

RABIES

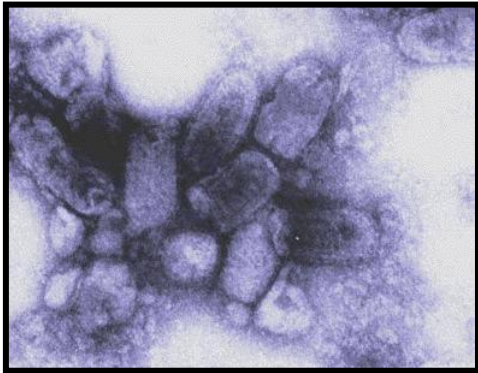
Questions and Answers

May 2014

PICTURES OF RABIES CONTROL



An MNR Twin Otter aircraft is used to distribute rabies vaccine baits in southern Ontario



An electron microscope image of the rabies virus



ONRAB[®] oral rabies vaccine baits

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ABOUT RABIES

Who do I contact to access rabies information?

There is no single agency that is responsible for all aspects of rabies in Ontario.

A list of who to call in each situation:

- **Animal/bite contact by a potentially rabid animal:** call your family physician, the public health unit or go to the emergency department of your local hospital. If possible, confine the animal.
- **Live, potentially rabid animal threatening my safety:** call your local police force or detachment of the OPP.
- **Dead, potentially rabid wildlife:** contact the MNR Rabies Hotline at 1-888-574-6656. **Potentially rabid pet or livestock:** contact the OMAF Agricultural Information Contact Centre at 1-877-424-1300.
- For advice about a **wildlife problem on my property:**
 - Humane Society: yellow pages of your telephone book under 'Animal Protection & Shelters' or 1-888-668-7722 or <http://www.ontariospca.ca/>
 - Private animal control agency: yellow pages of your telephone book under 'Animal Control' or (705) 254-3338 or <http://www.furmanagers.com>.
 - Wildlife rehabilitation centre: yellow pages of your telephone book under 'Animal Protection & Shelters'. Or contact your [local Ministry of Natural Resources office](#) for assistance.
 - Ontario Ministry of Natural Resources district office: blue pages of your telephone book under 'Natural Resources' or [MNR Offices webpage](#).
 - Information on wild animal rabies prevention programs: contact the Ministry of Natural Resources at 1-888-574-6656 or for general inquiries 1-800-667-1940 or Ontario.ca/rabies.

What is rabies?

Rabies is an infectious disease caused by a virus that infects nerves in mammals. The rabies virus travels to the brain through nerves. Once it reaches the brain, the virus reproduces and then travels through the nerves back to most parts of the body. Eventually, the virus reaches the salivary glands where it is released into the saliva in the mouth. By this time, the disease has usually damaged the brain, producing either submissive or violent behaviour. Rabies can be prevented if a person is vaccinated soon after being exposed to a rabid animal. Death is caused by asphyxiation or cardiac arrest.

How is rabies spread?

Rabies is spread by infected mammals to other mammals (including humans) through saliva. This can occur in three main ways:

- biting
- contact with the virus through an open cut, sore or wound
- contact with the virus through mucous membranes (mouth, nasal cavity, eyes)

What are the symptoms of rabies?

In humans: early symptoms of rabies may include numbness around the site of the bite, fever, headache, and a general sick feeling. Later symptoms may include muscle spasms and hydrophobia (fear of water). In an adult, clinical symptoms can appear as soon as two weeks after exposure, or in some rare instances over one year following exposure. Once symptoms appear, death is usually imminent.

In animals: depression, partial paralysis, sometimes aggressive behaviour, followed by death.

Are there different types of rabies?

There are different strains, but unlike flu strains, rabies vaccine for humans and rabies vaccines for domestic animals protect against all strains of rabies in North America. There are several strains presently in Ontario: 'Ontario fox' (a subsidiary of 'Arctic fox strain') (mainly found in foxes and skunks) and a variety of bat strains. In 2008, Ontario was declared free from raccoon strain rabies, though the strain remains on provincial borders with New York State. The last case of raccoon strain rabies in Ontario occurred in September 2005. In other parts of Canada, the USA and Mexico, there are a number of skunk, fox, and other bat strains.

