

Lyme Disease

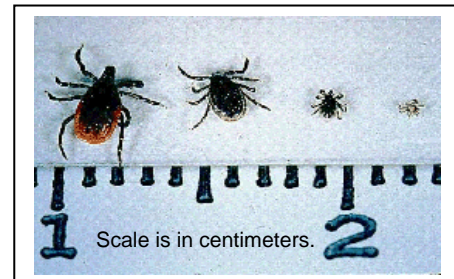
What is Lyme disease?

Lyme disease is an infection caused by the corkscrew-shaped bacteria *Borrelia burgdorferi*. These bacteria are spread by the bite of black-legged ticks (deer ticks) and western black-legged ticks. The black-legged tick is found sporadically throughout the province of Ontario.

What are ticks?

Ticks are tiny bugs 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 someone passing by. While most tick bites do not result in disease, some do.

In this photo, the tick on the left is an adult female blacklegged tick, which is red and dark brown. To her right is an adult male blacklegged tick, which is smaller and dark in color. A nymph blacklegged tick is the second from the right, and a blacklegged tick larva is to the far right. Adult females and nymphs can transmit infections through their bite.



Lyme disease bacteria have been found in ticks collected from some areas throughout Ontario. Ticks that carry Lyme disease are more commonly found along the north shore of Lake Erie, particularly in Long Point, Turkey Point and Rondeau Provincial Parks as well as St. Lawrence Islands National Park. Since 1991, between 15 to 40 cases of Lyme disease have been reported each year in Ontario. Probably about half of these infections were acquired outside the Province.

The Northwestern Health Unit sees isolated cases of Lyme disease on an annual basis (some positive and some suspect) and has identified the Rainy River District as an area of interest for surveillance. However, ticks carrying Lyme disease are much more common in the United States in Minnesota and Wisconsin and along the Atlantic seaboard from Maine to Virginia.



How do ticks cause 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 takes time before the bacteria can be transmitted to blood. Ticks are most likely to transmit infection after being attached for at least two days of feeding. A complete blood meal can take several days. As they feed, the tick's body slowly enlarges and becomes easier to detect.

What are the symptoms?

Symptoms of Lyme disease usually occur within 1-2 weeks, but duration can be as short as 3 days to as long as a month after the occurrence of the bite. If symptoms develop, see a doctor and provide details of where and when the bite occurred. Symptoms include: fever, headache, muscle and joint pains, fatigue and a skin rash, especially one that looks like a red "bull's eye" (called erythema migrans).

LYME DISEASE

Treatment

Most individuals who are bitten by a tick in Ontario do not require antibiotic treatment. However, if bitten by a black-legged tick, individuals should remove the tick and have it tested through the Northwestern Health Unit. If symptoms develop over the next month, medical attention should be sought. An antibiotic may be recommended if the tick was attached for an extended period of time, if the person had been visiting an area where Lyme disease is relatively common, and if the tick is not available for testing. 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 which 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 within a day or so of tick attachment.

- Grasp the tick with tweezers 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 the Northwestern Health Unit. Try to describe the area that the tick came from. The Northwestern Health Unit can send it to a public health laboratory for identification. Identification of the type of tick and the area found will help provide information about the risk of acquiring Lyme disease and help confirm the presence of illness should symptoms develop.
- Don't squeeze the tick as this may force the spirochete out of the tick and into the bite site. If removed properly an infected tick may not pass the bacteria to the host.
- Don't put anything on the tick or try to burn the tick off.
- Disinfect the bite with rubbing alcohol.

FOR MORE INFORMATION

QUESTIONS ABOUT LYME DISEASE?

Contact a Public Health Inspector at one of these Northwestern Health Unit offices.

KENORA
Phone: (807) 468-3147
or 1-800-830-5978

DRYDEN
Phone: (807) 223-3301
or 1-888-404-4231

FORT FRANCES
Phone: (807) 274-9827
or 1-800-461-3348

Or call the Service Ontario **INFOline** at 1-800-268-1154 (Toll-free in Ontario only).