

Lead Based Paint

Testing for lead based paint is not included in the typical home inspection. Every room in a house could have different paint products utilized through the years, so every surface would have to be tested. There are several test methods. The most common is a chemical test where the layers of paint are exposed with the provided chemical wiped on the area with a color change if lead is present. Another test method the paint is sanded, captured and taken to lab for review. The problem with both tests is they are destructive and would require many test sites to determine if lead based paint is present. The most definitive test is the use of portable x-ray fluorescence (XRF) spectrometry. The test equipment is very expensive, upwards of \$25,000. The market at this point will not support the cost of this inspection on a typical home inspection. An inspection can be coordinated, but you may get sticker shock. Testing of the soil surrounding a house for lead can be performed at a responsible cost.

Health Effects of Lead Exposure

Lead is a soft, naturally-occurring metal found in the Earth's crust. It has been shown that lead has no useful purpose in the human body, and acts as a poison (toxin). It takes the place of essential minerals such as calcium, potassium, and iron, which are vital to the making and in repairing of bones, organs and blood. Lead exposures have become a major health concern, especially in young children under the age of six. Children, due to their smaller body mass and higher metabolism, are affected by lead exposures much more severely than adults. They ingest (swallow) lead through daily hand-to-mouth activities and to a lesser extent, may inhale lead dust. Children exposed to lead may develop severe attention deficit disorders, irreversible brain injury, learning disabilities and aggressive behaviors. The symptoms of lead poisoning are often misdiagnosed for other illnesses, such as flu, colic or general malaise. It is recommended that children have a blood test for lead if they have lived in a building constructed before 1978 and are believed to have been exposed to damaged paint or associated lead dust. It is recommended that testing be done as early as 12 months of age and at 24 months.

Sources of Lead Poisoning

Since lead can be inadvertently ingested by daily activities such as eating, playing and working, It is important to understand potential sources of lead exposures. The most common places to find lead in household settings are interior and exterior paint, and contaminated dust or soil. Lead-based paint is most hazardous when it is chipping, peeling, cracking, or chalking; or applied to friction surfaces of components such as doors, windows, and floors. The action of painted surfaces rubbing together causes lead-containing paints to be ground into a fine dust. Lead dust can also be created from decaying vinyl mini blinds. Lead dust then settles on furniture, play area floors, and children's toys, where children are exposed during routine activities. Several other sources of lead in the home include lead dust brought into the home from occupational exposures, water pipes, fixtures, and joints; decorative china, "leaded" crystal, fishing sinkers, firearms ammunition, wine goblets and cosmetics. Some hobbies may also contribute to lead contamination within the home. Exposures to all sources of lead should be minimized or eliminated.

Methods to Reduce Exposure the Lead Hazards

The simplest and often most effective way to reduce lead exposures is through regular washing of hands, toys, and flat surfaces in the home with a liquid hand soap, or dish soap, and water. It is recommended that disposable cleaning materials be used to wash surfaces, so as not to re-contaminate them with a used mop, sponge, or cloth. Other ways of reducing lead hazards within the home include taking shoes off before entering living areas, letting water run prior to drinking or cooking, covering exposed soil with groundcover/mulch, and vacuuming with a High Efficiency Particulate Air (HEPA) filtered vacuum. Normal vacuums are inadequate for removing fine lead dust.

Additional Resources

For more information regarding lead poisoning and prevention, contact your local health department or one of the following resources:

National Lead Information Center:800-424-LEAD (5323)
U.S. Department of Housing and Urban Development:888-532-3547 (LEADLIST)
State of Michigan – Healthy Homes Section:866-691-LEAD (5323)

PUBLICATIONS

“Lead in Your Home: A Parent’s Reference Guide,” U.S. Environmental Protection Agency
“Protect Your Family From Lead in Your Home,” U.S. Environmental Protection Agency
“Lead Paint Safety: A Field Guide for Painting, Home Maintenance, and Renovation Work,” U.S. Department of Housing and Urban Development

Lead Based Paint Testing:

Tri-Tech Testing
<http://www.tri-techttesting.com/index.html>
248-721-8574