

# AIR

## PLAYGROUND EQUIPMENT AND LEAD-BASED PAINT HAZARDS

**S**chool, park, and community playgrounds may present a potential source of lead poisoning for young children. Concerned parents, school officials and playground managers are eagerly promoting proactive efforts to provide safe playground equipment for children and to minimize potential lead-based paint hazards.

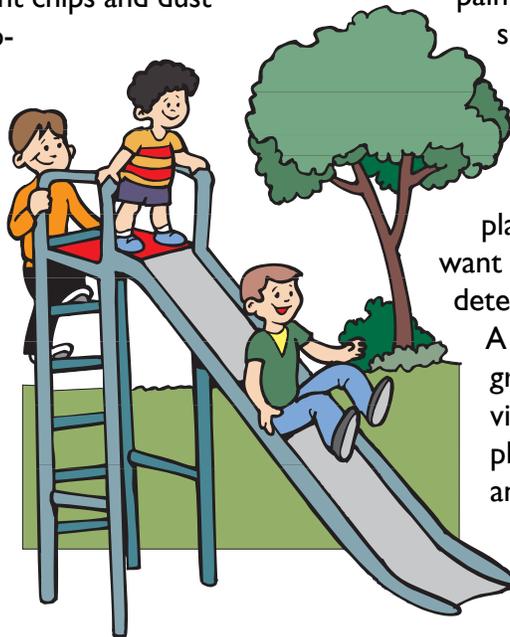


Although deteriorating paint in homes is the leading cause of lead poisoning in children, exposure to lead-based paint from playground equipment adds to the risk. Because ingestion of lead is somewhat cumulative, many seemingly unrelated mechanisms of lead exposure may combine to intensify the overall risk of lead poisoning. Symptoms of lead poisoning in children vary greatly depending on the level of lead in a child's blood and other factors such as nutrition. Common symptoms include behavioral problems, learning disabilities, hearing problems and growth retardation.

**Because** of weathering and time, lead paint on playground equipment (especially outdoors) can deteriorate into chips and dust that contain lead. Young children may ingest lead paint chips and dust by putting their hands on the equipment then placing their hands in their mouths.

**In 1978**, the Consumer Product Safety Commission (CPSC) banned the sale of lead paint for consumer use. In 1992, the United States Congress enacted the *Residential Lead-Based Paint Hazard Reduction Act* that defined lead paint as 0.5 percent lead by weight. This lead level in paint may present a hazard if inhaled or ingested. However, paint containing lead is still available for commercial and other uses and therefore may have been applied on playground equipment. Even if leaded paint is not

used today, playground equipment has typically been repainted numerous times and contains multiple layers of paint. It is possible that some of the older paint layers contain lead. As the painted surface deteriorates, children may be exposed to the deeper, older layers of possible lead containing paint.



**School officials** and playground maintenance managers may want to test the playground equipment to determine if lead-based paint is present. A lead hazard assessment for playground equipment should include a visual inspection, paint testing/sampling, characterization of the hazard and identification of a plan to establish and prioritize control measures. The condition of the paint, percentage of lead in the paint, age of the equipment, overall safety features of the equipment, and the financial resources available are all factors to be considered.

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**Deteriorating paint** that contains lead levels equal to or above 0.5 percent should be given priority whenever implementing lead hazard control measures. Officials and playground maintenance managers may want to consider long-term control measures for playground equipment coated with paint which contains lesser amounts of lead (between 0.06 percent and 0.5 percent).

**Bare soil** surrounding the playground equipment should be tested to determine if lead contamination is present. Lead contamination of soil may occur from deteriorated lead-based paint on the playground equipment itself or from unrelated sources such as a nearby highway, steel structures, local sources of lead, or previous industrial use of the property.

**To obtain lists of Oklahoma certified LBP Inspectors and Risk Assessors as well as accredited training facilities, please contact:**

**The Air Quality Divisions Technical Resources**

& Projects Section staff at: (405) 702-4100  
or write them at:  
P. O. Box 1677,  
Oklahoma City, OK 73101-1677.

**Additional sources of information include:**

CPSC hotline number 1-800-638-2772 extension 274  
for publications and pilot research results regarding lead-based paint on playground equipment (<http://www.cpsc.gov>)

**U.S. Department of Housing and Urban Developments**

Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing which contain procedures for paint and soil sampling. Please call 1-800-245-2691 (<http://www.hud.gov>)

**U.S. Environmental Protection Agency National Lead Information**

Center hotline at 1-800-LEAD-FYI for general information on lead-based paint hazards (<http://www.epa.gov>).

**Oklahoma Department of Environmental Quality**

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