

Australia's inner cities still contaminated with lead

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A research article published this week in the international journal *Environmental Pollution* contends that large tracts of land in the older inner-city suburbs of Australia's cities remain contaminated with above-acceptable levels of lead.

The national guidelines for lead levels in residential housing are currently 300 mg/kg.

The research, by PhD student Mark Laidlaw and Professor Mark Taylor, of Macquarie University, found that the soil lead contamination results from previous use of lead in gasoline and exterior paint products.

The findings have significant public health implications, Taylor said.

"The national guidelines for residential housing are 300 mg/kg. However, the number of children with blood [lead poisoning](#) in Australian inner cities is unknown due to an absence of systematic screening programs," he said.

Taylor and Laidlaw note that the prevalence of lead poisoning in many inner cities of the US (a [blood lead](#) level of greater than 10 µg/dL), is in the range of 10 to 20 per cent of children under five years of age.

Based on the similarities of large Australian and US cities, this suggests that there is a significant potential for high prevalence of lead poisoning in the older inner suburbs of Australia's major cities, Taylor said.

To eliminate lead poisoning in Australian inner cities, Laidlaw and Taylor recommend high density soil lead mapping as a first step to accurately define the full spatial extent of the problem. Secondly, the work needs to be followed with blood lead screening during the summertime in areas where soil lead concentrations have exceeded the 300 mg/kg national guidelines.

In areas where child blood lead levels are revealed to be greater than 5 $\mu\text{g/dL}$, the researchers recommend that soil should be remediated and that indoor and outdoor flaking lead paint sources be sealed to prevent further contamination of residential environments. Finally they recommend that all findings - both contamination locations and child blood [lead](#) levels in those areas - be made available to the public via the internet.

Provided by Macquarie University

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