

Reduce exposure of children to **TOXIC METALS**



What is the problem

- The environment around sources of pollution, such as certain industries and mining operations, may be contaminated with toxic metals.
- Elevated exposure to metals such as arsenic (As), cadmium (Cd), mercury (Hg) and lead (Pb) may result in threats to the ecology and human health.
- Children living in homes or attending schools close to sources of pollution are at increased risk.



Many activities may increase the exposure of children to toxic metals. These include:

- Smelting operations
- Home-based/cottage industries (e.g., welding, spray painting, carpentry, car repairs, scrap metal recycling, metal jewellery making and the production of artisanal pots)
- Battery manufacturing and recycling
- Construction and demolition activities
- Agricultural activities



There are many ways in which children may be exposed to heavy metals. The following are the major exposure pathways:

- Eating with unwashed hands
- Inhalation of dust particles
- Consumption of contaminated crops or produce from residential food gardens
- Putting contaminated fingers, toys, and other objects into their mouths
- Drinking contaminated water
- A condition called pica, in which children eat non-food items, such as soil or paint.



Children may develop adverse health outcomes when exposed to even low levels of heavy metals, for example:

- Tiredness or weakness
- Muscle or joint pain
- Headaches or stomach cramps
- Loss of appetite
- Cognitive and social impacts, including learning difficulties, reductions in IQ scores or higher levels of aggression, violence and criminal behaviour
- Heavy metals may also damage the brain, kidneys, heart, nerves, blood cells and may even cause muscular paralysis, coma and death at very high concentrations.



Parents, guardians, caregivers or teachers may help reduce exposure of children to toxic metals. The following are some of the safety practices for preventing exposure to toxic metals:

- Wash children's hands often, especially before eating and after playing
- Keep children's fingernails short and clean
- Keep play areas clean and dust free
- Gently discourage children from putting soil, toys, sticks, stones or other non-food items into their mouths
- Use paint and toys with no added lead
- Greening and/or paving preschool grounds/home backyards may also help reduce exposure of children to heavy metals.