

Examiner Column from Dr. Rosana Salvaterra, Medical Officer of Health Peterborough Public Health

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Tick Talk: Lyme Disease is Everyone's Business

With climate change influencing the spread of insects like ticks and mosquitoes into areas that were previously too cold, people living in the Peterborough area will need to adapt to a new reality that includes living with the threat of Lyme Disease. About 400 Ontarians contracted the disease in 2015, with indications that these numbers will only grow, as the tick that carries the infection continues to make more parts of the province its home. Ontario has many high risk areas, mostly nestled along the northern shores of Lake Erie, Ontario and the St. Lawrence River. But ticks can hitch a ride on a passing migratory bird, or a deer, and show up anywhere. Last year, Peterborough Public Health (PPH) found positive ticks in Havelock as well as inside the city of Peterborough. What is currently a "low risk" situation seems poised to grow into one where the risk requires more of our attention and action.

The province is already off and running: it released a 10-step plan focusing on building public awareness through the provision of updated resources, toolkits and education in early August. It should become easier to find well-researched, up to date information on the provincial Lyme Disease web page. As the black-legged tick, the carrier of the Lyme Disease bacteria, is not endemic yet in Peterborough, we are still encouraging community members to submit any ticks that have been removed from a human so that we can test it. First we test to identify whether or not it is *Ixodes Scapularis*, otherwise known as the blacklegged tick. Secondly, we test *Ixodes* to see if it is infected with *Borrelia burgdorferi*, the bacteria that causes Lyme Disease.

This changing reality means that we must change our behaviours, as prevention of Lyme Disease is quickly becoming more of a priority. Gone are the days when we could be cavalier and gallivant through the woods in our flip flops and shorts. To prevent ticks from attaching, we need to cover up and apply a repellent like DEET. Tucking long pants into our socks, and spraying with DEET is an effective way to reduce our risk of an exposure. Ticks can't fly – they usually position themselves on tall grass and bushes and wait for a ride on a passing host. Summer months carry the highest risk of infection because that is when the tiny nymphs are hungry and feeding. Unlike adults, the nymphs are hard to see, hence the advice to wear light coloured clothing to assist in detection.

Once the ticks have attached, we have 24 hours to find them and remove them before there is a risk of transmitting Lyme Disease. Ticks feed slowly, taking about three to seven days to take a complete blood meal, and gradually enlarging in size so that they become more visible. Daily inspection, perhaps at night, before taking a shower, is recommended. Prompt removal is key to preventing illness – and this is easily done with fine tipped tweezers to grasp the tick as close to the skin as possible. It can then be dropped into a screw-top bottle and brought to PPH for testing.



Protecting ourselves with clothing and repellents, and conducting daily inspections for tick removal should become part of our routine habits, like brushing our teeth or washing our hands. The federal Framework on Lyme Disease Act will ensure that Canada develops a comprehensive plan to address the prevention and treatment of Lyme Disease in a consistent way across this country, as the risk grows. But this is not something we can leave to the politicians or to physicians to solve. Protecting ourselves against Lyme Disease will become the responsibility of each and every one of us in a world that is warming up. Hopefully that should also motivate us to keep climate change first and foremost in our minds as one of the most important environmental and health issue facing all of us.

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