

Guidance for Clinicians

Recommendations for Patients after a Tick Bite

When a patient seeks care after a tick bite, topics to discuss should include:



Tick removal

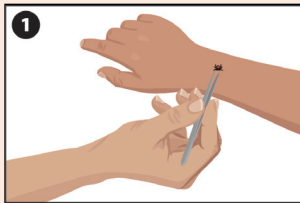


Lyme disease prophylaxis

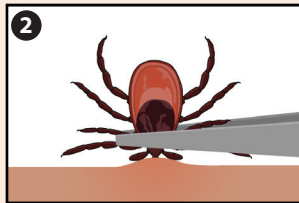


Symptom watch

How to Remove a Tick



Use fine-tipped tweezers to grasp the tick as close to the skin's surface as possible.



Pull upward with steady, even pressure. Don't twist or jerk the tick.



After removing the tick, thoroughly clean the bite area and your hands with rubbing alcohol or soap and water.

Kill a live tick by putting it in rubbing alcohol or placing it in a sealed bag/container. Save the tick for species identification and degree of tick engorgement (important when determining eligibility for Lyme disease prophylaxis).

Table 1. Recommended Lyme disease* post-exposure prophylaxis.

Age Category	Drug	Dosage	Maximum	Duration
Adults	Doxycycline	200 mg orally	N/A	Once
Children weighing less than 45 kg	Doxycycline	4.4 mg/kg orally	200 mg	Once

* Antibiotic treatment following a tick bite is not recommended as a means to prevent tickborne diseases other than Lyme disease (such as anaplasmosis, babesiosis, ehrlichiosis, Rocky Mountain spotted fever). There is no evidence this practice is effective, and it may simply delay onset of disease.

Post-exposure prophylaxis for Lyme disease

Antimicrobial prophylaxis for the prevention of Lyme disease (Table 1) following tick bite may be beneficial in certain circumstances. A single dose of doxycycline can lower the risk of Lyme disease when:

- The tick bite occurred in a state where Lyme disease incidence is high (Figure 1).
- The attached tick can be identified as an adult or nymphal *Ixodes scapularis* tick (Figure 2).
- The estimated time of attachment is ≥ 36 hours based on the degree of tick engorgement with blood or likely time of exposure to the tick (Figure 3).
- Prophylaxis can be started within 72 hours of tick removal.
- The patient has no contraindication to doxycycline.



U.S. Department of Health and Human Services
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Figure 1. Map of Lyme disease incidence categories—United States, 2017.

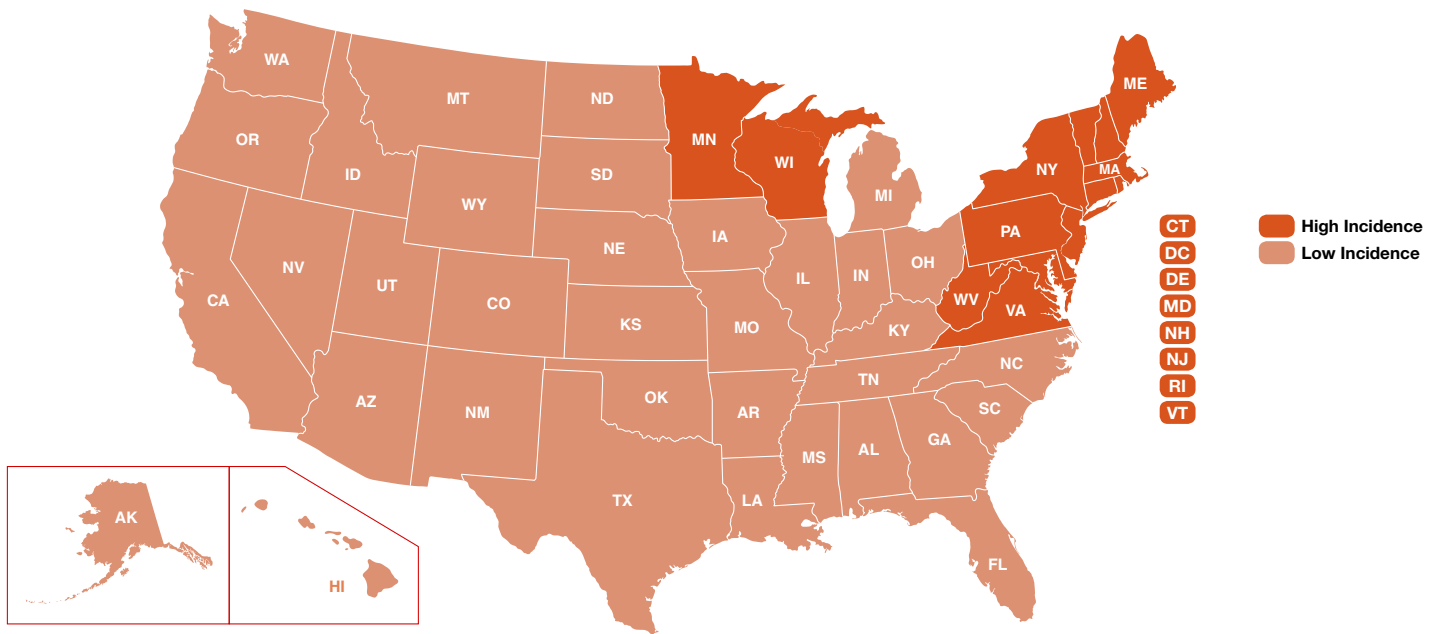
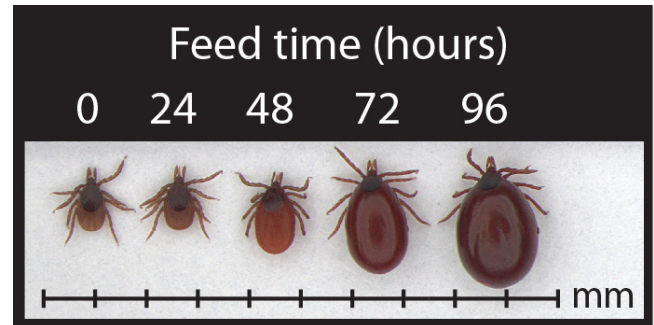


Figure 2. *Ixodes scapularis* ticks. From left to right: larva, nymph, adult male, and adult female.



Figure 3. *Ixodes scapularis* nymphal ticks at various stages of engorgement.



Symptom watch

Encourage patients to watch for fever, rash, or flu-like illness in the weeks after a tick bite. Location of tick exposure can guide the differential diagnosis.

If a person is suspected of acute tickborne disease, including early Lyme disease or Rocky Mountain spotted fever, initiate treatment as soon as possible, rather than waiting for laboratory results, which may be insensitive in early illness.