Zoonotic Diseases – Laboratory Rabbits

Individuals who work with animals should be informed regarding potential zoonoses (diseases of animals transmissible to humans) and other potential hazards associated with animal exposure, as well as best practices for personal hygiene. This information sheet is for those who work with laboratory rabbits.

Potential Zoonotic Diseases

Rabbits are generally docile animals that are easy to handle and pose minimal risks of transmitting a zoonotic disease to laboratory personnel and animal care staff.

The development of disease in the human host often requires a pre-existing state that has compromised the immune system. If you have an immune-compromising medical condition or you are taking medications that impair your immune system (steroids, immunosuppressive drugs, or chemotherapy), you are at higher risk for contracting a rabbit disease and should consult your physician.

The primary risk when working with rabbits are of allergies and injuries from scratches and bites. Prior to your assignment, you should receive training in handling techniques and protective clothing requirements.

The following is a list of known and potential rabbit zoonoses.

**Pasteurella multocida:** These bacteria live in the oral cavity or upper respiratory tract of rabbits. Human infection is generally associated with a rabbit bite or scratch. Human infection is generally inflammation around the bite or scratch, possibly leading to abscess formation with systemic symptoms.

**Cryptosporidiosis:** An extracellular protozoal organism, cryptosporidium is transmitted via the fecal-oral route; waterborne transmission is also important. In humans, infection varies from no symptoms, to mild gastrointestinal symptoms, to marked watery diarrhea. The infection is generally self-limited and lasts a few days to about 2 weeks. In immunocompromised individuals, the illness is more severe.

**Other potential diseases associated with rabbits:** While none of the following diseases are commonly associated with laboratory rabbits, they are associated with rabbits. *Brucella suis biotype 2*, *cheyletiella infestation*, *francisella tularensis*, *plague*, *Q-fever*, and *trichophyton mentagrophytes*.

**Allergic Reactions**

Allergies to rabbit fur and dander are well documented. A major glycoprotein allergen can occur in the fur of rabbits, and minor allergenic components found in rabbit saliva and urine have been identified.
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 rabbits, their bedding, or contaminated water. Never smoke, drink, or eat in the animal rooms or before washing your hands.

- **Wear gloves.** Wear sturdy, impervious gloves when handling rabbits, their bedding, or other items potentially contaminated with rabbit feces.

- **Seek medical attention promptly.** If 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 rabbits. Seek treatment at the University of Colorado Hospital Emergency Department on the Anschutz Medical Campus for serious injuries.

- **Tell your physician you work with laboratory rabbits.** 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 rabbits. Many zoonotic diseases have flu-like symptoms but would not normally be suspected. Your physician needs this information to make an accurate diagnosis. Questions regarding personal health should be answered by your physician.

**Resource**

Contact the EHS Occupational Health Clinic with any questions, 303-724-9145.