

Our water tastes bitter. Why? What are the potential health effects?

Household Tell-Tale Signs

Sulfate minerals can cause scale buildup in water pipes similar to other minerals and may be associated with a bitter taste in water that can have a laxative effect on humans and young livestock. Elevated sulfate levels in combination with chlorine bleach can make cleaning clothes difficult. Sulfur-oxidizing bacteria produce effects similar to those of iron bacteria. They convert sulfide into sulfate, producing a dark slime that can clog plumbing and/or stain clothing.

Blackening of water or dark slime coating the inside of toilet tanks may indicate a sulfur-oxidizing bacteria problem. Sulfur-oxidizing bacteria are less common than sulfur-reducing bacteria.

A nuisance associated with hydrogen sulfide includes its corrosiveness to metals such as iron, steel, copper and brass. It can tarnish silverware and discolor copper and brass utensils. Hydrogen sulfide also can cause yellow or black stains on kitchen and bathroom fixtures. Coffee, tea and other beverages made with water containing hydrogen sulfide may be discolored and the appearance and taste of cooked foods can be affected.

Potential Health Effects

Sulfate may have a laxative effect that can lead to dehydration and is of special concern for infants. Hydrogen sulfide is flammable and poisonous. Usually it is not a health risk at concentrations present in household water, except in very high concentrations. While such concentrations are rare, hydrogen sulfide's presence in drinking water when released in confined areas has been known to cause nausea, illness and, in extreme cases, death.

Water with hydrogen sulfide alone does not cause disease. In rare cases, however, hydrogen sulfide odor may be from sewage pollution, which can contain disease-producing contaminants. Therefore, testing for bacterial contamination and Sulfate Reducing Bacteria is highly recommended.