

Table 1. Treatment of Lyme Disease¹

	Drug	Usual Adult Dosage (range)²	Pediatric Dosage³
Tick Bite⁴			
	Doxycycline ^{4,5} and/or observation	200 mg PO x 1 dose	≥8 yrs: 4 mg/kg x 1 dose
Erythema Migrans			
	Doxycycline ⁵ or Amoxicillin or Cefuroxime axetil	100 mg PO bid x 10d (10-21) 500 mg PO tid x 14d (14-21) 500 mg PO bid x 14d (14-21)	≥8 yrs: 2 mg/kg bid 50 mg/kg/d divided tid 30 mg/kg/d divided bid
Neurologic Disease			
Facial nerve palsy	Doxycycline ⁵ or Amoxicillin	100 mg PO bid x 14d (14-21) 500 mg PO tid x 14d (14-21)	≥8 yrs: 2 mg/kg bid 50 mg/kg/d divided tid
Other neurologic disease ⁶	Ceftriaxone ⁷	2 g q24h IV x 14d (10-28)	50-75 mg/kg/d
Cardiac Disease			
Mild (first degree AV block, PR <300 msec) More serious ⁸	Doxycycline ⁵ or Amoxicillin Ceftriaxone ⁷	100 mg PO bid x 14d (14-21) 500 mg PO tid x 14d (14-21) 2 g q24h IV x 14d (14-21)	≥8 yrs: 2 mg/kg bid 50 mg/kg/d divided tid 50-75 mg/kg/d
Arthritis⁹			
Arthritis without neurologic disease Persistent or recurrent ¹⁰	Doxycycline ⁵ or Amoxicillin Ceftriaxone ⁷	100 mg PO bid x 28d 500 mg PO tid x 28d 2 g q24h IV x 14d (14-28)	≥8 yrs: 2 mg/kg bid 50 mg/kg/d divided tid 50-75 mg/kg/d

1. Regardless of the clinical manifestation of Lyme disease, complete response to treatment may be delayed beyond the treatment duration. Relapse may occur with all of these regimens; patients who relapse may need a second course of treatment. Many repeat courses of therapy or excessively prolonged treatment are not recommended.
2. Based on severity and/or response.
3. Should not exceed adult dosage. Duration of therapy is the same as in adult patients.
4. Prophylaxis with doxycycline can be considered when: a) the attached tick can be reliably identified as an adult or nymphal *I. scapularis* tick that is estimated to have been attached for >36 hours based on the degree of engorgement of the tick with blood or on certainty about the time of exposure to the tick; b) prophylaxis can be started within 72 hours of the time that the tick was removed; c) the local rate of infection of these ticks with *B. burgdorferi* is >20%; and d) doxycycline is not contraindicated. For individuals who do not fulfill these criteria, observation is recommended.
5. Should generally not be used for children <8 years old or for pregnant or lactating women. Gastrointestinal toxicity and photosensitivity are common adverse effects.
6. Available data in European neuroborreliosis indicate that doxycycline and ceftriaxone are equally effective in Lyme meningitis. Data are lacking on the efficacy of doxycycline in Lyme encephalitis or Lyme encephalopathy. In the absence of brain or spinal cord involvement, doxycycline may be considered an acceptable treatment option if the illness is not severe.
7. Intravenous cefotaxime 2g q8h is an acceptable alternative; the dose in pediatric patients is 150-200 mg/kg/d in 3-4 divided doses (max 6 g/d).
8. Includes hospitalized patients with first-degree AV block with symptoms, or with a PR interval ≥300 milliseconds, or second- or third-degree AV block. A temporary pacemaker may be necessary. Oral treatment may be substituted for IV therapy after resolution of the heart block in a stable patient.
9. In late disease, the response to treatment may be delayed for several weeks or months.
10. Patients with mild persistent or recurrent arthritis may be treated with a second course of oral antibiotics.