Lead in soil from exterior lead paint

Advice for homeowners – Don't overlook this important health hazard

Why are we concerned about exposure to lead?

Dust or chips from lead paint can easily poison children. If children play in areas that contain lead paint chips or dust, they can get lead dust on their fingers and toys. Since children frequently put their hands in their mouth and if they have been exposed to lead dust, they will swallow lead dust. This can cause problems with learning and growth in children ages 6 years and under. Because they are vulnerable, even small amounts of lead can be harmful.

How did lead get into my soil?

The most common way for lead to get into soil is from exterior house lead paint. If your home was built before 1978, it most likely has some lead in the paint. If your home was built before 1950, the paint contains more lead. Lead paint can be a danger to your children if the paint is chipped, peeling, cracked or chalking; or when repairing or remodeling disturbs it. Approximately 37% of the one million homes in Wisconsin have some lead paint.

Due to natural weathering over time, paint dust and chips fall to the ground at the base of the home. When owners scrape off the old paint in preparation for repainting, this too can contaminate the soil. This contaminated area, known as the *drip zone* (the area where old paint dust and chips has fallen), can contain lead levels as high as some industrial contamination sites.

Keep other sources of lead such as fishing sinkers, ammunition, and solder out of reach of small children.

How do I know if there is lead in my soil?

If you have an older home and you can see paint chips in the soil next to your home, you may have a lead problem. However, the only way to know if your soil contains lead is to test the soil for lead. Many environmental testing laboratories offer lead soil testing for a small fee. They can provide you with recommendations on how to collect the sample. If you feel your soil may have been contaminated with lead but you do not wish to sample your soil, you may still take the steps listed below to reduce or prevent exposures.

- Call 1-800-424-LEAD for a list of labs and costs for lead soil testing.

What do the different levels of lead in soil mean?

When a soil sample is collected for lead the results are usually reported as a number of milligrams per kilogram (mg/Kg), or parts per million (ppm). These units mean the same thing for soils. The Environmental Protection Agency (EPA) recommends that lead in soils not exceed 400 ppm in bare (i.e. no grass or gravel covered) soils where children may play, and below 1200 ppm in other parts of the yard used less by children.

In areas children play, a higher level of lead in bare soil can mean a higher risk of lead poisoning to children. If you think your soil may be contaminated with lead, keep your children out of bare soil unless you have it tested and know it is safe.

How can I reduce my family's exposure to exterior lead in soils?

There are several ways to prevent or reduce exposure to lead in soils. Homeowners will need to identify which method(s) work best for their homes:

- Locate play areas and gardens away from the drip zone of your house or garage
- Maintain healthy lawns without open bare soil areas
- Hardy shrubs can be planted around the house to keep children out of the drip zone
- Mulch, wood chips, or gravel can be used as covering over soil in the drip zone
- Walkways should consist of stepping stones, cement, or gravel to prevent tracking soil inside
- A thin layer of the most heavily contaminated soils (lead over 5,000 ppm) may need to be removed and taken to a landfill.

In cases where a lot of paint is visible in the bare soil and yard, consider the following:

- Rake up and dispose all visible chips
- Mow the grass/soil with a thatching blade and collection bag; dispose waste
- Use a HEPA vacuum to collect visible chips from the surface before other treatment options
- Install fencing that separates play areas from buildings with lead paint. This can aid as a temporary solution.

To reduce hazards from lead from automobile exhaust, maintain grass cover and discourage children from playing in areas near roadways.

What precautions should I take while working on exterior lead paint?

Because of lead contamination issues, it is important to maintain the painted surface of a home. If you need to remove lead paint from an existing surface, le ad paint should never be machine sanded, ground, or blasted (water or sand) unless the equipment is equipped with HEPA vacuum dust collection system. Never remove paint using heat or open flame. These methods generate large amounts of contamination for both residents and also poisoning of the painters.

Certified lead risk assessors and removal contractors can be hired for lead paint removal and clean up.

For more information

- Contact your local public health agency or the Wisconsin Division of Public Health (608) 266-5817.
- For a list of certified lead risk assessors and contractors, call (608) 261-6876.
- For Internet resources, including important information on addressing indoor sources of lead exposure, and contacts for your local public health agency, visit: http://www.dhs.state.wi.us/eh
- Other resources: Maintaining a Lead Safe Home, by Dennis Livingston is a good resource available through all Wisconsin public library systems. The US Department of Housing and Urban Development offers a free book, "Lead Paint Safety, A field Guide for Painting, Home Maintenance and Renovation Work." Call 1-800-424-LEAD for a copy.

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