



Education

Rabies

What is rabies?

Rabies is a deadly viral infection carried by animals. It is especially common in skunks, raccoons, and foxes in the US. People can get rabies from an infected animal. Without immediate treatment after exposure to the virus, rabies is almost always fatal in humans.

How does it occur?

Rabies is caused by a virus found in the saliva of an infected animal. It is usually spread to humans by a bite. Less often the virus is spread by the infected animal licking you around the mouth, nose, eyes, or an open skin wound.

It can take many weeks for symptoms to develop after you are exposed to the virus. During this time of no symptoms, the virus invades the brain.

In the US, the animals most likely to be infected with rabies are dogs, cats, and certain wild animals, such as bats, skunks, raccoons, foxes, and coyotes. Dogs and cats can become infected from wild animals, or from other dogs and cats that have not been immunized against rabies.

What are the symptoms?

If you have been bitten, you may have some redness or an infected area around the bite, as with any bite. Otherwise, you may have no symptoms for 1 to 3 months.

When you start having symptoms, at first they are like the symptoms of a minor viral infection, such as fever, headache, and muscle aches. But the symptoms worsen quickly over a few days when the infection becomes a severe illness of the central nervous system. The virus affects the brain and can cause the following symptoms:

- loss of control of muscles and bodily functions
- loss of the ability to think and act rationally
- muscle spasms or inability to move your body (paralysis)
- hallucinations (hearing or seeing things that are not there)
- irritability and restlessness.

The muscle spasms can include the muscles of the throat and voice box. This can make it very painful and hard to swallow. Perhaps this is why a rabies-infected person avoids the sight, sound, and drinking of water, a condition called hydrophobia.

Once the symptoms of severe illness have begun, coma and death follow in 3 to 20 days.

How is it diagnosed?

Rabies is very difficult to diagnose. There is no lab test to detect the virus before it has infected the brain. Because of the long time between exposure and illness, it may not be suspected as the cause of symptoms.

Your provider may suspect that you have been infected with rabies if the animal that bit you has not had rabies shots, is sick, or is a type of wild animal known to carry rabies. Rabies in the animal is diagnosed by testing a piece of the animal's brain for the virus after the animal is killed.

How is it treated?

If you may have been exposed to rabies by being licked or bitten by an animal, carefully wash the wound and get medical help right away.

There is no cure for rabies after the virus has moved to the central nervous system and brain. However, if you get treatment right away after a bite or other exposure to a rabid animal, the virus can be killed before it infects your brain.

When possible, the animal that bit you is observed for rabies.

- If the animal that bit you is a pet that has had rabies shots, the animal is observed for possible illness for 10 days. If the pet that has not had rabies shots, the pet needs to be quarantined while it is observed.
- If the animal that bit you was a wild animal, it should be killed or captured, if possible, for examination.

Any animal that shows signs of rabies should be killed and then tested for rabies.

If the animal is suspected or known to have rabies, you may be given shots that will help your body to kill the virus. You may also get the shots if the animal was never caught or identified. These shots are called postexposure prophylaxis. This means prevention after exposure. The treatment begins with 2 shots of rabies immune globulin. Half of the dose is given as a shot at the site of the bite and the other half is injected in another area, usually your hip.

The treatment is continued with a series of 5 shots of rabies vaccine given over a period of 28 days. This series of shots must be started as soon as it is determined that you are at risk for rabies. If the animal is found to be free of rabies after you have started the shots, then you can stop getting the shots.

How can I help prevent rabies?

Make sure pets get rabies shots every year. Avoid stray and wild animals. Carefully wash all wounds promptly and thoroughly.

If your work involves activities that put you at risk for rabies infection, you can be given a vaccine to help prevent rabies if you are bitten. You get 3 shots of rabies vaccine in a 28-day period. After the first series of shots, your health care provider should check your immunity regularly (for example, yearly) to see if you need a booster shot.

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