LEAD Action NEWS

Children - Time to Check Blood Lead Levels (BLLs)

It was in the early 1900s that two doctors from Queensland (John Lockhart Gibson and Alfred Jefferis Turner) made the link between leaded household paint and lead poisoning in young children (Symeonides *et al* 2020, *Pre-school child blood lead levels in a population-derived Australian birth cohort: the Barwon Infant Study*, https://leadsafeworld.com/preschool-BLL). Gibson and Jefferis Turner also found that rainwater tanks were a source of lead exposure.

It wasn't until late last century that epidemiological studies showed that the effects lead had on impairing child development occurred at much lower levels than previously thought.

In our Model National Policy, our research showed:

> *According to Dr Valerie Hickey, of the World Bank: "UNICEF and Pure Earth [July 2020] estimate that* ***1 in 3 children*** *– or up to 800 million globally –* ***have blood lead levels at or above 5 micrograms per deciliter [µg/dL]*** *when any lead disrupts a child's neurological development and can cause premature death" (02 February 2023). Further to this, "it was estimated in 2013 that a* ***blood lead level of 1.0 µg/dL was associated with a one-point loss in IQ score****, confirming that* ***there is no lower safe threshold of exposure****" (Taylor and Lanphear 2020)....*
>
> *Even* ***maternal blood lead levels below 1 µg/dL will decrease birth weight and gestational age in the same way that smoking during pregnancy does*** *and "a 0.1 µg/dL increase in second trimester lead [is] associated with lower birth weight and pre-term birth" (Rabito et al 2014).* (https://leadsafeworld.com/model-national-policy)

This is part of why we call for a *National Blood Lead Survey* of all ages, including babies and children from 6 months of age. Children 6-48 months old are at highest risk for lead exposure due to mouthing behaviours, pica, more efficient absorption, smaller size, and larger body burden.

While we are waiting for this, The LEAD Group recommends that all children above the age of crawling have their blood lead levels tested. There is an exception - and that is for children who are in lead mining and smelting (including lead-acid battery recycling/secondary smelting) towns, and near general aviation airports. In these cases, blood lead levels should be assessed for children as young as 4 months old due to the lead inhalation pathway.

One such area is Broken Hill.

West NSW Local Health District Public Health Unit (2022) published their *Lead Report Summary 2021: Broken Hill Children Less than 5 Years Old* which identified that there are substantial differences between blood lead levels of Aboriginal and non-Aboriginal children.

As can be seen in the graph below (from this report), non-Aboriginal children (red) represent a greater proportion of children with blood lead levels below 5 µg/dL.

Whereas, in every other category, the blood lead levels of Aboriginal children (blue) exceed the levels of their non-Indigenous counterparts.

Blood lead level categories by Aboriginal status for children aged 1 to <5 years, Broken Hill, 2021

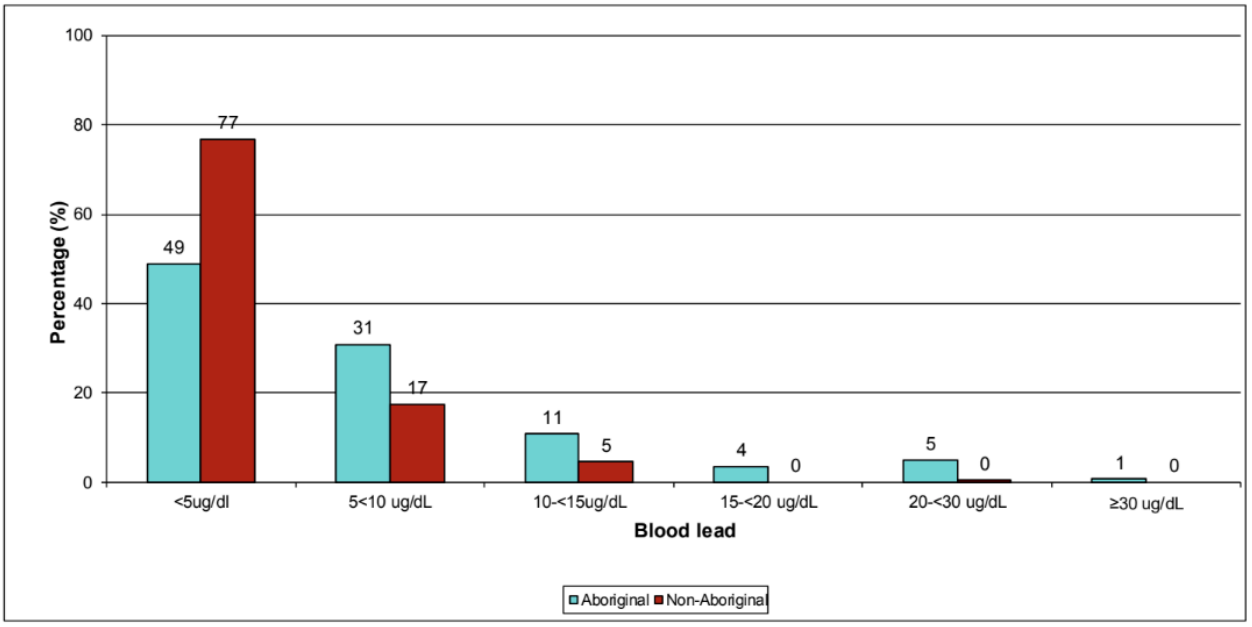

Figure 8. Comparison of Aboriginal versus non-Aboriginal aged 1 to <5 years by blood lead categories (2021).

Lead, as we know, is detrimental to health - in the short-term and in the long-term. Research published in 2018 made the point that "**Millions of Americans now entering midlife and old age were exposed to high levels of lead, a neurotoxin, as children**" (Reuben 2018, *Childhood Lead Exposure and Adult Neurodegenerative Disease*; you can read the article here https://leadsafeworld.com/Reuben).

There is so much that needs to be done to protect our children, and in turn our future - and the future of our beautiful planet.

There's an ancient Chinese saying that goes like this -

The best time to plant a tree was 20 years ago.
The second best time is now.

And, while we wait for governing bodies to get on board with lead awareness, lead poisoning prevention and more proactive measures, as outlined in our Model National Policy…

YOU can take action now.

See your GP/doctor to arrange a blood test to assess lead levels.

You can also ask for a "blood lead series" which is a referral for several blood lead tests, so you can monitor your child's progress as you address lead in the environment and other sources of lead exposure.

It's also important to be aware that lead persists in indoor dust, soil, ceiling dust, sediments and so on until it is removed. This is where our Kits come into play - you can test and we can help you address lead in your environment. (You can find them here https://leadsafeworld.com/LAN-test)

So, while lead persists, we should too!

📣 Contact your local, state and federal member of parliament to create awareness and request action.

📣 Tell your friends, family, childcare centres, schools.

📣 Create petitions to create change.

#bloodleadlevels #protectourchildren #testforleadNOW #leadpersistsSODOWE