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Your natural path to a healthy balance

Lyme and associated diseases

Lyme disease has been reported in parts of Europe, Asia, and throughout much of North America. Health Canada warns that surveillance has identified migratory birds that have brought ticks carrying Lyme disease to non-endemic parts of the country. Lyme disease is an illness caused by the bacterium *Borrelia burgdorferi*, and other *Borrelia* species, which can be spread through the bite of certain types of ticks. *Borrelia sp.* are carried by small animals (mice, birds, squirrels) and can be passed to humans when ticks who have fed on the blood of infected animals, then bite people. Lyme disease in humans can have serious symptoms but can be effectively treated if identified early. Delayed diagnosis complicates treatment. The current testing in Canada does not identify the other strains of *Borrelia* that are known to cause similar symptoms. Consequently, the current tests can indicate a negative result, and individuals who have an infection, may be left untreated. Ticks also carry other infections that may be transmitted with the bite including Ehrlichiosis, Rocky Mountain spotted fever, Babesia and Bartonella among others. The types of infections transmitted will determine the course and types of treatments prescribed, and this may differ between individuals.

There is much controversy around the long-term effects of Lyme disease, despite being treated early for 2-4 weeks as indicated by the Centres for Disease Control (CDC). The CDC identifies these lingering symptoms (fatigue, pain or joint and muscle aches) as “Post Lyme Syndrome” or “Post-treatment Lyme disease Syndrome” (PTLDS), believing there is no persistent infection. Since current testing is flawed and all available tests are currently indirect (none can look directly for the bacteria), the medical community lacks a consistent method to prove or disprove this belief.

There are clinicians who believe these symptoms are due to the infection persisting, becoming more complex and difficult to identify with time based on immune system changes and other complications involved with having persistent infections. With multiple body systems involved and other infections passed on by the tick potentially playing a role, the symptoms may appear to mimic other diseases, often with inconclusive testing and thus further delaying treatment. There are doctors who do not observe the narrow CDC criteria for diagnosis, though this may increase the risk of over diagnosing Lyme disease, and the risk of potentially unnecessary treatments. Until there is a definitive test to identify the presence or absence of infection, the controversy of persistent/chronic Lyme disease will continue.



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If I don't remember a tick bite or bull's eye rash, how do I know if it is Lyme disease?

Many people do not recall a tick bite or a "bull's eye" rash, though report feeling flu like symptoms and other coming and going symptoms that may or may not fit any one diagnosis.

There are differing views and guidelines for diagnosis and treatment:

<http://www.ilads.org>

<http://www.idsociety.org/>

<http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/diseases-maladies/lyme-eng.php>

<http://www.cdc.gov/lyme/>

For more information about Lyme Disease in Canada:

<http://www.canlyme.com>

Lyme and associated diseases have signs and symptoms that are variable, involving many different body systems. Similar to the "great imitator" Syphilis, Lyme is known as the "new imitator" thus it is important to rule out conditions that have overlapping symptoms such as multiple sclerosis, fibromyalgia, ALS, lupus, arthritis, and dementia, in addition to many others. Though a rash ("bull's eye" or Erythema Migrans) is noted as an identifier of early Lyme disease, many people do not recall a rash, develop several rashes or not develop a rash at all. Diagnosis may be challenging due to so many vague symptoms. It is quite possible that many individuals who have a Lyme diagnosis, may have other complicating infections as well.

The International Lyme and Associated Diseases Educational Foundation (ILADEF) has created resources for physicians and the public, including common symptoms and frequently asked questions:

<https://iladef.org/education/lyme-disease-faq/>

Since there is considerable overlap with symptoms that are due to Lyme or associated infections and other causes of these symptoms, doctors may be confused by patient symptoms. In cases where the suspicion of tick borne illness is less clear, Dr. Taylor believes it is valuable to consider the MSIDS questionnaire developed by Dr. Horowitz prior to initiating the testing. The tests Dr. Taylor uses are current, evidence



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based and the lab is third party tested, in Germany. She is in regular contact with the owner of the lab, and attempts to stay current on the best available (with least amount of bias) tests for these infections. When possible, other labs and tests may be used and whenever possible, some testing may be suggested through your medical doctor to offset costs to you.

The following resources may provide more support for those interested in using the questionnaire:

Evidence based research supporting use of questionnaire:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5590688/pdf/ijgm-10-249.pdf>

PDF version of the questionnaire:

<http://www.lymeactionnetwork.org/wp-content/uploads/2015/06/Horowitz-Questionnaire-v-9-17-1.pdf>

Online version of questionnaire that will add final numbers; please note you will be providing your anonymous information to the foundation for research purposes:

<http://karlmcmanusfoundation.org.au/limesurvey/index.php/survey/index/sid/881742/newtest/Y/lang/en>

ILADS treatment guidelines:

<https://www.ilads.org/patient-care/ilads-treatment-guidelines/>