

Lyme Disease

What is Lyme disease?

Lyme disease is a serious illness that affects the central nervous system, the cardiovascular system and the joints. Although Lyme disease in humans can have serious symptoms, it can be treated with antibiotics if it is identified or detected early enough. Lyme disease is an infection caused by the corkscrew-shaped bacteria, *Borrelia burgdorferi* that is spread to people through the bite of an infected blacklegged tick (formerly called deer tick). Although the disease is uncommon, infected ticks have been identified in the area of Thunder Bay and district.

What are ticks and how do they spread Lyme disease?

Wood ticks are the most common ticks found in the Thunder Bay and district; they are harmless to humans but can be a nuisance. Female wood ticks have a white hood or shield behind their head while males have a black and brown shell. Blacklegged ticks have the potential to carry Lyme disease; they are brown or black with no white marking. Due to the milder winters, an increasing number of deer ticks have been identified in the Thunder Bay district.

All ticks are tiny and are commonly found in tall vegetation waiting to attach themselves to someone passing by. Ticks burrow part way into the skin, bite, draw blood, enlarge to twice their size, and then drop off. The feeding tick's mouth will be under the skin, but the back parts will be sticking out. An infected blacklegged tick is most likely to transmit infection after being attached for more than 24 hours of feeding because the bacteria requires time to migrate from the tick's gut to its salivary glands. Because of this delay, prompt detection and removal of ticks is one of the key methods of preventing Lyme disease. If a blacklegged tick has Lyme disease and it is removed quickly from the body, it is very unlikely that it has transferred Lyme disease to the host.

Ticks carrying Lyme disease are rare in Ontario except on Long Point on the north shore of Lake Erie. Blacklegged ticks feed on infected animals such as mice and squirrels, birds and pick up the bacteria. It is believed that migratory birds from Long Point as well as birds from certain areas of Minnesota and Wisconsin pick up infected blacklegged ticks and then transport the ticks into the Thunder Bay region.

What are the symptoms of Lyme disease?

The signs and symptoms of Lyme disease are different from person to person. Early symptoms of Lyme disease usually occurs within one to two weeks, but can occur as soon as three days or as long as one month after a tick bite. In a few cases, the first sign of infection may be a "bulls-eye-rash". Other symptoms might include fatigue or exhaustion, fever, headache, muscle and joint pain and swollen lymph nodes. If the infection is not identified or detected, the symptoms could get worse and include arthritis, heart palpitations and extreme fatigue or exhaustion. Many antibiotics are effective in treating Lyme disease, especially if treatment starts early.

Prevention and Management of Ticks

Ticks are very hardy, difficult to kill and will survive without feeding and with little oxygen. If you are planning an outdoor activity, there are some tips you can follow:

- Avoid places with long grasses. If you are hiking or walking, stay in the centre of the trail.
- Wear light coloured clothing to make it easier to see the ticks.

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- Wear clothing that covers as much skin as possible. Wear long sleeved shirts that fit tightly around your wrists and long pants tucked into your socks.
- Use an insect repellent with DEET (for more information on the recommended concentrations for different age groups, please visit Health Canada's website at healthycanadians.gc.ca/ and search for "insect repellents") on uncovered skin as well as on your clothing.
- Check yourself, your children and your pets for ticks after being outdoors. Check prior to entering your house and check head to toe, especially back of neck, arm pits and behind your knees.
- Have a hot shower after checking for ticks, if possible.
- Wash your clothes with hot water and use the hottest setting on your dryer to kill any ticks you may have missed.

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

You will need a pair of fine-tipped tweezers, soap and water, some rubbing alcohol and a clean empty plastic container or baggie.

1. Remove the tick:

- Do not try to burn the tick or use anything to smother it (e.g. Vaseline)
- Use fine-tipped tweezers to grab the head and mouth as close to the skin as possible
- Pull up slowly until the tick is completely removed from the skin. Do not twist or turn. Try not to damage the tick so it can be easily identified. Make sure the whole tick is removed.
- Put the tick in a clean container or baggie. Mark down the date and geographic location of where the tick bite happened.

2. Treat the bite:

- Wash the area with soap and water and then apply rubbing alcohol.

3. Bring the tick to the Health Unit for identification:

- Thunder Bay and surrounding area: Drop off at 999 Balmoral Street
- District of Thunder Bay: Drop off at the nearest Health Unit office
- Health unit offices are open: 8:30 am -4:30 pm, Monday to Friday.

This fact sheet provides basic information only. It must not take the place of medical advice, diagnosis or treatment. Always talk to a health care professional about any health concerns.

For Further Information Contact the Infectious Disease Program at 625-8318 or toll free 1-888-294-6630, ext. 8318.