

Note: Updated links and information April 2017:

Tick season in the Ottawa Area starts earlier than some might think. In April 2016 our son had already picked up one (see this 2016 [CBC piece](#)) – and reports point to an increase in numbers in 2017. I thought I would pass on some basic information and one option I started to use a couple of years ago to reduce the risk. A disclaimer: I'm not an expert but there is a great deal of information available from established and respectable sites - [TickEncounter Resource Center](#) being one that I will reference a few times as it has a broad selection of facts and discussions on ticks, Lyme disease and other related issues.

In 2016 Ottawa was not considered a high risk area for Lyme disease but, as this [2016 map](#) from Ontario Health shows, numbers and risk were increasing. In April 2017 the risk in this area has been upgraded to high due to both the number of ticks and the percentage of those testing positive for Lyme disease. Additionally, a recent memo from Health Ottawa (that I will discuss in more detail later), Indicates a shift in treatment for bites based on the increasing risk (although this policy has not, at the time of updating this article, been reflected in some of the other Government sites). It is safe to say that ticks are just becoming a fact of life if you want to go outdoors in the woods or parks. In much of the U.S and many parts of Europe the whole problem is shrugged off with a “so what” as they have been dealing with ticks and Lyme disease for years. There are many simple ways to reduce the risk of tick bites and, if bitten, reduce the likelihood of Lyme disease – so why not take precautions?

This [Ontario Health site](#) provides some good information on identification and treatment for Lyme disease. Last year I noted that, as we are not yet in a high risk area, sending in a tick to public health for testing had a month or two turn-around time. The testing was not done to see if you might have been exposed but simply to track the progress of the disease in the area. Currently I have not seen a change in this although, given the increased risks being reported, this may be updated.

I mentioned last year that there did not seem to be a definitive policy for prophylactic antibiotic treatment should you find a Blacklegged tick more than 24 hours after it has started to feed but prior to any Lyme disease symptoms showing. It appears this has changed given a recent Memo from the Ottawa Associate Medical Office of Health to Ottawa Health Care Providers (dated 12 April 2017) that states:

The prevalence in Ottawa of Borrelia burgdorferi (the agent of Lyme disease) in local Ixodes scapularis (the blacklegged tick vector) is now high enough that Ottawa Public Health (OPH) is recommending post-exposure prophylaxis for persons on whom a blacklegged tick was feeding if all of the following criteria are met:

- *the tick is fully or partially engorged or has been attached for 24 or more hours*
- *it has been less than or equal to 72 hours since the tick has been removed*
- *doxycycline is not contraindicated (e.g., pregnancy, under 8 years old)*

A single dose of oral doxycycline may be offered as post-exposure prophylaxis to adult patients (200 mg dose) and to children 8 years of age and older (4 mg/kg, up to a maximum dose of 200 mg).

This set of criteria is also provided through the [City of Ottawa Public Health](#). I did find some sites that still state “Ottawa is not yet a High Risk area so these criteria do not yet apply” – hopefully things will

catch up soon. I did find the first criteria a bit confusing but the clarification comes later in the memo (basically, if it is partially engorged, it has likely been on longer than 24 hours):

Risk of transmission of Borrelia burgdorferi from tick to human increases with the duration of tick attachment. When ticks acquired in high-risk areas have been attached less than approximately 24 hours, the probability of infection is low enough not to warrant use of prophylaxis. Nevertheless, in this situation patients should be counselled to observe for rash—especially an expanding red rash at the site of the initial tick bite—or other symptoms of Lyme disease for 30 days, and return for medical assessment should these arise. Partial or full engorgement of nymph and adult ticks would suggest the tick has been feeding longer than 24 hours, and should trigger the recommendation for prophylaxis for those eligible. The general principles of antibiotic stewardship should be applied and an informed consent discussion should include the risks of antibiotic therapy to the individual.

