

More about the Rabies Virus

About Rabies

What is Rabies?

Rabies is a disease affecting all mammals, including man, caused by a virus that attacks the central nervous system, including the brain. Symptoms may include unexplained aggression, impaired locomotion, varying degrees of paralysis, and extreme depression or viciousness. After the onset of symptoms, terminal paralysis and death are imminent.

Strains of Rabies

There are several strains of the virus that are carried by different species of animals. A "strain" of rabies is a form of the virus that is primarily carried by a specific species of animal, known as the dominant reservoir species. Although a strain is specific to a particular species, other mammals are susceptible to that strain as well. When an animal other than the normal host species contracts the virus, it is called a spillover. In the case of the raccoon strain, which has been affecting the New England area since September of 1992, the most common spillover animals have included skunks, cats, woodchucks, and foxes. The fact that spillover occurs is cause for some concern.

How rabies is transmitted

Most commonly, rabies is transmitted by means of a bite wound. The virus is present in the saliva of the infected animal and is transmitted to the victim that is bitten. Occasionally rabies is transmitted by other forms of exposure such as contact between saliva of an infected animal and broken skin, open wounds or contact between infected saliva and mucous membranes (such as mouth or eyes).

After exposure

Once the virus has been introduced under the skin, it replicates at the site and spreads to the brain via the nerves and spinal cord. The time the virus takes to reach the brain is called the incubation period. This period is determined by how far the bite wound is from the head.

During the incubation period the animal is NOT infectious. After the incubation period has ended -- with the virus reaching the brain and proceeding to the salivary glands of the animal -- that animal becomes infectious and IS capable of transmitting the virus through a bite.

For dogs and cats there is a period of about three days in which an animal will shed (be able to transmit) rabies virus in its saliva, but will not be showing any neurological signs. After this, the infected animal will begin to exhibit signs of the disease and its health will deteriorate rapidly. Most likely, a dog or cat will be dead within 4 or 5 days of showing clinical signs of the disease.