Are some strains of rabies more dangerous than others?

All strains are dangerous. At present, there is no proof that any one strain is more dangerous to humans than another. The most common strain to kill humans in North America is the bat strain.

What is the rabies situation in Ontario?

Rabid foxes: The number of cases of rabid foxes has dropped significantly over the past couple of decades due to intensive rabies control efforts by MNR since 1989. The last rabid fox reported in the province was in 2009. Ontario, formerly the rabies capital of North America, used to report almost 1500 cases per year. At present, remnants of 'Ontario fox' strain of rabies are found mainly in southwestern Ontario, and occasionally in northern Ontario.

Rabid raccoons: Like any mammal, raccoons can pick up various strains of rabies, but it is most susceptible to the raccoon strain. Raccoon strain rabies originated in Florida and has been moving northward for over 50 years. The first case in Ontario occurred in 1999 in Leeds-Grenville County in southeastern Ontario. The Ministry of Natural Resources' (MNR) raccoon rabies control program held the number of cases to just 132 and in 2008 was able to declare the province free from the raccoon strain of rabies. However, the province remains vigilant in monitoring for new outbreaks as the disease remains at our doorstep on the borders with New York State.

Rabid skunks: In Ontario, skunks primarily carry the Ontario fox strain. Fortunately, there were no rabid skunks identified in Ontario in 2013. A skunk was responsible for one of the two Ontario fox strain rabies cases in 2012; the other was a cat. This rapid decline in rabies cases over the past six years is likely due to a more effective oral rabies vaccine called ONRAB[®] that has been developed for use in foxes, raccoons and skunks; as well as successful efforts to control rabies in foxes.

Rabid bats: Rabid bats accounted for 27 cases of the 28 rabies cases in 2013; 25 cases in 2012, and 29 and 24 cases, respectively in 2010 and 2011. Bats carry bat strains of rabies. As bats in Canada are insectivores, no efficient way of vaccinating them has yet been found. International research is being conducted to find effective vaccination methods for bats.

Rabid pets: In the late 1980s, almost 200 cases of rabid dogs and cats were reported each year. With the reduction of rabies in wildlife and mandatory pet vaccination, there has been a significant decrease in the numbers of rabid dogs and cats over the past decade. It is law that cats and dogs must be vaccinated against rabies in most parts of Ontario. That said, there was one case of rabies in a dog in northern Ontario in 2013.

Rabid livestock: In the late 1980s, an average of 410 cases of rabid livestock (including cattle, sheep, goats, and horses) were reported each year. With the reduction of rabies in wild animals, the figure has dropped significantly. In 2011, there was one rabid cow and no reported cases in 2013, 2012 or 2010.

Other rabid animals: Although in far fewer numbers, other reported mammals that are occasionally confirmed as being rabid in Ontario include coyote, wolf, groundhog, white-tailed deer, black bear, rabbit/hare (wild or domestic), beaver, mink, weasel, muskrat, fisher, otter, field mouse, wild boar (wild released), elk (from a zoo), llama

(domestic), bison (domestic), ferret (domestic) and squirrel. Any mammal (including humans) can contract rabies.

How long does the rabies virus last outside the body and in dead animals?

The life span of the rabies virus depends on the duration of its exposure to air and climatic conditions. Freezing does not kill the virus, it only makes it dormant, but still infective. You should always assume that a dead animal may still harbour the virus.

Why do we invest in rabies control and research?

- To reduce the risk of human fatalities. Rabies, with very few exceptions, is fatal. The number of human deaths is low because of effective post-exposure vaccination, education, pet vaccinations, and wildlife rabies control programs.
- Reduce potential for mental and emotional impact suffered by the victim and the victim's family.
- To save money on rabies investigations, post-exposure treatment, and other costs associated with high rates of rabies.
- To reduce the burden on the provincial health care system

HUMAN HEALTH AND RABIES

Does rabies kill people?

