

# Mycobacterium Marinum Fact Sheet

(Also known as: *Swimming pool granuloma, fish tank granuloma, fish-handlers' nodules, surfers' nodules*)

***Mycobacterium Marinum (M. marinum)* is a slowly growing bacteria that may cause disease in fish and people.** This bacteria occurs in bodies of fresh or salt water in various parts of the world. It has also been found in fish from the Chesapeake Bay and other waters. Other types of mycobacteria, such as *M. chelonae* and *M. chesapeaki*, may also be present in water. While they can sometimes cause disease in fish, they rarely do in people.

**Human infections by *M. marinum* are rare.** However, people who have breaks in the skin such as cuts and scrapes may be at risk

- when in contact with water from an aquarium or fish tank,
- when handling, cleaning, or processing fish, or
- while swimming or working in fresh or salt water. One form of the infection, known as “swimming pool granuloma”, can be due to the ineffective chlorination of swimming pools.

In the United States, most human infections due to this bacteria had been associated with exposures to fish tanks.

***M. marinum* infection is not spread from person to person**

After exposure, symptoms usually appear within 2 to 4 weeks. Some reported cases have developed symptoms after 2 to 4 months or longer due to the slow-growing nature of this bacterium.

The most frequent symptom is a slowly developing nodule (raised bump) at the site the bacteria entered the body. Frequently, the nodule is noticed on the hand or upper arm. Later the nodule can become an enlarging sore (ulcer). Swelling of nearby lymph nodes occurs. This infection can also involve the joints and bones. Infections with this bacterium can be treated with antibiotics. Antibiotics may need to be taken for as long as 6 months or more.

A health care provider should be consulted if a skin nodule or reddened sore (ulcer) develops following direct skin contact with fresh or salt water or after handling or processing fish.

**For people with immune system problems, *M. marinum* infection can become severe. If an infection is suspected in such persons, a health care provider should be promptly consulted.**

When fish are infected with *M. marinum*, they may have skin nodules and/or ulcers. Although there are no documented health problems in people that eat cooked infected fish, as a general rule it is recommended to not eat any fish that looks diseased. There is no evidence that human infections of *M. marinum* occur if fresh or salt water is swallowed.

**Steps to reduce risk of infections with *M. marinum*:**

- Avoid fresh or salt water activities if there are open cuts, scrapes, or sores on your skin, especially in bodies of water where this bacterium is known to exist.
- Persons with weakened immune systems can reduce risk of infection by carefully covering cuts, scrapes, or sores during fresh or salt water activities and while cleaning fish tanks or handling, cleaning or processing fish.
- Wear heavy gloves (leather or heavy cotton) while cleaning or processing fish, especially fish with sharp spines that may cause cuts, scratches, or sores to the hands and skin. Wash hands thoroughly with soap and water after fish processing or use a waterless cleanser.
- Wear waterproof gloves when cleaning home aquariums or fish tanks. Wash hands and forearms thoroughly with soap and running water after cleaning the tank, even if gloves were worn.
- Ensure regular and adequate chlorination of swimming pools to kill any bacteria that may be present.