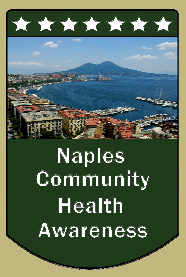

An important Public Health Evaluation has been completed under the guidance of the Navy and Marine Corps Public Health Center. The Public Health Evaluation was designed to evaluate the potential short and long-term health risks associated with living in the Naples area as a result of inadequate trash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

Launched in 2008 and completed in June 2011, the Public Health Evaluation involved the collection of air, water, soil and soil gas samples from throughout the region to identify whether there are 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: Tap Water Bacteria

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. Recently completed is a comprehensive Public Health Evaluation to assess potential short and long-term health risks associated with living in the Naples area (see left panel). In line with our commitment to continually share important health information, we encourage you to review the following information.

Why is the Navy recommending that off-base housing residents use only bottled water?

Typically, bottled water advisories are issued when authorities have determined, through microbiological testing or during emergency conditions (i.e., floods, storms, earthquakes), that the drinking water supply has been or has a high potential of being contaminated. As part of the Naples Public Health Evaluation, the U.S. Navy sampled tap water. Testing of tap water samples at some residences in the Naples area found coliform bacteria in the tap water (fecal coliform and/or total coliform, defined below). The presence of these bacteria indicates that the tap water may be contaminated with wastes containing microbes that can cause illness. As a health protective measure, the Navy issued a Bottled Water Advisory in July 2008. Personnel living off-base should use bottled water for drinking, cooking, food preparation, brushing teeth, making ice, and for pets.

The Navy recommends that in addition to using bottled water, residents disconnect any filtering device and any device that is directly connected to the home's water supply. If residents are ever notified that the Bottled Water Advisory has been lifted and their tap water is safe to drink, these devices should be cleaned and sanitized according to the manufacturer's instructions before reusing.

What is the source of the tap water contamination?

Bacterial contamination can occur when increased runoff enters the drinking water source (for example, following heavy rains). Contamination can also happen due to a break in the distribution system (pipes); back-siphoning of water from drains, tubs and sinks into faucets (also known as "backflow"); or a failure in the water treatment process. Improper disinfection of the home's water holding tank and distribution system is also a potential source of bacterial contamination.

What are "coliform" and what does it mean to find them in the tap water?

"Total coliform" are a group of closely related bacteria that are generally harmless. They are natural and common inhabitants of the soil and surface waters (such as lakes and rivers). Their presence in tap water suggests that there has been a breach, failure or other change in the integrity of the water system. The coliform bacteria themselves are not what cause people to get sick – they are simply an indicator that other disease-causing organisms (pathogens) may be present in the water, which can cause waterborne illness.

The detection of "total coliform" is also a warning sign that the water system may be vulnerable to fecal contamination. This could be caused by any number of instances, such as breaks in the distribution system, cross-connections, or compromised sources. The detection of "fecal coliform" can indicate that the water system is contaminated with fecal waste.

What are the health effects associated with waterborne illness?

Symptoms from waterborne illness may include diarrhea, cramps, nausea, headaches, jaundice or fatigue. Please note that these symptoms may be caused by factors other than unsafe water. Symptoms may appear as early as a few hours to several days after infection and may last more than two weeks. If you are ill with these symptoms, contact your healthcare provider. Infants, young children and people with severely compromised immune systems are generally more susceptible to these illnesses.

What if I already drank some of the contaminated water?

There is nothing you can do about the exposure you have already received. If you are concerned, contact your healthcare provider. Continue to use bottled water, ensure your landlord disinfects the home's water holding tank, and follow any other precautionary measures that may be recommended by the Navy.

Can I boil the water and use it safely?

No. During Phase I testing as part of the Naples Public Health Evaluation, the Navy detected nitrates in some tap water. Because nitrate does not evaporate the way chlorine does, boiling, freezing or letting water stand does not reduce the nitrate level. In fact, boiling water for more than 10 minutes can make the nitrate more concentrated. Refer to the "Nitrate in Tap Water" fact sheet available on the Naples Community Health

For more information contact:

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620 John Paul Jones Circle,
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Naval Support Activity, Naples
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PSC 817 Box 40
FPO AE 09622
COMM:
39-081-568-5907
DSN:
314-626-5907

Awareness website for more information about nitrate in water: www.cnic.navy.mil/Naples/About/HealthAwareness/FactSheets.

