Northeast Tri County Health District
Preserve • Promote • Prevent

Northeast Tri County Health District
Environmental Health Division

Uranium in Drinking Water
Frequently Asked Questions

What is "natural" uranium and is it in my well water?

Uranium is a naturally occurring mineral present in certain types of rocks and soil found throughout the United States, including Northeast Washington. This type of naturally occurring uranium metal is slightly radioactive and is not to be confused with other forms of uranium, such as enriched uranium which is highly radioactive.

Naturally occurring uranium has always been present in some of our area's drinking water. As groundwater passes through rocks and soil, uranium is dissolved and becomes present in the groundwater which may be used as a source of drinking water. The amount of uranium in bedrock and well water varies greatly from place to place.

Recent monitoring in Northeast Washington has shown elevated levels of uranium in private drinking water wells.

How much uranium can be in drinking water?

The Environmental Protection Agency (EPA) sets water quality standards for public drinking water systems. These levels are set to be protective to health of both children and adults. For uranium, this level is set at 30 parts per billion (ppb). Public water supplies must meet this standard or treat the water.

Except at the time of initial construction and during the building permit process, private water systems are not regulated and there are no requirements for testing or treating drinking water. The EPA standard of 30 ppb uranium is used to provide recommendations to area residents for private drinking water supplies.

How can uranium affect my health?

Most ingested uranium leaves the body quickly, but a small amount is absorbed and may have chronic health effects. Individual risk depends on the concentration, how much water is consumed and for how long, as well as age and general health of the individual.

Studies suggest that ingesting high levels of uranium from drinking water may be associated with an increased risk of kidney damage. Long term exposure to uranium at high levels may increase the risk of developing cancer. However, in most instances, levels of uranium in drinking water supplies are low enough that increased risk of developing cancer is minimal.

How can I find out if uranium is in my well water?

Uranium cannot be detected by taste, sight, or smell. The only way to know the concentration is through sampling and testing.

A uranium mass analysis is the appropriate test used to determine the level of uranium concentration. Fees for testing typically range between $25 to $80. Tests should be done by a laboratory certified for uranium testing.

What if I have elevated levels of uranium in my well water?

If testing of well water indicates elevated levels of uranium, it is only necessary to treat the water that is consumed for drinking or cooking. Uranium is not absorbed through your skin.

The most feasible treatment alternative to remove uranium from private well water is a point-of-use system (POU) reverse osmosis system. This economical treatment device can be placed under or near one faucet and treats only the water coming out of that tap for drinking or cooking. Typical reverse osmosis systems are capable of treating about 7-14 gallons a day of drinkable water.

Whole house treatment system that use anion exchange (where water flows through a tank with resin that exchanges uranium for a safer compound—in most cases chloride) are also effective and a common means of treatment.

Whichever treatment option is used, consideration should be given to subsequent sampling for uranium to determine how effective the treatment is in reducing uranium levels to acceptable levels.

How can I get more information?

More information about uranium in drinking water is available on our website or by calling Northeast Tri County Health District Offices.

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