

# Is your well water, well?

## ARSENIC

### **Q: WHERE DOES ARSENIC COME FROM?**

**A: There are both natural sources of arsenic and manmade sources.** Arsenic is a part of the earth's crust and occurs naturally in soil and rock. Arsenic from soil and rock can dissolve into groundwater. Historic industrial activities can also add arsenic to groundwater. While arsenic is not in routine use today, it was once commonly used in some pesticides. Residues remain from past use and improper disposal.

### **Q: SHOULD I TEST MY PRIVATE WELL FOR ARSENIC?**

**A: Perhaps.** This depends on your location in the state of Florida. The Florida Department of Health recommends testing wells in the areas where arsenic is frequently found. That is, in west coast counties from Dixie County south to Hillsborough County, and the western half of Polk County. Arsenic in water has no taste or odor. The only way to know if your well contains arsenic is to have it tested. Private well owners are not required to have their wells tested for arsenic. Water well owners who want to test their well water for arsenic must arrange and pay for the testing. It is best to use a Department-certified laboratory to test drinking water for arsenic so the results are reliable. Search for labs here: [approd.dep.state.fl.us/labs/cgi-bin/aams/index.asp](http://approd.dep.state.fl.us/labs/cgi-bin/aams/index.asp).

If your lab test shows the well water has arsenic, call your local county health department to discuss next steps: [www.floridahealth.gov/programs-and-services/county-health-departments/find-a-county-health-department/index.html](http://www.floridahealth.gov/programs-and-services/county-health-departments/find-a-county-health-department/index.html).

### **Q: IS THERE A MEDICAL TEST TO SEE IF YOU HAVE BEEN EXPOSED TO ARSENIC?**

**A: There are tests to measure the level of arsenic in blood, urine, hair or fingernails.** The urine test is the best test to use for arsenic when someone was exposed to it within the last few days.

**[WWW.FLHEALTH.GOV/WELLSTEST](http://WWW.FLHEALTH.GOV/WELLSTEST)**



#### **CONTACT WATER PROGRAMS FOR MORE INFORMATION**

850-245-4250 | [AskEH@flhealth.gov](mailto:AskEH@flhealth.gov) | FAX 850-487-0864

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## Arsenic in water

**Your best option is to connect to a community public water supply system.** All community public water systems regularly test the water for arsenic and other contaminants. These systems must comply with all federal drinking water standards. If a public water system is not available, then you must install a water treatment system or construct a new well.

## Install a water treatment system

**There are several types of water treatment systems** that can effectively reduce arsenic levels in drinking water. These include:

**ION EXCHANGE TREATMENT:** This type of treatment removes arsenic by use of a special type of material made to remove it from drinking water.

**REVERSE OSMOSIS SYSTEMS:** Reverse Osmosis (RO) is a water treatment process that takes out most dissolved, inorganic chemicals from water. It does this by forcing the water through a membrane. This separates the chemicals from the treated water.

## Construct a new well

**In some areas, a new well that pumps groundwater can be installed at a different depth where there is less arsenic.** Drilling a new well may be a good option if you already want to replace your current well for other reasons. It can be less costly in the long run than buying and taking care of a water treatment system. However, a new well may still have arsenic in it, even if it is properly built and in a proper location.

## Health impacts

**EPA has set a national standard for arsenic of 10 µg/L (micrograms per liter or parts per billion).** The U.S. Environmental Protection Agency (EPA) has reviewed the scientific studies and set an acceptable drinking water level for arsenic in groundwater. The studies assume a typical person will drink two liters of water each day. The studies also assume a daily intake of some arsenic in food and from other sources.

## What are the possible harmful effects of long-term exposure to arsenic?

**It is hard to pinpoint the exact amount of arsenic in drinking water that can lead to a certain health problem.** The health effects of arsenic depend on its chemical form, how much is consumed and for how long. Harm from exposure to arsenic in drinking water usually takes years to show up.

Arsenic sometimes causes corns to form on the palms of the hands, the soles of the feet, and other places on the body. This is called hyperkeratosis.

Studies have also linked long-term exposure to arsenic in drinking water to a higher risk of cancer of the bladder, lungs, liver and other organs. Cancers related to arsenic in drinking water usually do not develop for decades.

Keep your well water,  well.