

Fact Sheet

Rabies

What is Rabies?



Rabies is a preventable viral disease of mammals and is most often transmitted through the bite of a rabid animal. The vast majority of rabies cases reported to the Centers for Disease Control and Prevention (CDC) each year occur in wild animals like raccoons, skunks, bats, and foxes.

How is it Spread

Rabies is typically transmitted by the bite of an infected animal via saliva. Once the virus has entered the body, it spreads to the nerves of the spinal cord where the virus will incubate for a period of time ranging anywhere from 3-12 weeks, although longer incubation periods have been recorded. The animal typically does not show any symptoms during this time. The virus moves up the spinal cord to the brain and finally infects the salivary glands. Symptoms of rabies will be present after the virus has moved to the salivary glands.

Non-bite exposures from animals are very rarely implicated in cases of human rabies. However there have been cases of human rabies reported due to such exposures. Examples include recipients of tissues or organs from donors that died of rabies, or persons exposed to large amounts of aerosolized virus in caves inhabited by millions of bats.

Signs and Symptoms

The first symptoms of rabies may be very similar to the flu and may last for days. Signs and symptoms may include:

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| § Fever | § Confusion | § Partial paralysis |
| § Headache | § Hyperactivity | § Fear of water (hydrophobia) because of the difficulty in swallowing |
| § Nausea | § Difficulty swallowing | |
| § Vomiting | § Excessive salivation | |
| § Agitation | § Hallucinations | |
| § Anxiety | § Insomnia | |

Diagnosis

Rabies is most frequently diagnosed using the direct fluorescent antibody test (dFA) by testing brain tissue from animals that are suspected to have rabies. Since brain tissue is required, the test can only be performed after the animal is dead. Even though there are other testing techniques available for diagnosis, dFA is currently recognized as the most rapid and reliable of all the tests for routine use in detecting rabies in animals.

For rabies diagnosis in humans there are several tests available that can be performed before death, however no single test is sufficient. Tests can be run on saliva, serum, spinal fluid and skin biopsies of the hair follicles at the back of the neck.

Treatment

If you've been bitten by an animal that is known to have rabies, you'll receive a series of shots to prevent the rabies virus from infecting you. If the animal that bit you can't be found, it may be safest to assume that the animal has rabies. But this will depend on several factors, such as the type of animal and the situation in which the bite occurred.

Rabies shots include:

- § A fast-acting shot (rabies immune globulin) to prevent the virus from infecting you. Part of this injection is given near the area where the animal bit you if possible, as soon as possible after the bite.
- § A series of rabies vaccines to help your body learn to identify and fight the rabies virus. Rabies vaccines are given as injections in your arm. You receive four injections over 14 days.

Once Symptoms appear, it is difficult and rarely successful to treat.

Prevention

You can reduce your risk of coming in contact with rabid animals. Here's how:

- § **Vaccinate your pets.** Cats, dogs and ferrets can be vaccinated against rabies. Ask your veterinarian how often your pets should be vaccinated.
- § **Keep your pets confined.** Keep your pets inside and supervise them when outside. This will help keep your pets from coming in contact with wild animals.
- § **Protect small pets from predators.** Keep rabbits and other small pets, such as guinea pigs, inside or in protected cages so that they are safe from wild animals. These small pets can't be vaccinated against rabies.
- § **Report stray animals to local authorities.** Call your local animal control officials or other local law enforcement to report stray dogs and cats.
- § **Don't approach wild animals.** Wild animals with rabies may seem unafraid of people. It's not normal for a wild animal to be friendly with people, so stay away from any animal that seems unafraid.
- § **Keep bats out of your home.** Seal any cracks and gaps where bats can enter your home. If you know you have bats in your home, work with a local expert to find ways to keep bats out.
- § **Consider the rabies vaccine if you're traveling.** If you're traveling to a country where rabies is common and you'll be there for a long period of time, ask your doctor whether you should receive the rabies vaccine.



For more sources of information on this topic visit:

ST. CLAIR COUNTY HEALTH DEPARTMENT www.scchealth.co

MICHIGAN DEPARTMENT OF HEALTH AND HUMAN SERVICES www.michigan.gov/mdhhs

CENTERS FOR DISEASE CONTROL AND PREVENTION www.cdc.gov

THE MAYO CLINIC www.mayoclinic.org