



INFORMATION ON



BC Centre for Disease Control  
AN AGENCY OF THE PROVINCIAL HEALTH SERVICES AUTHORITY

# Lyme Disease



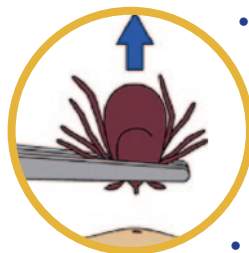
## What should I do if I get a tick bite?

All ticks should be removed. You can remove a tick yourself or have someone do it for you if the tick is not buried deep into your skin. For safe removal follow the below instructions:



- Try to wear disposable gloves when handling an engorged (blood filled) tick.
- Use tweezers or forceps to grab the tick as close to the head (near the skin) as possible.

Don't use your fingers to remove a tick.



- Without squeezing the tick, gently lift it straight off the skin. Avoid jerking it out. Try to make sure that all of the tick is removed.
- Once the tick has been removed, clean the bite area with soap and water then apply an antiseptic cream. Wash hands with soap and water or use alcohol-based hand rub.
- If possible, save the tick in a container with a tight fitting top. If the tick is alive, dampen a small cotton ball and put it into the tick container to keep the tick alive.
- Label the container with date shipped, the name and address of person bitten or what type of animal the tick was from, what part of the body was bitten, and what part of the province the tick probably came from. Also include the name and address of your family physician.
- For laboratory testing, the tick should be sent through a health professional. The tick container should be sent to:  
Parasitology Section, Laboratory Services  
BC Centre for Disease Control  
655 West 12th Ave, Vancouver, B.C. V5Z 4R4
- Ask your health care professional for further advice.
- **If the tick has buried itself into your skin you should consult a health care professional as soon as possible.**

Image courtesy of CDC

## More information

- BC Centre for Disease Control  
[www.bccdc.ca](http://www.bccdc.ca)
- HealthLink BC  
Toll-free call: 811  
Deaf or hearing-impaired (TTY) call: 711  
[www.healthlinkbc.ca](http://www.healthlinkbc.ca)
- The Public Health Agency of Canada  
[www.phac-aspc.gc.ca](http://www.phac-aspc.gc.ca)



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## What You Need to Know

- What is Lyme disease?
- What is a tick?
- Who is at risk for Lyme disease?
- What are we doing in BC to watch for Lyme disease?
- What can be done to reduce the risk outdoors?
- What can be done to reduce the risk at home?
- What should I do if I get a tick bite?



## Who is at risk for Lyme disease?

- Any person who is outdoors (e.g. hiking, camping or living) in wooded or grassy areas where infected ticks may be found.
- Lyme disease can affect people of all ages and in all states of health.
- Children are particularly at risk of getting tick bites due to playing outdoors in grassy or wooded areas.
- Pets can bring ticks in from the outside and can get sick from Lyme disease too.

## What is Lyme disease?

Lyme disease (LD) is caused by a bacterium (*Borrelia burgdorferi*) which can be transmitted to humans through the bite of an infected tick. Lyme disease was first identified in Lyme, Connecticut in the 1970's. Currently LD has been found in parts of North America, Europe and in some other areas around the world. If left untreated LD can affect the joints, the heart and the nervous system.

Most cases of LD can be treated successfully with a few weeks of antibiotics. Early symptoms of LD include:

- A "bulls-eye" rash which spreads outward from the tick bite.
- General symptoms of fever, headache, muscle and joint pains.

If you are concerned about Lyme disease you should speak with a health care professional who can assess your symptoms and make sure you get any tests or treatment you may need.

## What is a tick?

Ticks are tiny bugs which are related to mites, spiders and scorpions. Ticks feed on the blood of animals and require blood meals at certain times in their development cycle. Feeding can last from hours to days depending on the type of tick. While feeding, the tick inserts a barbed-shape structure, or secretes a glue, which prevents the tick from falling off. Ticks are found in wooded areas and often hide on long grass or shrubs when looking for a meal. There are many species of ticks but only a few are known to carry the bacterium responsible for causing LD; in BC the most common one to transmit LD is the Western black-legged tick (*Ixodes pacificus*).

Above: Rash: Lyme disease. [Photograph]. Retrieved June 19, 2007, from Encyclopædia Britannica Online: <http://www.britannica.com/eb/art-88165>

## What are we doing in BC to watch for and reduce the risk of Lyme disease?

The BC Centre for Disease Control works in cooperation with local health authorities to monitor for Lyme disease. Regular testing of ticks and the animals which ticks may feed upon occurs across the province. In addition health care professionals must report human cases of LD to public health for follow-up and investigation. All of these activities allow us to better understand the risk of Lyme disease in BC.

## What can be done to reduce the risk when outdoors?

There are a number of simple steps you can take to reduce the risk of getting bitten by a tick while outside.

- Wear light coloured clothing, long sleeves, pants and closed shoes or boots when walking outdoors in wooded or grassy areas. Tuck your pants into your socks and your shirt into your pants for added protection.
- Use insect repellent containing DEET on all uncovered skin. Reapply as frequently as directed on the containers.
- Check clothing and scalp when leaving an area where ticks may live. Use a mirror or have someone help you check hard-to-see areas and make sure you check your whole body.
- Regularly check household pets for ticks.
- Walk on cleared trails.

Ticks often wait for a passing animal on the ends of long blades of grass. They extend their two front legs in hopes of making contact with a passing animal. This behaviour is referred to as questing. Image courtesy of CDC/James Gathany.



## What can be done to reduce the risk at home?

There are some measures you may wish to consider to reduce the risk of being exposed to ticks through the environment or through pets in or near your home:

- Keep the grass cut short.
- Remove leaf litter and weeds, particularly at the edge of the yard where it can build up.
- Control rodent activity (e.g. seal stonewalls and openings into the home).
- Move wood piles and bird feeders away from the home.
- Try and keep pets out of the woods.
- Consider fencing which may exclude deer from entering your property.
- Trim tree branches to allow for more sunlight into your yard.
- Create a one metre wood-chip, mulch or gravel border between your lawn and any wooded areas or stonewalls.
- Move swing-sets or playgrounds away from wooded areas.
- Widen and maintain trails on your property.

### Before and after a feeding.

The ticks mostly responsible for transmitting Lyme disease in BC are known as the Western black-legged tick (*Ixodes pacificus*).

