Don't let a SMALL PEST turn into a BIG PROBLEM



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#### **AN INTRODUCTION TO LYME DISEASE**

### LYME DISEASE IS A SERIOUS DISEASE CAUSED BY THE BITE OF INFECTED BLACKLEGGED TICKS. LYME DISEASE CAN HAVE SEVERE SYMPTOMS BUT IT CAN BE TREATED — EFFECTIVELY IF CAUGHT EARLY.

While not all blacklegged ticks carry Lyme disease, their population is growing. This means that the risk of contracting Lyme disease is on the rise across Canada. There are several ways to reduce the risk when spending time outdoors in areas where there may be ticks.

Ticks can be as small as a poppy seed and their bites are usually painless, so you may not know you've been bitten. That's why it's important to be on the lookout for ticks and the symptoms of Lyme disease.

#### **HOW TICKS SPREAD LYME DISEASE**

Ticks are small biting arachnids (related to scorpions, spiders and mites) that feed on blood by attaching their mouthparts to people and animals. Ticks get infected when they feed on mice, squirrels, birds and other small animals that carry the bacterium that causes Lyme disease — and it can spread to humans through their bite. People and pets can pick up ticks by brushing against vegetation like grass, shrubs and leaf litter.

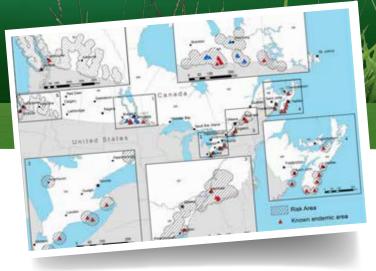
Blacklegged ticks are very small. Before feeding, adult females are approximately 3-5 mm in length and red and dark brown in colour. Females are a little larger than males and when they're full of blood, they can be as big as a grape. Males never expand in size because they do not engorge on blood. Larvae and nymphs (the juvenile life stages) are smaller still and, when unfed, are lighter in colour than adult ticks.

The greatest risk of getting Lyme disease is during the spring and summer months. Ticks might also be active in the winter, if the winter is mild with little snow.

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### PLACES YOU ARE MOST LIKELY TO GET LYME DISEASE

BLACKLEGGED TICKS ARE MOST OFTEN FOUND IN FORESTS AND THE OVERGROWN AREAS BETWEEN THE WOODS AND OPEN SPACES, ALTHOUGH IT IS POSSIBLE TO BE BITTEN OUTSIDE OF THESE AREAS. THOSE WHO PARTICIPATE IN OUTDOOR ACTIVITIES LIKE HUNTING, CAMPING, FISHING AND HIKING MAY BE AT A GREATER RISK FOR TICK BITES BY SPENDING TIME IN AREAS WHERE TICKS TEND TO LIVE.

The Public Health Agency of Canada works with provincial and territorial Health Authorities to identify where populations of infected blacklegged ticks have been established or are spreading. The following are areas where blacklegged tick populations have been confirmed or are establishing:

- Southern British Columbia
- · Southeastern and south-central Manitoba
- Southern and eastern Ontario
- Southern Quebec
- Southern New Brunswick and Grand Manan Island
- South shore and northern mainland Nova Scotia

Surveillance is ongoing to confirm other areas of spread. Visit our website Canada.ca/LymeDisease for up-to-date information.

Ticks don't move far by themselves but they can attach to migratory birds, and may fall off far from their original location. For this reason, it is possible to find infected ticks in other areas than the ones listed.

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### WHAT YOU CAN DO TO AVOID TICK BITES

THE BEST WAY TO PREVENT LYME DISEASE IS TO PREVENT TICK BITES. HERE ARE SOME WAYS TO PROTECT YOURSELF IF YOU VENTURE INTO FORESTS OR OVERGROWN AREAS BETWEEN THE WOODS AND OPEN SPACES:

- Cover up by wearing protective clothing like closed-toe shoes, long-sleeved shirts and pants.
- Pull your socks over your pant legs to prevent ticks from crawling up your legs.
- Wear light-coloured clothes to make spotting ticks easier.
- Use insect repellents containing DEET or Icaridin on your skin and clothing — always read and follow label directions.
- Shower or bathe within two hours of being outdoors to wash away loose ticks.
- Do daily "full body" checks for ticks on yourself, your children and pets.



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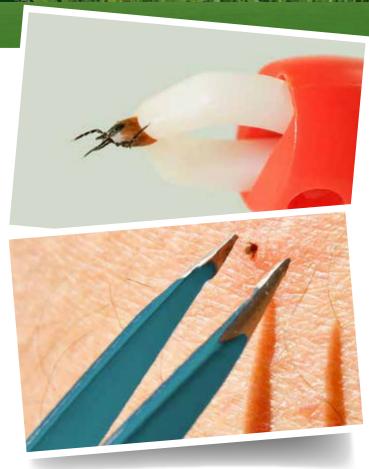
#### WHAT TO DO IF YOU GET BITTEN?

