

# Diseases: Lyme Disease

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This fact sheet provides basic information only. It must not take the place of medical advice, diagnosis or treatment. Always talk to a healthcare professional about any health concerns you have, and before you make any changes to your diet, lifestyle or treatment.

## What is Lyme disease ?

Lyme disease is an infection caused by the corkscrew-shaped bacteria *Borrelia burgdorferi*. In Ontario, these bacteria are spread by the bite of black-legged ticks (*Ixodes scapularis*).

## What are ticks ?

Ticks are tiny bugs, about the size of a sesame seed, which feed on blood. They cannot fly. They move about the ground slowly, or they settle on tall grass and bushes until they attach themselves to a person or animal passing by. While most tick bites do not result in disease, some do.

Lyme disease bacteria have been found in ticks collected from some areas in Ontario. Lyme disease-carrying ticks are more commonly found along the north shore of Lake Erie, particularly in Long Point, Turkey Point and Rondeau Provincial Park.

Since 1991, between 15 to 40 cases of Lyme disease have been reported each year in Ontario; about half likely acquired the infection outside Ontario. Ticks carrying Lyme disease are much more common in the United States along the Atlantic seaboard from Maine to Virginia and in Minnesota and Wisconsin.

## How do ticks transmit Lyme disease ?

Not all ticks carry Lyme disease. Even with a bite from an infected tick, there is only a small chance of getting Lyme disease. Ticks feed on blood by inserting their mouth (not their whole bodies) into the skin of a person, or an animal. They are slow feeders so it usually takes time before the bacteria can be transmitted to your blood. The tick's body

slowly enlarges as it feeds, making it more visible. Ticks are most likely to transmit infection after being attached for more than one day of feeding; a complete blood meal can take several days.

## What are the symptoms ?

Symptoms of Lyme disease usually occur within one to two weeks, but can occur as soon as three days or as long as a month, after a tick bite. If you develop these symptoms: fever, headache, muscle and joint pains, fatigue and a skin rash, especially one that looks like a red bull's eye (called erythema migrans), seek medical advice. It is important to tell your doctor when and where you were bitten by a tick.

## Treatment

In most circumstances in Ontario, antibiotic treatment is not necessary if someone has been bitten by a tick. A person who is bitten should remove the tick and have the tick tested through his or her family doctor. Medical attention should be sought if any symptoms of early Lyme disease develop over the next month. In rare instances, an antibiotic may be recommended if the tick was attached for a long time, the person had been visiting an area where Lyme disease is relatively common, or the tick is not available for testing. If prescribed, the antibiotic should be started within 72 hours of the tick bite. If Lyme disease develops, antibiotics are necessary to prevent complications. The earlier treatment is received, the better. If not treated, complications of the heart, nervous system or joints can occur.

## How do I avoid ticks ?

- Wear light-coloured clothing. It makes ticks easier to spot.
- Wear long pants and a long sleeved shirt.
- Wear closed footwear and socks, never sandals. Tuck your pants into your socks.
- Use a tick repellent that has "DEET" (following the manufacturer's directions). Apply it to your skin and outer clothing. Avoid your eyes and mouth, as well as cuts and scrapes.
- Put a tick and flea collar on your pet and check for ticks periodically.
- If in an area where you might get a tick bite, search your body well for ticks. It's important to do this each day. Pay special attention to areas such as groin, scalp and armpits. Use a mirror to check the back of your body or have someone else check it.

## What do I do if I spot a tick ?

- Prompt removal of ticks from your skin will help prevent infection, since transmission of *Borrelia burgdorferi* is unlikely to occur when the tick was attached for less than a day or so.
- Carefully use tweezers. Grasp the tick as close to your skin as possible. Pull it straight out, gently but firmly.
- Save the tick alive in a jar or screw-top bottle if you can, and take it to your doctor. Your doctor can send it to a public health laboratory for identification. Establishing the type of tick may help to assess your risk of acquiring Lyme disease.
- Try to describe the area that the tick came from. It will also help public health workers identify areas of high risk.
- Don't squeeze it. Squeezing can speed up infection.
- Don't put anything on the tick, or try to burn the tick off.
- Disinfect the bite with rubbing alcohol.

## Who can tell me more about Lyme disease?

Talk to your doctor, or contact your local public health unit for more information.

### Government of Ontario

For information about health services and resources: [www.health.gov.on.ca](http://www.health.gov.on.ca)

For consumer-friendly health tips and information: [www.HealthyOntario.com](http://www.HealthyOntario.com)

INFOLine: 1-877-234-4343  
TTY: 1-800-387-5559

Telehealth Ontario: 1-866-797-0000  
TTY: 1-866-797-0007

INFOLine is open during business hours and can provide general information on healthcare.

Telehealth Ontario is a 24/7 service which uses nurse practitioners to answer your immediate health concerns.

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