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# FAX about ...



## Lyme Disease on the Rise!

Lyme disease (LD) is a preventable disease caused by the **bacterium *Borrelia burgdorferi***. It is **transmitted** to humans through the **bite** of **infected ticks**. In Ontario, *Ixodes scapularis* (the **blacklegged tick** or “**deer tick**”) is the **sole vector** of *B. burgdorferi*.

**LD case numbers are rising** in **Ontario** due to climate change and other factors. A steady increase in the number of established tick populations throughout the province, coupled with an increase in the percentage of infected ticks in these areas, is resulting in Ontario residents being at higher risk for infection. **Blacklegged ticks** have become **established in certain areas** within **Durham Region**. In **2019**, to date, Durham Region Health Department (DRHD) has identified **39** confirmed human LD cases compared to **29** cases identified in all of **2018**. For the most recent map of **Lyme disease risk areas** in Ontario visit the Public Health Ontario website at <https://www.publichealthontario.ca/-/media/documents/lyme-disease-risk-area-map-2019.pdf?la=en>

The **incubation period** for early stage LD infection is usually **1 to 4 weeks** after exposure. During this period, **70 - 80% of cases** will exhibit some form of **red, expanding rash**, sometimes resembling a “**bull’s eye**” (erythema migrans). Other early symptoms may include **fever/chills, headache, muscle or joint pain, fatigue /sleep disturbance, stiff neck** and **swollen lymph nodes**.

LD is **preventable** and **prompt treatment** with appropriate **antibiotics** is important. If left untreated, the disease can **progress** to a **more serious illness** involving the **musculoskeletal, cardiac** and/or **nervous systems**. **Not all blacklegged ticks are infected**, and an infected tick must generally be **attached and feeding** on an individual for **at least 24 hours** before it can **transmit** the bacteria to a human host. Prompt removal of attached ticks is important to prevent LD.

Diagnosis of LD should be based on clinical signs and symptoms plus the health care provider’s (HCPs) clinical judgement. HCPs are encouraged to access **Health Quality Ontario’s Clinical Guidance Document – Management of Tick Bites and Investigation of Early Localized Lyme Disease** for an early diagnosis and treatment algorithm and information at <https://www.hqontario.ca/Portals/0/documents/evidence/qs-clinical-guidance-lyme-disease-en.pdf> .

**Laboratory testing** (blood work) can be used to **support a diagnosis** of LD. However, it is important to note that, due to insufficient antibody production, **false negative** results can occur in patients with **early stage** LD, or patients **previously treated** with **antibiotics**. Generally, blood test accuracy increases as the LD infection progresses, although a small proportion of patients with later-stage LD may continue to test negative.

When ordering blood work, HCPs should indicate “**Lyme disease testing**” on the PHO Laboratory (PHOL) **General Test Requisition Form** and list the patient’s **clinical symptoms (with onset date)**, plus any known **exposure** and **travel history**. For further information regarding laboratory testing for LD refer to the PHOL abstract at <https://www.publichealthontario.ca/-/media/documents/lab/lab-sd-127-lyme-disease-current-test-method-information.pdf?la=en>

**LD is a Disease of Public Health Significance** and **HCPs must report all cases**, including clinical or suspect cases (no laboratory confirmation), **to the DRHD at 905-723-3818 or 1-888-777-9613**.

Health care provider resources now available to order online [durham.ca/HCP](http://durham.ca/HCP).

**Durham Region Health Department: 905-723-3818, 1-888-777-9613**

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If you prefer to receive this information in an electronic format please submit your request to [healthresources@durham.ca](mailto:healthresources@durham.ca)

If you require this information in an accessible format, contact 1-888-777-9613.