

**Occupational Health for Animal Handling****Care and Use of Camelids: Camels & Llamas**

The Occupational Health 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 camelids.

**Potential Injury and Zoonotic Diseases**

Camelids are large animals that are normally docile and can quickly become use to human interaction. Injury from camelids comes from their shoving, biting, or sitting down on their handlers. Injuries can occur from handling and restraining camelids due to their size and strength; therefore individuals with pre-existing back or joint problems may need assistance. Zoonotic diseases can be a hazard when working with camelids. The following lists several of the diseases that are associated with the care and handling of camelids.

**Q-Fever:** This rickettsial disease, caused by *Coxiella burnetti*, is most commonly associated with sheep, although goats, cattle, and other mammals can be sources of infection. Infected ruminants are usually asymptomatic. The rickettsia is shed in the urine, feces, milk, and most importantly, birth products (placenta, amniotic fluid, blood and soiled bedding) of infected animals. Q-fever is spread by aerosolization of infected body fluids. Disease transmission can be reduced by careful disposal of birth products. In most cases Q -fever is manifested by flu-like symptoms that usually resolve within 2 weeks and can be sometimes misdiagnosed as the flu, however, it can be severe in those with other health issues and can lead to pulmonary and cardiac complications. Respiratory protection should be used during the birthing process.

**Salmonella:** This bacterium inhabits the intestinal tract of many animals and humans. Salmonella occurs worldwide and is easily transmitted through ingestion. Common symptoms of the illness are acute gastroenteritis with sudden onset of abdominal pain, diarrhea, nausea and fever. Antibiotic treatment is standard treatment for the illness.

**Campylobacter:** This is a gram negative bacterium that has a worldwide distribution. Although most cases of human campylobacteriosis are of unknown origin, transmission is thought to occur by the fecal-oral route, through contamination of food or water, or by direct contact with infected fecal material. The organism has also been isolated from houseflies. Campylobacter is shed in the feces for at least six weeks after infection. Symptoms are acute gastrointestinal illness: diarrhea with or without blood, abdominal pain, and fever. It may cause pseudoappendicitis and, rarely, septicemia and arthritis. Usually it is a brief self-limiting disease that can be treated with antibiotics.

**Brucellosis** is a bacterial infectious disease of animals and humans. The disease in animals is caused by various species of brucella. It is generally limited to abortions and reproductive organ infections. In humans, the disease may mimic flu with symptoms of headache, fever, fatigue, muscle and joint pain. Rare complications include crippling arthritis, endocarditis, or meningitis. There is no cure for brucellosis in animals. Humans are treated with antibiotics for up to 4 to 6 weeks. Animals and humans are exposed to the brucella bacterium by handling or having contact with infected placentas, amniotic fluids, vaginal discharges, milk semen, reproductive tissues, and exudates from infected animals usually just prior to and after an abortion.

**Allergies:**

Animal related allergies are common. Although there are no known camelid allergens, the containment area may have allergens present such as hay, feed, and dust. Contact dermatitis can also occur when grooming camelids.

## 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 animals. Never smoke, drink or eat in the animal areas or before washing your hands.
- Wear gloves. Wear the appropriate gloves for the task and wash your hands after removing gloves.
- Wear respiratory protection. For some activities, respiratory protection should be worn. Your supervisor should be your resource for this equipment. If you wear a respirator, you must be fitted and tested for use through Environmental Health & Safety.
- Wear other protective clothing. Coveralls should be available and worn when working with camelids. Avoid wearing street clothes while working with animals.
- 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. 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 camelids. 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 camelids. 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.