

EYE ON IT

Current Research Efforts

We constantly watch and monitor the science community for new and breakthrough research that further aids in the successful diagnosis, testing and treatment of Lyme in North America.

A recent increase in research into Lyme indicates hope for changes to existing health care systems. Please check our website for the latest news regarding current Lyme studies.

Informational Pamphlets

We offer free information pamphlets to Primary Care physicians. If you would like some for display in your office, please place your order on our website.

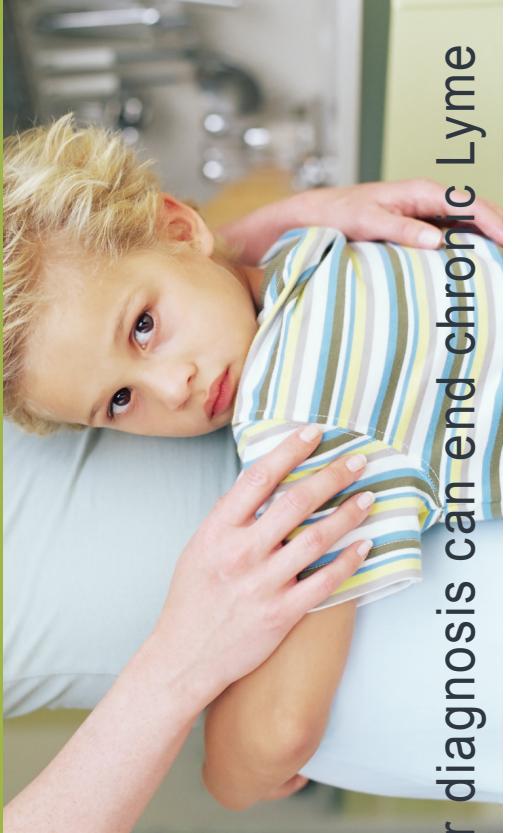
Alternatively, pdf files of all our printable materials exist online for download:

- Society Brochure (G)
- What is Lyme Disease? (Pa)
- Preventing Chronic Lyme (Pa)
- ILADS Guidelines (Ph)
- IDSA Guidelines* (Ph)

G-general information
Pa-patient information
Ph-physician information
*Current version. Revisions are presently underway, and will be updated upon their release.



www.murakamicentreforlyme.org



proper diagnosis can end chronic Lyme

Skin biopsies on all unexplained rashes and lesions should be performed, along with precise histology and PCR testing. The pathologist should be instructed to look for spirochetes.

Simply asking a patient if they recall being bitten by a tick is poor medicine and should NOT be the sole source of consideration in your diagnosis.

Attempts to separate "late" Lyme from "chronic" Lyme have been made, with the former being labeled with objective signs of arthritis or neurological manifestations. Some deny the existence of chronic Lyme by inferring that these patients suffer from psychiatric disorders, assuming therein that the infection has been adequately treated and the remaining symptoms are therefore symptomatic of diseases such as Fibromyalgia and Chronic Fatigue.

By understanding the cyclical and physiological nature of *Borrelia burgdorferi*, physicians can expect to see a return of confidence among patients when treating them for possible Lyme infection.

Why Lyme is a Clinical Diagnosis

"There exists a great divide in the medical community regarding Lyme, at the expense of the health of Canadians. Open dialogue is urgently needed..." Dr. E. Murakami, MD



in each of the five states where labs are in operation. Certification and further information is viewable on their website at www.igenex.com

MYTH: "There is no chronic Lyme."

Front line physicians dealing with Lyme have seen the results of long term infection for years. Based on clinical data and the latest published studies, Chronic Lyme can be defined as follows:

"Illness for at least one year, when immune breakdown reaches clinically significant levels; persistent major neurological involvement or active arthritic manifestations; and the lingering presence of *Bb* infection regardless of prior therapies."

J. Burrascano Jr, MD

"The ELISA test is simply not sensitive enough to be considered the logical screen for Lyme..."

