

May 2015

Lyme Disease

What is Lyme disease?

Lyme disease is an illness caused by the bacteria *Borrelia burgdorferi* (*B. burgdorferi*). In the last five years an average of 20 people per year, infected with Lyme disease, were reported to Toronto Public Health. Almost all of these people acquired the disease outside the City of Toronto.

How do people get Lyme disease?

To get Lyme disease, a person must be bitten by a black-legged tick (or deer tick) *Ixodes scapularis* that is infected with the *B. burgdorferi* bacteria.

Transmission can occur when a tick has been attached to a person or animal for at least 24 hours.

Where can I be exposed to an infected tick?

Blacklegged ticks have recently been found in Toronto suggesting that these ticks are becoming established here. The risk of acquiring Lyme disease in Toronto is believed to be low. Ticks are found in wooded or bushy areas with lots of leaves on the ground or where there are tall grasses. Lawns, mowed grass, sports fields or paved areas are not where ticks are found.

Ticks can't fly or jump. Instead, they wait for a host (person, animal or bird), resting on the tips of grasses and shrubs. If a person brushes the spot where a tick is waiting, it quickly climbs aboard. It then finds a suitable place to bite.

The greatest risk of Lyme disease in Canada occurs where populations of blacklegged ticks are established. For more specific Lyme disease risk locations, consult the [Public Health Agency of Canada](#).

However, as tick populations are expanding, it is possible that Lyme disease can be picked up outside the areas identified by the Public Health Agency of Canada. In addition ticks can travel or migrate on the bodies of animals such as birds, and therefore can be present in an area for a year in very low numbers then go away. This happens over a broad area of Ontario including Toronto

What are the symptoms of Lyme disease?

Symptoms usually begin 3 days to 4 weeks after a bite, and include:

- Fever and chills
- Headache
- Muscle and joint pains
- Fatigue
- Stiff neck
- Circular rash (also known as a bull's eye rash). This rash occurs in 70 to 80% of people who get Lyme disease.

When there is no rash it can be difficult to diagnose Lyme disease as the symptoms mimic many other illnesses. If left untreated, Lyme disease can lead to further disease with symptoms including migraines, weakness, multiple skin rashes, painful or stiff joints, cardiac abnormalities and extreme fatigue. If the illness continues untreated it can affect the central nervous system, brain or heart.



How do I know if I have Lyme disease?

The doctor will perform a clinical assessment and take a detailed history of possible tick exposure. Blood work can also be done to test for Lyme disease but should not be the sole factor in determining if someone has the disease

Is there treatment for Lyme disease?

Yes, there are antibiotics available for treatment if your doctor diagnoses Lyme disease.

How do I remove a tick and what do I do with it?

If you find a tick on yourself, remove it with fine-tipped tweezers. Do not squeeze or try to burn it off. Grab the tick as close to your skin as possible. Pull the tick away from your skin gently but firmly. Place the tick in a jar or bottle and take it to your health care provider or one of the following Toronto Public Health Offices for identification and further testing.

- 44 Victoria Street, 18th Floor
Phone number 416-392-7685
- 175 Memorial Park Avenue
Phone number 416-392-0936
- 1530 Markham Road, 5th Floor
Phone number 416-338-7431
- 5100 Yonge Street, 2nd Floor
Phone number 416-338-8410
- 399 The West Mall, 4th Floor
Phone number 416-338-1507

Ticks that are sent to Toronto Public Health can be tested to determine that the tick is the black-legged tick and can be further tested to see if the tick carries the *B. burgdoferi* bacteria.

Can Lyme disease be prevented?

There is no vaccine available in Canada to prevent Lyme disease. However, there are many things you can do to prevent being bitten by a tick:

- Wear light coloured clothing so you can easily spot ticks.
- Wear long sleeves and long pants; tuck your pants into your socks.
- Avoid shrubs or grassy areas (ticks are usually found low to the ground).
- Use bug repellent containing DEET. Please follow manufacturer's instructions.
- Perform a daily careful self-inspection for attached ticks, especially after being in tick-infested areas. Do not forget to check children and pets

Where can I get more information?

For more information about Lyme disease visit our website at www.toronto.ca/health or call Toronto Public Health at 416-338-7600, TTY 416-392-0658.