



lead poisoning

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Lead is a naturally occurring toxic metal found in the Earth's crust. It is a widely used metal that is harmful to human health and the environment. We can find Lead in dust, soil, water, air and buildings (homes, buildings, schools and playgrounds).



The sources of Lead in the environment:



lead paint



**E-Waste Recycling and
Waste Incineration**



smelting



Lead acid batteries

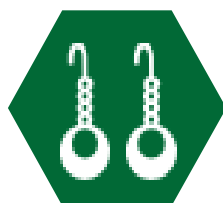


Mining

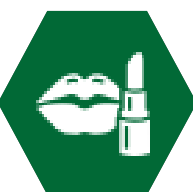


Spent Munitions

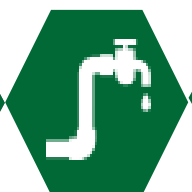
The common products that may contain Lead:



Jewelry



Lipsticks



Pipes



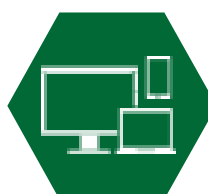
Toys



Paint



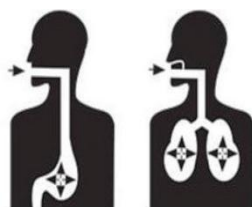
Ceramics



Electronic equipment



PVC plastics



People can become exposed to lead through occupational and environmental sources. This mainly results from: inhalation of lead particles

generated by burning materials containing lead, for example, during smelting, recycling, stripping leaded paint, and using leaded gasoline or leaded aviation fuel; and ingestion of lead-contaminated dust, water (from leaded pipes), and food (from

lead-glazed or lead-soldered containers). Important sources of Lead include environmental contamination:

- **The recycling of lead acid batteries and from poorly controlled lead mining and smelting operations.**
- **The use of lead-containing traditional remedies; lead ceramic glazes used in food containers.**
- **Lead pipes and other lead-containing components in water distribution systems, and lead paint.**
- **Leaded gasoline used to be an important source of exposure but almost all countries have now banned its use.**
- **The continued use of tetraethyl lead in some aviation fuels exposes populations around airfields to lead.**



World health organization (WHO) has identified lead as one of ten chemicals of major public health concern.



Lead in the body is distributed to the brain, liver, kidney and bones. It is stored in the teeth and bones, where it accumulates over time. Lead in bone is released into blood during pregnancy and becomes a source of exposure to the developing fetus.



Lead exposure can cause chronic health impacts in all age groups, but it is particularly harmful to young children. Lead exposure in early childhood can result in reduced cognitive abilities, dyslexia, attention deficit disorder, antisocial behavior, or mental retardation. Absorption of large amounts can cause coma, convulsions and even death.



There are economic costs resulting from lead exposure. These include health care costs in treating lead poisoning, social costs such as the need for special education to combat lead-induced intellectual impairment, and productivity losses because of reduced IQ.



The term of paint includes varnishes, lacquers, stains, enamels, glazes, primers and other coatings. Lead compounds have been added to paint for confer specific properties such as color, corrosion-resistance or to speed up drying. The lead content of paint can range from less than 90 ppm to over 100 000 ppm.

Lead paint is one of the largest sources of domestic exposure to lead for children. During lead paint decaying , it is fragmenting into flakes and dust that contaminate the home environment. Also, the removal of lead paint (home renovation or maintenance of painted structures) can result in the release of lead-contaminated dust if it is not done in a safe manner.



The elimination of lead paint will contribute to the achievement of the following SDG targets:

3.9: By 2030 substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination.

12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

The ways to protect yourself and your family from lead

exposure:



- **Wash your hands regularly.**
- **Keep your house and children's toys clean.**
- **Stay away from potentially contaminated areas.**

- **Avoid the lead paint removal during home renovation or maintenance of painted structures.**
- **Avoid buying products that may contain lead and buying cosmetics and traditional medicines only from a regulated manufacturer, as high levels of lead have been reported in some of these products.**
- **Take the old batteries and electronic back to the distributor or to a licensed recycling facility, rather than dumping or allowing them to be recycled at an informal or unlicensed facility.**

Note:

At the first time in Egypt, Ministry of environment launching an electronic application (e-TADWEER) aim to collect electronic waste from homes as a stage to invite citizens to quickly and safely dispose of hazardous electronic waste.

ماتوقفش الدائرة عندك



References:

- 1. WHO (World Health Organization)**
- 2. CDC (Center for Disease Control and Prevention).**
- 3. EPA (Environmental Protection Agency).**

