

Special Considerations for Children

Children are uniquely vulnerable to toxic heavy metals such as lead, arsenic, mercury, cadmium, uranium, and barium. Their bodies and behaviors make them more likely to be exposed and more sensitive to harm.

Why Children Are More Vulnerable

- Children's bodies are still growing. Organs like the brain, kidneys, and nervous system are more sensitive to chemical damage than in adults. Even small amounts of heavy metals can interfere with development.
- Children drink more water, eat more food, and breathe more air per unit of body weight than adults. This means a given amount of contaminant results in a higher dose per body weight.
- Hand-to-mouth activity- young children often put their hands, toys, soil, and other objects in their mouths, increasing the risk of ingesting contaminated dust or soil.
- Less frequent handwashing- children typically do not wash their hands regularly or thoroughly, especially after playing outside or before eating.

How to Limit Exposure for Children

- Make handwashing a routine, especially after playing outdoors, before eating, and after contact with soil, dust, or pets.
- Keep your home clean with wet cleaning methods - wet mop, wet wipe surfaces, and avoid dry dusting, which can spread contaminated dust.
- Remove shoes at the door to prevent tracking contaminated soil indoors.
- If you know there is contaminated soil in your yard, add groundcover, grass, mulch, or wood chips to bare soil areas to reduce direct contact and dust generation.
- If water contamination is a concern for your household, always use filtered water when cooking, drinking, or cleaning fruits and vegetables. Filtered water should be used for making beverages or baby formulas.

Sources

U.S. Environmental Protection Agency. (2025). *Heavy metals in cultural products: Risks of exposure in children*. <https://www.epa.gov/children/heavy-metals-cultural-products#:~:text=Risks%20of%20Heavy%20Metal%20Exposure&text=For%20example%20C%20health%20impacts%20from,health%20effects%20of%20lead%20exposure> (accessed February 26, 2026) ([epa.gov](https://www.epa.gov))

World Health Organization. (2021, July 21). *Lead poisoning and health*. <https://www.who.int/news-room/fact-sheets/detail/lead-poisoning-and-health#:~:text=Lead%20causes%20long%2Dterm%20harm,fetal%20growth%20and%20preterm%20birth> (accessed February 26, 2026)