Care and Use of Mustelidae: Ferrets, Weasels, Otters, Skunks, Badgers

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 mustelids.

Potential Injury and Zoonotic Diseases

These furbearers are the smallest members of the family Mustelidae. Most mustelids consume flesh, while others feed on a high proportion of insects or other invertebrates. They are often quick, agile, and extremely effective predators with very sharp teeth. Their primary risk to humans is their bite and, in the wild, their potential for transmitting rabies. Some of the zoonotic diseases associated with mustelids are:

**Rabies:** Rabies virus (rhabdovirus) can infect almost any mammal. The source of infection to people is an infected animal. The virus is shed in saliva 1-14 days before clinical symptoms develop. Any random-source (animal with an unknown clinical history) or wild animal exhibiting central nervous system signs that are progressive should be considered suspect for rabies. Transmission is through direct contact with saliva, mucus membranes, or blood, e.g. bite, or saliva on an open wound. The incubation period is from 2 to 8 weeks, possibly longer. Symptoms are pain at the site of the bite, followed by numbness. The skin becomes quite sensitive to temperature changes and laryngeal spasms are present. Muscle spasms, extreme excitability, and convulsions occur. Rabies in unvaccinated people is almost invariably fatal. Rabies vaccine is available through Occupational Health Services.

**Salmonellosis:** It 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.

**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.

**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 any animal, their bedding, cages, or contaminated water. Never smoke, drink or eat in the animal rooms or before washing your hands.

- **Wear gloves.** If you are in a situation in which you will handle mustelids, wear sturdy impervious gloves.

- **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 dirt. All mustelid bites should receive medical attention. For more serious injuries or if there are any questions, contact Occupational Health Services.

- **Tell your physician you work with mustelids.** 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 mustelids. 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.

**Contact**

**Occupational Health Services**

employeehealth@ucdavis.edu 530-752-6051

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