Water Facts: Number 3
Nitrates in your drinking water

High concentrations of nitrates in your drinking water may affect your health. Infants and certain elderly people are the most susceptible to nitrates in water. When these individuals drink water or eat foods that contain high levels of nitrates, their blood can lose the ability to effectively carry oxygen. This condition is called methemoglobinemia or blue baby syndrome.

Lack of oxygen in the blood, causes the hands, feet or lips to turn slightly blue. Infants may also suffer from diarrhea and vomiting. Although the condition can be fatal if not diagnosed quickly, it is easily reversed with treatment.

High nitrate levels in water supplies usually occur in localized areas. Wells located near feedlots, dairies, agricultural fields, or septic tanks, may be susceptible. However, natural contamination can happen, particularly in arid areas.

Since nitrates in water are tasteless and odorless, the only way to know whether they are present is to have your well water tested by a laboratory. Contact the county extension office for a list of state-certified labs. Some labs will send you a sterilized sample bottle with instructions; follow all directions carefully to ensure accurate results.

Ask the lab if they report nitrates as nitrate-nitrogen (NO3-N) or as nitrates (NO3). When reported as (NO3-N), the maximum allowable contaminant level is 10 parts per million (ppm). When reported as (NO3), the standard is 45 ppm. If your sample has levels above the standard limit, you have a choice. Treat your water or find an alternate source for drinking and cooking purposes.

Reverse osmosis (RO) and distillation units effectively remove nitrates from drinking water. Boiling the water only concentrates nitrates; it does not remove them.

You can mount RO units at your kitchen or bathroom faucet. The cost to install and maintain these units may be several hundred dollars. Periodic maintenance and water sampling will give the best protection from further nitrate contamination.

Install distillation units at the drinking water tap to remove many types of contaminants. Unfortunately, your water might taste flat because distillation removes a high percent of the minerals that give water its flavor.

Since nitrates in drinking water can affect your family's health, it is important to check for them periodically in your water supply.