



Rabies: The Great Pretender

Rabies is an uncommon disease in domestic animals in Canada, thanks to the efforts of many concerned people, both inside and outside the veterinary community. However, it remains in circulation in various wildlife species across the country.

The rabies virus affects all warm-blooded mammals. In wildlife, it is most commonly found in foxes, skunks, raccoons and bats. Each of these species carries a variant (strain) of the rabies virus. All of these strains can affect pets, humans or domestic animals. Domesticated animals such as cows, horses, dogs and cats rarely act as a source for human disease. Usually, exposure to wildlife causes human infection.

Prevention

- Thus, the most important step for rabies prevention is **reducing exposure to potentially infected wildlife**.
- Pets allowed to roam are at risk for contact with rabid wildlife. Keep dogs in an enclosed yard rather than letting them roam free in the countryside. Ensure the yard is free of wildlife such as foxes, skunks and raccoons. Remove old logs and brush, and prevent access to storage sheds and garages by wildlife in these enclosures.

Vaccination

- Another step to prevent rabies in pets is **vaccination**.
- All healthy pets should be vaccinated; rabies prevention starts with everyone doing their part to ensure their four-legged friends are up-to-date with this vaccine. The rabies vaccine is very effective, costs very little, and it is usually given every one to three years. In most provinces, the law requires rabies vaccinations for all mammalian pets, including indoor pets.



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Knowing the Facts

- An important component of rabies prevention is **knowing the facts** about this terrible disease so high-risk exposures, or contact, can be prevented.
- Rabies moves between animals or from animals to people via a bite wound or through breaks in the skin or mucous membranes. It is also thought that people can become infected by breathing air around bats, such as in bat caves where the virus is suspended in droplets in the air.
- Rabies has an almost 100 per cent fatality rate. Recoveries are extremely rare — only a few can be found in the literature. Once the virus enters the body of the animal or person, it travels to the central nervous system along the nerve fibres. It sets up a base in the brain and spreads back out into the body using the nerves to move around once more. The virus particles end up in many body tissues. Of particular importance are the salivary glands (the glands that produce saliva). Once rabies viruses enter the salivary glands they are present in large numbers in saliva and can be easily spread between animals or to people via licking or biting.
- Once infected, animals may show widely differing signs depending on what stage of the infection they are in. Early in the infection they may appear completely normal. This incubation phase can last for long periods of time (weeks to months, if not years). A bite on the face, head or neck will tend to lead to a shorter developmental phase since the virus is close to the brain, while a bite on the tip of the tail or paw may result in a long phase because it takes longer for the virus to travel to and from the brain.
- Rabid animals may act normally and can pass the virus on to other animals or people at the very end of this developmental or normal-behaviour phase. This is the greatest time of risk because the typical rabies behaviours are absent.
- Once clinical signs of illness start, the animal only has about a week to live.



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Signs

Signs are variable and include:

- Aggression without being provoked or bothered.
- Paralysis — for example, muscles controlling breathing and walking (amongst others) lose their function.
- Nocturnal (active at night) animals out during the day.
- Overly-friendly wildlife or cats (rabid cats may become overly friendly and affectionate rather than vicious, then suddenly lash out).
- Drooling or foaming at the mouth due to throat and mouth muscle paralysis. A dog may develop a tongue that hangs out.
- Affected animals may also have trouble drinking or eating, and may run a fever.

The Great Pretender

- Never forget that any animal acting in an unusual fashion can be showing signs of rabies! That is why rabies is called “the great pretender”. The disease can look like many other conditions, and can be very different from the vicious biting “rabid” animal image we think about.
- Another important step for control of rabies is cooperation between veterinarians, the public, the public health system, physicians and government agencies to **monitor and control rabies on a regional and national level**.
- For example, in some parts of Canada, bait is dropped from airplanes into rural or countryside areas for wildlife to eat. The bait (disguised as food treats) is laced with an effective rabies vaccine. Public health departments also track and manage human exposures.
- Never approach an animal you don't know. If you see an animal acting in an unusual fashion, or you get even a small nip from a strange animal, report it right away. Suspected rabies cases must be immediately reported to the public health department, your physician, and to veterinarians (when involving pets or domestic animals).

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