Yes. Once symptoms of the disease develop, rabies is almost always fatal. There have only been a handful of documented cases worldwide of individuals surviving rabies. Worldwide, an average of 55,000 people die of rabies each year, mostly in Africa and Asia. Ninety-nine percent of the human rabies deaths are caused by rabid dogs in developing countries and about 15 million people are treated for rabies exposures annually worldwide (according to [WHO](#)).

Without intense medical intervention, all North American strains of rabies are fatal once clinical symptoms develop. Fortunately, a series of vaccinations can prevent death if administered immediately after exposure. One vaccine protects humans against all strains of rabies found in North America.

How would I become exposed to rabies?

Rabies is spread by infected animals through:

- bites
- contact with an open cut, sore or wound
- contact with mucous membranes (mouth, nasal cavity, eyes)
- careless handling of a dead rabid animal

Usually, people come into contact with rabies through their pets. Rabies in a single dog or cat could expose many human beings. In Ontario, less than 10% of reported rabid animals are cats or dogs, but they are responsible for about 50-60% of all human post-exposure vaccinations.

What should I do if I encounter a rabid animal?

Keep your distance. Call Telehealth Ontario at 1-866-797-0000.

What should I do if a suspected rabid animal bites me?

Wash the bite or scratch well with soap and warm water, immediately. If soap and water are unavailable, use hand sanitizer in the meantime.

Call your family physician, or go to the nearest hospital for treatment.

Rabies is deadly, so all bites and scratches from a suspect animal must be reported. Either you, your doctor or the hospital emergency department must report the incident to the local health unit.

If you are bitten or scratched by an animal with rabies, you will receive immunoglobulin and a series of five shots of post-exposure rabies vaccine. More shots may be required depending on the severity and location of the exposure.

How do I know if I have rabies?

Early symptoms of rabies may include numbness around the site of the bite, fever, headache, and a general sick feeling. Later symptoms may include muscle spasms, aerophobia (fear of air gusts), hydrophobia (fear of water), and difficulty breathing.

In an adult, clinical symptoms can appear as soon as two weeks after exposure, or up to one year following exposure. It depends on where the bite is located, the severity of the wound, and the strain of rabies, among other factors. Once clinical symptoms develop, however, it may be too late.

If you have sufficient reason to believe that you have come into contact with the rabies virus, contact your physician or go to a hospital or clinic.

You may have come into contact with the rabies virus if:

- a potentially rabid animal has bitten you.
- saliva or other tissue from a potentially rabid animal (dead or alive) came into contact with an open cut, sore, wound or mucous membrane (mouth, nasal cavity, eyes).
- there has been direct contact with a bat (i.e., the bat has touched or landed on a person) *and* a bite or scratch from a bat or exposure of a wound or mucous membranes to saliva from a bat cannot be ruled out. (Source: [Public Health Agency of Canada](#))

If you can, confine the suspect animal and call 1-866-797-0000. Do not handle a dead or live animal with bare hands. Do not approach stray animals, wild animals, or animals which are behaving abnormally.

What should I do if I think I have rabies?

Contact your family physician, emergency department of the closest hospital, or a walk-in clinic.

How long does it take to get rabies after being infected?

The speed at which symptoms appear depends on where the bite is located, the size and depth of the wound, and the strain of rabies, among other factors. In people, the incubation period is usually two to eight weeks.

If you suspect you have come into contact with a rabid animal, contact a physician immediately.

Is rabies treatment painful?

No. The modern treatment consists of five injections in the upper arm over a 28-day period, as well as immunoglobulin (amount will vary from person to person). It is much less painful than treatments of the past, when 14 injections were given in the abdomen, once a day, over a period of 2 weeks.

Do I have to pay for rabies treatment?

The Ministry of Health provides the vaccine and anyone with OHIP does not have to pay the medical costs.

How can I reduce my risk of rabies exposure?

- Make sure your dogs and cats are vaccinated against rabies every three years (annually in some cases – check with your veterinarian).
- Don't allow your pets to wander freely, particularly at night.
- Keep your distance from unfamiliar animals, particularly ones that appear sick, even if they are babies.
- Don't feed wild animals.
- Attempt to keep bats from getting inside your home.

