

Swine

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 swine.

Potential Injury and Zoonotic Diseases

Swine handling can be very difficult and demanding due to their ability to push and shove, care should be taken when entering pens that hold a large number of animals. Swine should be guided with solid hand held panels when sorting or moving. Swine respond well to the panel. The panel protects the handler from being bitten.

The zoonotic diseases associated with handling swine include the following:

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). They 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.

Leptospirosis: Leptospirosis is caused by the bacteria *Leptospira*. Human infections occur by exposure to water contaminated with urine of infected animals. Many different animals can carry the bacteria without having symptoms. Symptoms of Leptospirosis

may include high fever, severe headaches, chills, muscle aches, and vomiting. More severe infection may cause jaundice, red eyes, abdominal pain, diarrhea or rash. If untreated the person may develop kidney damage, meningitis, liver failure and respiratory distress leading to death. Leptospirosis 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 swine are <u>cryptosporidiosis</u>, <u>salmonellosis</u>, and *Yersinia enterocolitica* through the fecal-oral route, as well as inhalation exposures to influenza and <u>ascaraisis</u>.

Allergic Reactions

Swine are one of the least likely animals to cause human allergies. However, respiratory protection may be necessary when working around feed and bedding for those who already have allergies.

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 the Safety Office.
- 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.

Questions? compliance@uwyo.edu or uwehs@uwyo.edu