

Guard against insect bites and stings

The basics of preventing allergic reactions and bug-borne illnesses when working outdoors.

According to the *2023 Ontario Provincial Climate Change Impact Assessment*, climate change is contributing to warmer seasons in Ontario. This, in turn, is making parts of the province more welcoming to disease-carrying insects. People who work outdoors in hot, humid environments now face a greater risk of being bitten or stung by mosquitoes, ticks, and other creatures that may be infected with bacteria and viruses that can cause serious illness. Here's what you need to know.

West Nile virus

West Nile virus is primarily transmitted to humans by mosquitoes, which can acquire the virus after feeding on infected animals. Outdoor workers are most at risk when mosquitoes are most widespread (from spring to the first hard frost in late autumn) and most active (at dawn and dusk each day).

Symptoms

According to Health Canada, many people who get West Nile virus experience no ill effects, while others may have flu-like symptoms such as fever, rash, body aches, and muscle weakness. In rare cases, the virus may cause inflammation of the membranes that cover the brain and spinal column, or swelling of the brain itself. These, in turn, can cause severe headaches, high fever, neck stiffness, seizures, and potentially death.

Controls

- Limit mosquitoes at your jobsite by getting rid of standing water (where mosquitoes lay their eggs): empty containers that have collected water and discard any debris where water might pool; tightly cover containers that are meant to hold water, such as cisterns.
- Wear pants and long-sleeved shirts when working outside. Research has shown that light-coloured clothing may be less attractive to mosquitoes.
- Apply insect repellent containing DEET or icaridin following instructions on the product's label.



Lyme disease

Increasingly common in Ontario, Lyme disease is caused by a bacterial infection transmitted by blacklegged ticks. These insects typically live in woodlands, shrubs, and tall grasses, waiting to latch onto passing animals (including humans). Though infected ticks need to be attached for at least 24 hours to transmit bacteria to their host, they are quite small and their bite is usually painless: you may not immediately realize that you've been bitten.

Symptoms

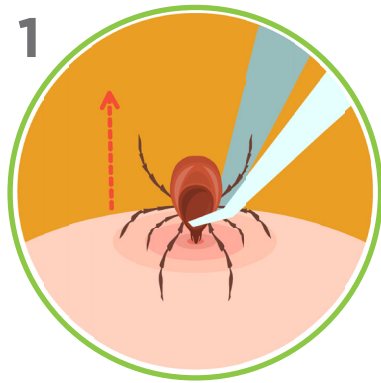
An expanding, often circular or oval-shaped rash near the site of a tick bite is among the most common symptoms of Lyme disease. Other early signs include fever, chills, headache, stiff neck, muscle and joint pain, and fatigue. In severe cases, Lyme disease can damage the heart, nervous system, liver, and joints. Early diagnosis and treatment with antibiotics improves your chances of successful recovery.



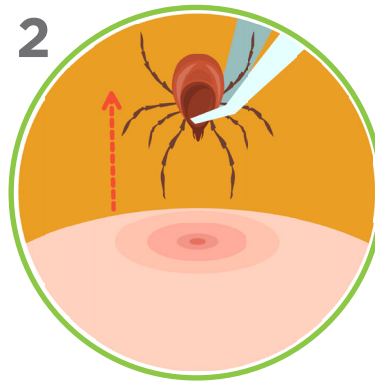
Controls

- Avoid bushy areas and long grass, if possible.
- Cover up with light-coloured, long-sleeved shirts and pants; for extra security, tuck pants into socks.
- Apply insect repellent containing DEET or icaridin—following instructions on the product's label.
- After working outdoors, check for ticks on your body, paying close attention to areas like the scalp, ankles, armpits, groin, and behind the ears and knees.
- Remove any attached ticks as soon as possible using the method below. Take care not to squish the tick.

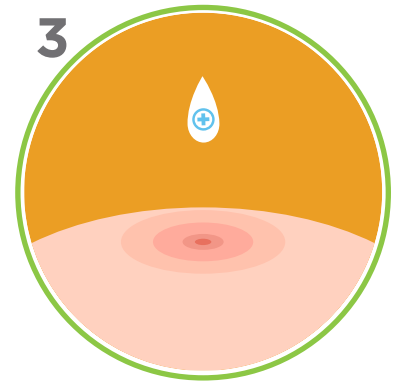
How to remove a tick



**Grab tick
close to head**



**Pull out
slowly**



**Disinfect the
bite area**

Allergic reactions

Some people may experience an allergic reaction after an insect bite or sting. Common insects that can cause a reaction are wasps, hornets, bees, mosquitoes, and fleas.

Symptoms

The typical signs of an allergic reaction include pain, redness, itchiness, and swelling at the site of the sting or bite. More serious—and potentially life-threatening—reactions may include difficulty breathing, hives, severe inflammation, rapid pulse, vomiting, or diarrhea. Seek medical attention if you experience any of these symptoms following a bite or sting.

Controls

- Stay clear of insect nests and hives.
- Wear long-sleeved shirts, pants, socks, and shoes.
- Many insects are attracted to heavy scents. Avoid using heavily scented soaps, lotions, or perfumes before working outdoors.
- Avoid eating fruits or using fruit-scented products while working outdoors.
- Apply insect repellent containing DEET or icaridin—following instructions on the product's label.
- Ensure your workplace's first aid kit has an epinephrine autoinjector (e.g., EpiPen), which can help counteract the effects of a severe allergic reaction.

