

LYME DISEASE

What is Lyme disease?

Lyme disease is a bacterial infection transmitted to humans by a bite from an infected blacklegged tick. Ticks attach to skin and feed on the blood of animals (such as rodents, birds, deer, dogs, and humans). The most common time of year for these bites are spring, summer, and fall when ticks are most active and when people are spending more time outdoors. For more information about blacklegged ticks and other ticks of Newfoundland and Labrador (including photos) visit http://www.nr.gov.nl.ca/nr/agrifoods/animal/animal_health/pdf/ds_08_004_ticks_of_nl.pdf.

How do people get Lyme disease?

Lyme disease is spread to humans from the bite of a blacklegged tick infected with the bacterium *Borrelia burgdorferi*. It is thought that the ticks which carry Lyme disease have not become established in Newfoundland and Labrador. However, low numbers of these ticks have been found, mostly on pet animals, and it is thought these are ticks carried into the province by migratory birds. Some of these ticks have been infected with the Lyme disease causing bacteria. For more detailed information regarding how Lyme disease affects animals in the province please visit http://www.nr.gov.nl.ca/nr/agrifoods/animal/animal_health/pdf/ds_08_006_lyme_disease_in_nl.pdf.

Ticks wait on grass, bushes, or shrubs for an animal or human to come by. If the animal or human brushes past the tick, it can latch on to the skin or clothes and then travel on the body to find a suitable location to attach for a blood meal. Ticks can't jump or fly. As the tick feeds it engorges with blood and becomes larger and easier to see. In most cases, ticks must be attached and feeding for at least 24 hours for there to be a risk of disease transmission to the animal or human. Lyme disease cannot be transmitted from person to person.

What are the signs and symptoms of Lyme disease?

The symptoms of Lyme disease usually appear between 3 and 32 days after a bite from an infected tick. The first symptom is often, but not always, a skin rash expanding from the site of the tick bite (which sometimes has the appearance of a bull's eye with red rings spreading out from the site of the bite). Individuals may experience a flu-like illness with headache, fever, tiredness, stiff neck and pain or swelling of the joints. For more detailed information, visit www.canada.ca/Lymedisease.

Below are examples of what a Lyme disease rash, also called erythema migrans, can look like:



Reproduced with permission from Dr. John Aucott, Lyme MD, Lyme Disease Research Foundation

Is there a test for Lyme disease?

Diagnosing Lyme disease can be difficult as symptoms vary between individuals. Health care providers use information on symptoms, potential exposure to infected blacklegged ticks, and laboratory blood testing to diagnose the disease. Laboratory tests alone may not always detect Lyme disease, especially if it

is in the early stages of infection. If an individual suspects Lyme disease, they should see their family doctor. For more information about diagnosing Lyme disease visit www.canada.ca/Lymedisease.

Can Lyme disease be treated?

Yes, antibiotics are used to treat Lyme disease. Lyme disease is rarely life threatening, but if left untreated, more serious symptoms can develop. Sometimes, a person may not know they were bitten by a tick; therefore, it is important to be aware of the signs and symptoms of Lyme disease. If an individual suspects Lyme disease, they should consult a health care provider as soon as possible.

How can tick bites be prevented?

Ticks, and thus tick bites, are fairly common in eastern and central Canada and the United States. Blacklegged ticks are less frequently found in Newfoundland and Labrador, compared to other eastern Canadian provinces such as New Brunswick, Nova Scotia, and Quebec. The following precautions can reduce the chances of being bitten:

- Use an insect repellent such as DEET or Icaridin (always read product label directions before applying);
- Cover as much of your skin as possible, tuck pants legs into boots or socks;
- Wear light-coloured clothing to be able to spot ticks that are on your clothes more easily;
- Walk on well-travelled trails to avoid grass, brush, or shrubs; and
- Check yourself, your family and pets after being in an area where ticks may be present.

How can a tick be removed?

The tick should be grasped with a pair of tweezers or forceps near to the skin and gently pulled away from the skin. Twisting, jerking, or squeezing the tick increases the chances of it releasing bacteria into the bite area and should be avoided. If the tick mouthparts break off and remain in the skin, remove them with tweezers, if possible. Otherwise, leave them alone and let the skin heal. After removing the tick, the skin should be cleaned with soap and water or disinfected with alcohol or hand sanitizer. Wash your hands after removing the tick. For more information about removing ticks, including a photo, and for information about submitting ticks for identification, visit http://www.nr.gov.nl.ca/nr/agrifoods/animal/animal_health/vetinfo/surveillance/removeticks.html.

Have there been confirmed cases of Lyme disease in Newfoundland and Labrador?

There have been four Lyme disease cases in people from Newfoundland and Labrador since 1991; however, all of these infections were acquired by persons travelling to known Lyme disease endemic areas outside of the province.