When will the Bottled Water Advisory be lifted and what do I do?

There are no plans to remove the Bottled Water Advisory. If the advisory were ever to be lifted, you will need to do the following:

- Flush all water-using fixtures for one minute.
- Run cold-water faucets and drinking fountains for one minute before using the water.
- Drain and flush all ice-making machines in your refrigerator.
- Run water softeners through a regeneration cycle.
- Drain and refill hot water tanks set below 45 degrees Celsius (ºC) (113 degrees Fahrenheit (ºF)) (normal setting is 60 ºC (140ºF)).
- Change any pre-treatment filters (under sink style and refrigerator water filters, carbon block, activated carbon, sediment filters, etc.).

When should I be using bottled water?

Bottled water is required for the following:

- **Drinking water:** Including all beverage concentrates such as coffee, tea, fruit juices, infant formula and sports drinks where water is added.
- **Food preparation:** Cooking and washing fresh fruits and vegetables. Until otherwise instructed, bottled water must also be used for cooking when water is to be boiled (i.e., boiling pasta).
- **Brushing teeth.**
- **Making ice:** Discard any ice made from potentially contaminated water. Freezing does not destroy all bacteria. Many bacteria and viruses can survive in frozen products.
- **Water for pets:** Drinking water for pets including dogs, cats, birds and reptiles should be provided with bottled water.
- **Immune-compromised individuals:** People who are immune-compromised must not consume tap water. These individuals are at a higher risk to develop illnesses.

For questions about the Naples Public Health Evaluation, contact the Environmental Health Information Center at U.S. Naval Hospital Naples.

Can I use tap water for other types of things?

Yes, tap water can be used for the following tasks, as long as the additional safeguards listed alongside are also followed:

- **Cleaning food contact surfaces:** Counter tops, cutting boards and other food contact items should be washed with clean water and then sanitized with unscented household bleach or quaternary ammonia product. To prepare household bleach, add 2 to 4 milliliters (mL) of 5 percent bleach per liter of water, or 1 tablespoon per gallon.
- **Hand washing:** Warm water and soap should be sufficient.
- **Dishwashing by hand:** Sanitize dishes for two minutes in a separate sink using a bleach solution (2 to 4 mL of 5 percent bleach per liter of water or 1 tablespoon per gallon) after the dishes have been washed and rinsed. Let the dishes air dry prior to being used. Don't wash and sanitize dishes in the same sink at the same time because soap, grease and food particles interfere with the sanitizing process.
- **Mechanical dishwashers:** Residential home-style dishwashers may not provide a high enough temperature to destroy all pathogens. Dishwashing units that reach 82 ºC (180 ºF) for 12 seconds (or an equivalent time-temperature relationship) during the final rinse cycle will destroy pathogens. For the best disinfection results, use the highest temperature setting possible and the heated dry cycle.
- **Washing floors, automobiles and laundry.**
- **Irrigation of lawns, plants and home grown vegetables and plants:** Rinse raw fruits and vegetables in bottled water prior to eating.

Can my family take showers or baths using tap water?

Adults and teens may shower in tap water as long as they do not swallow the water. Adults and teens should keep their eyes and mouth closed and limit their shower time. Younger children should be sponge-bathed instead of bathing in a tub to avoid incidental ingestion. Those that are immune-compromised or have open sores or wounds should also take sponge baths, avoiding wounds and sores.

What is being done about the bacteria problem?

In addition to issuing a Bottled Water Advisory, the Navy improved off-base housing leases by including new health protective clauses. These include the following: landlords must connect the property to the public drinking water system and disconnect from non-permitted wells (or prove the well is legal); clean and disinfect the home's water holding tank twice a year; and provide containerized (bottled) water service from a Navy-approved vendor. ■