

## Fact sheet

# Rabies

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### What is rabies?

Rabies is a disease of the nervous system caused by a virus and can occur in humans and animals. In humans, rabies usually results from exposure to an animal with rabies.

Rabies in humans is fatal almost 100% of the time.

### What is an exposure to rabies?

Rabies virus is spread to people and animals from the saliva of infected animals; usually through a bite. There are two types of exposure: bite and non-bite. A bite is any puncture of the skin by teeth, and is the most dangerous type of exposure. A non-bite exposure occurs when saliva, brain tissue, or spinal fluid from an animal with rabies enters any scratch, abrasion, open wound, eyes, or the mouth. Non-bite exposures to rabies are uncommon.

### What animals carry rabies?

Animals most likely to transmit rabies in the United States include bats, coyotes, foxes, raccoons and skunks. In Utah almost all cases of rabies occur in bats. All domestic animals such as dogs, cats, ferrets, horses, and cattle can also be infected, but this is very rare.

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

Although some animals with rabies look and act normal, most develop one of two forms of the disease. One form is "furious rabies" in

which the infected animal is easily excited or angered. The other is "dumb rabies" in which the infected animal becomes paralyzed.

Usually animals infected with rabies become irritable, restless, and nervous. Nocturnal animals may be out during the day, or bats may be found on the ground unable to fly. Rabid animals may seem unafraid of humans. The only way to tell for sure if an animal has rabies is to kill it in a humane manner and test its brain for the rabies virus.

### What should you do if you are exposed to a possibly rabid animal?

Immediately wash all bite wounds and scratches thoroughly with soap and water. Seek medical attention as soon as possible to determine if you need rabies vaccinations, called post-exposure prophylaxis (PEP). PEP is the ONLY way to prevent rabies disease after exposure. Contact your local or state health department for additional guidance.

### What type of health problems are caused by rabies?

Rabies is almost 100% fatal. Once a person begins to show signs of the disease, there is no effective treatment and survival is rare. This is why it is critical to seek medical care and begin protective PEP as soon as possible after exposure.

## **What are the signs and symptoms of rabies?**

The first symptoms of rabies may be very similar to those of influenza, including general weakness or discomfort, fever, or headache, and may last for days. Later signs and symptoms may include nausea, vomiting, agitation, anxiety, confusion, hyperactivity, difficulty swallowing, hallucinations, difficulty sleeping, partial paralysis, and eventually coma and death.

## **How long after infection do symptoms appear?**

The incubation period for rabies in humans is usually 3-8 weeks. The early period of disease typically ends after 2 to 10 days and is followed by rapidly progressing neurologic symptoms. Once clinical signs of rabies appear, the disease is nearly always fatal despite any attempts at treatment.

## **Who is most at risk?**

Anyone can get rabies after an exposure to a rabid animal. Children tend to be at higher risk for exposure since they may be less self-aware around animals. The likelihood that rabies will occur depends on the type of contact or exposure.

## **How is rabies infection diagnosed?**

Several tests are necessary to diagnose rabies before death in humans; no single test is sufficient. Tests are performed on samples of saliva, serum, spinal fluid, and skin biopsies of hair follicles at the nape of the neck.

In animals, rabies is diagnosed by testing the brain. If the animal is not already dead, it must be humanely euthanized to be tested.

## **How is rabies treated?**

There is no treatment for rabies once symptoms begin. If there is any chance that you have been exposed to rabies, it is urgent that you contact medical help as soon as possible. Your healthcare provider, possibly in consultation with your state or local health department, will decide if you need rabies vaccinations. Decisions to start vaccination, known as post-exposure prophylaxis (PEP), will be based on your type of exposure and the animal you were exposed to.

## **What should I do if my pet is exposed to a possibly rabid animal?**

Seek veterinary care for your pet to treat any wounds and receive booster rabies vaccination. Bring your pet's rabies vaccination records with you if possible. Call animal control to report the exposure right away, and they will give you further instructions on how to monitor your pet and keep your family safe. All pets that may have been exposed to rabies are required by law to be quarantined and monitored for at least 45 days.

## **How can rabies be prevented?**

Vaccination of dogs, cats and ferrets against rabies and avoiding contact with wildlife are the best ways to reduce human exposure. You should also follow these tips:

- Do not keep wild animals as pets.
- Teach your children how to be safe around animals, and to tell you if they are ever bitten or scratched by an animal.
- Report stray animals to your local animal control. Control of stray animals can decrease both animal and human exposures to rabies.
- Report any animal that has contact with an animal that might have rabies to the local animal control agency.
- Anyone who has contact with an animal that might be rabid should contact their healthcare provider and local health department right away.
- When in doubt following a possible rabies exposure, start PEP as soon as possible for protection.

#### **Where can I get more information?**

- Your personal healthcare provider
- [Utah Department of Health and Human Services](#)
- [Centers for Disease Control and Prevention](#)
- [Mayo Clinic](#)

