



Rodent Fact Sheet

Occupational Safety and Health Information

General Safety Information for Persons Working with Rodents

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 Rodents

Mice, rats, hamsters, guinea pigs, and gerbils can carry organisms that may cause infection and disease in humans (zoonotic diseases, zoonoses) and these may be transmitted either directly (e.g., through bites) or indirectly (e.g., through exposure to feces). However, most rodents in a laboratory setting are strictly monitored to assess their health status, and development of disease in humans is usually found in people who are immunosuppressed (e.g., people taking medications that impair their immune system such as steroids, other immunosuppressive drugs, or chemotherapy for cancer treatment), or who are immunocompromised (e.g., people with HIV/AIDS, or people who have had their spleen removed). People who handle rodents should be aware of a number of important diseases that rodents may carry which include **Hantavirus**, **Lymphocytic choriomengitis**, **Leptospirosis**, and **Campylobacter**. Some of these diseases may not produce observable signs of illness in the rodent; therefore, if you handle laboratory-housed or wild rodents or their wastes 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](#). Please see the [Rabies Fact Sheet](#) for guidance on how to respond if there is a suspect exposure event.

Injuries from Handling Rodents

A laboratory-born rodent is less likely to bite or scratch if frequent gentle handling is used to make the animal accustomed to humans. Rodents may occasionally inflict injuries to people such as bites or scratches. The long incisor teeth of rodents can inflict deep bites. It is essential that people who handle rodents 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 Rodents

The greatest occupational risk in working with rodents is the development of an allergic reaction to the rodent. People who have pre-existing allergies are at greater risk when handling rodents. Rodent allergens (protein materials which cause an allergic reaction in people) are found in the animal's urine, which can then contaminate their fur, and can also be found in their saliva. These allergens can be carried by air currents in the animal room, and can come into contact with your skin, eyes, nasal passages, and lungs, where allergic reactions can occur. People with allergies to rodents may have sneezing, congestion, itchy and watery eyes and skin rash/itching when they are exposed to rodents or to rooms and equipment used to house the rodents.

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 if long-sleeved garments are not worn) after handling rodents. 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: Laboratory coats, overalls, scrub suits, and gloves may be required when undertaking some tasks with rodents, particularly cleaning litter from their cages. Wash your hands and arms after removing your gloves. Face masks (e.g. N-95) or PAPR's should be used if you have allergies to rodents. Respiratory protection (mask or respirator) should be worn if there is a risk of aerosol transmission of a zoonotic disease. Employees who need to wear respiratory protection must be medically cleared by Environmental Health and Safety (EHS) before being fit tested with a respirator (if applicable). Complete the [medical survey form](#) to start this process if you are an employee. Students will be fit tested by EHS after providing our medical staff a note from your primary care physician, or after signing an 'informed consent' form at the time of service.

Tell your Physician you work with Rodents: 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 rodents. 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 (e.g., bitten) provide immediate first-aid. Stop the bleeding of wounds and wash the affected areas with 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.
- If you are working with a purposefully infected animal, the individual seeking medical attention must take a Hazard Summary sheet or agent SDS and present them to the healthcare provider prior to receiving services. It is important that the healthcare provider be made aware of the hazards present in the facility in order to appropriately diagnose and treat an individual.
- 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.