

Rabies

Occupational Bacterial Infection from Handling Mammals

What is Rabies?

Rabies is a virus (genus *Lyssavirus*) that infects the nervous system and causes encephalitis in humans and other mammals. It affects all mammals and once clinical signs appear, it is usually always deadly, regardless of treatment. It is found almost worldwide and is typically encountered in wild animals in the U.S.

How does infection occur?

The virus is transmitted by saliva, brain or spinal cord fluid through an open wound when an infected animal bites or scratches a person or another animal. Rabies does not spread through blood, urine, or feces. Once a mammal is infected, the virus travels along the peripheral nerves to the central nervous system.

What are the symptoms?

Symptoms can take 1 to 3 months after exposure. Initial symptoms often include tingling at the site of exposure (at the peripheral nerves), fever, headaches, joint pain, mood changes, uncontrolled excitement, fear of water, difficulty swallowing, light sensitivity, rapid breathing, paralysis, seizures and loss of consciousness. It should be noted that once symptoms start, death usually occurs within 2 to 10 days.

How do I prevent it?

Protect yourself by making sure you are up to date with your rabies vaccine. Do not come into contact with wild animals. Animals who seem overly friendly, aggressive, demonstrate unusual behavior, or have excessive drooling may have rabies and should be avoided. If you are bitten, wash the wound with soap and hot water and contact your doctor immediately.

How is it treated?

There is no treatment for rabies once clinical signs develop and the fatality rate is over 99%. However, if post-exposure prophylaxis is started before symptoms the rabies vaccine will be given as well as fast-acting rabies immune globulin. Post-exposure prophylaxis (pre symptom treatment) has a high recovery rate.

Resources used:

- List of Zoonoses - Special Pet Topics – (2016) *Merck Veterinary Manual* 11th ed.
- The Center for Food Security and Public Health Zoonotic Disease Factsheets: Rabies
- The Center for Food Security and Public Health Zoonotic Transmission Routes: Rabies
- Center for Disease Control and Prevention (CDC): Human Rabies Immune Globulin