REMOVING TICKS WITHIN 24-36 HOURS USUALLY PREVENTS INFECTION. IF YOU FIND A TICK ATTACHED TO YOUR SKIN, MAKE SURE YOU REMOVE IT CAREFULLY AS FOLLOWS:

- Use clean tweezers, grasp the head as close to the skin as possible and pull slowly straight out.
- Afterwards, wash the bite site with soap and water or disinfect with alcohol hand sanitizer.
- If mouthparts break off, remove them with tweezers or, if you are unable to remove them easily, leave it alone and let the skin heal.

If possible, save the tick that bit you in a clean container or ziplock bag and record the date you were bit. Watch out for symptoms of Lyme disease in the weeks after.

If you feel unwell, contact your health care provider right away. If you have saved the tick, bring it to your medical appointment as it may help the doctor in their assessment of your illness.



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#### THE SYMPTOMS OF LYME DISEASE

INITIAL SYMPTOMS DIFFER FROM PERSON TO PERSON,
WHICH MAKES LYME DISEASE VERY DIFFICULT TO DIAGNOSE. SOME WILL EXPERIENCE MILD SYMPTOMS
LIKE FEVER OR A SKIN RASH SOON AFTER BEING BITTEN, WHILE OTHERS MAY SUFFER SEVERE
SYMPTOMS, BUT NOT FOR WEEKS AFTER THE BITE.

Signs and symptoms of Lyme disease can include one or a combination of the following with varying degrees of severity:

- Fatigue
- · Fever or chills
- Headache
- · Muscle and joint pain, spasms, or weakness
- · Numbness or tingling
- Swollen lymph nodes
- Skin rash

- · Cognitive dysfunction, dizziness
- · Nervous system disorders
- Arthritis and arthritic symptoms
- · Heart palpitations

Untreated, symptoms can last years and include recurring arthritis and neurological problems, numbness and paralysis. Although not common, fatalities from Lyme disease have been reported.

If you have symptoms of Lyme disease, contact your healthcare provider right away.

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#### **HOW LYME DISEASE IS DIAGNOSED**

GETTING A DIAGNOSIS OF LYME DISEASE CAN BE DIFFICULT AS SYMPTOMS VARY FROM PERSON TO PERSON, AND CAN BE SIMILAR TO OTHER ILLNESSES. YOUR HEALTHCARE PROVIDER WILL LIKELY:

- Examine your symptoms
- Determine if you were potentially exposed to Lyme-infected blacklegged ticks by asking about your recent activities
- Request (if necessary), laboratory blood testing to support a clinical diagnosis

Consult a health care provider as soon as possible if you have symptoms or if you feel unwell in the weeks following a tick bite. The sooner you get treatment, the more rapid will be your recovery.

#### TREATMENT FOR LYME DISEASE

LYME DISEASE CAN BE EFFECTIVELY TREATED WITH 2 TO 4 WEEKS OF ANTIBIOTICS. THE SOONER TREATMENTS START, THE BETTER.

Depending on your symptoms, and if you are diagnosed in the later stages of the disease, you may require a longer course of antibiotics.

Some people experience symptoms that continue more than 6 months after treatment. Research continues into the causes of these persistent symptoms and methods of treatment.

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### HOW TO CONTROL TICKS NEAR YOUR HOME

### KEEP LAWNS AND YARDS WELL MAINTAINED TO PREVENT TICKS FROM LIVING NEAR YOUR RESIDENCE. TO REDUCE TICK HABITATS, YOU CAN:

- Keep the grass mowed
- Remove leaf litter, brush and weeds at the edge of the lawn and around stonewalls and woodpiles
- Restrict the use of groundcover in areas your people use most often
- Clean up and seal stonewalls and small openings around the home to discourage rodent activity
- Move firewood piles and bird feeders away from residences
- · Keep dogs and cats out of the woods
- Move children's swing sets and sand boxes away from the woodland edge and place them on a woodchip or mulch foundation

- Trim tree branches and shrubs around the lawn edge to let in more sunlight
- Adopt hard landscape and xeriscape (drier or less water demanding) landscape practices
- Create woodchip, mulch, or gravel borders at least
   3 meters wide between lawn and woods or stonewalls
- Consider decking, tile, gravel and border or container plantings on areas near the house or used often
- Widen woodland trails
- Use plantings that do not attract deer or exclude deer by fencing
- Consider a least-toxic pesticide application as a targeted barrier treatment

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#### LYME DISEASE AND PETS

### ALTHOUGH DOGS AND CATS CAN CONTRACT LYME DISEASE, THERE IS NO EVIDENCE THAT THEY CAN SPREAD THE INFECTION DIRECTLY TO PEOPLE.

Pets can, however, carry infected ticks into homes and yards. Like people, the best protection for your pets is to avoid Lyme-infected tick bites. If possible, keep dogs and cats out of the woods and do periodic checks for tick bites.

The most common symptom of Lyme disease in dogs and cats is arthritic pain, with some pets experiencing fatigue and fever. Some pets may eventually develop kidney problems.

Contact your veterinarian if you suspect your pet may have Lyme disease.



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