SAFE WORK PRACTICES

Biological Hazards

Animal Bites

The most common bites are from household pets, with dogs, and cats causing the most. Dogs are more likely to bite than cats; however, cats are more likely to cause infection. Bites from non-immunized animals and wild animals carry the risk of rabies. Rabies is more common in raccoons, skunks, bats, and foxes than in cats and dogs.

- Determine if the outside pet shows signs of aggressive behavior and is on a leash.
- If the pet is determined to be aggressive, contact the homeowner and ask for the pet to be placed inside of the house until the work has been completed. This will allow you to focus and be more efficient on the job. Do not attempt to complete the work if no homeowner is available to control the pet. Never leave your comfort zone.
- Cats typically mind their own business and will watch from a distance. Dogs tend to be more curious. Large dogs can knock a human to the ground. Never approach an animal that is in the process of eating.

In some cases, the bite will not break the skin but may cause damage to the underlying tissue and joints. If the skin is broken, there is the additional possibility of infection to tendons and nerves as well. Dogs have powerful jaws and can cause crushing injuries to muscles, tendons, ligaments, and nerves.

Signs of an infection includes:

- Swelling
- Pain
- Discharge
- Redness around the puncture wound
- An inability to bend or straighten the finger
- A loss of sensation over the tip of the finger

First Aid

- Don’t put the bitten area into your mouth! You will just be adding bacteria into you.
- If the bite breaks the skin, treat it as if you would a minor wound. Use soap and water or an antiseptic, or alcohol and cover it with a clean bandage.
- Get tetanus immunization as soon as possible.
- If the bite creates a deep puncture or the skin is badly torn and bleeding, apply pressure to control the bleeding and get medical attention right away.

Insect Bites

The two most serious health effects from insect bites in Ontario are West Nile Virus and Lyme Disease.

West Nile Virus

West Nile virus is a mosquito-borne virus contracted by mosquitoes that feed on the blood of infected birds. The mosquito then passes the virus to a human host.

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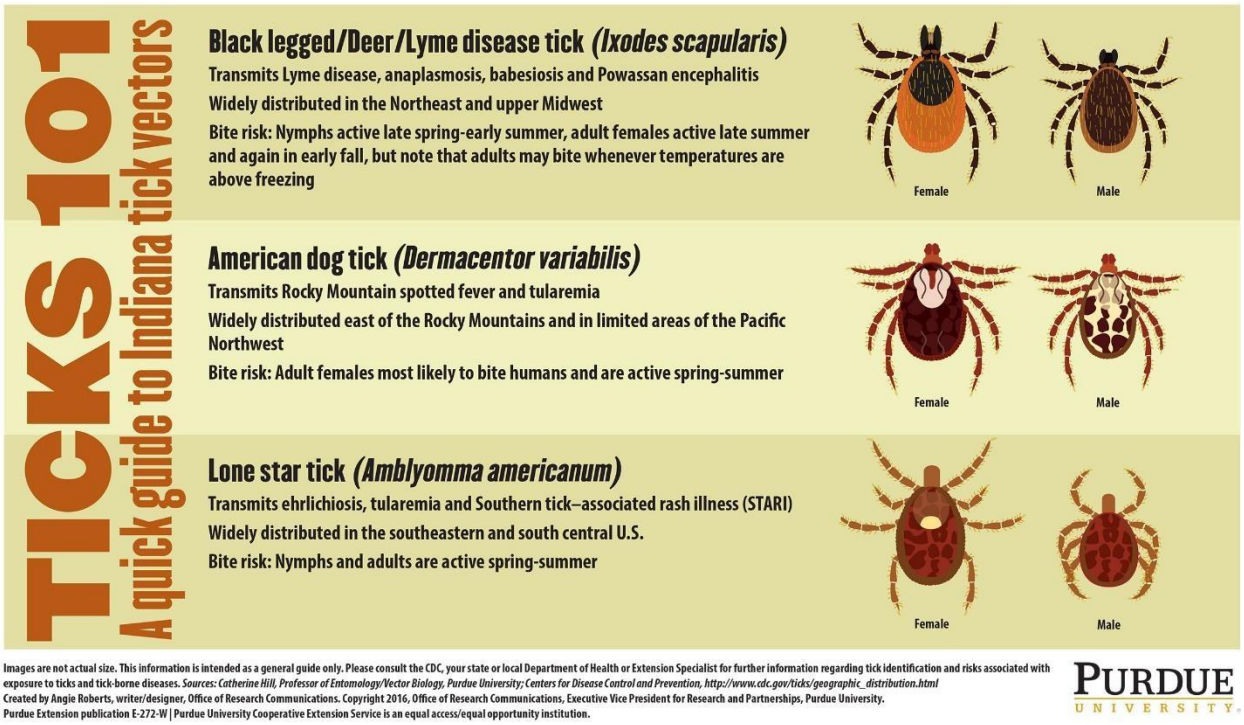
Avoiding Mosquito Bites

- Use insect repellent on exposed skin when you go outdoors.
- Use an insect repellent such as those with Deet, or oil of lemon eucalyptus.
- Get double protection by wearing long sleeves during peak mosquito biting hours, and spray repellent directly onto your clothes.
- Remove standing water that may be present around the worksite.

