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Helping You Achieve Health . . . Naturally!

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Tick Borne Illnesses in Ontario – Including Lyme: What You Need to Know:

By: Dr. Colleen McQuarrie, ND
Naturopathic Doctor

Prevention (canlyme.com)

Preventing infection

AVOID

The best way to prevent infection is to avoid tick-infested areas whenever possible, particularly in spring and early summer when nymph ticks feed. Adult ticks are a bigger threat in fall. Ticks favour moist, shaded environments; especially leafy wooded areas and overgrown grassy habitats.

REPEL (note these are toxic)

Products that can be used to defend against ticks: Permethrin is considered a better tick repellent, but in Canada, it is not allowed to be sold. It can be ordered over the internet.

The Canadian Paediatric Society states: “**Icaridin** is considered to be the repellent of first choice by the Public Health Agency of Canada’s Canadian Advisory Committee on Tropical Medicine and Travel for travellers six months to 12 years of age. Products containing up to 20% icaridin are considered to be safe and efficacious.”

Icaridin is good for adults as well. In Canada, the Canadian Tire stores sell a Woods brand of Icaridin repellent.



Top 5 tick habitat precautions

1. Wear long pants and long-sleeved shirts. Tuck your pants into your socks to prevent ticks from getting inside your pants.
2. Check your clothes for ticks often. Ticks will climb upwards until they find an area of exposed skin.
3. Wear light coloured clothing to make it easier to spot ticks.
4. Walk on pathways or trails when possible staying in the middle. Avoid low-lying brush or long grass.
5. Apply insect repellent to your skin and clothing, especially at the openings such as ankle, wrist and neck.

Tick ID (canlyme.com)

Canada is home to many species of ticks, but the Ixodes Tick – more often known

as the “black-legged” or “deer” tick – is the most common Lyme-carrier.

Ixodes ticks...

- Have hard-shelled brown and black bodies, but appear grey when engorged
 - Have 8 legs as adults and nymphs, larvae (baby ticks) have only 6
 - Are 1–5 mm long, but adults can grow up to 20 mm when feeding
- Although commonly found in wooded areas, ticks can be found pretty much anywhere because they are carried by the birds and other animals they feed on.

In Canada, we have approximately 40 species of tick, but fortunately for humans, only a few of them can transmit Lyme disease.

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Common ticks in Canada

Below is a quick guide to some of the most common ticks in Canada.

Deer Tick

The official common name for a tick often suggests that it parasitizes a specific animal host ('deer tick', 'dog tick', 'cattle tick', etc). However, with rare exceptions, most tick species willingly suck blood from almost any animal they encounter.

Western Black-Legged Tick

The Western black-legged tick (*Ixodes pacificus*) is the second most common *Borrelia*-carrying tick in Canada. As its Latin name suggests, this tick is found mainly on the Pacific coast.

Ixodes angustus (no common name)

Although this tick's ability to transmit Lyme disease has been debated, recent lab experiments have demonstrated that it can transmit *Borrelia burgdorferi* and *B. bissettii*. So if bitten by this tick, it's still very important to be treated immediately.

Other common ticks

The Lone Star Tick

Although the Lone Star Tick (*Amblyomma americanum*) has been shown to transmit Lyme borreliosis (*Borrelia americana* and *Borrelia andersonii*), it can transmit other infections such as Ehrlichia and Tularemia. In addition, victims bitten by the Lone Star Tick will occasionally develop a circular rash, similar to the rash of early Lyme disease. The rash may be accompanied by flu-like symptoms, and this condition has been named "Southern Tick-Associated Rash Illness" (STARI). STARI is treated with oral antibiotics. Newer research is now associating a Lone Star Tick bite to a mammalian meat allergy.

American Dog Tick

The American Dog Tick (*Dermacentor variabilis*) is also a common tick in Canada, and can be found from Saskatchewan east to the Atlantic Provinces. This tick can transmit Rocky Mountain Spotted fever and Tularemia, but is not normally associated with Lyme disease.

Brown Dog Tick

The brown dog tick (*Rhipicephalus sanguineus*) has been shown to carry *Borrelia*, but their ability to transmit the bacterium to humans is still in question. The brown dog tick can transmit Rocky Mountain Spotted Fever.

Rocky Mountain Wood Tick

The Rocky Mountain wood tick (*Dermacentor andersoni*) is known to transmit Rocky Mountain Spotted Fever, Tularemia, Colorado Tick Fever, and is a major cause of tick paralysis.

Transmission

Lyme disease is known as a "tick-borne illness". This means that Lyme-infected ticks spread the disease to people by biting them. While tick transmission is most common, new studies indicate that there may be other ways to contract Lyme.

