

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 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.

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# Your Health: Facts for Navy Families in Naples About: Food On and Off-Base

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 left panel). In line with our commitment to continually share important health information, we encourage you to review the following information.

In 2007, numerous reports of high dioxin levels and other chemicals in air, water, and soil created a concern amongst the U.S. Navy community that foods grown in the Campania region could be contaminated. Articles in newspapers and in some Italian scientific journals alleged links between adverse health effects and the toxic waste dumps in the Campania region. These articles implicated locally grown vegetables, fruits, and mozzarella di bufala as possibly contaminated foods.

As part of the Navy's overall efforts to be protective of the health of U.S. military and civilian personnel and their families in Naples, the Navy and U.S. Army Veterinary Command (VETCOM) conducted an investigation of foods produced in the Campania region and sold in the Naples Gricignano D'Aversa Navy Commissary (Commissary). The food study was performed in February 2008.

VETCOM is the Department of Defense executive agent for food safety and quality assurance and is responsible for providing direct assistance to all DOD agencies requiring support with respect to food safety and food defense.

## What was evaluated in the food study?

The Navy and VETCOM selected products to evaluate in the study based on the following criteria:

- Products were available for sale at the Commissary at the time of the study.
- Fruits and vegetables were grown within the Campania region.
- Plant products were root plants or grown close to the soil and had the potential for uptake of contaminants through the plant's root system (phyto-uptake). Root plants are those that have fleshy, edible underground roots or tubers.
  - Sources of fresh meat or poultry products (e.g., beef, chicken) were raised near Campania

Although there are multiple layers of health protection already in place for U.S. personnel purchasing food items at the Commissary, the presumed higher potential for environmental contaminants to be present in the Campania region led the Naples Public Health Evaluation team to conduct a food study. The study went beyond routine inspections of food products by performing various laboratory analyses, which are normally not mandated by VETCOM. Foods grown locally, particularly fresh fruits and vegetables, received a closer look.

Using the above criteria, an assessment of the Commissary was conducted. Products that met the food study criteria and were thus evaluated in the study included:

• Artichokes	•Celery •Spinach
•Cabbage	•Chicken
•Carrots	• Mushrooms

In addition, tap water from the washing sink of the Commissary's produce department and from the poultry supplier, Arena Group, were tested to ensure the tap water met safe drinking water standards.

Products were sampled for chemicals and microorganisms that could be associated with waste disposal, such as bacteria, metals, pesticides, dioxins, and polychlorinated biphenyls (PCBs). Samples were compared to various guidance and regulatory standards, based on the type of sample, in order to characterize the potential health risks. Regulatory standards are typically used to determine the threshold of contamination that warrants further investigation. The following guidance and standards were applied in the study to evaluate the safety of the food products:





For more information contact:

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- VETCOM-listed action levels
- U.S. Food and Drug Administration 2006 Total Diet Study
- 21 Code of Federal Regulations, Title 21, Volume 2
- European Commission Scientific Cooperation 2004 Report on Task 3.2.11
- European Union Commission Regulation No 1881/2006

## What were the results of the food study?

Results of the study demonstrated that the vegetables sampled in the study met the food safety criteria for safe consumption.

In addition, chicken products produced by Arena Group also met food safety criteria for safe consumption.

Further, tap water from the washing sink of the Commissary's produce department met the safety criteria for drinking and washing fruits and vegetables. However, tap water from Arena Group had concentrations of coliform that exceeded the "zero tolerance" level criteria for total coliform. Following this finding, Arena Group was suspended from VETCOM's list of approved suppliers. The poultry plant corrected the bacteria discrepancy and was later reinstated on VETCOM's approved source list after VETCOM re-inspected the plant. Unrelated to the study, Arena Group requested to be removed from VETCOM's list of approved suppliers in December 2009. Currently, there are no local acquisitions for fresh poultry.

## Is food monitored on an ongoing basis?

Yes, there are multiple layers of protection U.S. military and civilian personnel and their families receive when purchasing food items on base. Food provided on base is monitored on an ongoing basis for the continued safety of U.S. personnel as follows:

- U.S. Naval Hospital Naples Preventive Medicine routinely inspects all dining facilities on base to ensure that food is properly stored, maintained, and prepared.
- VETCOM ensures the following within Navy Commissaries as directed by Department of Defense Directive 6400.4:
  - . Inspectors are stationed in the Commissary and consistently monitor food products;

- All food products are from VETCOM-approved sources that have been inspected;
- . Buying from approved sources is required for all meat, dairy, eggs, prepared vegetables and bottled water (fresh produce is exempt in Western Europe);
- . Proper facility sanitation;
- . Personal hygiene practices of food service workers; and
- . Education of food service managers and employees about food safety.

For more information on VETCOM, food safety, and approved food sources, visit VETCOM's website at <u>www.vetcom.amedd.army.mil/.</u>

## Does the Navy inspect food off-base?

No, the U.S. Government does not inspect restaurants or supermarkets off-base. Italy has a system in place to inspect Italian food facilities, markets, and suppliers. However, VETCOM does inspect Italian food manufacturing facilities producing food that is supplied to U.S. military installations.

A good sanitary practice wherever you are is that all fresh fruits and vegetables be thoroughly washed with potable water prior to eating or cooking. Immune-compromised people should consume only cooked fruits and vegetables. These food safety guidelines apply no matter where you live in the world.

Some fruits like strawberries and root vegetables are at greater risk from consumption because they have higher water absorption rates. The crops for these fruits and vegetables receive water through irrigation and the irrigation water may be contaminated. Try to determine the origin of this produce to ensure whether it is safe to eat.

### What is Italy's inspection process?

Italian laws are guided by European Union Directives, which mandate various aspects of food safety. Levels of authority and responsibilities are similar to that in the United States. Italy's food safety requirements include, but are not limited to, inspecting catering operators every six months, inspecting supermarkets every nine months, and inspecting restaurants and retail shops annually.

### **Community Awareness**

Findings of the food study were provided to Navy Leadership, U.S. Consulate Naples, host nation officials, the Navy community, and media beginning in May 2009.