed or that has absorbed chemicals from the soil.
- ◆ Inhalation: breathing in soil dust
- ◆ Dermal: skin contact with soil



## WHAT THINGS CAN I DO TO REDUCE MY CONTACT WITH SOIL IN MY YARD?

- ◆ Discourage children from playing in bare soil if possible, and make sure they wash their hands after playing outside, especially before eating.
- ◆ Bare soil areas beneath play equipment can be covered with mulch or clean topsoil.
- ◆ Clean up dirt that is tracked into the house. Use a wet mop whenever you can since sweeping or vacuuming can stir up dust into the air.
- ◆ Pets can bring dirt inside on their paws or fur. Try to keep pets clean.
- ◆ Consider using raised beds for gardening. Follow other gardening advice provided in CTDPH's fact sheet entitled "Growing and Eating Fruits and Vegetables in the Newhall Neighborhood of Hamden."
- ◆ Wash toys before bringing them into the house, or leave them outside.



## FOR MORE INFORMATION:

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## WHAT CONTAMINANTS HAVE BEEN FOUND IN SOIL IN THE NEWHALL NEIGHBORHOOD?

There are three main contaminants that have been found at elevated (higher than normal) levels in soil in some yards. These contaminants are **lead, arsenic and polycyclic aromatic hydrocarbons (PAHs)**.

Some **general** information about health effects from exposure to these chemicals is provided below. This information is not meant to imply that the health effects mentioned would be expected to occur among Newhall neighborhood residents.

### LEAD

Lead is a naturally occurring metal in the environment. However, most of the high levels of lead found in the environment come from human activities. Lead has many uses, most importantly in the production of batteries. Because of health concerns, lead in gasoline, paints and ceramic products among others, has been dramatically reduced in recent years.

Exposure to lead is more dangerous for young children or unborn children who can be exposed to lead through their mothers. The nervous system is the most sensitive to lead exposure, particularly in children. Lead can affect a child's mental and physical growth. Children exposed to lead in the womb may be born prematurely, have lower birth weights and have slower mental development. Exposure to high levels of lead can affect the brain and kidneys of adults and children. Lead has not been shown to cause cancer in people.

### ARSENIC

Arsenic is found in nature at low levels. The major uses of arsenic are as wood preservatives and agricultural pesticides. Arsenic is very widely distributed in the environment and everyone is exposed to low levels. Long-term exposure to arsenic can increase the risk of skin, bladder, kidney, liver and lung cancer. Exposure to arsenic can also lead to skin effects such as irritation and skin darkening.

### PAHs

Polycyclic aromatic hydrocarbons (PAHs) are a group of over 100 different chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic materials like tobacco or charbroiled meat. Studies in animals have shown that PAHs can affect the skin, blood, immune system and the ability to reproduce. These effects have not been reported in people. Some people who had long-term exposures to high levels of PAHs developed skin and lung cancer. Studies have shown that some PAHs caused cancer in animals.



For more information on these chemicals, visit the website for the Agency for Toxic Substances and Disease Registry (ATSDR) <http://www.atsdr.cdc.gov>

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