



## **Plumbing the depths: lead in soil leads to increased crime**

[URL: <http://www.crccare.com/news/plumbing-the-depths-lead-in-soil-leads-to-increased-crime?campaign=33AD46F0-E514-11E7-88D24201C0A8012D&subscriber=FDA52C90-AFEC-11E3-8E48005056B60026> CRC Care Press release, 13 September 2017]

Children exposed to lead in soil are more likely to commit crime as young adults, an international conference in Melbourne will hear today.

Dr Mark Cave, from the British Geological Survey, will present results at the CleanUp 2017 global forum showing lead contamination in an urban area results in increased crime.

‘There is no dispute that if lead gets into the body of a young person it causes neurological effects,’ said Dr Cave. ‘If children are exposed to lead in air and soil at a young age then the impairment of their neurological development can lead to them being more likely than the rest of the population to commit crime about 20 years later.’

Dr Cave compared lead levels in soil with socio-economic information about health, wealth, employment, housing and crime in the English towns of Derby, Leicester and Nottingham. He found soil lead is associated with criminal behaviour in Derby’s urban environment, but not Leicester and Nottingham.

‘This was because the lead concentration in Derby is higher, as the river carries lots of naturally occurring lead from mineralised sources in the Peak District into the centre of town. Lead in Leicester and Nottingham seems to come from human sources and is in lower concentrations.’

Dr Cave said the levels of lead influenced crime in upper and lower socio-economic classes differently. ‘In people with not much wealth, socio-economic conditions have more effect on crime than the lead. But for people in a higher class, the lead has more effect because socio-economic factors don’t have as much effect.’



Researchers at Macquarie University found similar results in Australian populations, showing a strong relationship between childhood lead exposure and subsequent rates of aggressive crime.

Dr Cave said lead exposure can be reduced by identifying its pathway into the body. ‘Although we don’t realise it, people, especially young children, involuntarily eat 60 to 100 milligrams of soil a day. So we need to seal areas of soil with high lead content by adding topsoil or building pavement or tarmac, and then monitor how much lead is being inhaled.’

CleanUp 2017 – the 7th International Contaminated Site Remediation Conference – is organised by CRC CARE and is being held in Melbourne from 11 to 13 September. The conference program is available at [www.cleanupconference.com/program](http://www.cleanupconference.com/program).

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**Media assistance:**

Simon Torok, Scientell, 0409 844 302; [simon@scientell.com.au](mailto:simon@scientell.com.au)

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