Zoonotic Diseases – Cats

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 directed toward those who work with cats.

Potential Zoonotic Diseases

Cats are generally social animals, but any cat can become agitated when being restrained for procedures, leading to bites or scratches. It is essential that training be provided to all employees who handle cats in order to avoid injury.

The following is a list of potential zoonotic diseases associated with cats.

Cat Scratch Disease: Caused by the bite, scratch, or lick of a cat. Causal agent of the disease is not clearly defined. The disease is benign and heals spontaneously (from 7 to 20) days after symptoms appear. It is characterized by regional lymphadenopathy (swollen glands) with signs of a mild systemic infection consisting of fever, chills, generalized pain, and malaise.

Toxoplasmosis: *Toxoplasma gondii* has its complete life cycle only in cats, which are the only source of infective oocysts. Other mammals (including people) may become intermediate hosts. It takes at least 24 hours for oocysts shed in the feces to become infective, so remove feces daily to reduce the risk of acquiring infection. Toxoplasmosis in people resembles mild flu-like symptoms unless immune suppressed (in some individuals it may cause ocular and neurological disease). **Infection in a previously uninfected pregnant woman can result in prenatal infection of the developing fetus, which can cause in birth defects.** Should an accidental mucosal or needle stick exposure occur, seek medical treatment through the University of Colorado Hospital Emergency Department on the Anschutz Medical Campus.

Ringworm: Ringworm is a dermatophyte infection (most commonly *Microsporum* spp. and *Trichophyton* spp.) Dermatophytes may not be readily apparent. Disease in people is from direct contact with an infected animal. Ringworm is usually self-limiting and appears as circular, reddened, rough skin. It is responsive to prescription topical therapy.

Pasteurella multocida: This bacterium resides in the oral cavity or upper respiratory tract of cats. Human infection is generally associated with a bite or scratch, and appears as local inflammation around wound, possibly leading to abscess formation with systemic symptoms.

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. a 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 the EHS Occupational Health Clinic.

**Other Diseases:** There are several other diseases that can be possibly spread through working with cats. Cryptosporidia, Giardia, and Campylobacter are transmitted via the fecal/oral route. These diseases in people are exhibited by acute gastrointestinal illness, including diarrhea, nausea, vomiting, abdominal pain and fever. Clinical signs are generally brief and self-limiting.

**Allergic Reactions to Cats**

Allergies to cat fur and dander are well documented. The major allergen in a cat is a protein that is produced in the sebaceous glands of the skin, which coats the hair shafts. This protein is also found in the saliva of cats.

**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. Never smoke, drink or eat in the animal rooms or before washing your hands.
- **Wear gloves.** When working with cats, wear appropriate gloves for the task and wash your hands after removal.
- **Wear respiratory protection.** Dust masks should be worn when there is a risk of aerosol transmission of any zoonotic agent, or when there is a medical history of allergies.
- **Wear other protective clothing.** Lab coats should be available and worn when working with the cats. Avoid wearing street clothes while working with animals. Lab coats should be laundered at work.
- **Seek Medical Attention Promptly.** Due to the penetrating nature of their bites, cats can inflict serious wounds; prompt first-aid is particularly important when dealing with such injuries. Always clean the area well with soap and water. Seek treatment at the University of Colorado Hospital Emergency Department on the Anschutz Medical Campus if the wound is deep or bleeding profusely. Report cat bites or scratches to your supervisor, and to Risk Management (cu.edu/risk, File a Claim).
- **Tell your physician you work with cats.** 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 cats. 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.