

Occupational Health for Animal Handling**Care and Use of Owls and Other Birds**

The Occupational Health and Safety Program is designed to inform individuals who work with animals about potential zoonoses (diseases of animals transmissible to humans), personal hygiene, and other potential hazards associated with animal exposure. This information sheet is directed toward those involved in the care and use of birds.

Potential Zoonotic Diseases

Owls can carry organisms that may be potentially infectious to humans. The laboratory setting is closely managed to minimize risk to the colony as well as to personnel working with the colony. The likelihood of a person contracting a disease from an owl is rare. However, there is always a risk of an outbreak occurring within a colony. The outbreak could be caused by a new animal introduced into the colony. Outbreaks can also be caused by animal handlers with asymptomatic disease-carrying pet birds inadvertently contaminating shoes or clothing and introducing it into the colony. The development of disease in the human host often requires a preexisting state that compromises the immune system. If you have an immune-compromising medical condition or you are taking medications that impair your immune system (steroids, immunosuppressive drugs, or chemotherapy) you are at higher risk for contracting a bird or owl disease and should consult your physician. The following is a list of known and potential bird or owl zoonosis.

Psittacosis (Ornithosis, Chlamydiosis) is a disease caused by the bacteria, *Chlamydia psittaci*. Psittacosis is common in wild birds, although it may occur in laboratory animals, too. The disease is spread by direct contact or from exudative materials (e.g. pus), secretions or feces. Direct contact is not necessary. Disease in people occurs 7-14 days after exposure; an infected human will experience respiratory illness, from flu-like symptoms to pneumonia. Serious cases can result in hepatitis, myocarditis, and thrombophlebitis.

Mycobacterium avium Avian tuberculosis is transmitted from infected animals or animal tissue primarily via the aerosol route, although exposure may also come from cutaneous inoculation of the bacilli. Exposure to infected tissue, dusty bedding of infected animals, coughing of infected animals and aerosolization of the organism during sanitation procedures may also be sources of the disease. *M. avium* is rare in laboratory animals.

Other Bacterial Diseases

There are several other bacterial diseases that are possibly, though rarely, spread through working with owls. These include Salmonellosis, Campylobacteriosis, Erysipelothrix rhusiopathiae, Newcastle disease virus, Pasteurella multocida, Histoplasma capsulatum, Salmonellosis, Yersinia pseudotuberculosis, and other enteric pathogens. Good handwashing and appropriate use of gloves are adequate measures to protect from these diseases.

Allergic Reactions to Owls and Birds

Allergic reaction and hypersensitivity pneumonitis are potential occupational risk when working with owls. Those workers that have other allergies are at particular risk. Allergens are generally from bird proteins as sources of antigens. Hypersensitivity pneumonitis is a lung condition with symptoms that mimic pneumonia. Signs of allergic reaction after exposure to birds are rhinitis and asthma. Signs and symptoms of both allergic reactions and hypersensitivity occur several hours after exposure.

Physical Hazards of Owls and Birds

Owls can easily be startled and react in such a way as to cause injury to the worker. As a protective measure, wear protective equipment, and learn how best to work around the animals to minimize this behavior.

How to Protect Yourself

- Wash your hands. The single most effective preventative measure that can be taken is thorough, regular hand washing. Wash hands and arms after handling birds, their cages and their water. Never smoke, drink, or eat in the animal rooms or before washing your hands.
- Wear Personal Protective equipment: If you handle birds select the appropriate gloves for the job, and when in close contact with birds of unknown origin wear respiratory protection.
- Seek Medical Attention Promptly. If you are injured on the job, promptly report the accident to your supervisor even if it seems relatively minor. Minor cuts and abrasions should be immediately cleansed with antibacterial soap and then protected from exposure to birds. For more serious injuries or if there is any question, students should report to OSU Student Health Services, employees (faculty and staff) to the Corvallis Clinic Occupational Health department.
- Tell your physician you work with birds. Whenever you are ill, even if you're not certain that the illness is work-related, always mention to your physician that you work with birds. Many zoonotic diseases have flu-like symptoms and would not normally be suspected. Your physician needs this information to make an accurate diagnosis. Questions regarding personal human health should be answered by your physician.