

## Avoiding Lead Exposure from Soil

Soil tests at Swann Park indicate elevated levels of lead but experts have indicated that they are not necessarily higher than levels in heavily trafficked urban areas. "Under EPA standards, lead is considered a hazard if there are greater than 400 parts per million (ppm) of lead in bare soil in children's play areas or 1200 ppm average for bare soil in the rest of the yard." <http://www.epa.gov/lead/pubs/leadhaz.htm> The average lead level from samples at Swann Park is 282, with the highest measuring 1080 ppm.

Levels this high have also been recorded in vacant lots near major roads by local researchers. The presence of lead in soil is usually related to weathering, chipping, scraping, sanding and sandblasting of structures with lead-based paint, and to leaded gasoline car emissions more than two decades ago.

Testing at Swann Park and in vacant lots in Baltimore underscore the importance of healthy practices to prevent lead poisoning from soil exposure, including:

1. Ensure that children wash their hands after playing outdoors, especially before eating meals and snacks.
2. Remove shoes or thoroughly wipe off shoes to prevent tracking of lead dust into the home.

In addition, eating meals high in calcium, iron, and Vitamin C will reduce absorption of lead in the stomach. Such foods include milk, orange juice, fortified cereals and greens. Those concerned about lead exposure should also limit foods high in saturated fats such as fried foods, potato chips, and sweets because excess fat may increase lead absorption.

Lead is harmful when inhaled or ingested and is most harmful to pregnant women and children under the age of six. Children under the age of six are most at risk for developing an elevated blood lead level and for suffering permanent harm from lead. Even low levels of lead are shown to contribute to reduced IQs, learning disabilities, behavioral abnormalities and kidney damage. Cognitive and growth defects also may occur in infants whose mothers are exposed to lead during pregnancy. The only way to know if a child has been exposed to lead is to have a blood lead test done. Children should be tested for lead at one and two years of age. Depending on initial lab results, follow up testing may be needed.

Some signs and symptoms of lead poisoning in children are:

- Headaches
- Excessive sleeping or hyperactive behavior
- Lose of appetite
- Abdominal pain
- Vomiting
- Constipation or diarrhea
- Permanent losses in IQ and cognitive and behavior functioning

The Childhood Lead Poisoning Prevention Program offers FREE lead testing for children under the age of six and pregnant women on Tuesdays from 1:00 pm--3:00 pm and Thursdays from 9:00 am--12:00 pm. Call 443-984-2480 for additional information.

For information about lead visit [www.baltimorehealth.org/lead.html](http://www.baltimorehealth.org/lead.html)

Baltimore City Health Department  
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