



# Fish Fact Sheet

## Occupational Safety and Health Information

### ***General Safety Information for Persons Working with Fish***

The following information is intended to inform individuals who are involved with the care and use of animals about potential hazards (e.g., zoonoses, allergies, injuries) associated with working with various animal species and to provide information as to how they may lessen these hazards (e.g., personal hygiene, personal protective equipment [PPE]).

### ***Zoonotic Diseases of Fish***

Fish can carry organisms that may cause infection and disease in humans (zoonotic diseases, zoonoses) and these may be transmitted either directly by handling the fish, or indirectly through exposure to water or holding tanks. Other than food poisoning from eating infected fish, the frequency of transmission of disease-producing agents from fish to human is low. Some infectious agents found in fish and aquarium water have the potential to be transmitted to humans, usually through contamination of cuts or scrapes on the skin. Many of the diseases caused by organisms transmitted by fish are “opportunistic”, this means that for a disease to develop in humans, that person will likely be immunocompromised (e.g., AIDS/HIV positive, or have had the spleen removed), or is taking medications that impair the immune system (e.g., steroids, immunosuppressive drugs, or chemotherapy). If you are at risk for contracting a fishborne disease (e.g., you are immunosuppressed or immunocompromised), you should consult your physician about the risks to your health. Everyone who handles fish should be aware of a number of important diseases that fish may carry, which include: ***Mycobacterium marinum*** (Tuberculosis), ***Erysipelothrix rhusiopathiae***, ***Aeromonas spp.*** Some of these diseases may not produce observable signs of illness in the fish; therefore, if you handle fish or their tank water you must take appropriate precautions to prevent transmission of these infections. You can view more information on these agents and other agents in [Appendix C](#) of the university Infection Prevention Program and the [Occupational Safety and Health Program for Animal Handlers](#).

### ***Injuries from Handling Fish***

People can receive cuts, scratches, or puncture wounds when handling the fins of some fish species. Infectious organisms from the fish or their tank water can enter skin wounds of handlers and may establish an infection. It is essential that people who handle fish for research or teaching be provided with training in proper handling techniques in order to avoid injury to themselves or the animals, such specific handling and restraint techniques, and protective clothing requirements.

### ***Allergic Reactions to Fish***

In the laboratory setting, human sensitivity to fish allergens (proteins which causes an allergic reaction in people) is rare. However, some people do become sensitized to fish proteins through inhalation or skin contact.



## ***How to Protect Yourself***

**Wash your Hands:** The single most effective preventative measure that you can take is thorough, regular hand washing. You must wash your hands and arms after handling fish or contaminated water from tanks. You should avoid touching your face, eyes, nose or mouth with unwashed hands or contaminated gloves. You must never eat, drink, smoke, or apply makeup in animal rooms.

**Wear Personal Protective Equipment:** If you are in a situation where you will spend a significant amount of time with your hands immersed in water or if you have any cuts and abrasions on your hands or arms, you should wear sturdy, water-proof gloves of sufficient length to prevent water from entering the glove at the cuff.

**Tell your Physician you work with Fish:** Whenever you are ill, even if you are not certain that the illness is work related, always mention to your physician that you work with fish. Many zoonotic diseases have flu-like symptoms and would not normally be suspected. Your physician needs this information to make an accurate diagnosis. Questions about personal human health should be answered by your physician.

**Seek Medical Attention Promptly:** If you are injured on the job when handling fish, holding water or contaminated tanks/equipment, stop the bleeding of wounds and wash the affected areas with antibacterial soap and water. For fieldwork where soap and water may not be readily available, use of baby wipes (available in small portable packages) or alcohol-based cleansing gel is acceptable. Alcohol-based gels are neutralized by organic matter so the first application should be wiped off to remove debris, or the area can be cleaned first with a baby wipe, and the next application of gel can be left on the skin.

- Immediately report the incident to the facility director, your supervisor, or the teaching instructor if applicable.
- Those individuals needing immediate medical treatment for serious injuries may visit an appropriate healthcare provider for treatment (e.g., emergency room, primary care physician, students may also be treated at Student Health Services). Immediate medical treatment may be required if:
  - An individual's ability to breath properly is affected;
  - Bleeding is excessive and difficult to control;
  - An injury clearly needs sutures; or
  - There is a loss of consciousness associated with the incident.
- Employees' supervisor completes an [Employers' Accident Report](#) within 24 hours of the incident for employees. This document is specific to the Workers Compensation Program and is required prior to any follow-up medical services being provided for employees.
- The facility director or manager completes a General Incident Report form to be used by the facility director, facility manager, and Environmental Health & Safety for review of the incident.