



RABIES IN CANADA & ABROAD

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Every ten minutes someone dies of rabies.

RABIES – A GLOBAL HEALTH ISSUE

Rabies is a disease that most of us in the western world don't think of very often. Thanks to widespread animal vaccination programs in Canada and the US, cases of human rabies are now extremely rare. Yet in other parts of the world, rabies continues to be a daily concern. Nearly 150 people die every single day from a disease we know how to prevent. Most of the victims are children living in Africa and Asia and sadly the death toll is believed to be much higher as many cases go unreported or they are misdiagnosed.

Rabies is considered a “neglected, preventable, under-reported, and untreatable disease with the highest case fatality rate of any infectious disease.”¹ The World Health Organization (WHO), the U.S. Centers for Disease Control and Prevention (CDC) and many other organizations world-wide have partnered to try and eradicate rabies. Despite the preventable nature of rabies, eliminating it in developing countries remains a challenge – particularly because many of these countries are dealing with other significant health issues like malaria and HIV/AIDS.

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WORLD RABIES DAY

September 28, 2009

The mission of World Rabies Day is to raise awareness about the impact of human and animal rabies, how easy it is to prevent it, and how to eliminate the main global sources. Even though the major impact of rabies occurs in regions of the world where many needs are present, rabies should no longer be neglected. The tools and technology for human rabies prevention and dog rabies elimination are available.

In 2006, a group of researchers and professionals formed a global Alliance for Rabies Control. They created and began inviting partners to join the World Rabies Day initiative. Their flagship campaign, World Rabies Day, is now in its 3rd year. In 2008 more than 393,000 people participated and rabies education messages reached more than 50 million people. www.worldrabiesday.org

World Rabies Day is a time to raise awareness about this deadly disease and to help support global rabies prevention projects.

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RABIES IN CANADA

While human rabies in Canada is rare, there continues to be a significant number animal rabies cases. Bats are increasingly implicated as important wildlife reservoirs for rabies. In 2008, bats accounted for 26% of reported animal rabies cases, skunks accounted for 42% and raccoons accounted for 11%.² Since 2005 there have been approximately 1000 reported cases of animal rabies.³

In 2000, 2003, and 2007 three people in Canada died of rabies infection, one in Quebec (2000); one in British Columbia (2003); and one in Alberta (2007)⁴. These were the first cases of human rabies in Canada since 1985. The most likely sources of infection in all three cases were unrecognized bat exposures.⁵

It is recommended that post-exposure prophylaxis is given to anyone who sleeps unattended in a room where a bat is present and they cannot reasonably exclude the possibility of a bite. This is because a bite inflicted by a bat while sleeping may not be felt, and the animal's needle-like teeth may leave no visible bite marks.⁶

If a person is bitten by a bat, or is in a situation where infectious material (such as saliva) from a bat gets into the eyes, nose, mouth, or a wound, the affected area should be thoroughly washed and medical advice should be sought immediately. Whenever possible, the bat in question should be safely captured, if possible, and sent to a laboratory for rabies testing. Human and domestic animal contact with bats should be minimized, and bats should never be handled by untrained and unvaccinated persons or be kept as pets. Preventing bats from entering living quarters or occupied spaces in homes, cottages, churches, schools, and other similar areas where they might contact people and pets will minimize the human risk of exposure to rabies.⁷

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RABIES SYMPTOMS & TREATMENT

Rabies is a viral disease that attacks the central nervous system of warm-blooded animals, including humans. Once symptoms appear, rabies is almost always fatal. The rabies virus, present in the saliva of an infected animal, is usually spread by a bite or scratch that punctures the victim's skin.⁸

The virus has a strong affinity for cells of the nervous system. It enters nerve cells at the site of the wound, travels to the brain, and then follows other nerve pathways to muscles and organs that are especially affected by rabies.

ANIMAL RABIES

Animals with rabies may show a variety of signs. The disease can appear in two forms-dumb rabies or furious rabies.⁹

Dumb Rabies

- Domestic animals may become depressed and try to hide in isolated places.
- Wild animals may lose their fear of humans and appear unusually friendly.
- Wild animals that usually only come out at night may be out during the day.
- Animals may have paralysis. Areas most commonly affected are the face or neck (which causes abnormal facial expressions or drooling) or the hind legs.

