

This information sheet is for the care and use of birds



Potential Zoonotic Diseases: Birds can carry organisms that may be potentially infectious to humans. Bird colonies in the laboratory setting are normally closely managed to produce high quality, healthy animal models. The likelihood of a person contracting a disease from a bird is very low. However, there is always a risk of an outbreak occurring within a colony, either from a new bird being introduced into an established colony or from individuals inadvertently contaminating a colony by wearing shoes or clothing that have been in contact with asymptomatic disease-carrying birds. A disease, such as *psittacosis*, is infectious both to other birds and to people.

Therefore, an outbreak within a colony could significantly increase the risk of human exposure.

Psittacosis (Ornithosis, Chlamydiosis): Psittacosis is a disease caused by the bacteria, *Chlamydia psittaci*. Psittacosis is common in wild birds of all types and can occur in laboratory bird colonies as well. The reservoir/source of infection to people is infected birds, especially ones displaying symptoms (diarrhea, respiratory signs, conjunctivitis and nasal discharge.) This disease is highly contagious to other birds as well as humans. Transmission may be through direct contact or from aerosolization with exudative materials (e.g. pus), secretions or feces. **Direct contact with the bird is not necessary.** In people, the disease occurs 7-14 days after exposure. An infected human may develop a respiratory illness of varying severity, from flu-like symptoms in mild cases to pneumonia in more significant infections. Serious cases can result in extensive interstitial pneumonia and rarely hepatitis, myocarditis, thrombophlebitis, and encephalitis. It is responsive to antibiotic therapy. Relapses occur in untreated infections.

Salmonellosis: Salmonellosis is a disease caused by the bacteria species *Salmonella*. It is one of the most common zoonotic diseases in humans. Birds and reptiles (especially iguanas) are the animals most frequently associated with *Salmonella*. Most people typically contract the disease by consuming food or water contaminated with the bacteria. Symptoms include diarrhea (usually watery, and occasionally bloody), nausea, vomiting, fever, chills, and abdominal cramps. If the bacteria leaves the blood stream and enters the central nervous system, meningitis/encephalitis may develop. Salmonellosis is a very serious disease in humans, especially for young children and people with compromised immune systems.

Newcastle disease and Avian Tuberculosis: Newcastle disease is a serious and fatal viral disease in avian species. Affected birds may demonstrate neurological signs that progress to death. Definitive diagnosis is through viral isolation of the organism. The disease is quite contagious among birds and has zoonotic potential that often may go unrecognized. Clinical signs in people most commonly involve a mild conjunctivitis, which is self-limiting. *Mycobacterium avian* (and possibly other species) is a causative agent of tuberculosis. Affected birds may carry the disease for years, and intermittently shed organisms. Humans are more commonly infected with M. tuberculosis and occasionally M. bovis. It is believed that immunocompetent humans are resistant to the strains of tuberculosis found in birds, but immunocompromised people, such as those

infected with HIV, those on chemotherapy, the elderly and children, are at increased risk. In adults, tuberculosis frequently affects the lungs, producing respiratory signs. People who are infected with human tuberculosis should not own birds since they can serve as a source of infection for their pets.

Allergic Reaction to Birds:

Various bird proteins have been identified as sources of antigens involved in both allergic reactions and hypersensitivity pneumonitis. Hypersensitivity pneumonitis is a lung condition with symptoms that mimic pneumonia. Symptoms develop after repeated exposure to a specific antigen. Signs of an allergic reaction after exposure to birds are rhinitis and asthma symptoms (wheezing and dry cough). Signs and symptoms of both allergic reactions and hypersensitivity pneumonitis usually occur several hours after exposure. To reduce exposure, perform procedures in a laminar flow hood whenever possible. If you have symptoms you are strongly advised to contact the Occupational Health Coordinator at 949-824-3757 to discuss this issue and arrange for follow-up with an occupational health physician.

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. For more information please contact the Occupational Health Coordinator at 949-824-3757 or visit the website for more information. <http://www.ehs.uci.edu/programs/ih/respiratory.html>

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.

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 seek medical services through [Workers Compensation](#) by calling (949) 824-9152 or visiting their [website](#). For treatment locations <http://www.ehs.uci.edu/MedEmergPoster.pdf>

SPECIES	BIOLOGICAL HAZARD/PATHOGEN	ROUTE OF TRANSMISSION	CLINICAL SYMPTOMS	PREVENTION/PROPHYLAXIS	MEDICAL SURVEILLANCE REQUIRED	RISKS FOR EXPOSURE AT UCI
Birds	Campylobacteriosis	Fecal/Oral from contaminated food and water	Diarrhea, vomiting, fever, abdominal pain, visible or occult blood, headache, muscle and joint pain	Personal hygiene or PPE	No	Yes
Birds	Newcastle disease virus	Contact with animal, inhalation of aerosols	Congestion, lacrimation, pain, swelling of subconjunctival tissues, slightly elevated temperatures, chills, pharyngitis	Personal hygiene, use of respirator.	No	Yes
Birds	Psittacosis	Airborne or direct contact	Respiratory symptoms	Screening of bird flocks. Very transmissible, use PPE, personal hygiene	No	Yes
Birds	Salmonellosis	Fecal/Oral, contaminated food and water	Diarrhea, vomiting, low grade fever	Personal hygiene	No	Yes

Revised 07/2014 information taken from UC Davis.