Ticks do not jump or fly so they will hitch a ride on you mostly from the grass and low brush/branches, from where they will start to crawl up until they find a nice warm spot to settle in. According to the [CDC](#), a tick, once it finds a good spot, will take from 10 minutes to 2 hours to start to feed. You will not feel their bite!

If you take away only one thing away from all this I hope it is that you should be to do a 'Tick Check' as soon as you get home from any outdoor activity as part of a normal post-event procedure – and keep in mind that the larva and nymph stages of the ticks are very very small so look carefully!

Here are some more interesting links:

[Ten Top Things you should know](#) – Including the fact that ticks can be active even in cold weather – darn!

[How not to remove a tick](#) - Forget about burning matches, cigarettes and other concoctions. The ticks we are most concerned about (Blacklegged/deer ticks) actually glue themselves to the skin and have long mouthparts – they cannot get out fast even if they want.

[How to remove a tick](#) - The best method is pointy tweezers or a purpose designed device like the [TickKey](#) (and maybe some alcohol at the same time - to disinfect the site).

You might have noticed in the link to the [TickEncounter Resource Center](#) a mention of tick proof clothing. In my past Army life, we often used clothes pre-treated with Permethrin to prevent mosquitoes, ticks and other nasty bugs from biting. Pre-treated clothing is available from many Hiking and Outdoor stores but is expensive (although will last through many, many washings). An alternative is to treat your own clothes by either soaking or spraying with a Permethrin solution. An article from [SectionHiker](#) describes using [Sawyer Permethrin Clothing Insect Repellent](#) product to treat your outerwear. This particular product is .5% Permethrin and can be used by spraying directly on the clothes or using a soaking method. First thing you may notice is that this product will not treat a lot of clothes and is expensive. It can be much cheaper to purchase more concentrated Permethrin and dilute it to the required .5% when needed. One product example is the Martin Permethrin 10% available on

Amazon.ca (google “permethrin 10%” and you will get multiple hits but shop carefully as the price varies greatly depending on the specific source and shipping costs – at the moment I am using a Martin 13.3% product). For the 10% example, you would dilute it 19 to 1 prior to treating your clothes so the bottle will last a long time compared to the .5% spray products (as a matter of interest much of the military clothing is treated with .83%). Farm supply stores may also carry this more concentrated stuff but make sure it is water based not oil based (which can be really messy to clean up). Regardless of how you do this, the general feedback is that you will get about 6 washings out of the treatment until it will need to be reapplied (it is the agitation of the washing machine that “knocks” the molecules from the fabric). Hand washing with less detergent will likely extend the time between treatments. Again, the [TickEncounter Resource Centre](#) also has more information on treating your own clothes. I keep the left over mixture from the soaking in a spray bottle to spray treat additional clothing or items such as gaiters.

Before you worry that you will go around smelling like insecticide as your clothes melt away on you, Permethrin is odorless after it dries and will not harm fabrics (you can’t say that about DEET). It is a contact insecticide that will kill the ticks as they crawl up your pant leg looking for that nice warm spot to dig in. Bonus – this will also prevents bites through your clothes from other bugs.

Permethrin safety? You will need to decide for yourself on this but here is an article from the [United States Environmental Protection Agency](#) and another from the [National Pesticide Information Center](#). Both approve the use of pretreated clothes as well as specific treatment products. For the same reasons that Permethrin does not make a good skin insect repellent, it also does not cause any skin irritation or known risk when applied to clothing (one thing to note is that it is dangerous to cats in the liquid form). In the end, you will need to weigh any concerns you may have with treating your clothes with Permethrin against the growing risk of Lyme disease in the area and make your own decision.

One last thing – do you wonder why there is no vaccine for Lyme disease? There is – but it is no longer produced because of unsubstantiated (and seemingly disproved) side effects, coupled with a zealous media campaign by anti-vaccination groups, that caused the maker to pull it. Here is a link to a [2012 CTV article](#).

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