

# Cadmium

## What is cadmium?

Cadmium is a soft, silver to white metal that is naturally present in the Earth's crust as a mineral in combination with other elements.

## Where is it found?

Cadmium can be found naturally in small quantities in the air, water and soil. Higher levels can be found in soil and water near industrial areas or hazardous waste sites. It is also found in tobacco.

Most frequently, cadmium is extracted as a by-product during the production of zinc, lead or copper. Cadmium is used in batteries, paint pigments, coatings and platings.



## Human Biomonitoring of Cadmium

Cadmium can be measured in both urine and blood. Long-term exposure to cadmium can be measured in urine samples. Cadmium in blood reflects more recent exposure, about 3 months.

Finding a measurable amount of cadmium in blood or urine does not necessarily mean that these levels cause an adverse health effect.

## How are we exposed?

Environmental exposure to cadmium occurs primarily through smoking. Non-smokers who inhale environmental tobacco smoke (also known as second-hand smoke) take up cadmium as well.

The most important source of cadmium for non-smokers is from food (especially shellfish, liver, kidney, wild mushrooms and leafy green vegetables).



## How can it affect us?

Long-term exposure to low levels of cadmium through air, water and soil can affect the kidneys and bone density. Breathing in high levels can also damage the lungs but this is more likely to occur in occupational settings rather than in the environment. High levels of cadmium can cause cancer in humans.

## Ways to reduce exposure

- Do not smoke tobacco products and limit exposure to second-hand smoke;
- Properly dispose of batteries and other cadmium containing products.
- Try to avoid eating foods that may contain high levels of cadmium.

