



Rabies (Hydrophobia)

Disease Fact Sheet Series

What is rabies?

Rabies is a viral disease affecting the central nervous system. It is transmitted from infected mammals to man and is virtually always fatal once symptoms appear. Human rabies is rare in the United States, but still frequently occurs in many developing nations. The most recent case of human rabies in Wisconsin occurred in 2010; prior Wisconsin cases occurred in 2004, 2000, and 1959.

Who gets rabies?

All mammals, including humans, are susceptible to rabies. In Wisconsin, skunks and bats are by far the most likely animals to carry the rabies virus, although rabies also has occurred sporadically in dogs, cats, foxes, raccoons and livestock.

How is rabies spread to humans?

Rabies is contracted by exposure to a rabid animal. The exposure is nearly always through a bite, but rabies can also be transmitted if a rabid animal scratches a person or if its saliva comes into contact with broken skin.

Because bites and scratches from bats may go unnoticed if a person is sleeping, is very young, or is mentally incapacitated, a physician should be contacted if a bat is found in the same room with a young child, or with a sleeping or mentally incapacitated adult. Similarly, if a person has had any physical contact with a bat and the possibility of a bite or scratch cannot be ruled out, rabies preventive treatment might be indicated.

What are the symptoms of rabies?

Early symptoms may include irritability, headache, fever, double vision, and itching or pain at the exposure site. The disease eventually progresses to spasms of the throat and the muscles used for breathing, convulsions, delirium, paralysis and death. It is important to note that by the time any symptoms appear, rabies cannot be successfully treated.

How soon after exposure do symptoms appear?

The time between exposure and the onset of symptoms is variable but averages one to three months in humans. Incubation periods of several years have been reported.

Is a human able to spread rabies?

Person to person transmission has never been documented, but is likely possible, so precautions should be taken to prevent exposure to the saliva of the diseased person. Tissues from individuals with rabies must not be used in transplant procedures.

What is the treatment for exposure to rabies?

The most effective rabies prevention is immediate thorough cleansing of animal bite or scratch wounds with liberal amounts of soap and water. If circumstances of the exposure warrant it, a physician may give the bite victim an injection of rabies immune globulin and four to five injections of a rabies vaccine administered in the arm as a preventive measure.

In most instances, however, observation or testing of the biting animal will rule out the possibility of rabies and will therefore eliminate any need for the bite victim to undergo the series of injections. Because of this, it is important for bite victims to notify their local health department (or local law enforcement when public health staff are unavailable) whenever a bite occurs to ensure that the biting



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animal is appropriately and legally observed or tested for rabies. The victim's physician should also be notified promptly. DO NOT destroy or release the biting animal until public health authorities can be consulted.

What happens if rabies exposure goes untreated?

Exposure of a human to a rabid animal does not always result in rabies. If preventive treatment is obtained promptly following a rabies exposure, virtually all cases of rabies will be prevented. However, if preventive treatment is not administered and signs of rabies develop, the disease is virtually always fatal. All animal bites, regardless of whether the animal is available for rabies observation or testing, should be evaluated by a health professional to determine if treatment is necessary.

What can be done to prevent the spread of rabies?

Exposure to rabies may be minimized by eliminating stray dogs and cats; having pet dogs, cats, ferrets, and livestock vaccinated against rabies; and staying away from all wild animals, especially those acting abnormally. Do not keep exotic or wild animals as pets, regardless of how young or cute they are. Exclude bats from living quarters by keeping screens in good repair and by closing up any small openings that could allow them to enter.

Persons traveling to developing countries in which rabies is prevalent, or persons who are at ongoing risk of possible rabies exposure (e.g., veterinarians, animal control officers) should ask their doctor about receiving the PRE-exposure rabies vaccination.

Persons who are bitten by any mammal should promptly cleanse the bite wound with liberal amounts of soap and water, and contact their physician and their local health department. Persons who have been in close physical proximity to bats and who cannot rule out the possibility of physical contact should likewise contact their physician. If the offending animal can be safely captured without incurring further injury, it is advisable to do so, and then hold the animal until the local health department can be consulted.