J. Burrascano Jr, MD

"Another aspect [of spirochetal infections]... is the apparent continuation of the disease process after the organisms are no longer detectable. The 'sequestration' or disappearance from the blood of the *Borrelia* in the afebrile periods between relapses in relapsing fever may be due to the action of specific antibodies, but it can also represent the simplest example of 'hiding'..." Jorge L. Benach, Ph.D. and James L. Coleman, Ph.D. 1993. Over-view of Spirochetal Infections. In Lyme Disease, ed. Patricia K. Coyle, M.D., St. Louis: Mosby-Year Book, Inc., p.61.

This method of "hiding" is the formation of cysts which physiologically vary in nature. The spirochete can convert into and out of cystic form seemingly at will, rendering itself impenetrable to antibiotic therapy. Many studies of this cystic form exist, some dating back years.

Today's Lyme patient is well armed with factual information and more knowledge than most physicians

Currently, there is no steadfast method of testing to fully determine whether someone has contracted Lyme or is even cured of Lyme.

As a result of the known inadequacies with the current testing methods (ELISA and Western Blot), the BC Health Guide suggests "your doctor will probably be able to tell if you have Lyme disease based on your symptoms and whether you may have been exposed to deer ticks. In most cases, blood tests to diagnose Lyme disease are not necessary." BC Health Guide, MoH, p.110.

The BC CDC, in their February 29, 2008 News Release stated "Lyme disease should be diagnosed through a clinical evaluation of the patient's symptoms and risk of exposure to infected ticks. A blood test may also be administered, but this should not be interpreted in the absence of a clinical diagnosis."

Until better testing methods are developed, it is in the patient's best interest to consider all testing methods available.

MYTH: "(GeneX Lab tests are not recognized or reliable.)

GeneX Laboratories specialize in immunology laboratory services and research. Although the testing methods described herein are not definitive in nature, they offer a broader spectrum of sensitivity in assisting with a possible diagnosis of borreliosis and therefore should be the preferred choice of testing whenever Lyme is suspected.

Their testing panels vary, and can include IFA (general screen), IgM and IgG Western Blots (96% specific for antibodies for *Borrelia burgdorferi*) and whole blood and serum PCR testing for DNA.

The labs are monitored, licensed and governed as required by laws

More Quick Facts

- Lyme disease holds the highest degree of misdiagnoses globally.
- Lyme is known as the "Master Mimic" as multi-system failure brings on symptoms similar to other diseases.

Lyme can be misdiagnosed as ALS, Parkinson's, MS, Chronic Fatigue, Arthritis, Fibromyalgia, Alzheimer's, and Anxiety disorders.

The current IDSA Guidelines, on which Canada bases its protocols for Lyme, were investigated and found to be seriously "tawed" and "biased". They were developed by a panel of individuals, some of whom held undisclosed financial interests in pharmaceutical companies, diagnostic tests, patients, and consulting arrangements with insurance companies. The Guidelines are currently being revised due to this investigation. May 2008. Connecticut Attorney General Richard Blumenthal

May is National Lyme Awareness Month. Co-infections can include Rocky Mountain Spotted Fever, Babesiosis, Ehrlichiosis, Bartonella, Tularemia, West Nile Virus, Colorado Tick Fever, Brucellosis, and Tick Paralysis.

These are made available to physicians upon request through our office. Alternatively, you may log into our secured Physician's Corner of the Society website to learn more at your own discretion.

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Show Me the Evidence



Lyme Reference Guide

We take our objective of increasing Lyme knowledge among physicians very seriously. We have gathered information that is evidentiary in nature through clinical and practical experiences, peer reviewed and from double-blind studies, and have put it together in an informative guide that is easy to use in a clinical setting for quick reference.

These guides are available through our office. All we ask in return is a donation.

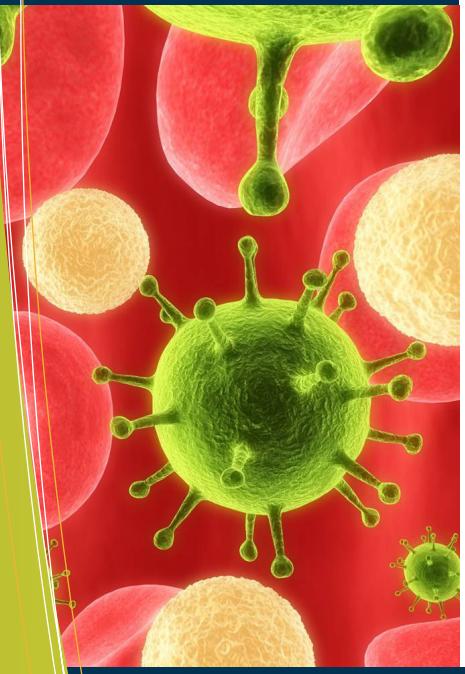
Case Histories Available

A series of fascinating and intriguing factual case summaries have been compiled from over 15 years worth of Lyme patient data. These are made available to physicians upon request through our office.

