## DISPATCH



### **RABIES**

#### What Is It?

Rabies is a viral infection from the Rhabdoviridae family that is usually deadly once symptoms progress. Fortunately, rabies is rare in the United States and Canada and can be prevented by post-exposure treatment if started early. It is mainly a disease of animals.

#### How can you get it?

Rabies is spread through infected saliva. The virus enters the body through a bite or contact with broken skin or mucous membranes, and then travels to the brain. Once in the central nervous system, the virus causes swelling which leads to the symptoms listed below.

Dog bites are a common cause of rabies in developing countries but rarely result in rabies in the United States. Vaccinations of household animals have contributed greatly to this control. However, wild animals may still transmit the disease, including bats, raccoons, foxes and skunks.

You can get rabies by:

- Bites from infected animals
- Rare cases of saliva from an infected animal coming in contact with open wounds or mucous membranes, such as the mouth or eyes, have been reported
- Rare cases of aerosol transmission have been reported

#### What are the symptoms?

Rabies symptoms do not occur immediately. There is an incubation period of time before onset of symptoms. This period can vary in different people but the average time is 1-3 months.

The signs and symptoms of rabies may include:

Fever, headache, general weakness similar to most viral infections

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These symptoms progress over time to include:

- Drooling
- Convulsions
- Exaggerated sensation at the bite site
- Loss of muscle function and spasms
- Agitation and/or excitation
- Decreased awareness, hallucinations
- Swallowing difficulty

**Complications:** Once the symptoms appear, the person rarely survives the disease, even with treatment. Death from respiratory failure usually occurs within 7 days after symptoms start.

#### How do you prevent it?

Rabies is a preventable viral infection.

- Avoid contact with animals you do not know.
- Pre-exposure vaccinations are for those in a high-risk job (ex. animal control and wildlife officers or those who frequently travel to countries with a high rate of rabies).
- Make sure all your pets receive the proper immunizations.

#### What should you do if you are exposed to the disease or get the disease?

If bitten or scratched by an animal, try to gather the following information (enlist the help of others nearby if applicable):

- Location of the accident
- Type of animal involved (domestic pet or wild animal)
- Type of exposure (cut, scratch, licking of open wound)
- Part of the body involved
- Number of exposures
- Whether or not the animal has been immunized against rabies
- Whether or not the animal is sick or well if "sick," what symptoms were present
- Whether or not the animal is available for testing or quarantine

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Do not try to capture the animal yourself. Instead, call your local animal control authorities. The animal can be watched for signs and symptoms of rabies over a ten-day period. Alternately, authorities will euthanize the animal to enable immunofluorescence testing of the brain tissue. Within hours, this test can determine if the animal had the rabies virus.

#### Immediately following exposure:

- Clean the wound thoroughly with soap and water. Wound cleansing is especially
  important in rabies prevention since, in animal studies, thorough wound cleansing
  alone without other post-exposure prophylaxis has been shown to markedly reduce
  the likelihood of rabies.
- If possible, irrigate with a virucidal agent such as povidine-iodine solution.
- Most bite wounds are not closed with stitches as this may increase the chance for infection. Report the incident to your supervisor and/or infection control officer.
- Immediately seek medical treatment.

#### Medical evaluation for an exposure:

In addition to wound cleaning, for non-immunized individuals (which includes most fire fighters and EMS personnel) this includes:

- A post-exposure vaccination is available as 4 doses over 14 days.
- Human rabies immunoglobulin (HRIG) is given as a one-time injection around the bite on the day the bite occurred.

There is no known cure once the symptoms of rabies infection have started.

#### For More Information and Frequently Asked Questions (FAQs), Check Out:

- Centers for Disease Control and Prevention (CDC): http://www.cdc.gov/rabies/
- World Health Organization (WHO): <a href="http://www.who.int/mediacentre/factsheets/fs099/en/">http://www.who.int/mediacentre/factsheets/fs099/en/</a>
- Public Health Agency of Canada (PHAC): <a href="http://www.phac-aspc.gc.ca/im/rabies-faq-eng.php">http://www.phac-aspc.gc.ca/im/rabies-faq-eng.php</a>