Lyme Disease



Lyme Disease is commonly ***transmitted through tick bites***.

Ticks usually live in woods or tall grasslands. Ticks infected with bacterium can spread disease when they feed on blood from the host. Ticks cannot fly - they hang onto small bushes or tall grasses and are usually found close to the ground. They wait for an animal or person to pass near them and when the animals or person make contact, the ticks attach themselves to the skin to feed.

<u>In Canada, there are two species of ticks known to transmit Lyme disease</u>:

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- The blacklegged tick (often called a deer tick), which is known to be established in parts of southern and eastern Ontario, southeastern Manitoba, and Nova Scotia and;
- The western blacklegged tick, which is known to be established in parts of southern British Columbia.

These ticks vary in size and colour, depending on their age and whether they have been feeding. Before feeding, they are about 3-5 mm in length, and are red and dark brown in colour. Young ticks in the pre- adult stages are smaller and lighter-coloured. When they are full of blood, adult ticks can be as large as a grape.

Exposure to Lyme

The risk of contact with ticks begins in early spring when the weather warms up and lasts through to the end of fall. Ticks may also be active in winter in areas with mild temperatures (4°C and above) and no snow.

There is no evidence that Lyme disease can spread from person-to-person. Although cats and dogs can get Lyme disease, there is no evidence that they can pass the infection to people.

Signs and Symptoms

Tick bites are usually painless, and most people do not know they have been exposed to Lyme disease until it has had time to advance. In the first stage, one of the first signs of infection is a circular rash, often referred to as a "bull's eye" rash because it will have rings spreading from the bite site.

Additional symptoms include:

- Fatigue
- Chills
- Fever
- Headache
- Muscle and joint pain
- Swollen lymph nodes

As the disease progresses, chronic symptoms may develop. Fatalities from Lyme disease is rare.
Lyme disease can be difficult to recognize, and it has been confused with other diseases. It is important for people to consult with their doctor if they feel it is possible that they have Lyme disease.

Treating Lyme Disease

Lyme disease can be treated effectively with antibiotics. A full recovery is more likely when treatment begins in the early stages of the disease. Undiagnosed Lyme disease which develops into chronic illness can be difficult to treat.

Protection from Tick Bites

- Wear protective clothing to prevent ticks from attaching to your skin. Wear long sleeve shirts that fit tightly around the wrist, and long- legged pants tucked into your socks or boots.
- Use insect repellents containing DEET to repel ticks. Apply to both clothes and skin. Always read the label and follow instructions for use.
- If possible, avoid contact with low bushes and long grasses.
- Wear light coloured clothing to help you to find the ticks more easily.
- Check for ticks on and under clothing, especially after being in areas where ticks may live.
- A daily skin inspection greatly reduces the risk of infection as ticks may take several hours to two days to attach to the skin and feed. Check areas including armpits, in and around hair, navel, groin, and behind the ears and knees.
- Wash clothes promptly and put them in the dryer with heat to help kill any ticks that may remain.
- Carefully remove ticks found attached to the skin:
    - Gently use fine pointed (needle-nose) tweezers to grasp head and mouth parts of the tick as close to the skin as possible.
    - Pull up slowly to remove the whole tick.
    - Try not to squash or crush the tick, this can help bacteria to get into the body.
    - Keep the tick for testing by placing it in a small, sealed container or double zip-lock bags. Place a moist paper towel or tissue with the tick to help keep it alive. Dead ticks can be tightly sealed in rubbing alcohol. Bring the tick to the health unit or your doctor.
- Wash affected area with soap and water or disinfect (with alcohol or household antiseptic) after removing ticks.
- Know how to identify ticks and know the signs and symptoms of Lyme disease.

- Contact a doctor immediately if you have an illness that resembles Lyme disease.

Sharp Objects and Biological Hazards

Work in public spaces will occasionally involve hazards from needles/other sharp objects. These may expose a worker to biological hazards.

J-AAR has developed the following to help control these hazards:

Why should sharp objects be handled safely?

- Sharp objects can contain blood from other people and this blood can carry blood-borne infections like hepatitis B, hepatitis C, and HIV.
- HIV can live on a needle for up to several hours. Hepatitis B and C can live on a needle for weeks.
- Accidental puncture wounds from a sharp object can allow the entry of infection through the skin, resulting in blood-borne infections such as hepatitis B, hepatitis C and HIV.

How should I handle and dispose of found needles or other sharp objects?

Use caution. Treat all found needles and other sharps as contaminated. Do **not** try to put the cap back on a needle.

