

Why lead paint is a problem

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**World Health
Organization**

Key messages

- Lead is a persistent hazard
- Lead has wide-ranging effects on health
- Lead paint is still widely available
- There are alternatives to lead paint



What is lead paint?

- Paint to which lead compounds have been added to give certain properties e.g. colour, rapid drying
- Includes varnishes, lacquers, stains, enamels, glazes, primers, and coatings
- Used for decoration inside and outside homes and public buildings, on toys, furniture and playground equipment, on roads, bridges and other structures



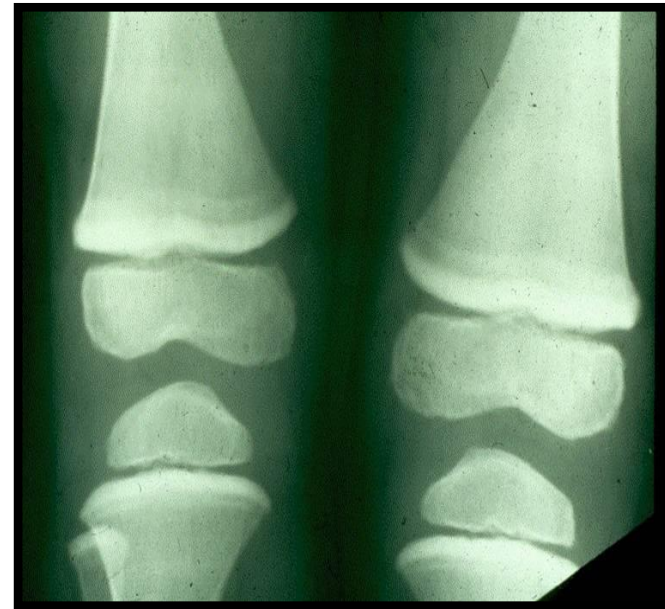
Lead persists in the environment

- Lead can be released during paint manufacture, application and removal
- Old lead paint fragments into flakes and dust that contaminate the home environment
- Lead can remain in the environment indefinitely
- Lead paint creates legacy of potential human exposure for years into the future



Lead persists in the body

- Stored in bone for many years
 - In adults 90% of body burden may be in bone
- Lead can remobilize from bone, e.g. during pregnancy, lactation and the menopause
- Affects all body systems
- No safe level of exposure to lead has been identified



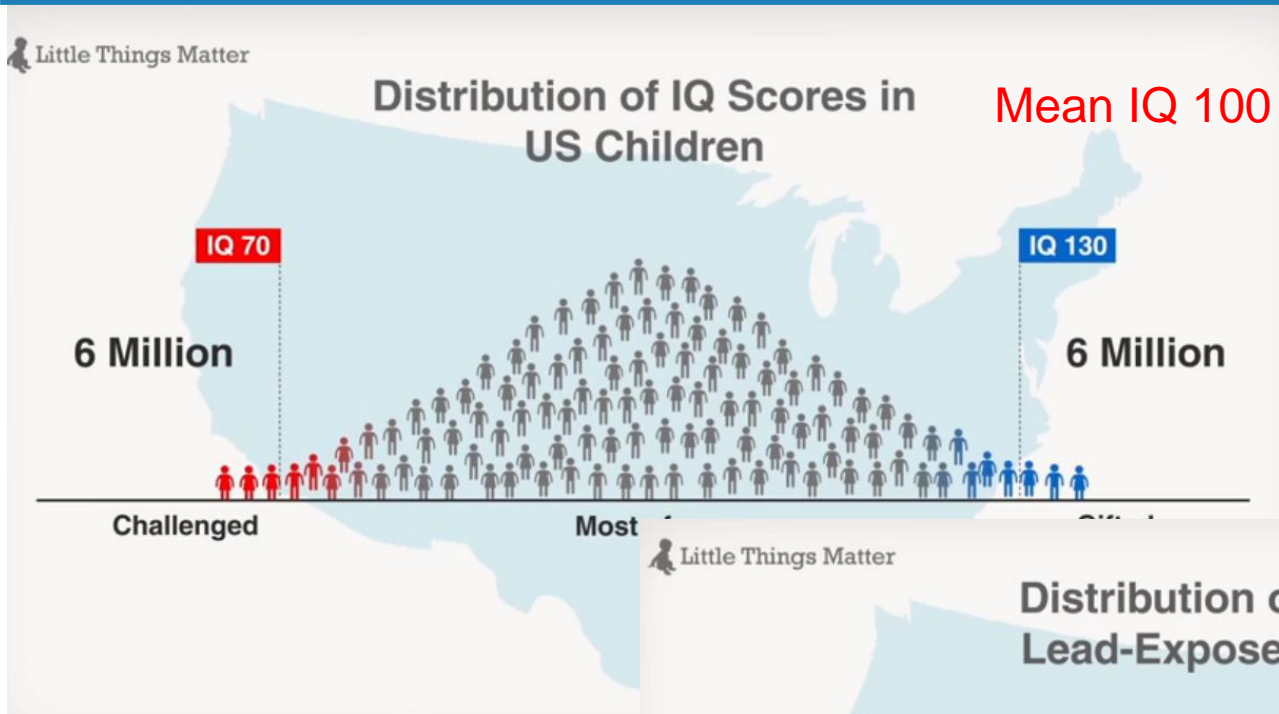
Lead lines in bone

Children are especially vulnerable

- Greater exposure:
 - hand-to-mouth activity, mouthing
 - absorb 4-5 times more lead from the gut than adults
- Early childhood is critical period for neurological and organ development
- Damage may be permanent
 - reduced potential for intellectual development
 - increased likelihood of behavioural disorders



Small IQ reduction has significant social impact



Canadian Environmental Health Atlas



Alternatives to lead are available

- Non-lead pigments and driers can be used
 - Lead-free paints are available at similar cost in countries
 - Countries with established regulatory frameworks have lower lead levels in paint
 - e.g. Uruguay – no paint exceeded 90 ppm lead
 - e.g. Chile – only 1 paint exceeded 90 ppm lead
- (UNEP/IPEN Lead in enamel decorative paints. National paint testing results in a nine country study (2013))

Conclusions

- Lead is a persistent hazard – it remains in the environment, in the home and in the human body
- Lead has wide-ranging effects on health – these have both personal and societal impacts
- Lead paint is still widely available - many countries have yet to control this
- Alternatives to lead paint are available
- Prevention is better (and cheaper) than cure!