



## What is Lyme disease?

Lyme disease (LD) is an infection caused by the bacterium, *Borrelia burgdorferi*. This bacterium can be transmitted to humans through the bite of an infected blacklegged (or deer) tick. In order for a tick to transmit LD to a human, it has to be attached for more than 24 hours. Symptoms of LD 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. Early symptoms of LD may include:



- A “bull’s eye” rash which spreads out from the tick bite.
- General symptoms of fever, headache, muscle and joint pain.

Photo Credit: James Gathany, Content Provider: Centers for Disease Control and Prevention, Public Health Image Library (PHIL)

If diagnosed early, most cases of LD can be treated successfully with antibiotics. If left untreated, LD can affect the joints, the heart and the nervous system resulting in long-term health effects.

If you are concerned about LD, you should speak to your health care professional. It is important to tell them where and when you got the tick bite.

## What is a tick?

Ticks are similar to mites, which feed on blood and cannot fly. Ticks are very small (1 to 5 mm), about the size of a sesame seed, when unfed. 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. There are many different types of ticks but only a few can carry the bacterium which causes LD. In Ontario, LD is spread by the *Ixodes scapularis*, also known as the blacklegged (or deer) tick.



## Do all ticks carry the Lyme disease bacteria?

No. In fact the most common type of tick found in the Middlesex-London area is a type of tick that is not capable of causing LD. Additionally, the majority of blacklegged ticks, the ticks that are capable of causing LD, do not carry the bacterium that causes LD.

### Tips to remember...

- Wear light coloured clothing and DEET.
- Check yourself and family members.
- Submit ticks to the Health Unit for identification.

For tick submission, personal protection and general information contact the Vector-Borne Disease Team at 519-663-5317, ext. 2300

For questions regarding human health and Lyme disease, contact the Infectious Disease Control Team at 519-663-5317, ext. 2330

#### References:

Centers for Disease Control and Prevention. (2014). *Lyme disease*. Retrieved from <http://www.cdc.gov/lyme/>.

Centers for Disease Control and Prevention. (2007). *Public Health Image Library (PHIL)*. Retrieved from <http://phil.cdc.gov/phil/home.asp>.

Ontario Ministry of Health and Long-Term Care. (2014). *Lyme disease*. Retrieved from: <http://www.health.gov.on.ca/en/public/publications/disease/lyme.aspx>.

Public Health Agency of Canada. (2014). *Lyme disease and other tick borne diseases*. Retrieved from: <http://www.phac-aspc.gc.ca/id-mi/tickinfo-eng.php>.

Revised November 2014

**Middlesex-London Health Unit**  
50 King St., London, ON N6A 5L7  
tel: (519) 663 - 5317 • fax: (519) 663 - 9581  
health@mlhu.on.ca

Strathroy Office - Kenwick Mall  
51 Front St. E., Strathroy ON N7G 1Y5  
tel: (519) 245 - 3230 • fax: (519) 245 - 4772

# Lyme Disease



## What is the Middlesex-London Health Unit doing to monitor and control Lyme disease?

Lyme disease is a reportable disease and the Middlesex-London Health Unit (MLHU) receives notification if anyone living in the area has, or is suspected of having, LD. Health Unit staff contact these individuals to determine where and when they were exposed to the infection. Based on recent tick submissions to the MLHU, it appears that the area does not have an established population of blacklegged ticks that are capable of transmitting LD. Members of the public are encouraged to submit any ticks that are found attached to themselves or to family members for identification. It is important to inform Health Unit staff where and when you were exposed to the tick.



## Where is there a concern for Lyme disease in Ontario?

In Ontario, Lyme disease-carrying ticks are more commonly found along the north shores of Lake Erie, Lake Ontario and the St. Lawrence River.

## The endemic areas in Ontario include:

- Long Point peninsula including Long Point Provincial Park and the National Wildlife area
- Turkey Point Provincial Park
- Wainfleet bog region near Welland
- Rondeau Provincial Park
- Point Pelee National Park
- Parts of the Thousand Islands National Park Area
- Prince Edward Point
- Locations in the Rainy River region of Northwestern Ontario

## What is Ontario doing to monitor and control Lyme disease?

Public Health Ontario gathers information about Lyme disease to try to determine where individuals may have come in contact with infected ticks. Encouraging the public to submit ticks that are found attached to themselves, or to family members, to their local health units is another form of tick surveillance. About half of the LD cases that are reported each year in Ontario are acquired outside of the province. Within Canada, parts of British Columbia, Manitoba, Quebec, Nova Scotia and New Brunswick have areas where Lyme disease-carrying ticks have been found. In the United States ticks carrying LD are commonly found along the Atlantic seaboard from Maine to Virginia and in the Midwest, Minnesota and Wisconsin. Europe also has areas where LD carrying ticks are present. Be sure to be aware of the risk when doing outdoor activities in these areas.

## What can I do to protect myself against Lyme disease?

A few simple steps can help to reduce the risk of getting bitten by a tick.

- Wear light coloured clothes to make it easier to spot ticks.
- Wear long pants, a long sleeved shirt and closed-toe shoes with socks when walking in grassy or wooded areas. Tuck your pants inside your socks.
- Apply insect repellent containing DEET. Be sure to follow the label directions.
- Check yourself, family members, and pets thoroughly after leaving an area where ticks may live. Pay special attention to areas such as the groin, scalp and armpits.
- Keep the grass cut short in areas around your house and cottage where people and pets may walk.

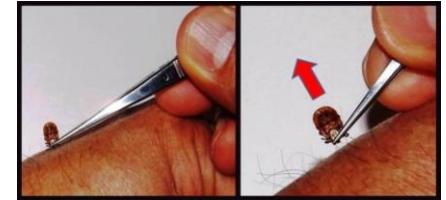
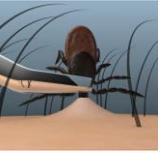
## What should I do if I find a tick on a person or pet?

It is important to remove a tick promptly in order to prevent infection. Transmission of *Borrelia burgdorferi* (the bacteria that causes LD) is unlikely to occur if the blacklegged tick is attached for less than 24 hours. If a tick is found on a person it can be submitted to the MLHU for identification.

## How do I remove a tick?

For safe removal follow these instructions:

- Try to wear gloves when handling a blood filled tick.
- Use tweezers and grab the tick as close to the head as possible. Do not use your fingers.
- Pull the tick straight up from the body with steady pressure.



- Next, clean the area with soap and water. Seek medical attention if concerned about possible skin infection.
- Wash your hands thoroughly.
- Save the tick so it can be submitted to the Health Unit for identification. Put the tick in a container with a tight fitting lid.
- Label the container with the name of the person bitten, a phone number and an address, including a postal code.
- Submit the tick to one of the following MLHU locations: 50 King St., London, or Kenwick Mall, 51 Front St. E., Strathroy.