

Lead

- ⦿ Lead is a chemical element with atomic number 82 and symbol Pb (from latin: *plumbum*).
- ⦿ It is a soft, malleable, and heavy metal.
- ⦿ Lead has a bluish-white color.

Lead

82

Pb

207.2

- Lead has several properties that make it advantageous to use, alongside its commonness: high density, low melting point, ductility, and relative inertness against oxygen attack.



- Lead minerals are easier to mine and lead is easier to extract from its ores than many other metals, which makes the resulting metal relatively inexpensive.
- For example, lead is used in building construction, lead–acid batteries, bullets and shot, weights, as part of solders and as a radiation shield.

- Lead is a bluish-white lustrous metal. It is very soft, highly malleable, ductile, and a relatively poor conductor of electricity.
- Isotopes are the end products of each of the three series of naturally occurring radioactive elements.

- Lead has been commonly used for thousands of years because it is widespread, easy to extract, and easy to work with. It is highly malleable and easily smelttable.

# Compounds of lead

- ⦿ **Compounds of lead** exist in two main oxidation states: +2 and +4. The former is more common. Inorganic lead(IV) compounds are typically strong oxidants or exist only in highly acidic solutions.
- ⦿ Various oxidized forms of lead are easily reduced to the metal. An example is heating  $\text{PbO}$  with mild organic reducing agents such as glucose. A mixture of the oxide and the sulfide heated together will also form the metal.

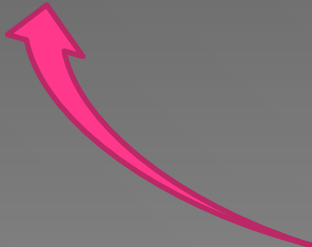




and these substances can give harmful symptoms for human health



and from these same cattle produce meat products



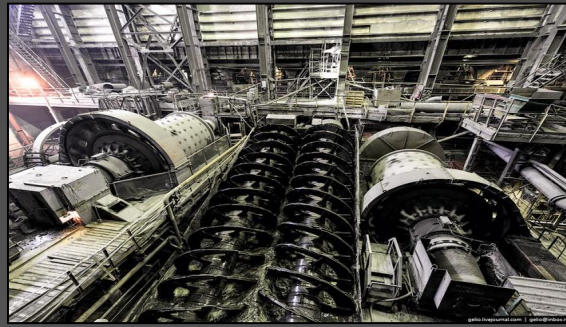
after the cattle feed on these same plants that have absorbed a hazardous waste



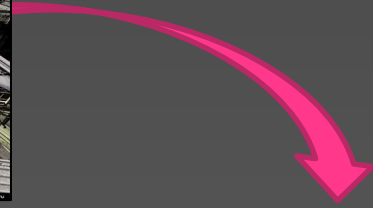
plants absorb from the soil of its substance



then from the rivers the soil absorbs the water with concentrations



from factories producing lead waste can get into the river



from factories producing lead waste can get into the river



then from the rivers the soil absorbs the water with concentrations



plants absorb from the soil of its substance



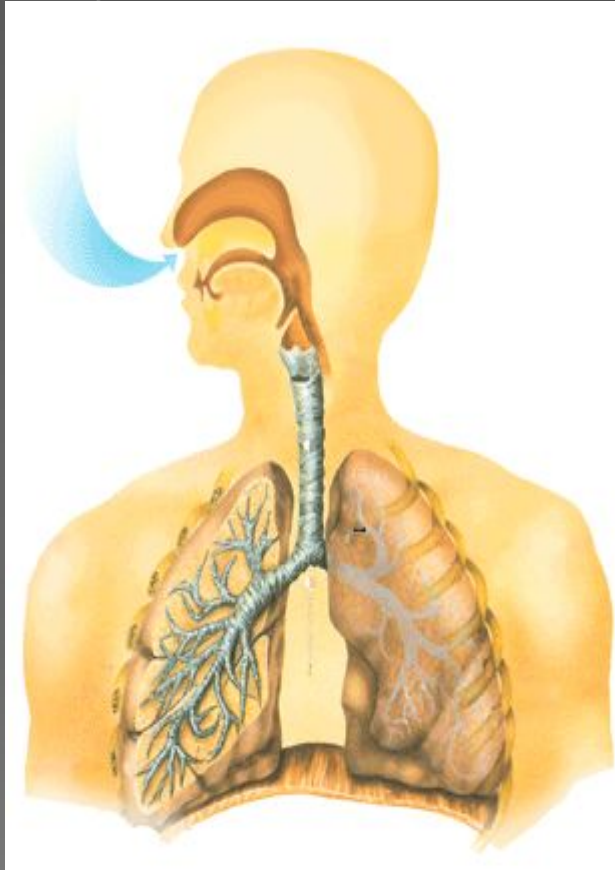
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and these substances can give harmful symptoms for human health



- Lead usually ingested by inhalation of lead-containing dust and vapors, causing the psychotropic, neurotoxic and hemolytic activities.

- Lead is a toxic substance which affects the accumulation of a number of body systems and is especially harmful to young children.
- Lead is a naturally occurring toxic metal that is found in the earth's crust. Widespread use it caused large-scale environmental pollution, the impact on people and the significant public health problem in many parts of the world.
- Lead Pollution and its compounds metallurgical industry determined by the specifics of their production activities.