

MU Guide

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Rabies

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Rabies is an infectious disease affecting the brain and nervous system of warm-blooded mammals and humans. Most people associate rabies with the "mad-dog" syndrome depicted in the movies. However, different animals will be affected differently.

Rabies virus is passed in the saliva from an infected animal when it bites another animal or person. Once in the body, the virus travels along the nerves to the spinal cord and brain.

The earliest sign of the disease is a change in the animal's normal behavior. An animal with rabies usually will stop eating and drinking and will prefer to be alone. Following this, the animal may become aggressive. Some animals will become easily excited and attempt to bite or attack, while others will be attracted to and charge any moving object. This phase may be short or non-existent.

As the disease progresses, this aggressive behavior diminishes. The muscles of the jaws and throat are among the earliest affected during the paralytic phase of the disease. This results in excessive salivation due to the inability to swallow, often referred to as "foaming at the mouth." Paralysis quickly spreads to the rest of the body. Coma and death follow.

The number of animal rabies cases reported varies from year to year. During the 1980s, Missouri averaged 85 cases per year. Therefore, all of Missouri is considered to be endemic for rabies, meaning that the disease is naturally present.

Wild animals account for 88 percent of animal rabies in the United States. Raccoons, skunks, bats and foxes account for the greatest number of rabies cases reported. Domestic animals such as dogs, cats, horses and cattle are responsible for the remaining 12 percent of the reported cases. Since human bite exposure is most common with domestic animals, the most effective method of preventing human exposure to rabies is to have a buffer zone of properly vaccinated dogs and cats between wildlife populations and humans.

While rabies in Missouri is presently at a low ebb, rabies is on the rise across the United States. Raccoon rabies accounts for most of the increase. For the past several years, raccoon rabies has continued to spread from its new place of origin, in the mid-Atlantic states, at a rate of 25 to 30 miles per year.

As rabies moves into a new area with many susceptible animals, the number of cases increases and the epizootic, or animal disease outbreak, continues. At the present rate of western movement, we can expect the Raccoon rabies epizootic to reach Missouri in about the year 2000. However, since raccoons are found on flatbed trucks arriving in Missouri from Virginia on a monthly basis, we may very well give nature some assistance by transporting rabid raccoons into Missouri at an earlier date.

The other wildlife species that has shown a dramatic increase in rabies is the coyote in Texas. Since coyotes are known to travel great distances, Missouri could experience a coyote rabies threat from the south. An epizootic of skunk rabies in Kansas during the early 1990s could cause Missouri to experience a skunk rabies threat from the west. Thus with rabies proven to be endemic in Missouri and epizootics of rabies threatening from the east, south and west, vigilance must continue and protective/preventive measures should be implemented.

The Missouri Department of Health has a model rabies and animal control document that all individual counties have the authority to implement. Counties are encouraged to take and structure this basic document to meet their requirements. The document is comprehensive and covers all aspects of observation periods, proper vaccination of dogs and cats, general animal control and dangerous animal control. Counties should have copies of this document. Additional copies and assistance in implementing this local ordinance are available by contacting the Bureau of Veterinary Public Health (BVPH) at (314) 751-6136.

The National Association of State Public Health Veterinarians, Inc. (P.O. Box 570, Missouri Department of Health, Jefferson City, MO, 65102) provides recommendations annually for the control of animal rabies throughout the United States. These recommendations, described briefly in this guide, promote standardized

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programs for the vaccination of pets and livestock as well as for post-exposure management.

Prevention

Rabies can be prevented in humans either by preventing exposure to rabid animals or by providing exposed individuals with prompt post-exposure treatment. Control of rabies in domestic species depends on the use of proper vaccination programs and the reduction of the number of stray dogs and cats. Dogs and cats should be vaccinated at 3 months and then at regular yearly or 3-year intervals depending on the vaccine given. Vaccinating all livestock may not be financially feasible, but valuable animals and those in a highly endemic area which come in frequent contact with humans may need to be vaccinated.

Rabies vaccination should only be administered by or under the direct supervision of a licensed veterinarian. Vaccines with a 3-year duration of immunity are recommended. Many rabies vaccines exist that are licensed by the U.S. Department of Agriculture. The route and frequency of administration must be in accordance with their label or package insert.

Vaccinated dogs and cats should be identified with a rabies tag that specifies the year in which the vaccine was given. These tags are also coded by shape and color. A rabies certificate (NASPHV form #50) should be issued to the owner of each vaccinated animal.

Wild and exotic animals should not be vaccinated, since there is no vaccine licensed for this use. Because of their susceptibility to rabies, raccoons, skunks, foxes and bats should not be kept as pets.

Dogs and cats should be vaccinated against rabies at least 30 days prior to interstate movement. These animals should be accompanied by a currently valid NASPHV form #50, Rabies Vaccination Certificate.

Post-exposure management

Unvaccinated dogs and cats bitten by a laboratory-confirmed rabid animal should be euthanized immediately. Previously vaccinated animals should be revaccinated immediately, confined and observed for up to 90 days.

Vaccinated livestock bitten by a rabid animal should be revaccinated immediately and observed for 90 days. Unvaccinated livestock should be slaughtered immediately or placed under close observation for 6 months. If the animal is slaughtered within 7 days of being bitten, its tissues may be eaten without risk of infection, provided liberal portions of the exposed area are discarded. Federal meat inspectors

How to Avoid Rabies

Here are some ways to reduce your chances of exposure to rabies:

1. Have your dogs and cats vaccinated and encourage your friends and neighbors to do the same.
2. Avoid animals that are behaving abnormally. Don't give first aid to strange or wild animals.
3. Enjoy wildlife in nature, but avoid wild animals that seem to be friendly. Don't keep wild animals as pets. They may eventually present a rabies threat and their possession is illegal.
4. If your job brings you in frequent contact with animals, get a pre-exposure rabies vaccination.
5. Appropriate pet selection and responsible pet ownership are essential. Make sure your pets get good nutrition, exercise, sanitation and health care. Also make sure your pets are not a nuisance to others.

must reject for slaughter any animal known to have been exposed to rabies within 8 months. Neither tissues nor milk from a rabid animal should be used for human or animal consumption.

If a person is bitten by a potentially rabid animal, the wound should be washed immediately with soap and flushed thoroughly with large amounts of water. A physician should be contacted as soon as possible.

A healthy dog or cat that bites a person should be confined and observed for 10 days; the animal should not be administered rabies vaccine during the observation period. Animals should be evaluated by a veterinarian at the first sign of illness during confinement. Any illness in the animal should be reported immediately to the local health department.

If signs suggestive of rabies develop, the animal should be humanely euthanized and the appropriate tissues shipped under refrigeration for examination by a qualified laboratory. Any stray or unwanted dog or cat that bites a person may be humanely euthanized immediately and evaluated as described above.

Other biting animals that might have exposed a person to rabies should be reported immediately to the local health department. Management of animals other than dogs or cats depends on the species, the circumstances of the bite and the epidemiology of rabies in the area. To ensure proper medical management, the BVPH is available for consultation at (314) 751-6136.

Any animal bitten or scratched by a wild, carnivorous mammal (or a bat) not available for testing should be regarded as having been exposed to rabies.