

What is rabies?

Rabies is a disease caused by the rabies virus that affects the nervous system of humans and other warm-blooded mammals. Human rabies is very rare in the United States, but animal rabies, particularly in some wild animal species, is more 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, into a fresh opening of the skin that has not scabbed over, or onto a mucous membrane (such as the 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 is 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:

- Being scratched by the animal
- 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?

1. Wash all bite wounds immediately with soap and water, and continue washing for at least ten minutes when possible.
2. Contact your health care provider as soon as possible. Animal bite wounds contain bacteria, so a tetanus booster and/or antibiotics may be needed.
3. If possible, safely catch or restrain the animal. Your local animal control or sheriff may be of assistance. Or, if the animal has an owner, get information about the animal's history of rabies vaccination and contact information about the owner.
4. Call the local county health department sanitarian to report animal bites. The sanitarian will help confirm the animal's condition and rabies vaccine status.
5. Call the Acute Disease Service Epidemiologist-on-Call (405-271-4060) for evaluation of the rabies risk and whether the rabies post-exposure prophylaxis (PEP) should be started. Usually the PEP is delayed until the animal can be adequately evaluated, which may take 10 days or longer.
 - If a rodent or rabbit caused the bite, these are very low risk and rabies vaccination is usually not recommended
 - 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 biting dog, cat or ferret dies or is euthanized during the ten day quarantine, it should be tested for rabies.
 - 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.
6. If another species of animal caused the bite, the local 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 four doses of human rabies vaccine given in the arm (or thigh for small children) and rabies immune globulin (RIG), usually given at the same time as the first vaccine dose. Contact the Acute Disease Service Epidemiologist-on-Call for individual case recommendations. Rabies shots are **NOT** recommended when the biting animal is in quarantine or available for testing.

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Which animals get rabies?

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. Only mammals such as dogs, cats, horses, and cattle can be infected with rabies. 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?

Skunks are the major animal reservoir of rabies in Oklahoma. 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 rabies per year. Rabies are identified each year in smaller numbers of bats, horses, cattle, cats, dogs and other mammals.

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 can vary depending on several factors. These factors include how ill the animal was at the time of exposure, the severity of exposure, the place on the body where the exposure occurred, and the age of the animal. For cats, dogs, and horses, this time interval is generally between three to eight weeks. However, symptoms may start as early as nine days or as long as six months after exposure to the rabies virus. For humans, the time interval is typically four to twelve weeks.

How can you tell if an animal is rabid?

Most rabid animals behave abnormally, but signs and symptoms vary. Rabid wild animals may lose their fear of humans, and nocturnal animals may be abnormally 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, stay a safe distance away and call for help from the local animal control or sheriff. If a human or animal is bitten or exposed to the body fluids containing rabies virus, the only way to know whether the animal has rabies is to have it tested at the Public Health Laboratory (PHL). There is not a rabies test for live animals.

How can an animal be tested for rabies?

In order to test an animal for rabies, brain tissue must be undamaged. 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, then quickly send the head to the Public Health Laboratory.
- Call the Epidemiologist-on-Call (405-271-4060) for details and directions

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.

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Acute Disease Service
Oklahoma State
Department of Health

For further information call or visit us on the World Wide Web
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