

Rabies Risk on the Rise

Rabies has received more attention recently due to unusual cases of American deaths as a result of infection. This year, an organ donor recipient died of rabies, an exceptionally rare example of human-to-human transmission. In 2011, a U.S. military soldier died after being bitten by a dog while serving in Afghanistan. These tragic cases demonstrate the dangerous, potentially fatal nature of rabies and the importance of prevention and diligence following possible exposure.

Rabies is a virus that affects the neurologic system of mammals, including humans. It is typically spread by the saliva of infected animals through bite wounds or contact between infected tissue and open wounds and the oral cavity. Symptoms of rabies can include abnormal behavior (aggression or depression), excessive salivation, light sensitivity, progressive paralysis, and, in humans, fear of water. Worldwide, rabies kills more than 55,000 people annually, and the majority of these cases are due to contact with a rabid companion animal. In the U.S., the number of human deaths is much lower, only two or three per year, although 20,000-30,000 Americans receive post-exposure rabies vaccination annually.



Dalton, wearing a rabies tag, is up-to-date on his rabies vaccination.

In Colorado, bats have long been reservoir of rabies. However, in 2007, the skunk variant of rabies appeared and has been rapidly spreading across our state. Terrestrial wildlife (skunks, raccoons, and fox) travel farther distances and thus greatly increase the risk and exposure of this deadly disease to our companion animals, our livestock, and ultimately to us as a community.

Data from the Colorado Department of Public Health and Environment imals in Larimer and Weld counties shows the dramatic increase of terrestrial rabies. Larimer County went from zero

cases in 2009 to 35 in 2012, while Weld went from zero in 2009 to 21 in 2012. Larimer County has already confirmed nine rabid skunks in 2013.

Boulder County has averaged 18 positive bats annually for the past three years, but no skunk positives. However, health officials anticipate the skunk variant will soon expand from our neighboring counties into the Boulder area.

Awareness and Prevention

With the increasing rabies reservoir in wildlife, it is crucial for the community to be aware of the importance of prevention against rabies and what to do if a potential exposure occurs. In addition to not handling wildlife, the key to prevention is domestic animal vaccination, a simple and effective way to minimize risk of the disease.

Dogs and cats should receive their first rabies vaccination at 3 to 4 months of age, repeat the vaccination one year later, and continue with re-vaccination every one to three years for life. Horses and livestock can also be vaccinated. Please discuss the status of your animal's rabies vaccination with your veterinarian.

When there is direct contact between a domestic animal and wildlife (bite wound, mouthing of animal), the CDPHE has protocols depending on the vaccination status of the domestic animal. The CDPHE only recognizes rabies vaccinations when given by a licensed veterinarian. Consider the following scenario:

An indoor-only cat is found playing with a bat that entered the home through a chimney or doorway. The cat has never received a rabies vaccination. The bat is safely collected by animal control, euthanized, submitted to a lab and tests positive for rabies. Unfortunately, the unvaccinated cat will either be euthanized or need a 180-day quarantine with 90 of these days at a secured facility at the owner's expense. However, if the cat's rabies vaccination is current at the time of exposure, the protocol would be an immediate (booster) vaccination and a 45-day home quarantine. If your pet is not vaccinated and is exposed to a rabid animal, your pet's life is at stake.

The CDPHE requires a mandatory 10-day observation period when a domestic dog, cat or ferret bites a person. This time frame is based on how rabies spreads through the system. This observation period occurs regardless of the vaccination status of the animal. However, if there are symptoms of rabies at the time of the bite, the animal may need to be euthanized for testing because there is no accepted live-animal test for rabies.

After a bite injury and inoculation with rabies, the incubation time (time before symptoms are seen) is highly variable from weeks to months. But once symptoms develop, death typically occurs within days. The good news for people who are exposed to this disease is that with prompt treatment, including a series of rabies vaccinations and an immune globulin injection, people can be saved from this deadly disease. Post exposure vaccination is expensive, costing many thousands of dollars. Delaying or ignoring treatment following a bite wound or handling a possible rabid animal will often result in death.

If you, your pet, or livestock animal have direct contact with a bat, skunk, raccoon, or fox, follow these steps:

- Do not touch the wild animal. Keep people, children and pets away from the wild animal. If safe to do so, contain the animal (place a box or net over the animal, confine it to a room, etc.).
- Do NOT release the wild animal if at all possible.
- Call your local animal control agency and local health department. They will likely want to collect the wild animal to test it for rabies. If you were exposed, call your physician to determine what treatment you may need.
- Call your veterinarian to verify your pet's rabies vaccination status. A booster rabies vaccination will likely be recommended. The number of vaccines and status of the most recent inoculation will determine the quarantine protocol ordered by the health department.

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