

The length of treatment depends on the clinical response and other disease manifestations, but it usually lasts from 14 to 21 days ([American Academy of Pediatrics, 2015](#)). The treatment is effective in preventing second-stage manifestations in most cases. Persons who have removed ticks from themselves should be monitored closely for signs and symptoms of tick-borne diseases for 30 days; in particular, they should be monitored for erythema migrans, a red expanding skin lesion at the site of the tick bite that may suggest Lyme disease. People who develop a skin lesion or viral infection–like illness within 1 month of an attached tick should seek prompt medical attention ([Wormser, Dattwyler, Shapiro, et al, 2006](#)). Treatment of erythema migrans most often prevents development of later stages of Lyme disease.

Neurologic, cardiac, and arthritic manifestations are managed with oral or IV antibiotics, such as ceftriaxone, cefotaxime, or penicillin G. Follow-up care is important in ensuring that treatment is initiated or terminated as needed.

## **Nursing Care Management**

The major emphasis of nursing care should be educating parents to protect their children from exposure to ticks. Children should avoid tick-infested areas or wear light-colored clothing so that ticks can be spotted easily, tuck pant legs into socks, and wear a long-sleeved shirt tucked into pants when in wooded areas. Parents and children need to perform regular tick checks when they are in infested areas (with special attention to the scalp, neck, armpits, and groin areas) ([Network to Reduce Lyme Disease in School-Aged Children, 2010](#)). Parents should also be alert for signs of the skin lesion, especially if their children have been in tick-infested areas. The [American Academy of Pediatrics \(2015\)](#) points out that the risk of infection after a deer tick bite, even in endemic regions of the United States, is 1% to 3%; children bitten by a deer tick in nonendemic regions should not receive antibiotic prophylaxis.

Parents should also be educated regarding tick removal in the event of a tick bite. The tick should be grasped firmly with tweezers and pulled straight out. The application of nail polish or petroleum jelly is not recommended and does not appear to have an effect on tick withdrawal as has been hypothesized. Concerns about tick engorgement or tick remains left in the person's body (such as the