Furious Rabies

- Animals may become very excited and aggressive.
- Periods of excitement usually alternate with periods of depression.
- Animals may attack objects or other animals. They may even bite or chew their own limbs.

Rabid Animals - What To Do

- Stay away from any animal that is showing abnormal behaviour.
- Isolate pets and livestock suspected of having rabies away from people and animals.
- Contact the Canadian Food Inspection Agency (CFIA) at 1-800-442-2342 or your local CFIA office (found in the blue pages of your telephone directory) if you have possession, care or control of an animal suspected of having rabies, or that has been exposed to rabies. This is required by law because rabies is a federally reportable disease in Canada.

HUMAN RABIES

In humans there may be a symptom-free incubation period that ranges from 10 days to a year or longer (the average is 30 to 50 days). After this incubation period the patient complains of malaise, loss of appetite, fatigue, headache, and fever. Over half of all patients have pain (sometimes itching) or numbness at the site of exposure. They may complain of insomnia or depression.

Two to 10 days later, signs of nervous system damage appear - hyperactivity and hypersensitivity, disorientation, hallucinations, seizures, and paralysis. Death may be sudden, due to cardiac or respiratory arrest, or follow a period of coma that can last for months with the aid of life-support measures.

However, if treatment is given promptly after being exposed to or bitten by an animal that could have rabies, human illness can be prevented. The following actions are recommended:

- Immediately wash the wound or exposed surface with soap and water.
- Remove any clothing that may have been contaminated.
- Seek medical advice as soon as possible.

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PREVENTING RABIES IN CANADA

Rabies prevention in Canada is dependent on the ongoing vaccination of domestic animals. Here are some things you can do to help prevent the disease from spreading to animals and people:

1. Keep vaccinations current for all dogs, cats, and ferrets. This is important not only to keep your pets from getting rabies, but also to provide a barrier of protection for you, should your pet be bitten by a rabid wild animal.
2. Do not let pets roam. Keep your pets under direct supervision so they do not come in contact with wild animals. If your pet is bitten by a wild animal, seek veterinary assistance for the animal immediately.
3. Call your local animal control agency to remove any stray animals from your neighbourhood. They may be unvaccinated and could be infected with the disease.
4. Spay or neuter your pets to help reduce the number of unwanted pets that may not be properly cared for or regularly vaccinated.

More programs needed... even in Canada

Despite widespread rabies prevention and control programs in Canada, there continues to a number of Canadian communities that are lacking effective rabies prevention strategies. Some of our Aboriginal communities are particularly vulnerable due inadequate animal health care services. Nunavik is one such place.

Nunavik is a vast and sparsely populated area. Approximately 11, 000 residents live in the 14 Aboriginal communities within this serene arctic region. Most travel inside Nunavik must be done by plane or boat as there are very few roads that connect one village to another.

With no permanent veterinarian in Nunavik, the region has had a difficult time offering and managing

basic animal health care services. The lack of vet services, canine population control and animal care education, has increased the prevalence of other issues, such as rabies. Incidents of fox rabies are fairly frequent and without an effective rabies prevention, detection and control program, the disease poses a serious risk to people and their companion animals.

This year, Veterinarians without Borders/Vétérinaires sans Frontières -Canada is supporting a new project led by The Groupe International Vétérinaire (GIV), Faculty of Veterinary Medicine (FMV), University of Montreal, to help Nunavik communities establish their own rabies prevention and control programs. Using a transdisciplinary and holistic approach, the team, which is also comprised of several local and government stakeholders, has begun by assessing current programs and inviting community members to voice their veterinary public health and animal health needs.

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RABIES & TRAVEL

Infectious diseases not necessarily common in Canada can occur and may even be widespread in other countries. Standards of hygiene and medical care may differ from those at home. Before departure, you should learn about the health conditions in the country or countries you plan to visit, your own risk of disease and the steps you can take to prevent illness.

