

ARSENIC



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Background on Arsenic

Arsenic (symbol As) is a solid, poisonous, semi-metal element that is odorless and tasteless. It has allotropic (similar) forms; yellow, and several black and gray are mostly seen. Arsenic can be organic (from plants and animals and is non-toxic), or inorganic (from rocks, air, and water, and is toxic). Arsenic binds readily to itself. When arsenic is heated in air it oxidizes and the fumes have a garlic-like odor.



Sources of Arsenic

It can enter drinking water from natural deposits in the earth, from agriculture, industry, forest fires, runoff from orchards, glass and electronic production wastes. It is used in wood preservatives, paints, dyes, metals, drugs, soaps and semi-conductors, certain fertilizers and animal feeding operations, copper smelting, mining, and coal burning operations.

Why Test for Arsenic

- If you have a private water source
- If you have recently installed a new well
- Once a human body is exposed to arsenic, the effects are irreversible
- Arsenic levels in wells can change over time
- If you have treated wood around your home that children would play on



For more information please contact
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Health Concerns

- The Environmental Protection Agency has set the current limit for arsenic at 10 parts per billion (ppb) for drinking water
- Non-cancerous effects include thickening and discoloration of skin, stomach pain, nausea, vomiting, diarrhea, numbness in hands and feet, partial paralysis, and blindness
- Arsenic has been linked to cancer of the bladder, lungs, skin, kidney, nasal passages, liver, and prostate

Remedies

- Install precipitative, adsorption, ion exchange, membrane filtration, or greensand filtration devices (reverse osmosis and distillation systems are the most often used)
- Drill a new well
- Connect to a public water system
- Buy bottled water
- To find the right drinking water treatment unit for your home go to www.nsf.org/Certified/DWTU/ and fill out specifically what you are looking for.



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