



Goats and Sheep

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

Potential Injury and Zoonotic Diseases

Goats are more difficult to handle than cattle or sheep. They do not flow through handling systems with ease. When they are frightened, they may lie down and sulk and pack in a corner, risking injury to other goats. They can also become aggressive towards each other. They move in family groups, with the older females moving first. Their defense mechanisms are to ram or bite. They may need higher gates than sheep and will find escape spots in most handling systems, if they exist.

Sheep are large domestic animals that are normally docile. However, they can become dangerous especially when isolated from their flock. Jumping is common in sheep and they can jump with enough force to break a handler's legs. Butting is another defensive activity of sheep, and the rule of handling is to never turn your back on the animal when in their pens.

Ergonomic injuries such as back strain can occur from handling and restraining goats and sheep due to their size, strength and agility. Therefore individuals with pre-existing back or joint problems may need assistance when working with goats and sheep.

The zoonotic diseases associated with care and handling goats and sheep include the following:

Q fever: Q fever is a rickettsial infection caused by *Coxiella burnetii*. Only about half the people infected with this organism get sick. Most people who get sick start having symptoms 2 to 3 weeks after getting *C. burnetii*, although symptoms can start sooner. These symptoms include fever, headache, chest or stomach pain, vomiting, and diarrhea. The fever can last 1 to 2 weeks, but many people can also get more serious lung or liver infections. Most people get better within 1 to 2 months after being infected. Rarely, people can be sick for a year or more. Inflammation of the heart, especially the valves in the heart, can be a serious problem. Most infected animals do not show signs of Q fever, but the organism can be in barnyard dust that contains manure, urine, dried fluids from the birth of lambs and kids. People usually get Q fever by breathing in this contaminated

barnyard dust. Occasionally, people can get Q fever from drinking contaminated milk or from tick bites. [Click here for more information.](#)

Contagious Ecthyma (Orf): This poxviral disease is known as contagious ecthyma or soremouth in sheep and goats, and orf in people. In ruminants, it is evidence by exudative (oozing) lesions found on the muzzle, eyelids, oral cavity, feet or external genitalia. It is more common in younger animals. The disease in ruminants is contagious to humans and other animals. Infected sheep or goats are the source of infection to people. Transmission can be direct contact with lesions or indirectly by contaminated fomites (hair, clothing). No person to person transmission has been reported. This is a self-limiting infection, which is usually found on the hands and consists of painful nodules (bumps) and cutaneous ulcerative lesions, and usually lasts 1-2 months. [Click here for more information.](#)

Anthrax: Anthrax is a serious disease caused by *Bacillus anthracis*, a bacterium that forms spores. Humans can become infected with anthrax by handling products from infected animals or by breathing in anthrax spores from infected animal products. There are three types of anthrax: cutaneous (skin), inhalation (lungs) and gastrointestinal (digestive). Their symptoms of anthrax depend on the route of infection or type. Cutaneous anthrax presents with a small sore that becomes a blister. The blister then develops into a skin ulcer with a black area in the center. The sore, blister and ulcer do not hurt. Inhalation anthrax symptoms are similar to the cold or flu and can include a sore throat, mild fever, and muscle aches. Later symptoms include cough, chest discomfort, shortness of breath, tiredness and muscle aches. Gastrointestinal anthrax symptoms are nausea, loss of appetite, bloody diarrhea, and fever, followed by stomach pain. Symptoms for all three types generally appear within 7 days of contact. Anthrax can be treated if detected early by antibiotic therapy. [Click here for more information.](#)

Brucellosis: Brucellosis is caused by several *Brucella* species. It is commonly transmitted through abrasions of the skin from handling infected mammals. Symptoms can be variable and may include flu like symptoms, fever, sweats, headaches, back pains, and physical weakness. Severe infections of the central nervous system or lining of the heart may occur. Brucellosis can also cause long-lasting or chronic symptoms that include recurrent fevers, joint pain and fatigue. Brucellosis can be treated with antibiotics. [Click here for more information.](#)

Rabies: Rabies is a fatal infectious disease of people and other mammals caused by a virus. Rabies affects the nervous system. Infection is primarily acquired from the bite of an infected mammal. The virus is present in the saliva of the rabid animal. People can also get infected when saliva gets directly into the eyes, nose, mouth or a wound. It is important to recognize that domestic animals can get infected and transmit the disease. Rabies is a fatal disease and the primary goal is to prevent infection. Symptoms usually develop 10 days to 7 months after exposure, and can result in death 2-12 days later. Behavioral changes and unexplained paralysis are most indicative of rabies. Signs include anorexia, apprehension, nervousness, irritability, hyper-excitability, ataxia, change in voice, uncharacteristic aggressiveness, seeking solitude. In the **furious** form the animal

becomes very aggressive and vicious whereas the **paralytic** form is associated with profuse salivation and inability to swallow due to muscle paralysis. Wild animals will often display abnormal behaviors and loose fear of people and other animals.

[Click here for more information.](#)

Other diseases: Other diseases that can be spread through working with sheep and goats are [cryptosporidiosis](#), [giardia](#), [salmonellosis](#) and [campylobacter](#) through the fecal-oral route.

How to Protect Yourself

- Wear gloves and wash your hands.
- Wear respiratory protection. If respiratory protection is worn, it is mandatory that individuals enroll in the Respiratory Protection Program through EHS.
- Wear protective clothing. Avoid wearing street clothes when working with animals.
- Seek medical attention if you are injured. Contact your supervisor and Occupational Health and Safety to be instructed as to where to go to seek medical attention.
- Enroll in the Occupational Health and Safety Program. Update your information on an annual basis to ensure proper medical surveillance.