If I come into contact with urine, feces or blood should I be worried about rabies?

Contact with urine, feces, or blood of a rabid animal is not normally considered infectious. However, you should consult your family physician or local health unit if you are exposed to these substances as you may have been exposed to other diseases and parasites.

May I be vaccinated against rabies?

Yes. Rabies shots are given by a family physician or traveler's health clinic. Contact your physician to determine the cost; pre-exposure vaccination is not covered by OHIP. There are three shots spanning 21 days. Immunity levels (the level of resistance to rabies) should be checked each year. Boosters (subsequent shots that will increase your immunity) are given when necessary and duration of immunity varies from person to person.

Shots are recommended for international travelers entering high risk areas (as defined by the World Health Organization) and for people involved in activities with high potential for contact with the virus: e.g. trappers, wildlife rehabilitators, slaughterhouse workers, veterinarians, etc.

What about children?

Warn children to stay away from wild animals or stray pets. Report bites or scratches to a physician.

Has anyone ever died of rabies in Ontario?

From 1924 until 2011, six people have died of rabies in Ontario. A total of 24 people in six provinces have died of rabies in Canada. (Source: [Public Health agency of Canada](#))

When was the last rabies death in Canada?

In April 2012, a 41-year-old man from Toronto, Ontario contracted rabies after being bitten while travelling overseas. The last rabies death from a Canadian rabies positive case was in May 2007, when a 73-year-old Alberta man died after testing positive for rabies in March 2007 as a result of a bat bite in August 2006.

I found a rabies vaccine bait ...

Call the Ministry of Natural Resources at 1-888-574-6656. If you have come into contact with the liquid vaccine in a bait, call your family physician as a precaution. The liquid vaccine does not normally pose a threat but could be of risk to immunocompromised individuals.

PETS AND RABIES

Does rabies kill pets?

Yes. All North American strains of rabies are fatal once clinical symptoms develop.

How do I know if my pet is rabid?

Pet owners should be cautious if pets lose their appetites or change their behaviour, especially if the pet becomes aggressive or sluggish. Other diseases may cause similar behaviours. Contact your vet immediately.

Often, the first sign of the disease is when the pet has become quiet or sluggish. This is called 'dumb' rabies.

Some pets will display 'furious' rabies, becoming more aggressive. They may bite other animals, their owners, or familiar people. A rabid pet may begin to randomly bite the wound site where the rabies virus was originally introduced and any inanimate objects.

The sound of a dog's bark changes with the onset of paralysis of the throat nerves. Excessive drooling occurs because the dog or cat cannot swallow its own saliva. Following paralysis, death occurs generally from respiratory or cardiac arrest.

What do I do if I suspect my pet is rabid?

Quarantine it (keep it away from humans and other animals). Call your veterinarian.

How do I protect my pets against rabies?

- Make sure your dogs and cats are vaccinated against rabies every three years, or annually (depending on the vaccine used by your vet). In many health units, cats which are kept indoors all of the time must still be vaccinated against rabies.
- At present, rabies vaccinations are compulsory in most of the health units in Ontario. You could be fined if you do not get your pet vaccinated against rabies. Check with your local health unit to learn the requirements in your area.
- Do not allow pets to wander freely, particularly at night, when night-roamers like foxes, skunks, bats, and raccoons are out.

Where can my pet get vaccinated and how much will it cost?

Contact your local veterinarian. Vets may vaccinate your pet for other diseases at the same time.

How long does the vaccination last?

A vaccination lasts either one or three years, depending on the vaccine used by your vet.

When is a rabid dog or cat infectious?

Pets can transmit rabies once the virus is present in the saliva. The rabies virus may be present in the saliva of an infected dog or cat for a number of days before the onset of visible signs. Once the signs occur, the animal usually dies within a few days.

What happens if my pet bites someone?

