



### General Information About Rabies

- Rabies is a highly fatal viral infection that affects the brain and spinal cord.
- ► The virus itself is a bullet-shaped, enveloped, RNA virus that essentially cannot survive in the environment.
- Rabies virus can infect any mammal, but the virus cycle is maintained by carnivores and bats. Livestock, rodents, rabbits and other non-biting animals can be infected but very rarely transmit the virus.
- It can take more than six months for a person or animal to develop signs of rabies after being infected, but once signs develop, the infection is essentially always fatal.
- The best way to prevent and control rabies is to vaccinate domestic animals, including cats, dogs and horses, and to prevent contact of people and animals with wildlife that may be infected with the virus, such as racoons, skunks, bats and foxes.

#### **How Common Is Rabies?**

- Rabies occurs worldwide, but there are some areas in Europe and some island nations that are rabies-free.
- Over 30 000 people worldwide die from rabies each year, mostly in Asia and Africa where rabies is still very common in dogs.
- In the USA, Canada and western Europe, rabies is found in certain species of local wildlife such as racoons, skunks, bats, foxes, and coyotes. One or two or these species may be considered the main source of the virus in a given area. Infection in animals or people in these regions is usually the result of contact with infected wildlife.
- In 2004, 7 000 cases of animal rabies were reported in the USA, 2 500 of which were in racoons. Rabies is uncommon in horses, but can occur if a horse is bitten by any rabid animal, even a bat.



- ► From 2000 to 2006, there were 15 reported cases of human rabies in the USA, nine of which were the result of exposure to bats, and four of which were the result of exposure to rabid dogs. In the same period, only two cases of human rabies were reported in Canada, which were associated with exposure to bats.
  - ▶ Transmission of rabies from a horse to a person is possible, but extremely rare. However, people have been killed by rabid horses that develop very aggressive behaviour.

### **How Is Rabies Spread?**



- Rabies virus is usually transmitted by the bite of an infected animal in its saliva. If the saliva gets in the mouth, nose, eyes or a cut on a person or animal, the virus can be transmitted without a bite.
- An animal's bite can be infectious before the animal looks at all sick.
- The most common source of rabies in human cases worldwide is dogs, but in the USA and Canada it is bats.
- It can be hard to tell if a horse has been bitten by another animal, especially a bat, as the wound may be very small and covered with hair. People can be bitten by small bats without realizing it, especially if the bat bites them while they are sleeping.

## How Do I Know If My Horse Or A Wild Animal Has Rabies?

The only way to know for sure if an animal has rabies is test for virus in the brain, which cannot be done while the animal is alive. An animal may not show signs of being sick for weeks or months after being infected, but once the signs appear they progress quickly and the animal will die within about ten days. The most obvious sign of rabies is any kind of strange behaviour.



- Some animals become very vicious, and will attack other animals, objects or even their own bodies.
- ► Animals that usually only come out at night, like bats and skunks, may come out during the day.
- Some animals may lose control of their legs and walk strangely, or not be able to walk at all.
- Wild animals may lose their fear of people, which may make them seem friendly, but they're very dangerous.

The **first signs of illness in a horse** with rabies may be very subtle - the 'furious' form of rabies that most people picture is actually uncommon. The horse may just appear depressed, or some horses have mild colic, but with rabies infection, the signs always progress. Within a few days the horse develops obvious neurological disease (e.g. more abnormal behaviour, incoordination, inability to stand) and within about ten days the horse will die.





# My Horse Is Vaccinated For Rabies, But Can It Still Get Rabies?

- **YES.** A vaccinated horse is much less likely to develop rabies, but it is still possible. Any animal that suddenly develops signs of neurological disease should be considered a rabies suspect, whether it is vaccinated or not.
- Other neurological diseases, such as West Nile encephalitis and equine herpesvirus-1 (EHV-1) encephalomyelopathy, can cause similar signs. There are some tests available for these diseases, but rabies can only be diagnosed for certain by testing the brain, which cannot be done for a live horse.

### Can Rabies Be Treated?

There is NO effective treatment for rabies, therefore rabies prevention, including vaccination, is critical.

Any bite wound from a potentially rabid animal, be it in a person, pet or horse, should be cleaned vigorously right away with large volumes of soap and water for 15 minutes, then disinfected with alcohol, povidone iodine or a quaternary ammonium compound to eliminate as much virus as possible from the wound. If your pet or horse is bitten, contact your veterinarian. If a person is bitten they also need to be given antibodies against the virus right away, and then vaccinated several times. For adults this requires 5 injections in the upper arm over several weeks.



#### Rabies Vaccines

- Rabies vaccines for horses are readily available. All horses should be vaccinated against rabies.
- Foals from vaccinated mares should receive their first rabies vaccine at six months of age, and another at seven months of age. Foals from unvaccinated mares should receive their first rabies vaccine at three to four months of age, followed by a booster four weeks later.
- ► All horses should be vaccinated at 12 months of age, and then once a year after that.
- Broodmares should be vaccinated once a year, ideally 4-6 weeks before foaling or before breeding.
- A licensed veterinarian must give all vaccines, including rabies. If the vaccine is not given by a veterinarian, the horse will be treated as unvaccinated.

# What Happens To Horses That May Have Been Exposed To A Rabid Animal?

- **By law**, ANY animal (wild or domestic) suspected of having rabies must be reported to the local government authorities (e.g. the Canadian Food Inspection Agency in Canada).
- Regulations regarding exposure of domestic animals, including horses, to rabies vary by region. The local authorities will provide instructions when the incident is reported.
  - A properly vaccinated horse is typically re-vaccinated immediately and quarantined for 45 days to monitor it for any signs of rabies.
  - Unvaccinated or improperly vaccinated horses may be destroyed.



### What Can I Do To Help Control Rabies?

- Make sure your horse(s) (and any dogs or cats) is always up-to-date with its rabies vaccination.
- Avoid contact with wildlife, especially species that are known to carry rabies (e.g. bats, raccoons, skunks, foxes), and stray dogs and cats.
  - ▶ Keep these animals out of your barn. Keeping bats out can be difficult.
  - ▶ Keep animal feed and garbage in tightly closed containers or bins so wildlife is not attracted to the area.
  - Clean up piles of brush on your property where wildlife may try to nest or form a burrow.
- Avoid all contact with bats whenever possible, particularly bats seen during the day or found on the ground. If you find a bat in your house or anywhere it may have been in contact with someone was sleeping or with an infant, contact your public health department as soon as possible and follow their instructions.
- It is very important to teach children never to approach or touch ANY unfamiliar animal, even if it seems friendly, or if it looks sick, injured or unconscious.
- If you find a sick animal (wild or domestic) or see one that is acting strangely, contact an animal control professional so that it can be captured and tested. Never touch or try to capture the animal yourself. A rabid animal can behave very unpredictably.

