

Uranium

How You Can be Exposed

Uranium is a naturally occurring radioactive heavy metal found in rocks, soil, and water. While small amounts are present almost everywhere, uranium cannot be seen, smelled, or tasted without laboratory testing.

- **Water** – the most common way people are exposed is by drinking water containing naturally occurring uranium. Groundwater that flows through uranium-rich rock can carry the metal into wells.
- **Food** – small amounts of uranium can enter food from soil. Root vegetables (such as potatoes, carrots, and turnips) may contain slightly higher levels because they grow directly in soil. For most people, dietary exposure is low.
- **Water** – lead can leach into water from plumbing elements like water service lines, pipes, faucets, and solder. This is more likely to be true of homes built before 1986.
- **Workplace exposure** – workers in industries that use lead can be exposed by ingesting or inhaling small particles of the metal.

Health Effects

Uranium can cause health effects based on its chemical makeup, as well as its radioactive properties. Chemically, the kidneys are the primary target of uranium exposure, but it can also impact bones, brain, liver, lungs, and reproductive system. Some uranium is eliminated in urine and feces, but a portion can accumulate in bones after exposure. Uranium also decays into radon gas, which increases lung cancer risk when inhaled over time.

How to Limit Exposure

For private well-users, test your water for uranium. If levels exceed 30 µg/L, install treatment such as reverse osmosis or ion exchange systems. Reverse osmosis can remove 95–98% of uranium. Be sure to use treated water for drinking as well as cooking or washing foods. Peel root crops if grown in soil with known contamination.

Sources

Agency for Toxic Substances and Disease Registry. *Uranium Toxicological Overview*.

<https://www.atsdr.cdc.gov/csem/uranium/docs/uranium.pdf>