

Health effects, sources of lead



Studies have shown that lead can negatively affect almost every organ and system in the body and can result in serious health problems. Lead can build up and be stored in the body, causing long-term damage to all age groups. Adults can experience decreased kidney function, reproductive problems, heart disease and high blood pressure. Low levels of lead in the blood of children can result in physical and cognitive decline, such as decreases in IQ and attention span, slow growth or learning and behavior problems. Children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Learn more about preventing childhood lead poisoning at [cdc.gov/lead](https://www.cdc.gov/lead).

Sources of lead

Lead can be found in the air, the soil, the water and inside the home. Most sources result from human activities. A few examples of sources of lead are:

- Lead-based paint
- Lead-contaminated dust or soil
- Pottery, pewter and brass fixtures
- Food
- Cosmetics
- Lead on clothing or shoes carried from work areas or certain hobbies
- Toys, playground equipment and children's metal jewelry

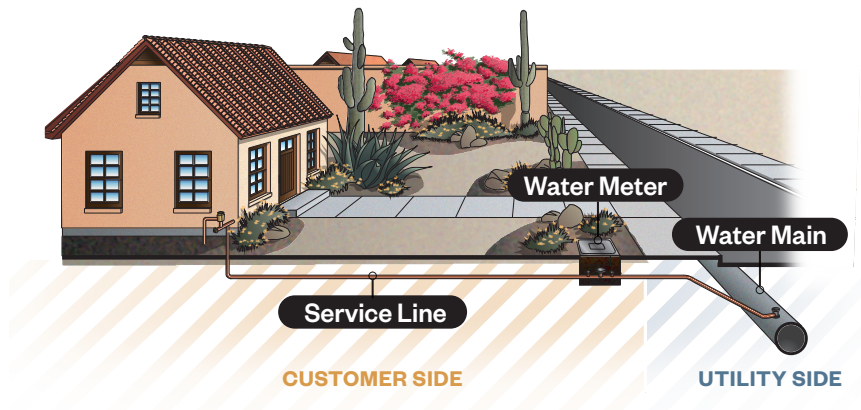
Lead in drinking water

Lead pipes are more likely to be found in older cities and homes built before 1986.

Lead is seldom found as a natural contaminant in drinking water or in Arizona's water supplies, such as rivers and lakes; however, lead can enter the drinking water because of corrosion, or wearing away, of materials containing lead in household plumbing. These materials include pipes made of lead or lead-based solder used to join copper pipe, brass and chrome-plated brass faucets. Water service lines, which connect between the water meter box and the building or home, also could be made of lead. When present, lead service lines are typically the most significant source of lead in the water. Tempe does not have record of any publicly-owned lead service lines and is currently evaluating private service line materials.

Lead leaching factors

When tap water stays in contact with plumbing and pipe materials for an extended amount of time, lead inside the piping has a greater opportunity to leach out into the drinking water. This means that the first water drawn from the tap after several hours of unuse (such as in the morning or later in the afternoon) can contain higher levels of lead.



Lead reduction steps



Tempe does not have record of any publicly-owned lead service lines and is currently evaluating private service line materials. However, galvanized iron or steel water service line materials have the potential to have absorbed lead if materials containing lead or lead solder were ever connected upstream. The presence of lead pipes, lead plumbing materials or galvanized pipes does not mean there is lead in the drinking water. Tempe customers may opt to follow lead reduction steps if concerned.