Other potential transmission methods:

- Contaminated blood transfusions
- Mosquito bites
- In utero (during pregnancy) or while breastfeeding
- Fluid exchange during intercourse
- Exposure to feces from animals/people infected with Lym

Tick Removal (lymeontario.com)

Various "home remedies" for tick removal have not been proven effective and may actually increase chances of infection by causing the tick to regurgitate.

Under no circumstance should a flame, ointment, flammable liquid (gasoline, oil, lighter fluid, acetone, nail polish, etc.) or caustic material be used in removal attempts.

A person who is bitten by a tick should attempt to remove it with a tick key, or tweezers included in tick-removal kits. Other types of tweezers may be too blunt on the tips

Place fine-pointed tweezers snugly against skin, with a firm grip of the tick's head, gently pull the tick straight out with



steady pressure. Do not twist or squeeze the tick. It is important to ensure removal of the tick's mouthpiece from the skin to reduce the chance of infection. Apply an antiseptic & wash your hands.

Make Note of: date, location on the body, outdoor activity; take a picture, especially if rash is present or appears. Place the tick in a vial with a piece of moist Kleenex or paper towel.

The Doctor can send the tick to be identified and tested for *Borrelia burgdorferi* and other tick-borne pathogens; alternatively, you can send it for testing yourself through Geneticks - a private Canadian Laboratory that provides testing for several different possible pathogens in a tick: geneticks.ca

In the Event of a Tick Bite:

1. Once a tick has been removed, wash the area well with warm soapy water, and apply a topical anti-microbial (tea tree oil, lemon essential oil, polysporin etc.)
2. If you have managed to save the tick – label a Ziploc bag with the date and area you likely picked up the tick and bring it to your family doctor for testing. Freeze it if you will not be seeing your family doctor immediately.

Tick Removal Kits
Available Now at the OIHC

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3. Take 1 dose of Ledum 200C immediately after any insect bite to reduce swelling and discomfort. Take subsequent doses daily for 5 days to support the immune system.
4. Apply Apis Gel OR Traumagen ointment on affected area to decrease discomfort.
5. Immune Support to initiate includes Vitamin A, Zinc, potentially Herbal medicines such as licorice root, Echinacea, astragalus.
6. See your Naturopathic Doctor to discuss Lyme prophylaxis further and to learn about the judicious use of oral antibiotics before a Lyme test result is in.



Intravenous Therapy (IV Therapy)

*By: Dr. Vivienne Guy, ND
Naturopathic Doctor*

When you are suffering from chronic illness, digestive concerns or stress, the body is not always able to produce the energy required to heal itself. Taking oral supplements are not enough at this point since your stomach and intestines can't absorb nutrients at a high enough concentration to allow your body to absorb them without significant effort. This is when IV treatments help.

With IV treatments, nutrients are delivered directly into the bloodstream. This creates a concentration gradient that allows nutrients to be delivered to the cells passively, with little or no effort from the body.

IV treatments can be helpful for a variety of conditions. Here are a couple to let you know of for this month.

Athletic Recovery and Performance

Spring has sprung and with that many of you will be hitting the road with running or biking or other fun outdoor activities.

Whether you are the weekend warrior or training for an Ironman, we have IV

formulations designed to support the body and improve performance and recovery time with rehydration and tissue repair.

Healthy-Aging & Skin Rejuvenation

Another tried and true benefit for IV administration of nutrients, is to restore dry-skin, wrinkles, skin blemishes, dark spots and accelerated aging. While we can't stop the aging process, we can have optimal nutrition to allow for "Healthy Aging". Topical products and creams work to hydrate your skin externally, hydrating from the inside out is even more effective for rejuvenating your outward appearance.

Dr. Vivienne focuses on ensuring that your skin, your energy and your health goals all match. When it comes to treating skin it's about more than just what's on the outside that counts.

If skin care is of interest for you, you are welcome to book with Dr. Vivienne for a Healthy Skin Consultation

Summer Sun Safety

With summer in here, many of us are taking advantage of the nice weather by spending more time outdoors. While increased outdoor activity has been linked to various health benefits, it also means more sun exposure. Getting adequate sun exposure helps us make vitamin D and boosts our mood and energy levels; however, we can easily get too much of a good thing. Excess sun exposure, especially for unprotected skin, can cause sunburn, contribute to

premature aging and wrinkling of the skin, and increase our skin cancer risk. The good news is, there is a simple way to protect yourself from the sun's rays: sunscreen. What's not so simple is finding a safe, effective, and non-toxic sunscreen. In this month's newsletter, I'll guide you on what sunscreen ingredients to avoid and how to use sunscreen to maximize its protection and benefits.

How do I choose the correct SPF?

