

Playground Equipment and Lead-Based Paint Hazards

Schools, parks, and community playgrounds present a potential source of lead poisoning for young children. As a result, parents and school officials have been promoting efforts to provide safe playground equipment for children by minimizing potential lead-based paint (LBP) hazards.

Although exposure to deteriorating paint in homes is the leading cause of lead poisoning in children, exposure to LBP from playground equipment also presents a risk. Because the effect of lead exposure is cumulative, many seemingly unrelated exposure mechanisms may combine to increase the overall risk of lead poisoning. Symptoms of lead poisoning in children vary greatly depending on factors such as nutrition and the level of lead in a child's blood, but common symptoms include behavioral problems, learning disabilities, hearing problems, and slowed growth.

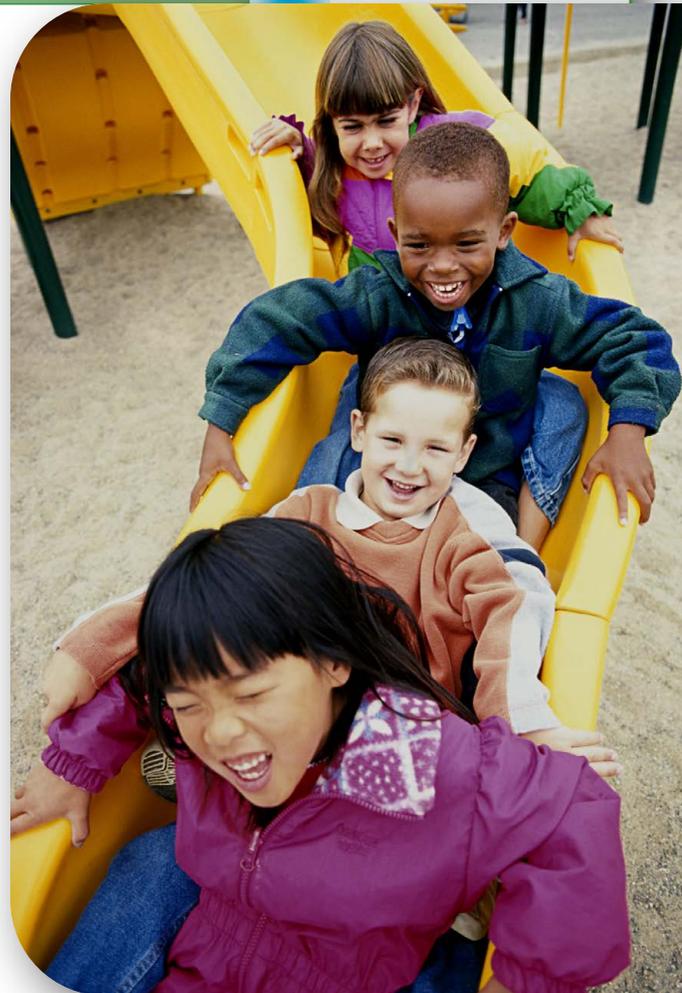
In 1978, the Consumer Product Safety Commission banned the sale of LBP for consumer use. In 1992, the United States Congress enacted the Residential Lead-Based Paint Hazard Reduction Act, which defined LBP as any paint containing at least 0.5 percent lead by weight. Paint containing lead above these levels is still available for commercial and other uses; therefore, LBP may have been applied on playground equipment after the above dates.

Over time, LBP on playground equipment can deteriorate into chips and dust that contain lead. Young children may either inhale the lead dust or ingest lead dust and paint chips by putting their hands on the equipment and surrounding ground and then placing their hands in their mouths.

Even if leaded paint is not currently used on playground equipment, the equipment may have been repainted numerous times and have multiple layers of paint, with some of the older paint layers containing lead. As the painted surface deteriorates, children may be exposed to the deeper, older layers of paint that have hazardous lead levels.

School officials may want to test playground equipment to determine if LBP is present. A Lead Hazard Risk 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.

Bare soil surrounding the playground equipment should also be tested to determine if lead contamination is present. Lead contamination of soil may come from



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deteriorated LBP on the playground equipment itself, or from unrelated sources such as nearby highways, structures, or previous property uses.

Lists of DEQ-certified LBP Inspectors, Risk Assessors, and more information may be obtained from the DEQ's LBP website <https://www.deq.ok.gov/air-quality-division/lead-based-paint/>.

More Information

For more information, please contact DEQ's Lead-Based Paint Program at 405-702-4100
<https://www.deq.ok.gov/air-quality-division/lead-based-paint/>

Additional sources of information include:

Oklahoma State Department of Health

Oklahoma Childhood Lead Poisoning Prevention Program
405-426-8311
oklppp@health.ok.gov
[Oklahoma.gov/health/LeadPrevention](https://www.ok.gov/health/LeadPrevention)

U.S. Consumer Product Safety Commission

CPSC hotline number 1-800-638-2772 ext. 274 for publications and pilot research results regarding LBP on playground equipment, <https://www.cpsc.gov>

U.S. Department of Housing and Urban Development

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

U.S. Environmental Protection Agency

Agency National Lead Information Center hotline at 1-800-LEAD-FYI for general information on LBP hazards,
<https://www.epa.gov>