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Interpreting Lyme for physicians



Quick Facts

- The classic “Bull’s-Eye Rash” accounts for less than 20% of Erythema Migrans (EM) cases. The most common rash is a homogeneously colored oval-shaped lesion.
 - 30% of patients never develop a rash and over 60% have no knowledge of being bit.
 - Spring and early summer hold the highest risk of infection. Nymphal larvae are most active during

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Although the science behind Lyme disease continues to evolve, controversy exists around the diagnosis and treatment of the disease. Basic questions still remain unanswered. The root of the controversy lies with the lack of reliable biological markers and diagnostic testing. Until such time that a distinction can be made between the infected and the non-infected, the cured and the non-cured, such arguments are bound to continue.

The Controversy Over Lyme Disease



Professional
Development

Dr. Murakami is available for Professional Development Seminars for your practice. He offers over 15 years of Lyme experience and evidentiary support to his information seminars. Please contact our office for booking availability.

Contact Us

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for Lyme Research, Education
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There are basically two schools of thought in regard to Lyme. These are exemplified by two known entities, ILADS (International Lyme and Associated Diseases Society) and the IDSA (Infectious Diseases Society of America), with the latter having protocol

IDSAs takes a narrow view, defining Lyme in very strict terms with limited treatment options. ILADS takes the broader view, with strong beliefs that clinical judgment best define diagnosis and treatment plans. Both groups have published documents on to support their views. Copies of these guidelines are available for free download from the *Physician's Corner* of our website.

If the IDSA has expressed concern in areas such as overtreatment, the ILADS group stresses the importance of individual patient risk-benefit analysis that reflects health, quality of life and financial costs associated with an ongoing history of treated Lyme. All medical treatments are known to carry risks; however, we believe carefully managed antibiotic treatment offers generally low risk.

In such time that future science can fully answer all questions relating to Lyme, the physicians of today still must care for people with Lyme to the best of their ability. It completely within the context of a strong patient-physician relationship that autonomy be encouraged and respected.

In pursuit of evidence-based medicine requires physicians to act based on evidence and. It does not imply that adherence be made to ineffective treatments until further research is done.

LAURENTIUS ET AL.

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What Every Canadian Physician Needs to Know

Gene disease: Gl



MYTH: “*There is no Lyme in Western Canada.*”

"Lyme is defined as an infectious illness caused by the spirochete, *Borrelia burgdorferi* (*Bb*). While this is certainly technically correct, clinically the illness often is much more than that, especially in the disseminated and chronic forms. Instead, I think of Lyme as the illness that results from the bite of an infected tick. This includes infection not only with *B. burgdorferi*, but the many co-infections that may also result. Furthermore, in the chronic form of Lyme, other factors can take on an ever more significant role – immune dysfunction, opportunistic infections, coinfections, biological toxins, metabolic and hormonal imbalances, deconditioning etc." Dr. J. Burrascano Jr., MD

Research shows that the spread of ticks within our nation has risen dramatically due to global warming. Milder winters and increased moisture throughout the provinces have lead to a spike in tick survival rates and have also resulted in a change in the migratory paths of infected host birds.

According to 2007 CDC reports from the US, Lyme is the fastest growing epidemic in North America, surpassing HIV/AIDS. Yet, surprisingly, only 2-4 cases are being recorded by the Canadian CDC every year. *WHY?* The answer is two-fold. First, the CDC requires that only cases that test positive with an ELISA and a Western Blot are reported. A Western Blot is suggested to be ordered following a positive ELISA, but the ELISA is notoriously negative in its results. Second, the ability to clinically diagnose Lyme is lacking among medical practitioners. Couple these together and the result is an increased incidence of late or chronic Lyme cases across the nation.

Centre for Lyme
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Research, Education & Assistance