

# Thallium

## How You Can be Exposed

Thallium can be released into the environment from industrial activities like coal burning or smelting, and cement production. Once released into the environment, thallium can remain in water, soil, or sediment.

- **Food** – the most common way that people are exposed to thallium is by eating fruits or vegetables grown in thallium-contaminated soil.
- **Water** – you can be exposed to thallium in water if you live near a contaminated waste site and use private well water as your main source of drinking water.

## Health Effects

In general, the amount of thallium in the environment in the United States is not high enough to cause health effects. In rare cases where humans have been exposed to chronic, high levels of the metal, symptoms include hair loss, numbness and pain in the feet and hands, diarrhea, abdominal pain, nausea, vomiting and heart problems. There is not enough data on thallium exposure to determine if the metal increases the risk of cancer. Thallium may cross the placental barrier and accumulate in breast milk, increasing risks for fetal and infant health.

## How to Limit Exposure

In the San Luis Valley (SLV), private wells and certain foods may also serve as thallium exposure sources. Thallium can leach into groundwater, especially where private wells access aquifers affected by local geology or industrial activities. Some food sources, particularly leafy greens and grains, can accumulate thallium from contaminated soils, adding dietary exposure pathways in addition to drinking water.

## Sources

Agency for Toxic Substances and Disease Registry. (2019, July 1). *Mercury – ToxFAQs™*. U.S. Department of Health and Human Services.

<https://wwwn.cdc.gov/tsp/ToxFAQs/ToxFAQsDetails.aspx?faqid=308&toxid=49>