

Health Concerns about Nitrates in Well Water

This is a brief, simplified introduction for the layman compiled from various sources. This is not medical advice or everything you need to know about drinking and eating nitrates.

What is nitrate?

Nitrate is a chemical combination of nitrogen and oxygen.

What is nitrate used for?

Plants need nitrate to grow. Ammonium nitrate is a common inorganic fertilizer. Nitrate is also used as a heart medicine, food preservative and in explosives.

Where does it come from?

Nitrate is in animal manure, run off from dairies, run off from fertilizer used on farm soil, erosion of natural deposits, in the soil, in volcanic rocks and from leaking septic tanks.

What is the safe level of nitrate in drinking water?

U.S. EPA says 10 ppm for adults; but 5 ppm in Europe. Zero for infants and children.

Other sources of nitrates besides water:

Sodium nitrate food preservative in ham, bacon, jerky, and lunch meats.

What are effects on health?

If infants drink water with nitrates, they can get short of breath and turn blue. In adults, nitrates can harden and narrow blood vessels, causing heart disease. It can increase the risk of getting diabetes by affecting the way the body uses sugar. If nitrates in food are combined with protein in high heat, nitrosamines are formed. An example is over cooking meats preserved with nitrates. Nitrosamines are known to cause cancer, especially in the stomach and throat. Nitrosamines are in tobacco smoke, beer, and smoked food.

Where are wells with excess nitrate in Hinkley?

According to the maps published by the Victorville Water Quality office nitrate study, well water with over the maximum contaminant level of 10 ppm are at:

- Dixie Road between Hwy 58 and Community Blvd (12 to 16 ppm)
- Community Blvd midway between Dixie and Lenwood roads (23 ppm),
- Blanca and Erwin Road (12 ppm),
- Santa Fe Road and Dixie Road(14 ppm).
- Mountain View Road and Thompson Rd (32 ppm).

The three locations with the highest levels are near dairies.

How to reduce your intake of nitrate from well water

Ion exchange, distillation or reverse osmosis will remove nitrates from water.

Protection from health damage due to nitrates in food and water

Take vitamin C, limit processed meats, eat fresh meat, seafood and poultry. Buy luncheon meats without nitrates and nitrites. Get your well water tested