

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 two main 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, toys
- Breathing in soil dust

Two more ways that exposure to soil could occur are through touching the soil or eating food grown in contaminated soil. However, these are **not** likely to be major ways of exposure for you because the chemicals we have found in the soil are not easily absorbed through the skin and do not accumulate a great deal in plants or vegetables.

If contamination has been found in the soil in your yard, there are some things you can do to reduce your contact with soil in your 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 underneath play equipment can be covered with mulch or clean topsoil.
- Wash toys before bringing them into the house, or leave them outside.

- Pets can bring dirt inside on their paws or fur. Try to keep pets clean.
- Clean up dirt that is tracked into the house. Wet cleaning is recommended, but vacuuming is ok. Try to avoid sweeping.
- Consider using raised beds with fresh soil for gardening.

For More Information

CT Department of Environmental Protection

Kari A. Lundeen
Environmental Analyst
(860) 424-3960

CT Department of Public Health

Sharee Major Rusnak
Health Assessor
(860) 509-7583

East Shore District Health Department

Jim Monopoli
Director of Health
(203) 481-4233

Town of Branford

Anthony DaRos
First Selectman
(203) 488-8394

What are the chemicals that DEP sampled for?

DEP analyzed soil samples for a wide variety of chemicals. There are three main chemicals that DEP has found at elevated levels in some areas. These chemicals are total petroleum hydrocarbons (TPHs), arsenic, and polycyclic aromatic hydrocarbons (PAHs).

PAHs:

PAH's 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 PAH's can affect the skin, blood, immune system and the ability to reproduce. These affects have not been reported in people. Some people who had long-term exposures to high levels of PAH's developed skin and lung cancer. Studies have shown that some PAH's caused cancer in animals.

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

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.

Total Petroleum Hydrocarbons (TPH):

TPH's are a large group of compounds that originally come from crude oil and the products made from it. Since TPH's can come in a variety of forms and concentrations, it is very difficult to describe health effects. At high levels, some compounds can affect the central nervous system, some can cause fatigue, headache nausea and drowsiness. Usually, if someone's exposure is eliminated, adverse effects also go away. However, some chronic exposures to high levels of TPH's can result in permanent health effects which include central nervous system damage, cancer, or birth defects.