- Do not touch the sharp object with your bare hands.
- Use needle tongs available through your supervisor.
- Disposable gloves (ie. nitrile) must be worn when working with sharp objects.
- Always hold sharp or cutting edges down and away from you.
- Put the container on a stable surface next to the sharp. Do not hold the container in your hand when placing the sharp object inside. When picking up a needle using the tongs, put the needle in the container point down. Do not force sharp objects into the container or overfill it.
- Close the container securely.
- Ensure that the contaminated end of the needle tongs is put back into the storage bag and the bag is properly secured.
- Remove gloves by taking them off inside out to ensure your hands are not contaminated.
- Wash hands with soap and water and/or an alcohol-based hand rub after all handling sharps, containers, used equipment, and after removing gloves.

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Hazardous Plants

Hazardous plants, that can cause painful skin reactions from inadvertent exposure by skin contact, can be found throughout Ontario. Many people are familiar with poison ivy, but may not be aware of some of the more toxic plants including giant hogweed and wild parsnip. Workers in certain outdoor areas are at risk of exposure and it is recommended they become familiar with these plants to protect themselves.

Giant Hogweed

Giant hogweed has a scattered distribution across Ontario. Contact with giant hogweed sap can cause blindness, severe blistering and burns on your skin. Giant hogweed is a large plant, growing up to five metres tall. Young plants form large rosettes up to two metres high with no flowers. Mature plants send up flowering stems that produce large, white umbrella-shaped flower clusters up to 90 centimetres wide.

There are two distinguishing things about giant hogweed

- its stalk has reddish purple blotches and speckles and coarse hairs.
- the leaves have unusual toothed edges like a jagged-looking maple leaf.

The plant contains a clear, watery sap. Skin contact with the sap in combination with exposure to sunlight can cause swelling, severe burns and painful blisters, usually within 48 hours. Symptoms can last for months. Eye contact with the sap has been reported to cause temporary or permanent blindness.

Giant Hogweed

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Wild parsnip

Wild parsnip can be found throughout Ontario. It grows in abandoned yards, waste places, meadows, old fields, roadsides and railway embankments. Skin contact with the sap – also a photosensitizer – has similar effects to giant hogweed.

In its first year, wild parsnip grows close to the ground in the form of rosettes with leaves averaging six inches long. Mature wild parsnip have flower stalks that grow to about four feet tall and umbrella-like clusters of yellow flowers that form large flat seeds. Handling the fruit, flowers or leaves of wild parsnip followed by exposure to sunlight can cause inflammation of the skin.
Skin reactions may range from burning sensations and reddening of the skin to blistering and extreme burns. Wild parsnip reactions often appear as long spots or streaks on the skin and are commonly confused with the effects of poison ivy. Unlike poison ivy, you don't need to be sensitized by a prior exposure.

Wild Parsnip

Poison ivy

Poison ivy is a straggling or climbing woody vine that's well known for its ability to cause an itchy rash. Poison ivy can be found in every province except Newfoundland. It grows on sandy, stony, or rocky shores, and sprouts in thickets, in clearings, and along the borders of woods and roadsides.

All parts of the poison ivy plant, including the roots, contain the poisonous resin urushiol. Contact with any broken part of the plant may cause a reaction. Most people develop symptoms 24 to 48 hours after contact.

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The extent of a reaction depends on the person's sensitivity and the amount of sap in contact with their skin. The inflamed areas often develop blisters, which leads to intense itchiness.

The rash spreads through exposure to the sap, not from the sores themselves. So a person has to actually come into contact with the sap (not necessarily with the plant) before developing an allergic reaction. Contact with a surface that has picked up sap from the plant (like the fur of an animal) can also result in a reaction.

Poison ivy

The leaves of poison ivy have three pointed leaflets. The middle leaflet has a much longer stalk than the two side ones. The leaflet edges can be smooth or toothed, but are rarely lobed. The leaves vary greatly in size, from 8 to 55 mm in length. They are reddish when they appear in the spring, turn green during the summer, and become various shades of yellow, orange, or red in the fall.

The plant produces clusters of cream to yellow-green flowers during the months of June and July. The berries that appear by September are clustered, round, waxy, and green to yellow in colour. The size of the berries ranges from 3 to 7 mm (.12 to .28 inches) in diameter, and they often remain on the low, leafless stems of the plant all winter.

Prevention

- Never touch or brush up against these plants with bare skin.
- Remove clothing carefully to avoid contact with sap that may be on your clothing.
- Wash all equipment that has touched the plants, sap or oil.
- Avoid using power tools near the plants or burning the plants – damage can release toxic sap or oil.

What to do if exposed to hazardous plants?

- Wash the affected area immediately with soap and cold water.

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- Cold water needs to be used because hot water opens the pores of your skin and increases the chances of the oil and sap being deeply absorbed.
- Stay out of sunlight and cover up exposed areas.
- Get medical attention immediately.