Zoonotic Disease
Rabies

Zoonotic: diseases that can be transmitted between people and animals.

A common concern about living near wildlife is the possibility of contracting some sort of disease or illness from the nearby animals. Wild animals in particular often have the image of being "dirty" or sick. In actuality, there are very few diseases that affect both animals and people. Diseases tend to be very species specific. For example if your dog gets a "cold" you can't catch it from him, only other dogs could.

That being said, there are several diseases that are "zoonotic", that can pass between humans and animals, and several of these can have very serious and even fatal health consequences. Additionally, there are some diseases that can pass from wild animals to our pets. It's important to understand the reality of disease transmission so we can keep ourselves and our pets safe, as well as understand how to react if exposed to one of these zoonotic bugs. Following is an overview of one of the local zoonotic diseases, and myths debunked about some of peoples fears.

Rabies

Rabies is a preventable viral disease of mammals most often transmitted through the bite of a rabid animal. It infects the central nervous system, causing encephalopathy (swelling of the brain) and ultimately death.

Symptoms: Symptoms of rabies in humans are initially nonspecific, consisting of fever, headache, and general malaise. As the disease progresses, neurological symptoms appear and may include insomnia, anxiety, confusion, slight or partial paralysis, excitation, hallucinations, agitation, increased salivation, difficulty swallowing, and hydrophobia (fear of water). Death usually occurs within days of the onset of symptoms.

Treatment: Treatment is preventative. There are extremely effective vaccines that can protect people and pets before exposure, or provide immunity immediately after exposure. Once symptoms have begun, it is too late for treatment.
Wildlife considered at risk species: Bats, skunks, foxes, raccoons (bats and skunks most commonly infected in Colorado)

If you think you may have been exposed to rabies contact Denver Health at 303-602-3700 or 303-602-3614. They can evaluate the situation and determine potential risk.

Danger from Rabies: Before the widespread use of vaccinations (beginning in the 1960's), many domestic pets were afflicted, and human deaths totaled about 100 a year. Now both human and pet deaths are extremely rare, maybe one or two people throughout the United States every year. Death is caused by not receiving treatment after an exposure. Vaccinations of pets are required by state law, and have led to almost extinguishing the disease in pets.
Mammals that begin to show symptoms usually die within 7 to 10 days.

In domestic animals cats are most often infected. Cats hunting instincts make it easy for them to catch sick bats outside and become bitten or exposed to the saliva. Keeping up on cat vaccinations, keeping cats inside and not allowing them to "play" with bats in the home keeps them safe.

Rabies in Colorado: Rabies has been increasing in wildlife in Denver's Front Range. In 2008, 65 animals were positively identified as having rabies. 45 of the animals were bats, who are the most common rabies carriers in the state. 18 of the animals were skunks, and 1 domestic cat and 1 raccoon were affected. Most if not all of the 20 "nonbats" probably either ate a sick bat or was bitten by one. In the city and county of Denver, 1 bat and 1 skunk tested positive, the skunk having been bitten by a bat. The skunk in Denver County was the first animal other than a bat that has tested positive here in over 10 years. The last time a human had rabies in Colorado was in 1931 in El Paso County.

Danger from Bats: While most bats do not have rabies, you cannot tell from looking at the animal. Bats also have very small teeth, and you cannot always identify when you've been bitten. Never pick up a bat, keep pets and children away from bats and if you have one in your home when you've been sleeping seek preventative medical treatment. If you find a dead bat, call animal care and control at 311 to remove and inspect it.

How to identify sick animals: It can be very difficult to tell if an animal has rabies. The old "foaming mouth" symptom is rare if ever seen. Animals with rabies act differently than the animal would normally act. A wild animal may act tame or friendly, a normally friendly pet may snap, bite or stop eating. Some common signs are:

- changes in an animal's behavior
- general sickness
- problems swallowing
- an increase in drool or saliva
- wild animals that appear abnormally tame or sick
- animals that may bite at everything if excited
- difficulty moving or paralysis
- death

All of these symptoms can have multiple causes, so the identification of rabies cannot be certain. The only way to positively test for rabies is an examination of the brain in a lab. There is no diagnosis for living animals. It is important for all people to know never to approach, pet or try to feed any strange animal, wild or domestic, to avoid contact with a potentially sick animal.

Resources

Center for Disease Control and Prevention (CDC), http://www.cdphe.state.co.us/dc/zoonosis/rabies/
MedTV, http://rabies.emedtv.com/rabies/rabies-treatment.html
Center for Communicable Diseases (CDC), http://www.cdc.gov/ncidod/dvrd/kidsrabies/Warning/warning.htm
Tri-County Health Department http://www.tchd.org/rabies.htm