

Occupational Health for Animal Handling

Care and Use of Horses

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 horses.

Potential Injury and Zoonotic Diseases

Horses are large farm animals that respond to gentle handling. Horses are herd animals and creatures of habit and prefer to stay with their herd and resist being moved to strange territory. They do not like surprises or fast movement and express their dislike by pinning back their ears or swishing their tails. They can deliver swift kicks and will bite. Ergonomic injuries such as back strain can occur from handling and restraining horses due to their size and strength; therefore individuals with pre-existing back or joint problems may need assistance when working with horses. Zoonotic diseases, as with other farm animals, can be a hazard when working with horses. The following lists several of the diseases that are associated with the care and handling of horses:

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 or even longer. Symptoms are pain at the site of the bite followed by numbness. The skin becomes quite sensitive to temperature changes and there are laryngeal (throat) spasms. Muscle spasms and extreme excitability are present and convulsions occur. Rabies in unvaccinated people is almost invariably fatal. Rabies vaccine is available through Occupational Health at Student Health Services.

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

Tuberculosis: This disease may be transmitted to people through contact with birds, livestock, and non-human primates. Tuberculosis is usually transmitted by the aerosolization of infective bacilli which can be found mainly in the sputum as well as other body fluids. Contact with body fluids during necropsy may be a major mode of transmission of TB to humans. Pulmonary tuberculosis is the most common type but other organs may also be involved.

Anthrax: This is an acute bacterial infection of humans and animals which may be rapidly fatal. The disease occurs worldwide and is an occupational hazard of persons such as wool-sorters, farm workers and veterinarians in contact with infected animals or their by-products. All domestic, zoo and wild animals are potentially at risk of infection. Anthrax bacilli are released from infected carcasses and form resistant spores on exposure to air. These spores contaminate soil for many years. Humans are usually infected by inoculation from direct contact with infected animals, carcasses or animal products, and contaminated soil. Inhalation or ingestion of spores may occur. Animals are infected from contaminated feed, forage, water or carcasses. Cutaneous anthrax causes localized ulceration (sore) and scab with fever and headache and in rare circumstances be followed by more severe conditions such as septicemia and meningitis. Inhalation anthrax causes fulminating pneumonia. Intestinal anthrax is associated with acute gastroenteritis (nausea, vomiting and diarrhea).

Other Diseases: Brucellosis, cryptosporidiosis, leptospirosis, and yersiniosis are other diseases that can be transmitted through contact with horses. These diseases in humans initially exhibit as an acute gastrointestinal illness.

Allergic Reactions

The hair and dander of the horse can be a source of allergies. Proteins secreted by oil glands in an animal's skin, as well as the proteins present in an animal's saliva, can cause allergic reactions in some people. Allergies to animals can take two or more years to develop and symptoms may not subside until months after ending contact with the animal. Symptoms include sneezing, congestion, and itchy and watery eyes. It can also cause skin rash and itching.

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 horses. Never smoke, drink or eat in the animal areas or before washing your hands.
- Wear protective clothing. When working with horses wear appropriate coveralls and foot wear, and remove them after completing your work.
- Wear respiratory protection. Dust masks should be worn if you already have allergies and you are outside in dusty areas or during grooming. During necropsy, respiratory protection should always be worn to prevent accidental transmission of zoonoses through inhalation. If you wear a respirator, you must be fitted and tested for use through Environmental Health & Safety.
- 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 or animal secretions. 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 horses. 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 horses. 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.