

Cadmium Exposure: What You Need to Know

What is Cadmium?

Cadmium is a toxic heavy metal and known carcinogen. It accumulates in the body—especially the kidneys, bones, and liver—and can remain there for decades.

Sources of Exposure

- Cigarette smoke (smokers may have up to 5x more cadmium)
- Food sources:
 - Leafy greens, potatoes, peanuts, sunflower seeds
 - Soy products (tofu, soy milk)
 - Shellfish like shrimp and oysters
 - Grains (e.g., pasta, cereals)
- Fertilizers made from sewage sludge or mining waste
- Industrial exposure (welding, batteries, paints, ceramics, glasswork)

Health Risks

Even low-level exposure has been linked to:

- Kidney damage (may be irreversible)
- Bone loss and osteoporosis (especially in women)
- Hypertension and heart disease
- Cancers: lung, breast, prostate, pancreas, endometrial
- Diabetes
- Cognitive decline and increased Alzheimer's risk
- Periodontal (gum) disease

How Cadmium Affects the Body

- Cadmium is stored in bones, liver, kidneys, and sometimes the brain.
- People with low iron or zinc absorb more cadmium.
- The metal stays in the body for 10–40 years and builds up over time.

Testing for Cadmium

- **24-hour urine test** is the most reliable method for measuring long-term body burden
- A urine cadmium level above 1.0 µg/g creatinine is associated with:
 - Kidney damage
 - Bone loss
 - Cardiovascular disease
 - Increased cancer risk

How to Reduce Exposure

- Stop smoking—this is the biggest source
- Eat a nutrient-rich diet, especially with adequate **iron and zinc**
- Limit high-cadmium foods like sunflower seeds, tofu, and shellfish
- Consider testing if you:
 - Follow a high-soy or vegetarian diet
 - Smoke or have smoked
 - Have signs of kidney or bone issues
 - Work in industries like welding, metalwork, or ceramics