



Durham Region Health Department FAX about...

For Health Care Professionals



Lyme Disease cases are rising in Durham Region

Durham Region Health Department (DRHD) has identified **80** confirmed and probable human Lyme disease cases already this year as of October 31, 2022.

Table: Number of Confirmed and Probable Cases of Lyme Disease in the Last Five Years

Year	Number of cases reported for full year	Number of cases reported to October 31
2017	49	41
2018	37	33
2019	69	62
2020	51	44
2021	105	96
2022	N/A	80

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*. **Blacklegged ticks** have now become **established** in **many areas** within, and around, **Durham Region**. Visit Public Health Ontario’s (PHO) website for the most recent map of [Lyme disease risk areas](#) in Ontario. While these are the known established blacklegged tick locations, it’s possible to come into contact with this species of tick almost anywhere in Ontario.

The **incubation period** for early-stage LD infection is usually **1 to 4 weeks** after exposure from a tick bite. During this period, **70 - 80% of cases** will exhibit some form of [red, expanding rash](#), sometimes resembling a “**bull’s eye**” (erythema migrans). Visit [CDC’s webpage](#) to see some non-bull’s eye versions of the rash. Other early symptoms (3-30 days after tick bite) may include **fever, chills, headache, muscle or joint aches, fatigue**, and **swollen lymph nodes that may occur in the absence of rash**. Some later signs and symptoms (days to months after tick bite) may include severe headaches, neck stiffness, facial palsy, arthritis with severe joint pain and swelling, intermittent pain in tendons, muscles, joints and bones, heart palpitations or irregular heartbeat, dizziness or shortness of breath, inflammation of the brain and spinal cord, nerve pain, shooting pain, numbness or tingling in the hands or feet.

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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.

DRHD is currently **not able** to accept tick submissions for identification and testing. If your patient is interested in having the tick identified, <https://etick.ca/> is a free online service that uses a photograph of the tick to identify its type. It should be noted that **tick identification** is meant **for surveillance** purposes and **not for clinical diagnosis**.

Diagnosis of LD should be based on clinical signs and symptoms plus the health care provider's (HCP's) 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://hqontario.ca/Portals/0/documents/evidence/gc-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 on laboratory testing for LD access the PHOL website at <https://www.publichealthontario.ca/en/laboratory-services/test-information-index/lyme-disease-serology>

LD is a Disease of Public Health Significance and **HCPs must report all cases**, including clinical or suspect cases in the absence of laboratory confirmation, **to the DRHD at 905-723-3818 or 1-888-777-9613, or confidential fax at 905-666-1833.**

November 7, 2022

