

# **Questions and Answers**

# July 2005

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### Who do I call?

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.
- Live, potentially rabid animal near my home: call the Ontario Ministry of Health and Long-term Care hotline: 1-888-668-4636, hearing impaired: 1-800-387-5559 (hours: 08:00-17:00 Mon-Fri).
- Dead, potentially rabid animal: contact the local office of the Canadian Food Inspection Agency: <u>www.inspection.gc.ca/english/directory/offbure.shtml</u> or dial 1-800-442-2342.
- Potentially rabid pet or livestock: contact the local office of the Canadian Food Inspection Agency: <u>www.inspection.gc.ca/english/directory/offbure.shtml</u> or dial 1-800-442-2342.
- 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 <u>www.ospca.on.ca/ta\_wild\_home.html</u>.
  - Private animal control agency: yellow pages of your telephone book under 'Animal Control' or (705) 254-3338 or <u>www.furmanagers.com</u>.
  - Wildlife rehabilitation centre: yellow pages of your telephone book under 'Animal Protection & Shelters'.
  - Ontario Ministry of Natural Resources district office: blue pages of your telephone book under 'Natural Resources' or

http://www.mnr.gov.on.ca/MNR/csb/message/mnroffices.html .

- Information on wild animals rabies prevention programs such as trap-vaccinaterelease, point infection control, and oral rabies vaccination: contact the Ministry of Natural Resources at 1-888-574-6656 or for general inquiries 1-800-667-1940 or rabies.mnr.gov.on.ca.
- Information on rabies in Ontario: view the Rabies Reporter Newsletter at Queen's University <u>http://www.gis.queensu.ca/rreporter/</u>.

#### 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. It almost always causes death. Death is by asphyxiation or cardiac arrest.

#### How is rabies spread?

Rabies is spread by infected animals 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 up to 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 three strains presently in Ontario: 'arctic fox' (mainly found in foxes and skunks), 'mid-Atlantic' raccoon (mainly found in raccoons), and a variety of bat strains. In other parts of Canada and North America, 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. In 2004, rabid foxes accounted for 3 of the 114 cases in Ontario. Ontario, formerly the rabies capital of North America, used to report almost 1000 cases per year. At present, remnants of 'arctic fox' rabies are found in one main area: southwestern and adjacent southcentral Ontario (including the counties of Grey, Bruce, Wellington, Huron, Perth, Peel, Dufferin, Waterloo, Halton, and Simcoe). The Ministry of Natural Resources continues to drop baits containing an oral rabies vaccine for foxes each year in those areas.

**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 Resource's (MNR) raccoon rabies control program has held the number of cases to just 131 to the end of June 2005. It is hoped that the raccoon rabies control program conducted by the MNR will eventually eliminate it from Ontario.

**Rabid skunks:** Skunks may carry any strain of rabies. In Ontario, skunks carry the fox and raccoon strains. Skunks were responsible for 25 of the 114 cases in 2004. At present, an effective oral rabies vaccine has been developed for skunks and will be field tested in the near future.

**Rabid bats:** Rabid bats accounted for 56 of the 114 cases in 2004. Bats carry bat strains of rabies. As bats are insectivores, no efficient way of vaccinating them has yet been

discovered. 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 the increase in pet owners vaccinating their pets, 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. Since 2000, there has been an average of 5 rabid cats and dogs per year.

**Rabid livestock:** In the late 1980s, an average of 300 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 to less than 30 per year.

**Other rabid animals:** Although in far fewer numbers, other reported rabid animals in Ontario include coyote, wolf porcupine, groundhog, deer, bear, rabbit/hare, beaver, mink, weasel, muskrat, fisher, otter, field mouse, wild boar (wild released), elk (from a zoo), 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.

Always assume that a dead animal may still have the virus.

#### How much money is spent on wildlife rabies control programs each year?

The Ministry of Natural Resources spends up to \$5.3 million per year.

#### Why do we spend so much money on rabies control?

- 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 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.

#### Does rabies kill people?

Yes. According to the Guinness Book of World Records, rabies is one of the few diseases which is 100% fatal. There have only been six documented cases world-wide of an individual surviving rabies. In one case, the patient did not die of rabies but never made a full recovery. Worldwide, an average of 50,000 people die of rabies each year, mostly in India. 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. Only 10% of reported rabid animals are cats or dogs, but they are responsible for about 60% of all human post-exposure vaccinations.

#### What should I do if I encounter a rabid animal?

Keep your distance. Call the Ministry of Health and Long-term Care at 1-888-668-4636.

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

Wash the bite or scratch well with soap and warm water, immediately.

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 a series of 5 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 numbress 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).
- you woke up and discovered a bat, live or dead, in the vicinity of where you were sleeping.