We often assume that SPF 100 offers twice as much protection at SPF 50. In fact, the extra protection is minimal. Properly applied SPF 50 sunscreen blocks 98 percent of sunburn rays whereas SPF 100 blocks 99 percent. When applied correctly, sunscreen with SPF 30 to 50 will offer strong sunburn protection, even for individuals with sensitive skin.

Products with high-SPF often require higher concentrations of sun-filtering chemicals which may pose health risks when they penetrate the skin such as tissue damage, hormone disruption, and allergic skin reactions.

Be sure to choose a sunscreen that is "broad spectrum" or offers protection against both UVA and UVB rays. Most sunscreens offer UVB protection which help prevent sunburn and skin cancer but UVA rays penetrate deeper into the skin damaging DNA and skin cells, promoting aging of the skin and can cause cancer.

How much and how should I apply sunscreen?

Remember to apply at least 2 ounces of lotion (about a shot glass full) and reapply every 2 hours or after swimming or heavy sweating. The sun breaks down the ingredients in sunscreen that protect your skin and even high-SPF lotions need to be reapplied often.

Ingredients to avoid

Ingredients commonly found in sunscreen have been linked to potential health hazards including: skin irritation or allergy, hormone disruption and skin damage.

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When choosing a sunscreen, be sure to read the ingredient list to avoid these chemicals:

- Vitamin A/retinyl palmitate/retinol A: they may sound safe because they're vitamin-derived but these ingredients may speed the development of skin tumors and lesions when applied to the skin in the presence of sunlight.
- Oxybenzone (aka methanone, 2-hydroxy 4 methoxydenzophenone and benzophenone-3): disrupts the human endocrine (hormonal) system and can pose cardiovascular challenges.
- Benzophenone-3 (B-3): may potentially trigger DNA damage.
- Amino Benzoic Acid (aka para-aminobenzoic acid, PABA, Vitamin Bx or padimate O): may amplify cellular damage.

Practicing Sun Safety

Follow these guidelines to avoid sunburn and reduce your skin cancer risk:

- Do not use sunscreen as a tool to prolong your time in the sun.
- Cover up! Be sure to wear hats, shirts and sunglasses for optimal protection.
- Avoid getting a sunburn.
- Do not use a tanning bed or sunbathe.
- Protect your kids. Childhood sunburns are most damaging so keep your little ones out of the hot sun.

- Pick a "broad spectrum" sunscreen that offers strong UVA protection.
- Optimize your vitamin D level which offers protection against various cancer types and possibly reduces melanoma risk. Commit to getting screened for vitamin D deficiency and ask your naturopathic doctor about taking an optimal dose of vitamin D supplements.
- Examine your skin. Check your skin regularly for new moles that are tender or growing. Ask your primary care doctor how often you should see a dermatologist.

What sunscreen brands are safe?

- Alba Botanica
- Aubrey Organics
- EMINENCE
- Coola
- Green Beaver
- Nature's Gate

For a complete list of the top rated safe sunscreens visit www.EWG.org.

Planning a trip or summer getaway? Ask your Naturopathic Doctor for tips on travel health and what to pack in your first-aid kit so that you'll be ready to address common travel ailments including sunburn, motion sickness, jet-lag, digestive complaints, insect bites, and aches and pain.

Osteopathy For Athletes:

*By: Arianne Gosselin
Rehabilitative Manual Therapist*

Osteopathy is a manual therapy that works with your body's inherent ability to self-heal. When the body's physical structure becomes impaired by injury or repetitive use, this self-healing ability is hindered and the result is pain and/or illness. Osteopathic manipulative treatment can help restore structural imbalances in the body, which allows you to express your full potential in your athletic performance.

"Manipulation is extremely beneficial to athletes because of the time constraints they have when healing. Osteopathic Manipulative Treatment helps to speed up recovery by restoring function faster."
- Dr. Steven Karageanes, D.O.



At the 2002 Salt Lake City Olympics, Apolo Anton Ohno collided with another racer and got a gash on his leg, requiring stitches. He needed to get better fast because he had another race coming up: the 1500m short track.

The osteopath charged with his care, Lawrence Lavine, D.O., quickly intervened and gave him osteopathic manipulative treatment (OMT) in order to speed his recovery. But the treatment provided was not just to his leg, it was to his entire body.

Dr. Lavine explained it like this: "When I treated Apolo, it was not a matter of dealing with just the leg, it was a matter of going through his entire body and cleaning out every bit of strain pattern. The whole purpose of what we do [as osteopaths] is to restore the health, remove the strain, and let the body heal itself."

After two days of OMT, Apolo was able to get back to training and ultimately win the gold medal in the 1500m short track.

Articles have been updated from previous newsletters.

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