Red flag over lead in kids' blood

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Dangerous amounts of lead have been found in young Hamilton children living in the lower city.

Four of the first 20 kids checked by the public health department had enough lead in their blood to cause permanent developmental damage.

As a result, the public health department is alerting parents of children up to six years old living between the escarpment and the harbour and from Highway 403 to Parkdale Avenue to get their kids tested by calling 289-808-3811.

"We're a bit concerned," said Dr. Elizabeth Richardson, Hamilton's medical officer of health.

The early results of a city study could be a sign of what is to come as the department tests 1,300 kids to see if the soil, dust and water in their homes have exposed them to dangerous levels of lead.

The results could also be a blip, as parents most concerned about lead were the first to voluntarily bring their children in to be tested.

"They're very preliminary results," said Richardson. "Twenty is such a small number. That's why we need 1,300 kids in order to get a good accurate sample. Twenty is just a drop in the bucket of what we need to really understand what is going on."

The children had at least four times the normal amount of lead in their blood.

Three had between four and five micrograms per decilitre (100 mL) and one child was over five.

Normal would be zero to 1.5. Damage can start occurring at two micrograms per decilitre, though most public health departments don't worry until it's at least five. Hamilton's department is more cautious than most by checking into anything four or above.

"Anything four and above indicates potential significant environmental exposure," agrees Dr. Kim Dietrich, an expert in children's lead exposure at the University of Cincinnati.

Usually lead paint on the exterior and interior of homes built before 1960 is to blame, he said.

"In these older homes, you have layers and layers of lead paint in them. Over the years, they deteriorate. These lead paint residues get ground into a fine dust and this dust is very stubborn. It's very difficult to remove completely from an older home. It slops onto the floor and it slops off the exterior into the soil.

"Of course, children put their hands in their mouths, put their toys in their mouths, particularly over the first three years of life, and dose themselves with this lead. That is the major source of exposure."

Lead pipes or lead solder in plumbing can contaminate water.

Older homes could also have soil contaminated in days gone by from leaded gasoline or past industry, particularly recycling plants.

The lower city has all of these possible contaminants and that is why the public health department is testing children who live there.

They are only checking children up to six years old because beyond that age, permanent damage has already occurred.

Lead can lower IQ, interfere with learning, particularly reading, increase the risk of attention deficit hyperactivity disorder and cause a loss of brain cells that affect judgment, reasoning, memory, understanding of consequences and controlling emotions.

Children who are discovered to have high lead in their blood will have their homes checked to determine what is causing the lead exposure.

They will be followed up by a pediatrician.
The $250,000 Hamilton study is the only one of its kind in Ontario. The last time the province screened children was in 1989.

"We need to do this," said Richardson.

"If there is a problem we need to find it and address it because it's affecting our kids' health. We need to look at what we find and make some decisions about what to do."

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