Ontario law requires dogs and cats to be observed or quarantined (isolated) after biting a person (depending on the animal's vaccination history and the likelihood of rabies exposure). During the quarantine, authorities from local health units observe the animal for abnormal behaviour or signs of rabies. If the animal is well at the end of the observation or isolation period, it may be released.

What happens if my pet is exposed to a rabid animal?

Contact the Ontario Ministry of Agriculture and Food (OMAF) Agricultural Information Contact Centre at 1-877-424-1300. Cats or dogs exposed to a rabid animal will go through an observation period. The observation period for vaccinated animals is usually around ten days, but will be based on the age and health of the pet and previous number of rabies vaccinations.

Unvaccinated pets are quarantined for six months.

Which pets are prone to rabies?

Dogs and cats are the most common, but any mammal can contract rabies. From 2008 – 2013, there has been five rabid dogs and three rabid cats.

I want to bring my pet into the United States ...

Any pet over three months of age must have been vaccinated against rabies at least once within the preceding three-year period. You must have a vaccination certificate for your pet, signed by your veterinarian. The same is required for re-entry into Canada.

How long does it take a pet to get rabies once infected?

The incubation period (the time between exposure to the virus and the onset of signs) can range from about two weeks to many months. Incubation time is dependent on many factors, including the location and severity of the bite and the strain of rabies.

Can animals that show no obvious rabies symptoms pass on the virus?

Yes. The rabies virus can be found in the saliva of animals for a few days before obvious rabies symptoms develop.

All animals with virus in their saliva will soon develop symptoms and die.

Do all animals that develop rabies die?

Yes. All the North American strains of rabies are almost always fatal once rabies symptoms develop.

Do my dogs and cats have to get a different vaccine because of raccoon strain rabies?

No. The current vaccines protect pets against all strains of rabies present in North America.

May I feed rabies vaccine baits to my pet?

Don't. The MNR drops baits in order to vaccinate local wildlife populations. The vaccine is not designed for dogs and cats. Your dogs and cats must receive an injection from a veterinarian to be vaccinated against rabies.

What do I do if my pet eats a rabies vaccine bait?

There is no need for concern. Your dog may experience some stomach upset due to the vegetable fat and wax compound surrounding the plastic vaccine pack. If your dog has eaten multiple baits, consult a veterinarian.

Eating a bait does not replace the regular rabies vaccination by a veterinarian for your pet.

LIVESTOCK AND RABIES

Does rabies kill livestock?

Yes. Rabies is fatal to livestock.

How do I know if my livestock is rabid?

Generally, animals exhibit a change in behaviour: some become very aggressive, while others become dull and depressed. In many cases, the animals emit strange sounds due to spasms in the vocal cords. The animals may become weak in the hindquarter and lie down. Once rabies symptoms appear, there is no cure.

What do I do if I suspect my livestock is rabid?

Confine the animal, keeping it away from other livestock, pets and humans. Contact the OMAF Agricultural Information Contact Centre at 1-877-424-1300. Call your family physician or local health unit if you have been in contact with the animal.

How can I protect my livestock against rabies?

Discuss the possibility of livestock vaccination with your veterinarian. All pets, including barn cats, should be vaccinated as well. If practical, avoid pasturing animals in remote locations where wildlife is abundant.

Skunks, foxes, or raccoons that are acting strangely should be humanely dispatched. After humanely dispatching the animal, contact the MNR Rabies Hotline at 1-888-574-6656 to have any strange acting wildlife tested for rabies.

How can I vaccinate my livestock against rabies?

Contact your local veterinarian.

How much will it cost to vaccinate my livestock?

Check with your veterinarian to determine the cost.

How long does the vaccination last?

One to three years depending on the vaccine used. Check with your veterinarian.

What happens if one of my animals is rabid?

OMAF will submit a specimen (the brain) for testing. If the results come back rabies positive, you will be advised on observation periods and/or quarantines and vaccinations for your farm animals.

How long does it take to confirm rabies in livestock?

Generally you will know within 48 hours of the submission time. If further testing is required, results take 5 to 6 days.

How long is the quarantine period for unvaccinated domestic livestock suspected of having rabies?