If you can, confine the suspect animal and call 1-888-668-4636. 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. 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?

Not in Ontario. The Ministry of Health provides the vaccine and OHIP covers the medical costs. The total cost to taxpayers is around \$1,500.00 per person.

#### 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.

## HUMAN HEALTH AND RABIES

#### If I come in contact with urine or feces 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. 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?

Since 1925, 7 people have died of rabies in Ontario. All deaths occurred before 1968.

#### When was the last rabies death in Canada?

In March 2003, a 52-year-old British Columbia man died of bat strain rabies.

#### 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 or go the emergency ward of your local hospital.

#### 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 and the Ministry of Health hotline at 1-888-668-4636.

#### 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).

At present, rabies vaccinations are compulsory in 31 of the 37 health units in Ontario. You could be fined if you do not get your pet vaccinated against rabies.

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. The cost generally ranges from \$15.00 to \$65.00. 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 quarantined (isolated) for 10 days after biting a person. During the quarantine, authorities from local health units observe the animal for abnormal behaviour of signs of rabies. If the animal is well at the end of the 10 days, it may be released.

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

The Canadian Food Inspection Agency will quarantine (isolate) cats or dogs exposed to a rabid animal. Quarantines for vaccinated animals can range from 30 to 90 days. Canadian Food Inspection Agency vets determine the period of quarantine 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 2000 to 2004, there were 16 rabid dogs and 9 rabid cats reported in Ontario.

#### 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 get rabies die?

Yes. All the North American strains of rabies are 100% 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 vaccine local wildlife populations. The vaccine is not designed for dogs and cats and will not immunize them. Your dogs and cats must receive an injection from a veterinarian to be vaccinated against rabies.

#### How can I prevent my dog from eating rabies vaccine baits that it finds?

Keep dogs close to home on a leash for two weeks following the first day of aerial baiting in your area. Check the Ministry of Natural resources web site for baiting dates in your area: <u>rabies.mnr.gov.on.ca</u> or call 1-888-574-6656.

#### 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 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.

#### My pet is caught in one of the Ministry of Natural Resources traps ...

Ministry of Natural Resources staff checks the traps each morning and will release your pet. Questions or concerns can be directed to 1-888-574-6656.

#### 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 Canadian Food Inspection Agency at 1-800-442-2342 or the Ministry of Health at 1-888-668-4636.

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.

Destroy skunks, foxes, bats or raccoons that are acting strangely. After destruction, contact your local Canadian Food Inspection Agency to have any strange acting animals tested for rabies: 1-800-442-2342.

#### How can I vaccinate my livestock against rabies?

Contact your local veterinarian.

#### How much will it cost to vaccinate my livestock?

Approximately \$5.00 - \$8.00 per animal. Check with your veterinarian to determine the cost.

#### How long does the vaccination last?

Over one year. Yearly booster vaccinations are recommended.

#### What happens if one of my animals is rabid?

The Canadian Food Inspection Agency will submit a specimen (the brain) to their laboratory in Ottawa for testing. If the results come back rabies positive, you will be advised on 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 animals suspected of having rabies?

40-60 days.

#### What happens to the rest of the herd?

The Canadian Food Inspection Agency 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.

The livestock owner will receive a fair market value for the animal up to a maximum of \$1000.00 for cattle, \$500.00 for horses, and \$200.00 for goats, sheep and pigs.

Details of the program are available through Ontario's Ministry of Agriculture and Food, and the Canadian Food Inspection Agency.

#### 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 and pigs have also been reported rabid in Ontario.

From 2000 to 2004, there were 45 rabid bovines and 13 rabid horses reported in Ontario.

#### 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 vaccine local wildlife populations. The vaccine is not designed for livestock and will not immunize them against rabies.

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

Look for baits before allowing livestock to graze in the area for two weeks following the first day of baiting in your area. Check the Ministry of Natural resources web site for baiting dates, photos and description of baits: <u>rabies.mnr.gov.on.ca</u> 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.

#### 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.

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

Please refer to page 2.

#### 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.

#### 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, raccoons and foxes.

#### 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?

- 'Arctic fox' strain
- 'Mid-Atlantic raccoon' strain
- Various bat strains

All rabies strains can be found in a variety of wildlife species but are passed on mainly by the animal identified by strain name.

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

All strains are dangerous to pets, livestock and humans.

In recent years, most of the human deaths due to rabies have been caused by bat strain rabies. From 1990 to 2004, over 75% (33 of 43 cases) of all rabies deaths in Canada and the United States have been caused by bat strain rabies. Most of the non-bat strain rabies deaths (7 out of 10 cases) 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 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.

