



Central Michigan District Health Department

Promoting Healthy Families, Healthy Communities



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Arsenic

What is Arsenic?

Arsenic, a naturally occurring element, can combine with either inorganic or organic substances to form many different compounds. Inorganic arsenic compounds are in soils, sediments, and groundwater. These compounds occur either naturally, or as a result of mining, ore smelting, or when using arsenic for industrial purposes. Organic arsenic compounds exist mainly in fish and shellfish.

How People Are Exposed to Arsenic?

People are most likely exposed to inorganic arsenic through drinking water. This is especially true in areas with water sources that naturally have higher levels of inorganic arsenic. People can also be exposed to inorganic arsenic by eating such foods as rice and some fruit juices. Other sources of inorganic arsenic exposure include contact with contaminated soil or dust, or with wood preserved with arsenic compounds.

How Arsenic Affects People's Health

Unusually large doses of inorganic arsenic can cause symptoms ranging from nausea, vomiting, and diarrhea to dehydration and shock. Long-term exposure to high levels of inorganic arsenic in drinking water is associated with certain medical conditions. These conditions include skin disorders, and increased risk for diabetes, high blood pressure, and several types of cancer. Inorganic arsenic and arsenic compounds are considered to be cancer-causing chemicals.

Studies have not found organic arsenic in seafood to be toxic to humans.