

EXPOSURE TO TOXIC METALS

FROM THE MANUFACTURING
OF CERTAIN, LIGHTWEIGHT
ALUMINIUM POTS



WHAT IS THE PROBLEM?

In recent years there has been a significant increase in the use of aluminium waste to make cooking pots in the informal sector.

A wide range of waste aluminium items, including engine parts, vehicle radiators, lead batteries, computer parts, construction material and electrical appliances, may be melted to craft cooking pots. The metals are melted at relatively low temperatures in rudimentary devices, such as metal drums, often in backyard cottage industries. The pots produced are light in weight, relatively low in cost and need less wood fuel for cooking meals, making them very popular, especially in settings where levels of affordability are low.

Research undertaken at the South African Medical Research Council (SAMRC) has shown that toxic metals such as lead and arsenic may leach from some of the pots into foods, in some instances at very high concentrations. Elevated concentrations of lead and arsenic are associated with a range of health risks, including:

- Feeling tired or weak
- Experiencing muscle or joint pain
- Having headaches or stomach cramps
- Loss of appetite
- Cognitive and social impacts including learning difficulties, poor performance at school, reduction in IQ scores
- Elevated levels of aggression, violence or criminal behaviour.
- Metals such as lead and arsenic may also interfere with normal development of the brain, kidneys, heart, nerves, blood cells and other organs.
- At very high levels of exposure, lead is associated with permanent muscular paralysis, coma and death.





WHAT YOU CAN DO TO PROTECT YOURSELF, AND YOUR FAMILY MEMBERS:

- Designate a well-ventilated area for cookware making, preferably away from living and sleeping spaces.
- Keep your workspace clean, and encourage regular handwashing for everyone involved, especially after handling materials or being in the workspace.
- Always supervise children around the work area to prevent them from touching or getting exposed to materials that could be harmful.
- Safely store all materials, tools, and chemicals out of the reach of children when not in use.
- Wear the right personal protective clothing such as gloves, masks, and goggles when handling materials, glazes, or chemicals.

For more information, visit the following links:

- <https://www.sciencedirect.com/science/article/pii/S0013935120307556>
- <https://www.mdpi.com/1660-4601/17/20/7522>
- <https://www.afsa.org.za/>
- https://tkp.tourism.gov.za/Style%20Library/Toursim%20Compendium/Compendium%20Set%202/pdfs/national-tourism- phase2_standards.pdf

