



# Durham Region Health Department FAX about...

For Health Care Professionals



## Recognizing Lyme Disease

Increased cases of Lyme disease are being reported in Ontario. In Durham Region, there were almost twice as many cases in 2023 (113) compared to 2019 (66). Lyme disease is caused by the bacterium *Borrelia burgdorferi* which 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*.

Continue to consider Lyme disease in your differential diagnosis, particularly in individuals that live, work or spend time in Lyme disease [risk areas](#) (**almost all of Durham Region is now a risk area**). Early diagnosis is essential for timely access to treatment and prevention of long-term complications.

### Clinical Presentation for Symptomatic Patients

#### Early Localized Infection

70-80% of infected patients will present with an Erythema migrans (EM) rash (bullseye lesion or expansile red patch) at the bite site, within 3-30 days after exposure to an infected blacklegged tick. Early systemic symptoms may include fatigue, headache, myalgia, arthralgia, and fever. Also consider “cellulitis” in an unusual location or a bruise-like rash in dark skinned patients.

Testing recommendations: Clinical diagnosis, serology may not yet be positive.

#### Early Disseminated Infection

May present with multiple EM-like lesions, neurological symptoms including facial nerve (Bell's) palsy, aseptic meningitis, radiculitis, mononeuritis multiplex and/or cardiac symptoms including carditis, PR prolongation, and myopericarditis.

Testing recommendations: Lyme Serology (IgM/IgG)

#### Late Disseminated Infection

May present with arthritis and/or encephalopathy.

Testing recommendations: Lyme Serology (IgM/IgG)

Lyme disease can be misdiagnosed as cellulitis, bug bite infection, joint infection, allergic reaction, wound infection, venomous reaction, or shingles. **Consider repeat serology in 4-6 weeks if initial serology is negative and patient presents with persistent signs/symptoms of Lyme disease.**

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905-668-2020 or 1-800-841-2729 | [durham.ca/health](https://durham.ca/health)

If you require this information in an accessible format, contact 1-800-841-2729.



# Testing Indications

Please visit the Public Health Ontario website for Lyme Disease [testing information](#). **Serological testing of asymptomatic patients, including individuals following a tick bite, is not recommended.** Serological testing is useful for individuals in the absence of a rash, presenting with non-specific symptoms where Lyme disease is suspected.

# Clinical Guidance

Please see the Clinical Guidance Document by Ontario Health on the [Management of Tick Bites and Investigation of Early Localized Lyme Disease](#).

# Post Exposure Prophylaxis for Asymptomatic Patients

The risk of acquiring Lyme disease varies across geographical regions. Blacklegged ticks are established across most of Durham Region. **Post exposure prophylaxis should be considered if the following 4 conditions are met:**

- The tick was attached for 24 hours or more
- The tick was removed within the past 72 hours
- The tick was acquired in an area with a prevalence of ticks infected with *Borrelia burgdorferi* is greater than 20% (\*Most of Durham Region meets this criteria)
- Doxycycline is not contraindicated (e.g. allergy; pregnancy is no longer a contraindication)

## Recommended treatment for post-exposure prophylaxis:

- Adults: 1 dose of doxycycline 200 mg, by mouth
- Children: 1 dose of doxycycline 200 mg or 4 mg/kg (maximum dose of 200mg), by mouth

# Tick Identification

Public Health Ontario Laboratory will accept ticks from health care providers for identification of tick species (i.e., *Ixodes scapularis*). They only accept ticks found on humans. The Health Department does not submit ticks for identification as Durham is already an established risk area for *Ixodes scapularis*.

**Tick identification is used for surveillance and not for diagnosis in an individual patient.** Health care providers may also submit ticks for identification through the [eTick.ca](#) website.

# Reporting

Please continue to report any cases of Lyme disease to the Durham Region Health Department:

- Phone: 905-668-2020 or 1-800-841-2729 ext. 7369 (press option 2)
- Confidential Fax: 905-666-1833

After Hours Phone: 905-576-9991 or 1-800-372-1104

Access the Notification Form for Diseases of Public Health Significance at [www.durham.ca/hcp](#) (under Forms, Reporting).

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