

## What is rabies?

Rabies is a disease caused by the rabies virus. The rabies virus can affect the central nervous system of all warm-blooded mammals. Human rabies is very rare in the United States, but animal rabies, particularly in some wild animal species, is relatively common. Rabies infections are almost always fatal once symptoms of the disease have begun.

## How is rabies spread?

Rabies virus is found only in the brain, spinal cord, and saliva of infected animals. Transmission of the rabies virus can occur if any of these fluids or tissues from an infected animal are introduced through a bite, fresh opening of the skin that has not scabbed over, or mucous membrane (eyes, lining of the nose, or mouth). The risk of getting rabies from an infected animal varies based upon the kind of exposure a person has to the virus.

## What is an exposure to rabies?

There are two types of possible exposures to the rabies virus. The most dangerous type of exposure occurs from the bite of a known rabid animal that punctures the skin. A non-bite exposure results when saliva, spinal fluid, or brain tissue from a rabid animal gets into an open wound or mucous membrane.

The following are **NOT** exposures to rabies:

- Contact with blood
- Contact with urine or feces
- Contact with dried saliva
- Petting, or otherwise touching the hair of a rabid animal
- Touching bowls, lead ropes, gates, trailers, or other surfaces the rabid animal contacted

## What steps should be taken following an animal bite?

Wash all bite wounds immediately with soap and water, and continue washing for at least ten minutes. Contact your health care provider as soon as possible. Animal bite wounds contain bacteria, so a tetanus booster and/or antibiotics may be needed. If a rodent or rabbit caused the bite, no further action is usually needed. If the biting animal was a dog, cat, or ferret (not owned by the bite victim and not currently vaccinated by a licensed veterinarian), the animal should be quarantined with a licensed veterinarian for ten days. Dogs, cats, and ferrets (not owned by the bite victim and currently vaccinated by a licensed veterinarian) may be allowed to be quarantined by the animal owner. If the dog, cat, or ferret remains healthy after ten days, it was not infectious with rabies at the time the bite occurred and no further action is needed. If another species of animal caused the bite, the county health department sanitarian should be contacted. Animals other than dogs, cats, or ferrets may need to be quarantined for 30 days under the care of a veterinarian, or euthanized and tested for rabies.

## When are rabies shots necessary?

Persons bitten by an animal that tests positive for rabies should always receive the rabies shots, also called post exposure prophylaxis (PEP). PEP generally consists of five doses of human rabies vaccine given in the arm muscle (or thigh for small children) and rabies immune globulin (RIG), which is given at the same time as the first vaccine dose. Although non-bite exposures rarely result in the transmission of rabies, PEP may be required in some circumstances. The Oklahoma State Department of Health (OSDH) Epidemiologists-on-Call may be consulted for recommendations based upon each individual case. Rabies shots are **NOT** recommended when the biting animal is in quarantine or available for testing.

### What animals get rabies?

Some animals are more likely to be infected with rabies than others. Bats, raccoons, skunks, foxes, and coyotes have strains of rabies virus adapted to their species. The rabies viruses in Oklahoma include the ones adapted to skunks and bats. All warm-blooded mammals including dogs, cats, horses, and cattle can become infected with rabies virus. Rodents (squirrels, hamsters, mice, rats, etc.), rabbits, and hares are very rarely infected and have never been known to cause rabies in humans in the United States. Birds, reptiles (snakes, turtles), and amphibians (frogs, toads) do not get rabies.

### Is animal rabies a problem in Oklahoma?

Over the past 20 years (1985 –2004) an average of 96 cases of rabies in animals were identified each year in Oklahoma. Skunks are the major animal reservoir of rabies in the state. When the skunk population increases (every six to eight years), a rise in the number of animal rabies cases usually follows. This population cycle can sometimes result in as many as 240 cases of animal rabies in one year. A few cases of rabies are usually identified each year in bats, horses, cattle, cats, and dogs.

### How long after exposure to the rabies virus will the first symptoms start?

The time interval between the exposure to the rabies virus and onset of the first symptoms of rabies may vary greatly and depends on several factors. These factors include the amount of virus entering the body, the place on the body the exposure occurred, the age of the animal, and several other host factors. For cats, dogs, and horses, this time interval is generally between three to eight weeks compared to four to 12 weeks in humans. However, symptoms may start as early as nine days or as long as six months after exposure to the rabies virus.

### How can you tell if an animal is rabid?

Most rabid animals will behave abnormally, but signs and symptoms vary. Rabid wild animals will often lose their fear of humans and nocturnal animals may be seen active during the day. Rabid animals may stagger, or act lame or paralyzed. If an animal is displaying unusual behavior, or has symptoms suggestive of rabies, the only way to know whether it is rabid or not is to have the brain tested for rabies at the State Public Health Laboratory - the only laboratory in Oklahoma that performs animal rabies testing. There is no reliable test for rabies in a live animal.

### How can an animal be tested for rabies?

In order to test an animal for rabies, brain tissue must be intact. It is important to remember:

- Not to shoot the animal in the head
- Not to crush the skull of the animal
- To refrigerate (not freeze) the animal carcass until it can be delivered to a veterinarian for removal of the head and submission to the State Public Health Laboratory for testing

### How can rabies be prevented?

- Be a responsible pet owner! Make sure all pets are current on their rabies vaccinations. Oklahoma state law **requires** that all dogs, cats, and ferrets be immunized against rabies by or under the supervision of a veterinarian by the age of four months. It is also recommended that horses and valuable livestock be vaccinated against rabies.
- Keep dogs and cats close to home. Dogs should be leashed or within a fenced-in area when outside. Cats should be kept in at night and not allowed to roam freely.
- If your pet comes into direct contact with a skunk or bat, contact your veterinarian as soon as possible.
- Do not keep wild animals as pets! Learn to enjoy them from a distance. If you see an injured wild animal, contact the nearest animal control agency or wildlife rehabilitation station to handle the situation. Teach children to avoid contact with animals that are unfamiliar to them, especially downed bats and stray dogs and cats.
- Discourage wild animals from inhabiting areas close to residences. Do not leave pet food outdoors for long periods of time, keep trash cans tightly sealed, keep brush piles cleared away from buildings, and seal chimneys.
- Bats found inside your home, whether alive or dead, should be tested for rabies. **DO NOT** release or dispose of the bat before contacting the local health department for advice.

OSDH 10/06



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