Choose Safe Places for Early Care and Education

Planning. Guidance. Protection.

LEAD

What is lead poisoning?

Lead affects the central nervous system and can interfere with the production of hemoglobin (which is needed to carry oxygen to cells) and with the body's ability to use calcium. Effects of excessive lead exposure include lowered IQ, learning disabilities and behavioral problems. Seizures, coma and even death can occur from very high levels of lead.

Who is at risk of lead poisoning?

Individuals of all ages can be affected by lead poisoning; however, it is a more serious threat for children. Young children and infants are more vulnerable to lead because the physical and behavioral effects of lead occur at lower exposure levels in children than in adults.

What causes lead poisoning?

Several things in and around a building can cause lead poisoning: Lead-based paint – A common source of lead exposure in young children is deteriorating paint found in older homes and buildings. Soil – Soil can be contaminated by exterior lead paint chips and dust, past use of lead-based insect sprays, or remodeling projects. This contaminated soil may be tracked inside on shoes and clothing. Air – Air may be contaminated from dust caused by sanding, scraping, or burning during removal of lead based paint. Lead contamination may also occur from living near a manufacturing plant or smelter. Jewelry – Some adult and children's jewelry has been found to contain lead. Toys – Some toys and other consumer products have been found to contain lead. Water pipes - Lead pipes, brass plumbing fixtures and copper pipes soldered with lead can release lead into tap water.

What are risk factors for lead poisoning?

Factors that may increase the risk of lead poisoning include: Age – Infants and young children are more likely to be exposed to lead than older children or adults. Children may chew paint chips. Or, children may contaminate their hands with lead and then put their fingers into their mouth. Young children absorb lead more easily than older children or adults. Living or staying in an older home or building – the use of lead-based paint was common until it was banned in 1978. Anyone using a building or remodeling a building built before 1978 is at greater risk of lead poisoning. Certain hobbies – refinishing old furniture could put a person in contact with layers of lead-paint.

What are symptoms of lead poisoning?

Initially, symptoms of lead poisoning can be hard to detect. Signs and symptoms usually don't appear until dangerous amounts have accumulated.

- Irritability
- Loss of appetite
- Weight loss
- Sluggishness and fatigue
- Abdominal pain
- Vomiting
- Constipation
- Learning difficulties

Babies who are exposed to lead before birth may show signs of lead poisoning. Symptoms in newborns include:

- Learning difficulties
- Slowed growth

Although children are primarily at risk, lead poisoning is also dangerous for adults. Symptoms in adults include:

- High blood pressure
- Declines in mental functioning
- Pain, numbness or tingling of the extremities
- Muscular weakness
- Headache
- Abdominal pain
- Memory loss
- Mood disorders
- Reduced sperm count, abnormal sperm
- Miscarriage or premature birth in pregnant women

How do you assess your building for lead?

A lead paint inspection will identify the presence of lead-based paint. Trained and certified inspectors often use an x-ray fluorescence machine commonly called "XRF," to test for lead-based paint. Paint chips can also be sent to a laboratory for testing.

What should you do to protect children and staff from lead hazards?

Recommend young children be tested for lead, even if they seem healthy

- Metal water pipes may weaken over time. Let the cold water run for two to three minutes when using tap water the first time each day. This will flush out lead or copper that may have settled over time. Do not use hot water for drinking, cooking or making formula. Metals are more likely to dissolve into hot water. It is better to run cold water and then heat it on the stove or in the microwave. For information on how to test your building's water, contact an approved laboratory (tn.gov/assets/entities/environment/attachments/wr_wq_dw_approved-commercial-labs.pdf).
- Wash children's hands, bottles, pacifiers, and toys often
- Make sure children eat healthy, low-fat foods and get calcium in their diet
- Get your building checked for lead hazards
- Regularly clean floors, window sills, and other surfaces
- Wipe soil off shoes before entering the house
- Fix surfaces in the building with peeling or chipping paint, using appropriate lead-safe building repair methods
- Take precautions to avoid exposure to lead dust when remodeling or renovating
- Don't use a belt-sander, propane torch, high temperature heat gun, scraper, or sandpaper on painted surfaces that may contain lead
- Don't try to remove lead-based paint yourself