The risk is yours

Your risk of acquiring a disease depends on several factors. They include: your age, gender, immunization status and current state of health; your itinerary, duration and style of travel (e.g., first class, adventure) and anticipated travel activities (e.g., animal contact, exposure to fresh water, sexual contact); as well as the local disease situation.

Risk assessment consultation

The Public Health Agency of Canada strongly recommends that your travel plans include contacting a travel medicine clinic or physician 6 to 8 weeks before departure. Based on your individual risk assessment, a health care professional can determine your need for immunizations and/or preventive medication (prophylaxis) and advise you on precautions to avoid disease.¹⁰

Find out more:

Public Health Agency of Canada's Statement on Travellers and Rabies Vaccine: <http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/02vol28/28sup/acs4.html>

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PREVENTING RABIES AROUND THE WORLD – OUR GLOBAL RESPONSIBILITY

Every day more than 150 people die of rabies, and more than 100 of them are children. This means that a family loses a loved one, to one of the world's most terrifying diseases, every 10 minutes.

The shocking fact is that every one of these deaths could have been prevented. While there is no cure for rabies, effective vaccination to prevent the disease exists. What is needed is the motivation, commitment and resources to stop this neglected and deadly disease.

Veterinarians without Borders/Vétérinaires sans Frontières –Canada (VWB/VSF) is committed to eradicating rabies. Since 2007, the organization has dispersed over \$100,000 towards rabies prevention projects around the world including projects in Guatemala, Cambodia, Malawi and Nepal.

As part of the September 28th World Rabies Day initiative, VWB/VSF is holding its second annual September Rabies Campaign to help raise funds for its international rabies prevention programs.

www.vwb-vsfc.ca www.worldrabiesday.org

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HOW CANADIANS CAN HELP

1. Vaccinate your pets.

Save the lives of your cats and dogs by keeping them current on their rabies vaccinations. Supervise them closely and have them examined by a veterinarian if they fight with other animals or you find wounds on them. Without current vaccination, if they are exposed to rabies, they might become rabid and expose other people and animals.

2. Tell your friends.

Contact people in your email address book, tell them about rabies around the world. Rally their support for the VWB/VSF Rabies Campaign and other World Rabies Day events

3. Get your local vet involved.

Encourage your veterinarian to raise awareness about rabies and to host a fundraising event

4. Volunteer.

From organizing your own local World Rabies Day event such as a dog-n-jog to writing pet protection tips for a newsletter, volunteer your time and help spread the word about rabies prevention!

4. Donate.

Money raised during the VWB/VSF Rabies Campaign will go directly towards helping eradicate this

disease both here at home and abroad. You can donate to VWB/VSF on their website at www.vwb-vsfc.ca. You can also donate to other rabies prevention initiatives through the World Rabies Day website at www.worldrabiesday.org

SOURCES

¹Dedmon, Robert E., *Mad dogs and Englishmen*, Asian Biomedicine Vol. 2 No. 1 February 2008; 27-34

²Canadian Food Inspection Agency (CFIA) website
<http://www.inspection.gc.ca/english/anima/disemala/rabrag/statse.shtml#a2008>

³Canadian Food Inspection Agency (CFIA) website
<http://www.inspection.gc.ca/english/anima/disemala/rabrag/statse.shtml#a2006>

⁴Centers for Disease Control and Prevention website
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5708a1.htm>

⁵Public Health Agency of Canada website <http://www.phac-aspc.gc.ca/im/vpd-mev/rabies-eng.php>

⁶ Public Health Agency of Canada website
<http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/00vol26/dr2624eb.html>

⁷Public Health Agency of Canada website
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⁸Canadian Food Inspection Agency (CFIA) website
<http://www.inspection.gc.ca/english/anima/heasan/disemala/rabrag/rabragfse.shtml>

⁹Canadian Food Inspection Agency (CFIA) website
<http://www.inspection.gc.ca/english/anima/heasan/disemala/rabrag/rabragfse.shtml>

¹⁰Public Health Agency of Canada website
<http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/02vol28/28sup/acs4.html>