Lead

Description/Chemical Forms:

Sources/Routes of Exposure:

Health Effects:

Pb is a heavy, malleable, low-melting metal that is rarely found in that form in nature. Alloys are more common and not easily subject to corrosion from wind or water.

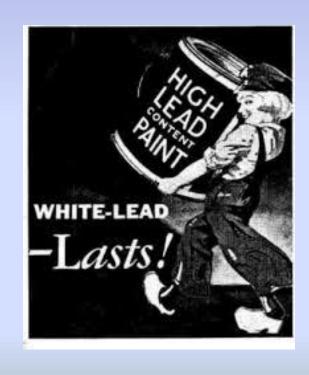
Sources: Compounds used in pipes, batteries, ammunition, cable covers, and radiation shields. Lead-based paints and leaded gasoline were used in both industrial and residential applications prior to their bans in 1978 and 1996, respectively. This chemical, while being reduced, is still in production in the US.

Main Route of Exposure:

Ingestion-soil through hand-mouth contact (ceramics and toys) drinking water retrieved from lead pipes, produce with contaminated soil, hobbies such as pottery and bullet making

Adults: approximately 99% of ingested lead will leave the body through wastes within a few weeks
Children: retain 32% of ingested lead, amounts may be higher with prolonged exposure

- Toxicity: CNS effects-decreased cognitive function and poor memory/IQ scores, Pb can cross blood brain-barrier in children under 6 and affect neurotransmitters associated with CNS functions
- Effects are irreversible



Lead

Diagnosis/Treatment Options:		Prevention Strategies:	Links for Additional
			Information:
According to the ATSDR, no safe blood		One of the best recommendations is to	More information concerning lead
lead level has been determined		identify the lead source, whether in	exposure and health effects can be
		paint, drinking water, or soil and	found at the following sites:
•	Blood: recent exposures can be	eliminate it. Advise young children not	
	detected in blood by measuring	to put their hands in their mouth when	http://www.atsdr.cdc.gov/ToxProfiles/tp
	erythrocyte protoporphyrin (EP),	playing around soil or dust that is	<u>13-c1-b.pdf</u>
	although these tests are not routine	suspected of contamination.	
	and have to be requested, or a		http://www.in.gov/isdh/19124.htm
	venous or capillary test	Encouraging proper nutrition,	
		especially sufficient calcium and iron,	http://www2.epa.gov/lead
•	Bones and Teeth: long-term	can actually reduce some of toxic	
	exposures can be detected with x-	effects of lead through less absorption	http://www.cdc.gov/niosh/topics/lead/
	rays, yet these tests are not widely	in the bloodstream	
	available in most healthcare		
	practices		