



Rabies

What is rabies?

Rabies is a severe and fatal disease caused by the rabies virus. The virus infects the nervous system and brain.

How is rabies transmitted?

The virus is spread to humans through contact with the saliva or nervous tissue of an infected animal (alive or dead). It is usually transmitted by a bite of rabid animal but has also rarely been spread to humans through open wounds (such as a scratch) or mucous membranes.

Where is the risk?

All mammals can potentially be infected with rabies. In B.C. usually only bats are infected. Dogs are the main carriers of rabies in developing countries but any mammal could potentially be a carrier. Rabies is a high risk in Asia, Africa, Central and South America. An estimated 10 million people are exposed to rabies worldwide every year, resulting in about 55,000 deaths. Travellers bitten by any mammal outside of BC should seek medical evaluation.

What are the symptoms of rabies in people?

Symptoms usually start 3-8 weeks after being infected but could take several years. Symptoms begin with fever and headache, progressing over the next few days to symptoms of anxiety, confusion, abnormal behaviour, difficulty swallowing and spasms of the swallowing muscles, excessive drooling, fear of water, delirium and convulsions followed by coma and death. Once symptoms begin death will usually occur within 7-14 days.

What are the symptoms in animals?

Animals infected with rabies may act strangely. They may act fearful and aggressive or appear lethargic and unusually tame. Bats infected with rabies may also act strangely, becoming active during the day, or appearing lethargic. Some bats infected with rabies may also appear to behave normally.

How can I prevent rabies while travelling?

1. Avoid animal bites

Don't pet or go near stray animals. Be aware of your surroundings so you don't accidentally surprise a dog. Don't interact with monkeys or carry food where monkeys are near. Avoid contact with bats and keep in mind that they have tiny teeth so you may not always realize if you have been bitten by a bat. If you suspect a bat bite it is important to seek medical treatment immediately.

Children are at higher risk for rabies as they have a small stature which makes severe bites to the head and face more likely.

2. Pre-exposure Vaccination

Pre-exposure rabies vaccination may be recommended for some travellers depending on destination, duration of stay, the availability of post-exposure rabies treatment, and planned activities. The pre-exposure vaccination consists of a series of 3 injections given on days 0, 7, and 21 or 28. Reactions to the vaccine are uncommon and most often include soreness and tenderness at the injection site. Headache, fever, fatigue and muscle aches may also occur. If the traveller cannot complete all three doses before travel then the series should not be started. It is still necessary to seek medical attention following a rabies exposure, but the treatment is simplified if the traveller has completed the pre-exposure rabies vaccination.

What do I do if I have been bitten by an animal while travelling?

1. Wash the wound thoroughly with soap and warm water for at least 15 minutes. Cleaning the wound immediately greatly reduces the risk of infection.
2. Seek medical attention immediately for rabies treatment.

What is the treatment for rabies exposure?

Rabies treatment only works to prevent rabies if it is given before symptoms begin.

1. For travellers who have completed the pre-exposure rabies series:

Two doses of the rabies vaccine are needed on day 0 and 3 after the exposure (these doses do not need to be the same brand as the pre-exposure vaccine series).

2. For travellers who have not received the pre-exposure rabies series:

Post-exposure treatment should be given as soon as possible after exposure and should still be started regardless of time since exposure (even if several months have passed). Unvaccinated travellers need rabies immunoglobulin (RIG) on the day of exposure, as well as a series of 4 rabies vaccines on day 3, 7, 14 and 28 (or 5 doses in travellers with a compromised immune system).

The availability of RIG is limited in many countries. If access to RIG is delayed the vaccine series should still be started as soon as possible. RIG can then be given until day 7 after the first rabies vaccine was given. Some developing countries still use rabies vaccines grown in animal brains (these can be identified if the traveller is offered a large volume injection (5mL) daily for about 14-21 days). Travellers should not accept these vaccines but travel to where acceptable rabies and RIG are available.

If you receive treatment outside of Canada, obtain the name of the RIG and vaccines provided and consult your Canadian doctor or public health unit to ask for advice when you return home.