

# Thallium Concerns in Traverse Mountain, Lehi



Currently there is **NOT** a thallium exposure concern for Lehi's drinking water

## 2014 Traverse Mountain Health Consultation (HC)



The public comment period ended on August 18th, 2014.

- This HC evaluated the potential for adverse health effects from exposure to thallium in the drinking water system for the Traverse Mountain community in Lehi, UT.
- Based on water and soil sampling data and conservative exposure criteria, the EEP concludes that ingestion and skin contact with contaminated water and soil is not expected to harm people's health. Additionally, eating vegetables grown in gardens where soil sampling occurred is not expected to harm people's health.
- Based upon the EEP's review of the Traverse Mountain drinking water, secondary water, soil data, and the concerns expressed by community members, the following

recommendations are

appropriate and protective of the health of residents in the community:

- o Residents are recommended to contact poison control or their physician with health problems and concerns regarding thallium exposure.
- o The Lehi City Water Department superintendents are recommended to review EPA maximum contaminant levels (MCLs) for contaminants common to their water systems.
- o The Lehi City Water Department superintendents are recommended to collaborate with local health departments and the Utah Division of Drinking Water (DDW) to review standard protocols when MCLs are exceeded.
- o The Lehi City Water Department and the DDW are recommended to emphasize to Traverse Mountain residents that secondary water is non-potable and should not be used for activities that could lead to possible incidental ingestion and dermal exposure (i.e., in swimming pools, playing in sprinklers, bathing).
- o The Lehi City Water Department and the DDW are recommended to continue to provide health educational materials regarding drinking water and secondary water to the community.

### **[Click Here for Soil Sample Results](#)**

Thallium is a soft, bluish-white metal that is widely distributed in trace amounts in the earth's crust. In its pure form, it is odorless and tasteless.

Thallium is present in air, water, and soil. Levels of thallium in air and water are generally very low. The greatest exposure occurs when you eat food, mostly home-grown fruits and green vegetables contaminated by thallium. Thallium enters food because it is easily taken up by plants through the roots.

“Based upon the reported thallium concentrations in Lehi water, consuming garden vegetables grown in this water should not present an apparent health hazard.”

~Dr. Craig Dietrich, Toxicologist; Utah Department of Health

### **Thallium Facts:**

- Health Effects of Thallium Exposure
  - o **Short Term Symptoms\*:**
    - Nausea and Vomiting
    - Painful burning in hands and feet
    - Dramatic hair loss

\*All Short Term Symptoms of Thallium Poisoning are Temporary

- **Long Term Health Effects:**
  - Nervous System
  - Kidneys
  - Liver
  - Lungs
  - Heart
- Thallium is not classifiable as to its human carcinogenicity.

"Data on mutagenic and carcinogenic risks of thallium and its compounds are extremely scanty but what is available does not indicate that thallium could be mutagenic or carcinogenic." (Leonard A and Gerber GB, 1997)

- There are medical tests to diagnose thallium poisoning, contact your physician for a blood or urine test
  - Water containing very low levels of thallium is currently being used for a secondary water source in Lehi. There is currently **no health concern** associated with watering your lawns and gardens with this water
- \*As a reminder, secondary water sources should never be used for culinary purposes

"Based on the sampling data collected by the Lehi Water Department, the amount of thallium that residents could have been exposed to, between February 16 to March 8, 2012, could have resulted in temporary symptoms of thallium poisoning. Over this short period of exposure, truly harmful health effects would only have been expected if thallium concentrations in the water were 10,000 to 100,000 times the amount found in the sampling."

~Dr. Craig Dietrich, Toxicologist; Utah Department of Health

Thank you to all who called us with symptoms. If you have additional comments or concerns please contact your physician or Utah Poison Control at 1-800-222-1222

## Health Education

- [Community Presentation](#)
- [Community Factsheet](#)
- [ATSDR ToxFAQ](#)
- [ATSDR Tox Profile](#)
- [ATSDR Health Statement](#)
- [EPA Technical Factsheet](#)

## Physician Resources

- [Utah Poison Control Center](#)
- [ARUP - Whole blood](#)
- [ARUP - Urine](#)
- [LabCorp](#)

### **Additional Links**

- [Lehi City](#)
- [Utah County Health Department](#)
- [Utah Division of Drinking Water](#)