Herds, flocks or groups of farmed livestock exposed to rabies are quarantined for a variable period of time depending on whether the rabid animal they were exposed to was a member of the herd or whether it was external to the herd (e.g. rabid skunk). The typical length of time is between 40-60 days.

What happens to the rest of the herd?

OMAF places the herd under quarantine until it is sure that no other animals have been infected.

Does the government offer compensation?

Yes. Owners of livestock are compensated for livestock losses under the Rabies Indemnification Program. Details of the program are available through the Ontario Ministry of Agriculture and Food (www.ontario.ca/omafra).

Which livestock are prone to rabies?

Any mammal can contract rabies. Bovines (cows, bison, oxen) and horses tend to be the most commonly reported, but sheep, goats, donkeys, llamas, and pigs have also been reported rabid in Ontario. From 2008-2013, there have been 14 rabid bovines.

How long does it take an animal to get rabies once infected?

The incubation period (the time between exposure to the virus and the onset of signs) can range from about two weeks to many months. Incubation time is dependent on many factors, including the location and severity of the bite and the strain of rabies.

May I feed vaccine baits to livestock?

Don't. The MNR drops baits in order to vaccinate local wildlife populations. The vaccine is not designed for livestock.

How can I prevent my livestock from eating rabies vaccine baits distributed in my area?

Check the Ministry of Natural Resources website for baiting dates, photos and description of baits: www.ontario.ca/rabies or call 1-888-574-6656.

What should I do if my livestock eats a rabies vaccine bait?

There is no need for concern. If a single animal has eaten many baits, consult a veterinarian. Eating baits does not replace a regular vaccination by a veterinarian for your livestock.

WILDLIFE AND RABIES

How can I tell if a wild animal is rabid?

Rabies symptoms may be expressed in two different ways: dumb rabies or furious rabies.

Dumb Rabies

- Animal may become depressed and retreat to isolated places.
- Animal may lose fear of humans.
- An animal which is normally active at night may be active during the day.
- Signs of paralysis. Head and neck paralysis may result in abnormal facial expressions, drooling, drooping head, sagging jaw, or strange sounds. Body paralysis usually begins in the hind limbs and spreads to the rest of the body.

Furious Rabies

- Animal displays extreme excitement and aggression.
- Animal gnaws and bites its' own limbs.
- Animal attacks objects or other animals. Bouts of furious rabies usually alternate with periods of depression.

Wild animals with rabies, dumb or furious, generally have very roughed or dirty fur, and can appear very emaciated.

Who should I call if I see a wild animal that might have rabies?

Please refer to the "Who do I contact" section on page 4.

Which wild animals get rabies?

Any mammal is susceptible to rabies. Opossums, which are marsupials, rarely get rabies. Birds, reptiles, amphibians, fish and invertebrates neither contract rabies nor pass on the virus.

Coyotes and wolves, although susceptible to rabies, are rarely infected with it in Ontario. There have only been three rabid coyotes since 2000, with the last one being in 2002.

There is a raccoon/skunk/fox out wandering in the winter/daytime. Is it rabid?

Not necessarily. Mating season for the main rabies vector species (fox, raccoon, and skunk) is during the winter. There may be other reasons why an animal normally active at night is out during the day such as searching for food to feed their young.

What are the main rabies carriers in Ontario?

Most mammals can contract and pass on rabies. Wild animals most commonly reported with rabies in Ontario are skunks, bats, foxes and raccoons. Since eliminating raccoon strain rabies from the province, it is rare to find a rabid raccoon in Ontario now. The last case of raccoon strain rabies was in 2005.

Can wild animals pass on rabies without dying of it?

There is no evidence that this happens.

What are the different strains of rabies found in wildlife in Ontario?

- 'Ontario fox' strain (a subsidiary of 'Arctic fox' strain)
- Various bat strains
- While recently eliminated from the province, the 'mid-Atlantic raccoon' strain remains in New York State right on the border with Ontario.

All rabies strains can be found in a variety of wildlife species but are passed on mainly by the animal identified by strain name. However, 'Ontario fox' strain is transmitted equally by both foxes and skunks.

