

# Health effects, sources of lead

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or worsen existing problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these negative health effects. Adults can have increased risks of heart disease, high blood pressure, and kidney or nervous system problems.

## Sources of lead

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

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

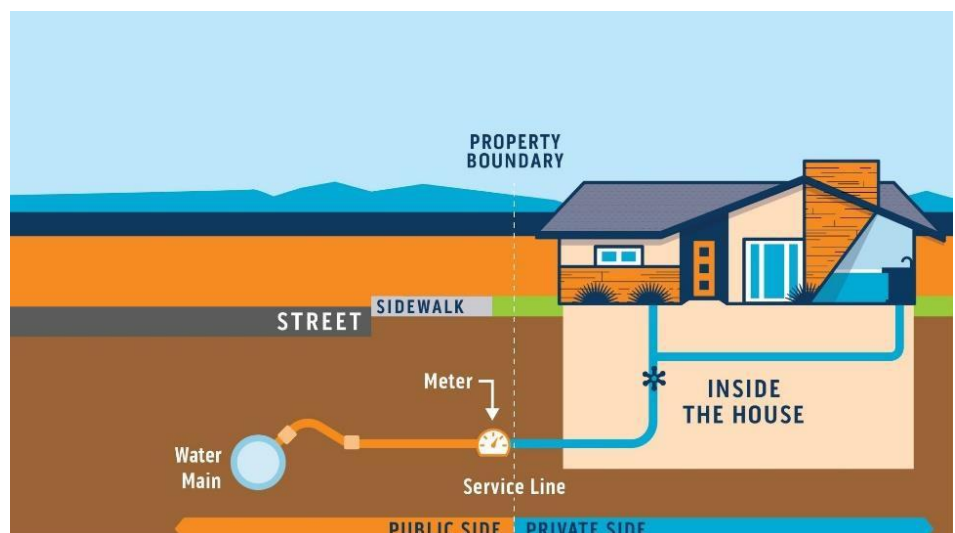


## Lead in drinking water

Lead pipes are more likely to be found in older cities and homes built before 1989. Lead can enter 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 pipe, fittings and chrome-plated brass faucets. Water service lines, which connect the water meter box and the building or home, could be made of lead. Lead service lines are typically the most significant source of lead in the water. The City of Mesa 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 likelihood to leach out into the 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



Below are recommended actions that you may take, individually or in combination, if you are concerned about lead in your drinking water. The list also includes where you may find more information and is not intended to be a complete list or to imply that all actions equally reduce lead in drinking water.

## Use your filter properly

Using a filter can reduce lead in drinking water. If you use a filter, it should be certified to remove lead. Read any directions provided with the filter to learn how to properly install, maintain, and use your cartridge and when to replace it. Using the cartridge after it has expired can make it less effective at removing lead. Do not run hot water through the filter. For more information on facts and advice on home water filtration systems, visit [mesaaz.gov/leadandcopper](https://mesaaz.gov/leadandcopper).

## Clean your aerator

Regularly remove and clean your faucet's screen (also known as an aerator). Sediment, debris, and lead particles can collect in your aerator. If lead particles are caught in the aerator, lead can get into your water.

## Use cold water

Do not use hot water from the tap for drinking, cooking, or making baby formula as lead dissolves more easily into hot water. Boiling water does not remove lead from water.

## Run your water

The more time water has been sitting in pipes, the more lead it may contain. Before drinking, flush your home's pipes by running the tap, taking a shower, doing laundry, or doing a load of dishes. The amount of time to run the water will depend on whether your home has a lead service line or not, as well as the length and diameter of the service line and the amount of plumbing in your home.

## Learn about construction in your neighborhood

Construction may cause more lead to be released from a lead service line or galvanized service line. Contact the City of Mesa to find out about any construction or maintenance work that may disturb your service line.

## Have your water tested

Contact the City of Mesa Water Quality division to have your water tested if you have lead, galvanized, or unknown pipe material and to learn more about the lead levels in your drinking water. You may also contact a certified laboratory to have your water tested for lead. A list of certified laboratories is available at [mesaaz.gov/leadandcopper](https://mesaaz.gov/leadandcopper). Note: a water sample may not adequately capture or represent all sources of lead that may be present. For information on sources of lead that include service lines and interior plumbing, visit [mesaaz.gov/leadandcopper](https://mesaaz.gov/leadandcopper).

For more information on reducing lead exposure from your drinking water and the health effects of lead, visit EPA's website at [epa.gov/lead](https://epa.gov/lead).

If you have questions, please contact the City of Mesa Water Quality division at **(480) 644-5980** or via email at [leadandcopper@mesaaz.gov](mailto:leadandcopper@mesaaz.gov).