MEDICAL HEALTH OFFICERS'
NEWSLETTER
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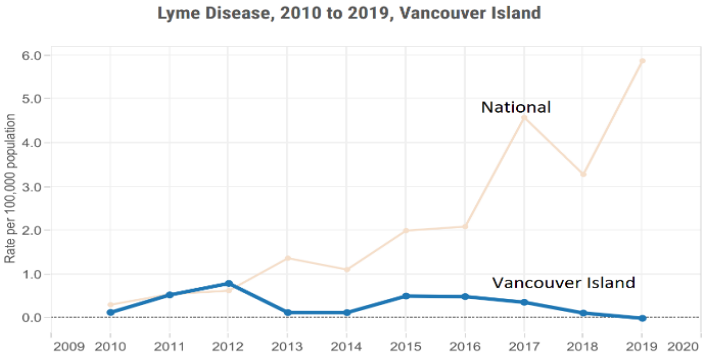
Tick Bites: Frequently asked questions for healthcare providers

Comprehensive information for health care providers is available through the Public Health Agency of Canada (bit.ly/PHAClyme) and the BCCDC (bit.ly/BCCDCticks).



What is the risk of Lyme disease from a tick bite occurring in Island Health?

- There have only been 0 – 6 cases per year (0 – 0.25 cases per 100,000) of locally-acquired Lyme disease in Island Health.
- Less than 1% of western black-legged ticks tested in BC carry *Borrelia burgdorferi,* the bacteria that can cause Lyme disease.

How can patients reduce the risk of tick bites?

- Wear light coloured clothes and closed-toe shoes, tuck clothes in, apply DEET or icaridin and stick to trails.
- Check yourself, children, and pets afterwards and remove any ticks (bit.ly/HealthLinkBCticks). Both adult ticks (sesame seed sized) and nymphs (poppy seed sized) can carry *Borrelia* and can be difficult to spot.

Should I provide post-exposure prophylaxis to a patient with a tick exposure?

- Post-exposure prophylaxis is generally not recommended for tick bites occurring in BC.
- The US CDC (bit.ly/USCDCtickPEP) provides guidance for post-exposure prophylaxis when all 5 criteria are met: 1. Tick bite occurred in a highly endemic area (which does not include BC), 2. Tick removed within last 72h, 3. Tick's body engorged with blood (not flat), 4. Suspected to be a black-legged tick, 5. No contraindications to doxycycline.
- Current areas in North America considered highly endemic for Lyme disease include Southern Manitoba, Southern Ontario, Southern Quebec, Southern New Brunswick, Nova Scotia, and Northeastern USA.

When should I treat a patient for Lyme disease?

- Erythema migrans presents in most people with early localized Lyme disease 3 – 30 days after infection. If clinical suspicion is high, treatment should not be delayed for serology or tick testing. Note: local inflammation immediately after a tick bite is common, but a rash developing 3 days after a bite is more suspicious for erythema migrans.
- The Centre for Effective Practice (bit.ly/CEPlyme) provides guidance for diagnosis and management of early Lyme disease. Referral to Infectious Disease can be considered for early disseminated or late disease.

Should I send ticks in for testing?

- If a patient presents with a tick, it can be submitted for identification and testing of Lyme disease:
  - Place the tick in a container with a tight-fitting lid (eg. urine collection container). If alive, dampen a small cotton ball and put it in the container with the tick. Dead ticks, if intact, can also be submitted. Label container with patient identifiers.
  - Complete the 'Parasite Identification' column of the BCCDC Parasitology Requisition (bit.ly/BCCDCticksubmission) and submit to BCCDC.
- Anyone (patient or provider) can submit a photo of the tick for identification for free through etick.ca
- Tick testing aids surveillance and clinical management by identifying the tick species and carriage of tick-borne diseases. If the tick is positive for *Borrelia*, this does not necessarily mean the patient is infected with Lyme disease, but they can be instructed to monitor for signs and symptoms.

Are there other tick-borne diseases present in BC?

- The causative agents of anaplasmosis and babesiosis have been detected in western black-legged ticks in BC, but there is currently no evidence for local human acquisition (see bit.ly/BCCDCticksurveillance).
- Very rarely, cases of tick-acquired tularemia, Rocky Mountain Spotted Fever, and tick paralysis occur in BC through *Dermacentor* tick species.

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