Which strains of rabies do I have to watch out for?

All strains are dangerous to pets, livestock and humans.

In recent years, about 75% of the human deaths in North America due to rabies have been caused by bat strains of rabies. Most of the non-bat strain rabies deaths were acquired while traveling outside of Canada or the United States. In many of these rabies deaths due to bat strain rabies, the people were not aware that they were bitten or in contact with a bat and did not seek treatment until it was too late. In several instances, people were in advanced stages of rabies and were unable to communicate with the doctor to indicate whether or not they had been in contact with a bat.

What is 'Ontario fox' strain rabies?

It is a strain of rabies spread mainly by foxes. In southern Ontario, primarily red foxes and striped skunks spread the fox strain of rabies. 'Ontario fox' strain rabies is a subsidiary of 'Arctic' or 'Arctic fox' strain which is restricted to southern Ontario.

Where did 'Ontario fox' strain rabies come from?

In 1948, an outbreak of rabies was detected in northern Canada, where it was spread by arctic foxes and sled dogs (this was the original 'Arctic' or 'Arctic fox' rabies strain). This moved southward, resulting in the first case in Ontario near James Bay in 1954. The first case in southern Ontario was near Parry Sound in

1956. By 1959, 'Ontario fox' strain rabies was widespread throughout southern Ontario.

What is being done to prevent the spread of fox strain rabies?

Each year, the Ministry of Natural Resources distributes baits for foxes and skunks to eat. The baits contain a small package filled with a rabies vaccine designed to vaccinate a fox or skunk when it absorbs the vaccine through the lining of the mouth while eating the bait. This is called "oral rabies vaccination" (ORV).

Approximately two weeks after a fox or skunk absorbs the vaccine, it becomes immunized against rabies. For more information on this program call 1-888-574-6656 or visit www.ontario.ca/rabies .

What is raccoon strain rabies?

It is a strain of rabies spread mainly by raccoons.

Where is raccoon strain rabies found?

Raccoon strain rabies was first reported in Ontario in July 1999 in Leeds-Grenville County in southeastern Ontario and in December 1999 on Wolfe Island. The last case of raccoon rabies in Ontario was confirmed in September 2005. In early 2008, Ontario declared the province free from this strain of the rabies virus, though vigilance is required as the disease remains near our border in New York State.

Raccoon strain rabies originated in Florida and has been working its way slowly northward since the late 1940s. A major step in this spread was due to many raccoons being relocated between states in the late 1970s, and amongst them, at least one infected raccoon.

How many raccoons are there in southern Ontario?

There are about one million raccoons in southern Ontario. Their density varies by habitat. In urban areas, populations can be as high as 100 raccoons per square kilometer. In rural areas, raccoons average 4-11 per square kilometer but densities can be as high as 40 raccoons per square kilometre in certain habitats.

What is oral rabies vaccination (ORV)?

It is a cost-effective method of vaccinating a large number of wild animals over a large area against rabies in a short period of time using vaccine-baits. The baits contain a rabies vaccine that will be absorbed in the lining of the mouth of an animal when eaten to immunize the animal.

How are rabies baits distributed?

In urban areas, the baits are distributed by hand or via helicopter in green spaces such as parks and river ravines. In rural agricultural and forested areas, Ministry of Natural Resources yellow airplanes or helicopters fly about 200 meters above the ground and drop baits containing the rabies vaccine. The baits are eaten by wild animals. An animal will be vaccinated approximately two weeks after eating the bait and absorbing the vaccine in the lining of the mouth. Visit the website www.ontario.ca/rabies for photos and more information.

What do the baits look like?

The baits are an army green colour and are made of a vegetable fat and wax compound. Baits have a sweet smell from the vanilla and sugar in the bait. They are about the size of a small jam package that you might get in a breakfast diner (40 mm x 22 mm x 10 mm) and weighs about 4.3 grams.

The baits are labelled with 'DO NOT EAT' and a toll-free phone number. (See photo on page 1)

Where is the rabies vaccine in the bait?

