

Guidance for Clinicians

Caring for Patients after a Tick Bite

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



Tick removal

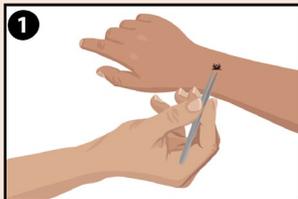


Lyme disease prophylaxis

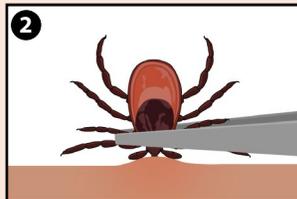


Symptom watch

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. Lyme disease post-exposure prophylaxis dosages.

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

References

Nadelman RB, et al. Prophylaxis with single-dose doxycycline for the prevention of Lyme disease after an *Ixodes scapularis* tick bite. *N Engl J Med*. 2001 Jul 12;345(2):79-84.

Harms MG, et al. A single dose of doxycycline after an *Ixodes ricinus* tick bite to prevent Lyme borreliosis: An open-label randomized controlled trial. *J Infect*. 2021 Jan;82(1):98-104.

NOTE: Antibiotic prophylaxis has not been shown to prevent tickborne disease other than Lyme disease and is not recommended for prevention of anaplasmosis, babesiosis, ehrlichiosis, or Rocky Mountain spotted fever.

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) or in an area where >20% of ticks are infected with *Borrelia burgdorferi*. Contact your local health department for information about tick infection rates in your area.
- The attached tick can be identified as an adult or nymphal blacklegged 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.



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