



Cats

All employees and students working with animals should be aware that laboratory animals might bite, kick, or scratch. Animals respond to sounds and smells in the same manner as people, however, they can hear, smell and react to things that people might not detect. Unexpected and sudden movement by an animal can produce injury to an animal handler. Many animals have a "flight zone," in which approaches by another animal or a person cause an attempt to escape. Although the risk of bites, kicks and scratches is species dependent; there are a few simple guidelines, which if followed, will significantly reduce the potential risks of such incidents. These include:

- Always wear appropriate personal protective equipment, especially hand and face/eye protection.
- If moving large contaminated items (e.g. non-human primate cages), wear heavy gloves.
- When available and appropriate, use mechanical restrainers according to IACUC guidelines when performing procedures on unanesthetized animals.
- All bites and scratches that result in bleeding should be immediately and thoroughly scrubbed and cleansed with soap and running water for at least 15 minutes. Notify supervisor and seek medical attention immediately.
- There are some potential hazards inherent in any work environment. These include poor ergonomics, slips and falls, electrical safety hazards, etc. UT Southwestern Medical Center has developed a wide range of environmental health and safety guidelines to address these potential hazards.

ALLERGY HAZARDS

One of the most common health concerns in the laboratory animal setting is a work-associated allergy. The risk of developing an allergy depends on parameters such as species, facility, ventilation, and the employee's "base-line" health status. There are also several individual risks which can be divided into four overlapping Risk Groups:

- **Normal:** No evidence of allergic disease;
- **Atopic:** Pre-existing allergic disease;
- **Asymptomatic:** Antibodies to animal allergens;
- **Symptomatic:** Clinical symptoms on exposure to allergenic animal proteins.
 - Symptoms of allergic reaction vary depending on the severity of the reaction and include:
 - **Contact urticaria** with symptoms such as: redness, itchiness of skin, welts and hives;
 - **Allergic conjunctivitis** with symptoms such as: itchy, burning, running or red eyes.
 - **Allergic rhinitis** with symptoms such as: sneezing, itchiness, clear nasal drainage, nasal congestion;

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- **Asthma** with symptoms such as: cough, wheezing, chest tightness, shortness of breath;
- **Anaphylaxis** with symptoms such as: generalized itching, hives, throat tightness, eye or lip swelling, difficulty in swallowing, hoarseness, shortness of breath, dizziness, fainting, nausea, vomiting, abdominal cramps, and diarrhea.

HOW TO PROTECT YOURSELF

- Wearing appropriate PPE and respiratory protection can help to limit the amount of animal dander exposure.

INFECTIOUS DISEASE HAZARDS

- **Cat scratch disease:** caused by the scratch or bite of a cat infected with the rickettsial *Bartonella henselae*.
 - **Reservoir/source of infection:** cats
 - **Transmission:** bite or scratch of infected cat
 - **Disease in people:** causes swelling, regional lymphadenitis, pain. More severe disease (bacillary angiomatosis) in immuno-compromised people.
- **Pasturella multocida:** associated with infected bites and scratches.
- **Toxoplasmosis:** caused by the single-celled parasite called *Toxoplasma gondii*. The parasite is found throughout the world and millions of people in the United States are probably infected, but very few have symptoms. In a healthy person the immune system keeps the parasite from causing illness. Pregnant women and individuals who have compromised immune system, however, should use caution when handling cats. For them, an infection caused by *Toxoplasma* could cause serious illness.
 - **Reservoir/source of infection:** cats
 - **Transmission:** Accidental ingestion of cat feces from an infected cat that is shedding the organism. A person could contract the disease by touching his/her to his/her mouth after cleaning a cat's litter box/cage, or touching anything that has come into contact with cat feces.
 - **Disease in people:** In most people usually goes unnoticed. Other may feel like they have the "flu" with swollen lymph glands or muscle aches and pains. These symptoms can last a month or more. Severe forms of the disease are more likely in individuals with weak immune systems and can cause brain, eye and other organ damage.

HOW TO PROTECT YOURSELF

- Until you have washed your hands, keep them away from your mouth, nose and eyes.
- Do not eat, drink or store food in research areas.
- Do not handle contact lenses in the laboratory. Wearing of gloves, lab coat or scrubs is required. Other personal protective equipment such as dust/mist masks or approved respirator masks (e.g., Type N95 by 3M company) are strongly recommended when working with animals.

PHYSICAL HAZARDS

- **Bites and scratches:** The potential for receiving a bite or scratch is an ever-present hazard that faces all employees working directly with laboratory animals and related

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equipment. Employees should be properly trained in handling and general restraint techniques of the species they are assigned to. Additionally, all staff should be familiar with first aid procedures specific to each species

- **Bruises and cuts:** Cuts could potentially expose the employee to viral, bacterial, parasitic or allergic agents; which are transmissible from animals to humans.
- **Needlestick / Sharps injury**

HOW TO PROTECT YOURSELF

- Proper training and awareness of animal behavior are vitally important to avoid injuries.
- When available and appropriate, use mechanical restrainers when performing procedures on unanesthetized animals.
- Read and understand the protocol-related procedures before you start the experiment. If necessary, do a dry run.
- Do not recap needles; dispose of them in appropriate sharp containers.
- Use safety needles and sharp devices.
- Until you have washed your hands, keep them away from your mouth, nose and eyes.
- Please read and understand the special safety requirements for each work area or animal species.
- Clean all spills immediately.
- Report all incidents or equipment malfunctions to your supervisor immediately

PROTOCOL RELATED HAZARDS

Protocol-related hazards are defined as those specifically associated with either routine operational or experiment-specific protocols. Some general hazards also associated with protocols, such as the risk of fire in the use of bunsen burners or torches, or electrical hazards in the use of experiment-specific equipment, are not included in the category of protocol-related hazards. Protocol-related hazards are protocol-specific. For example:

- Hazards associated with the use of a specific viral vector carrying a transgene for toxin production or with a piece of prototype equipment to perform an experimental task.
- Experimental studies can involve any number of hazards such as the use of radioactive materials, infectious agents, toxins or toxic chemicals, flammable substances, etc.

HOW TO PROTECT YOURSELF

- Follow the steps in your approved safety plan.
- Educate yourself on the protocol specific hazards.

Additional information regarding various protocol-related hazards may be obtained from

www.utsouthwestern.edu/workerprotection