

LEAD TOXICITY

"True life is lived when tiny changes occur." –Leo Tolstoy

Lead - Basics

- Heavy metal, found at low levels in the earth's crust.
- Source of exposure: Paint, jewelry, water pipes, lead solder, lead-acid batteries, imported or antique toys painted with lead paint, imported lead-glazed pottery, crystal glassware, food containers, cookware, candies, cosmetics, recreational shooting on indoor ranges.
- Lead can leach into drinking water from lead-containing pipes, faucets, and solder found in the plumbing of older buildings. Homes built before 1986 are more likely to have lead pipes, fixtures, and solder. Newer homes may also be at risk if they are built in older neighborhoods.
- Home renovations (especially houses built before 1978) allow exposure to lead-based paint and dust.
- Gut absorption of lead is increased by deficiencies in vitamin C, calcium, iron, and zinc.

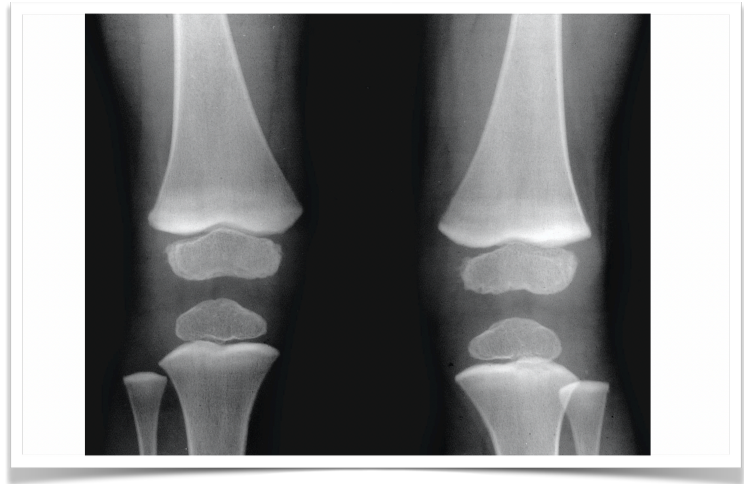


Image: Bone radiograph showing lead deposits (bright white areas).

Prevention strategies

- Lead is toxic and causes irreversible neurological damage, as well as kidney, cardiovascular, reproductive, hematological (blood), and gastrointestinal toxicity. Even low-level lead exposure can lower IQ scores, and negatively impact cognitive abilities such as learning, memory, language, vocabulary and grammatical reasoning, academic achievement, attention and behavior, etc.
- Avoid smoking, including 2nd- and 3rd-hand smoke, which is associated with increased blood lead levels.
- Home renovation involving lead-based paint should only be undertaken after proper training.
- Occupational exposure can be halted by workers showering and/or changing clothing and shoes before returning home.
- Lead exposure from drinking water can be eliminated by using filtration system certified by an independent testing organization (e.g. National Sanitation Foundation (NSF). Remember, boiling water will not eliminate lead.