

Ticks and tick-borne illnesses



Ticks are small, spider-like creatures that can transmit diseases to humans. Their numbers are growing, which is a concern for CUPE members who work outside. They are usually found in wooded areas and tall grasses and are most active in late spring and summer. However, due to urban growth and climate change, ticks are now present in city parks and green spaces, with an active season extending into the fall.

Many types of ticks live in Canada, but blacklegged ticks (deer ticks) and western blacklegged ticks are most likely to carry disease. These ticks range in size from 0.15 cm to 0.3 cm when unfed or partially fed. They can grow up to 1 cm when fully fed.



Ticks are dangerous because they can spread bacteria, viruses and parasites. They pick up these germs when they feed on infected animals and transmit them when they attach to human skin. In addition to Lyme disease, ticks also carry other serious diseases like anaplasmosis, babesiosis and Powassan virus.

Who is at risk?

Anyone who works outdoors in spring and summer is at risk of encountering ticks. Outside municipal workers, utilities workers and parks staff, among others, face exposure as a regular occupational hazard.

The Canadian Centre for Occupational Health and Safety reports blacklegged ticks that may carry Lyme disease are present or increasing in all of Nova Scotia and the southern parts of New Brunswick, Quebec, Ontario, Manitoba and British Columbia. A Canadian expert panel on climate change has estimated that Lyme disease is spreading in Canada at a rate of 35 to 55 km per year. For up-to-date information on where blacklegged ticks can be found, visit canada.ca.

Exposure prevention

The best way to prevent tick bites is to stop ticks from being able to bite in the first place. **Ticks don't fly!** They stay close to the ground on small bushes and tall grasses, waiting to latch onto a passing host.

If you work outdoors, especially in the areas mentioned above, your employer should create safe work procedures in consultation with the health and safety committee. These procedures should require the use of protective clothing like hats, closed-toe boots, long-sleeved shirts and long pants tucked into socks or shoes. Light-coloured clothing can help workers spot ticks more easily.

Workers at risk of heat stress should take steps to reduce the risk associated with the additional heat exposure caused by heavier clothing. Using insect repellants, especially those containing DEET, can also make bites less likely, though application directly to the skin should be minimized.

Before removing their clothes, workers should inspect them for the presence of ticks. Work clothes should be washed and dried using high heat to kill any remaining ticks.

Workers should also carefully check their bodies for ticks. Before feeding, ticks are small and may look like a freckle or a mole. After feeding, they become engorged and are significantly larger and easier to spot. Before they bite, ticks will move around on a body and find a warm and protected area to bite such as the back of the knees, the groin or armpits. Removing the tick within 24 to 36 hours will reduce the risk of infection.

If you discover a tick or a tick bite, consult a physician immediately. Treatment with antibiotics can further reduce the risk of infection.

Lyme disease

Lyme disease is a potentially serious illness caused by the bacteria *Borrelia burgdorferi*. It is most commonly transmitted through tick bites. Symptoms can resemble the flu, including headache, fatigue and fever. Lyme disease often, though not always, includes an expanding rash that may look like a bull's-eye. Most cases can be treated easily with a round of antibiotics lasting several weeks.

Left untreated, Lyme disease can spread to the joints, heart and nervous system. This can lead to far worse conditions, including paralysis, mental confusion and other nervous system disorders.

Other diseases

Anaplasmosis – Symptoms can be flu-like, beginning 7–21 days after a tick bite. Respiratory symptoms, central nervous system issues and a rash can also occur. Without treatment, the illness can become serious.

Babesiosis – Symptoms can be flu-like, appearing 7–30 days after a tick bite. Many infections show no symptoms and may go unnoticed. The disease is caused by parasites that infect and destroy red blood cells. In severe cases, it can cause anemia, with symptoms including fatigue, dark urine and jaundice.

Powassan virus – Symptoms can be flu-like, appearing 7–30 days after a tick bite. Many infections show no symptoms and may go unnoticed. The disease is spread by a virus that can attack the brain and spinal cord.

What if you've been bitten?

If you find a tick attached to your skin:

- Using clean tweezers, carefully grasp the tick as close to the skin as possible. Pull gently and slowly upward, being careful not to twist or crush the tick, as this will increase the likelihood of bacterial release. You should not attempt to burn ticks off your skin. If you are not comfortable removing a tick, see a health care provider as soon as possible.
- Once the tick has been removed, wash the area where you were bitten with soap and water or disinfect it with rubbing alcohol.
- If parts of the tick's mouth break off and remain in your skin, remove them with tweezers. If this is difficult to do, consult a physician.
- If you were able to remove the tick or parts of it, keep it in a zip-lock bag or pill bottle. Record the location and date of the bite and bring it with you when you consult your physician.

References:

- <https://www.canada.ca/en/public-health/services/diseases/lyme-disease.html>
- <http://www.ccohs.ca/oshanswers/diseases/lyme.html>
- <http://www.cdc.gov/niosh/docs/2010-119/default.html>

FOR MORE INFORMATION, CONTACT:

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