#### Where did 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 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, 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 to eat. The baits contain a small package filled with a rabies vaccine designed to vaccinate a fox when it absorbs the vaccine through the lining of the mouth while eating the bait. Approximately two weeks after a fox absorbs the vaccine, it becomes immunized against rabies. For more information on this program call 1-888-574-6656 or visit <u>rabies.mnr.gov.on.ca</u>.

#### 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.

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 one infected raccoon being relocated in 1980.

#### 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 kilometer.

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

- point infection control
- trap-vaccinate-release
- oral rabies vaccination (aerial and ground vaccine baiting)

#### What is point infection control (PIC)?

Within 24 hours of being notified of a case of raccoon strain rabies, a Point Infection Control program is initiated: within a five-kilometre radius of each reported rabid animal case, raccoons and skunks may be humanely euthanized. Within a further five-kilometre radius, wild animals prone to rabies are trapped, vaccinated and released. Additionally, rabies vaccine baits for raccoons are distributed in and around the entire site. If a new case occurs in an area which has recently been treated for raccoon rabies, the PIC will be modified and animals may not be euthanized unless they appear or behave abnormally.

#### What is trap-vaccinate-release (TVR)?

It involves live trapping animals, injecting them with a rabies vaccine, and releasing them at the point of capture.

Although the trap-vaccinate-release program is more expensive and time-consuming than oral rabies vaccination baiting, this program is best for covering small areas and will vaccinate enough raccoons to help the population resist the spread of rabies in urban and rural habitats.

Raccoons vaccinated against rabies will act as a buffer, slowing and stopping the spread of the disease.

#### I have come across a Ministry of Natural Resources trap ...

Leave it. The Ministry of Natural Resources sets traps in areas of high risk for raccoon strain rabies. The traps are part of an effort to reduce the threat of raccoon strain rabies in your area.

#### I do not want the Ministry of Natural Resources trapping on my property ...

Ministry of Natural Resources staff will always ask permission before trapping on your property. The traps are live traps. If your pet gets caught in them, it will not be harmed. Traps are checked daily, and any pets are released. If you are concerned, the trapper can show you how to properly release your pet if it were to become caught in the trap.

The Ministry of Natural Resources appreciates the cooperation of landowners in its efforts to eliminate the threat of raccoon strain rabies in the community.

#### 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 baits. The baits contain a rabies vaccine that will be absorbed in the lining of the mouth of an animal when eaten by the animal.

#### How are rabies baits distributed?

In urban areas, the baits are distributed by hand in green spaces such as parks and river ravines.

In rural agricultural and forested areas, Ministry of Natural Resources yellow airplanes fly about 200 meters above the ground and drop baits containing the rabies vaccine.

(Photos and description: rabies.mnr.gov.on.ca.)

The baits are eaten by wild animals. An animal will be vaccinated within two weeks of eating the bait and absorbing the vaccine in the lining of the mouth.

#### What do the baits look like?

The baits are an army green colour and are made of a fat and wax compound. Baits have a sweet smell from the vanilla sugar in the bait. They are about the size of a small jam package that you might get in a breakfast diner  $(3.0 \times 3.0 \times 1.5 \text{ cm})$ .

The baits are labeled with 'DO NOT EAT' and a toll-free phone number.

#### 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, 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 for foxes contain ERA vaccine and for raccoons, V-RG vaccine.

#### Are the baits safe?

Simply touching a bait is not a concern. Any person coming into contact with the rabies vaccine within the bait 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. If you live in a high risk, urban area and would like to ensure local wildlife are vaccinated, call 1-888-574-6656.

# 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 populations as it does in southern Ontario. Northern Ontario also experiences harsher winter conditions which may limit fox movements. The combination of lower fox 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 3 years to significantly reduce the frequency of rabies in a wildlife population.

#### How can I help in the fight against raccoon strain 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 or Leeds-Grenville County in southeastern Ontario.
- Eliminate any potential wildlife food sources from around your home.

#### What is bat strain rabies?

Various strains of bat rabies are found throughout Canada and the Americas. At least 4 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.

From 1990 to 2004, over 75% (33 out of 43 cases) of all human deaths from rabies in Canada and the United States were a result of bat strain rabies.

Note: 4 of these cases were a result of organ transplantation from a donor with rabies.

#### 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 local public health unit. If the bat is dead, contact your local office of the Canadian Food Inspection Agency found under Agriculture Canada in the blue pages of your telephone book.

#### Is my pet raccoon/skunk/fox safe?

No. 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 it becomes apparent that it has been abandoned, call your local animal control agency to have it removed.

#### 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 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 is destroyed and its carcass is submitted for testing to the Canadian Food Inspection Agency in Ottawa, Ontario.