

Occupational Health for Animal Handling

Allergies and Diseases Communicable from Animals to Humans

Humans usually are not susceptible to infectious diseases suffered by animals. However, there are some important exceptions. Infections of animals may, on some occasions, produce significant disease in people. These infections are called zoonotic diseases. They are communicated from animals to humans. In many cases the animal shows little, if any, sign of illness.

A bacterium in the normal flora of a healthy animal may cause a serious disorder in a person exposed to it. While the animals have developed resistance to these microorganisms, humans with no previous exposure to the agent lack this protective immunity. One should always be aware of possible consequences when working with each type of animal and take precautions to minimize the risk of infection.

In the event that you do become ill with a fever or some other sign of infection, it is important to let the physician caring for you know of the work you do with animals. The scope of possible zoonotic infections is quite large. You will be given information on some of the specific diseases associated with the animals that you plan to work with or around. More specific and complete information can be obtained from EH&S.

Personnel with suppressed immune systems must be evaluated by their physicians prior to working with animals.

There are some common sense steps, referred to as **Universal Precautions**, which can be taken to lessen the risk of infection in general. These include cleanliness in routine tasks around animals.

Hands should be washed frequently after handling chemicals, infectious materials, or animals, and before leaving the laboratory.

To protect against accidental exposure:

- Avoid using sharps whenever possible
- substitute manually operated pipettes for needles and syringes, and cannulae for needles
- keep hands away from the mouth, nose and eyes
- never eat, drink, smoke, or handle contact lenses in animal areas
- never apply cosmetics or take/apply medicine in animal areas
- wear gloves and a lab coat or scrubs when working in animal areas
- use other personal protective equipment as appropriate, such as a respirator to help reduce exposure to allergens
- take enough time to give injections properly; using a two person team to inoculate animals
- do not recap needles; have a proper container for disposal close by and use it

Most, if not all of these diseases and conditions can be prevented through the use of Universal Precautions. It is important to observe these precautions at all times, since it is often impossible to know which animals are carriers or are infected and about to become ill with one of these infections. It is important to have an up to date tetanus booster because of the risk of injuries from cages and implements.

All personnel should be aware that laboratory animals (particularly mice, rats, rabbits, guinea pigs, hamsters, cats, dogs, and horses) are sources of potent allergens to sensitized persons. Typical allergic symptoms may include watery eyes, runny nose, wheezing, frequent coughing, or rashes.

All bite or scratch wounds that result in bleeding should be immediately and thoroughly scrubbed and cleansed with soap and water. Injuries sustained from a cat or dog should be washed for 15 minutes. First aid kits are available if needed. The employee must inform their supervisor of the injury. Injured personnel should report for medical attention unless the injury is very minor.

1. During clinic hours, it is highly recommended that students go to the OSU Student Health Services (Plageman Building) for treatment or referral.
2. Employees (faculty and staff) should report to the Corvallis Clinic Occupational Health department for treatment or referral during clinic hours.
3. In the event of clinic closure, all injured personnel should go to a local health care facility or the emergency department, depending on the nature of the need.

For any injury, if you wish to go to a physician, you may go to your own personal health care provider (you may file a worker's compensation claim). If you need a tetanus booster, or are unsure whether or not you need one, contact SHS Occupational Medicine (541-737-7566). All bite and scratch wounds, especially cat bites, should be observed for infection. If redness, pain, or swelling occurs around the wound, consult a physician. If you sustain such an injury **immediately** inform your supervisor.

There should be methods in place for monitoring exposure to potentially hazardous biological, chemical and physical agents. Protective devices should be used when possible and other safety practices consistent with current safety guidelines should be adopted. Potentially hazardous chemicals in the animal laboratory and care room may be found in disinfectants, cleaning agents, pesticides, and as feed and bedding contaminants. A biological safety cabinet should be used when handling infectious materials and a fume hood when handling toxic materials. All work surfaces should be decontaminated daily. All biological-contaminated materials should be decontaminated (by autoclaving or chemical disinfection) before washing, reuse, or disposal. If you are pregnant, or planning to become pregnant, you should confer with your physician or the OSU BioSafety Officer prior to the possible exposure to toxic chemicals. If you have further questions about working with hazardous agents, contact EH&S.

Special Information for Women of Child Bearing Years

Toxoplasmosis is a disease that is spread most commonly by cat feces. It usually causes either no symptoms at all or a mild condition similar to Mononucleosis. Gloves should be worn when working in areas potentially contaminated with cat feces. Thorough hand washing is necessary after handling any potential source of infection. This disease is not transmitted between people except from mother to fetus during pregnancy. Toxoplasmosis can have very serious consequences for the baby, including brain damage and even death.

Since asymptomatic toxoplasma infection is common before child-bearing years, women who are planning to become pregnant and will be handling high-risk species should consider having a serological sample taken to avoid confusion about the significance of positive antibody tests in case of subsequent pregnancy. Contact SHS Occupational Medicine for information on this testing if needed. Pregnant animal handlers, without immunity to toxoplasmosis, should not be exposed to possible toxoplasmosis infection from infected species and should not have contact with cats or their feces.

Working with hazardous agents in the first trimester of pregnancy is discouraged, in particular exposure to the possible inhalation of toxic chemicals. Contact EH&S or SHS Occupational Medicine if you have questions about the safety of the agents you use.