Lumberyards are now carrying a number of safer products including wood-plastic composites and wood that is treated with preservatives that do not contain arsenic.

The soil right next to your house can be an unexpected source of chemicals. Two contaminants in particular, lead and chlordane, tend to occur in a narrow (3 foot wide) band of soil that surrounds the foundation.

How do these Chemicals Get into the Soil Around My Home?

**Lead**: Many homes built before 1978 have lead paint on the outside. As the paint weathers it chips and turns into a dust that can build up in soil. A strip of lead-contaminated soil may also exist along painted fences or sheds built on your property prior to 1978.

**Chlordane**: This is a pesticide that was used to kill termites in some homes. It was injected into the soil right next to the house foundation. Even though this was banned in 1988, levels can still be high because chlordane breaks down very slowly.

What Health Effects Can These Chemicals Cause?

**Lead**: Children’s exposure to high levels of lead in soil can increase risks for learning disabilities and other types of toxicity to the nervous system.

**Chlordane**: This chemical can cause cancer and also affect reproduction. While these effects require long-term, high-level exposures, it is wise to minimize your family’s exposure to this pesticide.

Healthy Homes: Avoiding Chemicals in Your Yard and Garden

With Information on: Pressure-treated Wood, Chemicals in Soil, Insect Repellents, and Pesticides

Enjoy Your Yard Safely!

With the coming of spring many people take to their yards to enjoy the warmer weather and catch up on outdoor chores. Children spend more time playing outdoors. While this is a welcome change, there are a number of ways you and your family might become exposed to chemicals right in your own backyard. This fact sheet outlines how to avoid these potential hazards. A more detailed fact sheet can be obtained from the Connecticut Department of Public Health web site: [Home and Garden Hazards](#).

**Seal Your Decks**

Many homes have decks, stairs, playscapes or tree houses made out of pressure-treated wood. This type of wood usually contains an arsenic-based pesticide called CCA that prevents the wood from rotting. However, some of the arsenic can leach out and form a thin layer on the surface. This can easily get onto hands and clothing. Children have the greatest potential to become exposed to this source of arsenic. Arsenic can cause cancer when taken in on a daily basis over long periods of time. Leached arsenic may also reach the soil beneath decks and playscapes.

Fortunately, wood containing CCA is being phased out and safer types of wood are coming on the market. However, there are still many decks and playscapes in people’s yards made from CCA wood. To avoid children being exposed to arsenic from these structures, it is important to:

- Seal existing structures every 1-2 years with a weather-resistant coating such as polyurethane or oil-based stains.
- Keep children and pets out of under-deck areas where arsenic may have leached in the past. Put a fresh layer of sand or wood chips under playscapes after sealing.
- Do not power wash or sand CCA structures. If you cut CCA wood for any reason, only do this outdoors, wear protective clothing, and carefully cleanup sawdust. Never burn pressure-treated wood.
- Consider using wood that doesn’t contain CCA when building a new deck, playscape or other structure in your yard. Do not use CCA-containing wood for compost bins or around garden beds.

Developed by Connecticut Department of Public Health 410 Capitol Avenue MS #11EOH PO Box 340308 Hartford, CT 06134-0308 (860) 509-7742 www.ct.gov/dph

Fact sheet developed March, 2003
Are insect repellents safe to use?
Most mosquito repellents contain DEET. This is a chemical that can keep mosquitoes and ticks from biting for a number of hours. It has been used for more than 40 years by millions of people worldwide with only a low rate of health complaints. These include skin and eye irritation, and in rare cases, effects on the nervous system (slurred speech, confusion, seizures). While rare, these latter effects appear to be more common in children, especially if the repellent was not used properly.

The following precautions ensure the safe use of insect repellents that contain DEET:
- Read and follow the label instructions.
- Use the least amount of DEET possible. A high concentration is not usually needed. Use just enough to cover exposed skin and clothing and use products that contain 10 to 35% DEET. (See below for concentration to use on children)
- Do not spray directly on face; instead spray into hands and then apply to face.
- Do not apply over cuts, wounds, or irritated skin.
- Do not use under clothing. However, you can apply it to clothing.
- After returning indoors, wash treated skin with soap and water.
- Wash treated clothing before wearing again.

These precautions are especially important for young children. In addition:
- Products used on children should contain no more than 10% DEET.
- Do not apply on hands, or near mouth or eyes of young children.
- Do not allow young children to apply it to themselves.

Other types of insect repellents are also available. In general, they contain plant-based oils such as citronella. They can be effective, but this can be more variable than with DEET.

Using Pesticides in Your Yard

Are the chemicals used on lawns and in gardens safe?
Lawn and garden care may involve the use of pesticides to remove insects, fungi, and weeds from your yard and plants. The pesticides available at the store or that may be used by a lawn care company can be safe to use if:

a) you follow label directions closely;
b) you wear protective clothing while applying;
c) children and pets are kept out of the area being treated until it is safe to re-enter – the label should state this time period;
d) unused pesticide is stored properly – this means in original container, away from children and in an area where spills are unlikely to occur.

The following precautions ensure the safe use of pesticides available at the store or that may be used by a lawn care company:

a) you follow label directions closely;
b) you wear protective clothing while applying;
c) products used on children should contain no more than 10% DEET;
d) do not apply on hands, or near mouth or eyes of young children;
e) do not allow young children to apply it to themselves;

Other types of pesticide use.

What can I do to use less pesticide and reduce the chance for exposure?
- Keep your lawn and garden healthy with good soil, proper pH and fertilizer, and watering. A healthy lawn and plants will tend to outgrow weeds and resist insects; this keeps the need for pesticides low.
- Use Integrated Pest Management (IPM) techniques – IPM is an approach where pesticides are used only when needed and in the least amounts possible to do the job.
- If using a lawn care company, make sure it is licensed and look for one that uses IPM. Keep children and pets off the lawn for the first day after pesticide application. To minimize exposure beyond that, keep the lawn intact (e.g., re-seed bare patches) and do not allow children or pets to dig in the soil.

For more information on IPM for lawns and gardens call the Connecticut Department of Environmental Protection at (800) 343-2722 and click on the button “Protecting our Environment”. The Connecticut Agricultural Experiment Station can be contacted for specific pest control questions as well as help in developing an IPM plan.

NOTE: It is also important to minimize the use of pesticides inside the home, such as bug sprays and crack and crevice treatments. You can call the Connecticut Department of Environmental Protection at the above phone number to find out how to protect your family if you need to use indoor pesticides.