There is a small plastic container, like a miniature jam package that you might get at a breakfast diner in the shape of a small bathtub, embedded in the fat and wax compound of the bait. The rabies vaccine is inside the plastic container. The bait contains about 2.0 ml of the rabies vaccine. Baits contain the ONRAB[®] vaccine which was developed here in Ontario.

Are the baits safe?

Simply touching a bait is not a concern. Any person coming into contact with the rabies vaccine within the bait, or any other vaccine not prescribed by a physician, should seek the advice of a physician.

May I get some baits to feed to local wild animals?

No. The Ministry of Natural Resources is not licensed to give out baits to individuals.

Why aren't baits dropped with the same frequency in northern Ontario as they are in southern Ontario?

In northern Ontario, the habitat does not support as dense fox and skunk populations as it does in southern Ontario. Northern Ontario also experiences harsher winter conditions which may limit animal movements. The combination of lower populations and harsh winters in northern Ontario can result in the elimination of rabies in a short period of time. Aerial baiting usually requires up to three years to significantly reduce the frequency of rabies in a wildlife population.

How can I help in the fight against rabies?

- Do not trap and relocate wildlife. It is illegal to relocate wild animals more than one kilometre from point of capture. (Fish and Wildlife Conservation Act clause 133(1)(a) of O. Reg. 665/98)
- Before you travel, check your boat or trailer for hitchhiking raccoons, especially if you are leaving from the United States.
- Eliminate any potential wildlife food sources from around your home, including pet food left outside that might attract animals.
- Inform local authorities (Ministry of Health and Long Term Care, your local public health unit, MNR office or OMAF office) of strange acting animals.

What is bat strain rabies?

Various strains of bat rabies are found throughout Canada and the Americas. At least four strains have been identified in Ontario.

Each of the following bat species has its own strain of rabies:

- Big Brown Bat – more than 95% of all confirmed rabid bats in Ontario
- Silver-haired Bat – evidence suggests this strain is the most likely to infect humans
- Red Bat
- Hoary Bat

Several smaller bat species in Ontario, such as the little brown, the pipistrelle and others, do not have their own rabies strains. The big brown bat strain is usually found in those smaller bats.

What is being done to prevent the spread of bat strain rabies?

Ontario bats are insectivores and will not eat vaccine baits. International research is being conducted to find effective vaccination methods for bats. Education and awareness are important aspects in the fight against the spread of bat rabies.

Can bats carry and pass on rabies without dying?

No.

What should I do if I encounter a bat?

Any bats seen outdoors should be left alone.

If you wake up and find a bat in the room with you, contact your public health unit.

Is my pet raccoon/skunk/fox safe?

No. Wildlife carry many diseases that are harmful and in some cases fatal to humans. In Ontario, it is illegal to keep wildlife as a pet. Injured or orphaned wildlife may only be held for up to 24 hours while you are looking for a treatment or rehabilitation center (Fish and Wildlife Conservation Act clause 133(1)(a) of O. Reg. 665/98).

I have found a baby raccoon/skunk/fox, but there is no sign of the mother. What should I do?

Leave it alone. The mother may be away foraging. If after a time (more than 24 hours) it becomes apparent that it has been abandoned, call your local animal control agency or an authorized wildlife rehabilitator for advice.

How long does it take an animal to get rabies once infected?

The incubation period (the time between exposure to the virus and the onset of signs) can range from about two weeks to many months. Incubation time is dependent on many factors, including the location and severity of the bite and the strain of rabies.

Can animals that have no rabies symptoms pass on the virus?

Yes. Rabies virus can be found in the saliva of infected animals for a few days before obvious clinical signs develop. All animals with virus in their saliva will soon develop symptoms and die within a few days.

Do all animals that get rabies die?

Yes. All of the North American strains of rabies are fatal once clinical symptoms develop.

What is done to wild animals that may be rabid?

Any wild animal suspected of being rabid, where there has been human contact, is destroyed and its carcass is submitted for testing.. However, the need for testing is under the discretion of the health unit on a case by case basis.