

Occupational Health and Safety Working with Goats

When working with goats, you should be familiar with the following safe practices and potential health risks:

Potential Physical Injury

Goats are large domestic animals that are not docile. They are very rambunctious and can become dangerous, especially when isolated from their flock. Jumping is common in goats. They can jump with enough force to break a handler's legs. Butting is another defensive activity of goats. 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 due to their size and strength. Individuals with pre-existing back or joint problems may need assistance when working with goats.

Staying Healthy

Wash your hands after animal handling and use. The most common way to contract a zoonotic infection is to place the infectious material directly in your own mouth. Always wash your hands after handling an

Contagious Ecthyma (Orf)

This poxviral disease is known as contagious ecthyma or soremouth in goats or sheep, and orf in people. In ruminants, it is evidenced 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 goats or sheep are the source of infection to people. Transmission can be by direct contact with lesions or indirectly by contaminated fomites (hair, clothing). No person-to-person contact 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.

Campylobacteriosis

Organisms of the genus *Campylobacter* have been recognized as a leading cause of diarrhea in humans and animals in recent years. Numerous cases involving the zoonotic transmission of the organisms in laboratory animals have been described. Young animals readily acquire the infection and shed the organism. Young animals often are implicated as the source of zoonotic transmission. The organism is transmitted by the fecal-oral route via contaminated food or water, or by direct contact with infected animals.

Campylobacter produces an acute gastrointestinal illness, which, in most cases, is brief and self-limiting. The clinical signs of *Campylobacter enteritis* include watery diarrhea, sometimes with mucus, blood and leukocytes; abdominal pain; fever; and nausea and vomiting. Unusual complications of the disease include typhoid-like syndrome, reactive arthritis, hepatitis, interstitial nephritis, hemolytic-uremic syndrome, febrile convulsions, meningitis, and Guillain-Barré syndrome.

Cryptosporidiosis

Cryptosporidium are common protozoans that cause enteritis and diarrhea in a number of domestic species. Cross-infectivity studies have shown a lack of host specificity for many of the organisms. Cryptosporidiosis is common in young animals, particularly ruminants and piglets.

Transmission is usually by the fecal–oral route but can also occur by aerosols. Sporulated oocysts are shed in the feces and are immediately infectious; they may survive for 2 to 6 months in a moist environment. Direct transmission between animals or humans is common. An estimated 50% of dairy calves shed oocysts; calves often spread cryptosporidiosis to each other or to humans.

Giardiasis

Giardia is a flagellate protozoan that lives in the anterior portion of the host's small intestine. Giardiasis is endemic throughout the world. The infection has been confirmed in a wide variety of domestic and wild mammal species. The giardias that infect man and domestic and wild animals are morphologically identical, and cross-species infections can occur. Surveys from all over the world have found prevalences of 5% to 90% in calves.

In man, the incubation period is generally 3-25 days. The symptomatology consists mainly of diarrhea and bloating, frequently accompanied by abdominal pain. Nausea and vomiting occur less frequently. The acute phase of the disease lasts 3-4 days. In some persons, giardiasis may be a prolonged illness, with episodes of recurring diarrhea and flatulence, urticaria, and intolerance of certain foods.

Leptospirosis

This is a contagious bacterial disease of animals and humans due to infection with *Leptospira interrogans* species. Domestic livestock are among the animals that are considered reservoir hosts. Leptospire are shed in the urine of reservoir animals, which often remain asymptomatic and carry the organism in their renal tubules for years. The usual mode of transmission occurs through abraded skin or mucous membranes, and is often related to direct contact with urine or tissues of infected animals.

Clinical symptoms may be severe, mild or absent, and may cause a wide variety of symptoms including fever, myalgia, headache, chills, icterus and conjunctival suffusion.

Salmonellosis

Enteric infection with *Salmonella spp.* has a worldwide distribution among humans and animals. The organism is transmitted by the fecal-oral route, via direct contact with infected animals.

Salmonella infection of animal origin produces a sudden onset of fever, myalgias, cephalalgia, and malaise. The main symptoms consist of abdominal pain, nausea, vomiting, and diarrhea. Dehydration may be serious. The presence and severity of symptoms depends on the infecting dose. Typically there is watery diarrhea for about ten days, possibly leading to dehydration, with abdominal pain and low-grade fever. Septicemia and focal infections occur as secondary complications. Focal infections can be localized in any tissue of the body, so the disease has diverse manifestations.