



An important Public Health Evaluation was completed under the guidance of the Navy and Marine Corps Public Health Center. The Public Health Evaluation was designed to evaluate the potential short and long-term health risks associated with living in the Naples area as a result of inadequate trash collection, uncontrolled open burning of uncollected trash, and widespread dumping of waste, including chemical and other hazardous waste.

Launched in 2008, the Public Health Evaluation involved the collection of air, water, soil and soil gas samples from throughout the region to identify whether there were potential health risks.

For details and background information, visit the website listed at the bottom of this page.

Your Health: Facts for Navy Families in Naples

About: Hard Water

The U.S. Navy is committed to ensuring our families are safe while serving our country at home or overseas. The following information is provided as part of a wide-ranging effort to understand the health risks of our personnel and families living in Naples, Italy. A comprehensive Public Health Evaluation was conducted to assess potential short and long-term health risks associated with living in the Naples area (see sidebar). In line with our commitment to continually share important health information, we encourage you to review the following information.

Water hardness throughout the Naples area is generally considered to be moderate to very hard. Routine tap water testing at Naval Support Activity Naples shows the water provided on base to be slightly to moderately hard.

What is “hard” water?

As water moves through soil and rock, it dissolves very small amounts of minerals, which mix with the water. When the water contains a lot of minerals – mostly calcium or magnesium – the water is called “hard.” Hard water is probably the most common water problem found in homes. It causes water spots on glasses and dishes, makes laundry dull and causes soap scum and scale to build up, making cleaning a chore. The predominant sources of calcium and magnesium are from limestone, chalk, dolomite and marble.

Is hard water a health hazard?

No, hard water is not a health hazard. In fact, the National Research Council states that hard drinking water generally contributes a small amount of calcium and magnesium to our dietary needs. However, for people

with sensitive or dry skin or who have eczema, hard water may contribute to skin irritations as a result of the excess soap and shampoo that is used to generate lather when washing or bathing with hard water.

What are some results of having hard water?

Hard water can be a nuisance due to the mineral buildup on plumbing fixtures. Soaps don’t lather as well and therefore don’t tend to clean as well. Also, the boiling of hard water changes the chemistry of the water, which shows as scale buildup or a slight film on hot drinks and water. This scale is known as “limescale.”

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*For more information about hard water, contact the U.S. Naval Hospital Naples, Public Health by calling
DSN 629-6457 or Commercial at
081-811-6457.*



For more information contact:

U.S. Naval Hospital Naples, Public Health
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Limescale often causes problems, such as:

- An alkali, or metal, taste to the water, which makes coffee taste bitter;
- Buildup of scale on pipes and fixtures that can lead to lower water pressure;
- Buildup of deposits on dishes, utensils and laundry basins;
- Difficulty in getting soap and detergent to foam;
- Lowered efficiency of electric water heaters;
- Scale buildup or a slight film on hot drinks and water;
- Clothes and sheets washed in hard water can feel rough, even harsh to the touch;
- Film on glass shower doors and shower walls as well as a greasy, grimy ring may appear on bathtubs and sinks.
- Residues that remain after shampooing with hard water tend to leave hair rougher and harder to untangle. Hair feels sticky and looks dull.

How do I know if I have hard water?

Drinking-water suppliers can tell residents the hardness level of the water they deliver. If drinking water is supplied by a private water supply, residents can have the water tested for hardness. However, a simple way to determine the hardness of water is the lather/froth test: soap, when agitated, lathers easily in soft water but not in hard water. This

is because the calcium and magnesium in hard water reacts with the chemicals in soap to create a sticky scum or curd. So, if soap does not lather easily, it may be an indication of hard water.



Limescale buildup from hard water can be seen on the faucet shown in the photo above.

What can be done about hard water?

Hard water can be treated by using a packaged water softener or through a mechanical water softening unit.