THE PROACTIVE
A monthly newsletter

Striving to educate our members to be more *ProActive* towards a healthier lifestyle.

LYME DISEASE

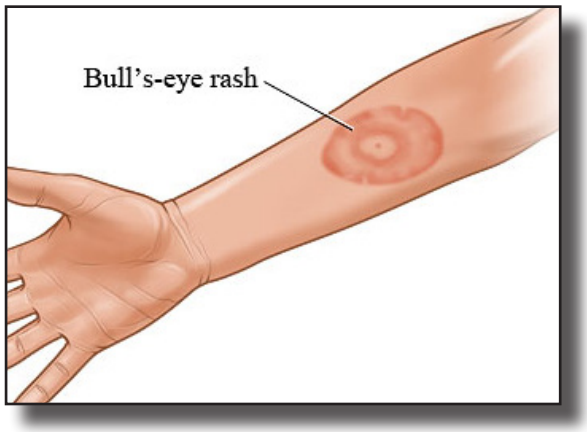
Lyme Disease:

Lyme Disease is caused by the bacterium Borrelia burgdorferi and is transmitted to humans by the bite of infected blacklegged ticks. Symptoms include: fever, headache, fatigue, and a characteristic skin rash called erythema migrans, which occurs 3-30 days after the tick bite. The rash can occur anywhere on the body, and appears in approximately 70 to 80 percent of infected persons. The rash begins at the site of a tick bite after a delay of an average of about 7 days, and can expand gradually over a period of days reaching a size of up to 12 inches in diameter. The area may feel warm to the touch but is rarely itchy or painful, and sometimes clears as it enlarges, resulting in a target or "bull's-eye" appearance.

Now that we have officially entered into the summer season, we spend more time outdoors for seasonal activities. Here at ProAct, we encourage you to be *ProActive* by preventing unwanted attention from ticks that may be carrying Lyme Disease and by learning of the signs and symptoms of the disease should you happen to get infected.

Prevention

- Wear high socks, long pants and long sleeve lightweight shirts; best if color is white or very light to spot ticks easier. Walk in the center of a trail, and avoid tall grasses in fields and meadows.
- Check legs and feet frequently and know how to spot and identify ticks. Nymphal ticks are as small as a poppyseed. Use bright light and a magnifying glass. Check each other in hard to see areas, especially folds of skin.
- Shower as soon as possible after coming indoors (preferably within 2 hours) to wash off any ticks that are crawling on you.
- Conduct a full-body tick check using a hand-held or full-length mirror to view all parts of your body upon return from tick-infested areas. Parents should check their children for ticks under the arms, in and around the ears, inside the belly button, behind the knees, between the legs, around the waist, and especially in their hair.
- Examine gear and pets. Ticks can ride into the home on clothing and pets, then attach to a person later, so carefully examine pets, coats, and day packs.
- Tumble clothes in a dryer on high heat for an hour to kill remaining ticks.
- **Pet**s: use a scheduled tick killing shampoo. Brush pet daily outside the house.
- **Insect Repellents**:
  - *Deet:* Can be used directly on the skin. Use repellents



Example of the erythema migrans or the "bull's eye" rash.

Progression of the Disease

Early Disseminated Lyme Disease

- Occurs days to weeks after a tick bite
- Neurological consequences:
  - Facial or Bell's palsy (loss of muscle tone on one or both sides of the face).
- Severe headaches and neck stiffness due to meningitis.
- Pain and swelling in muscles and the large joints (such as knees).
- Shooting pains that may interfere with sleep.
- Heart palpitations and dizziness due to changes in heartbeat.

Late Disseminated Lyme Disease

- Occurs months to years after tick bite.
- Patients with untreated infection may begin to have symptoms of arthritis, with severe joint pain and swelling specifically in the large joints

that contain 20 to 30% DEET (N, N-diethyl-m-toluamide) on exposed skin and clothing for protection that lasts up to several hours. Always follow product instructions. Parents should apply this product to their children, avoiding hands, eyes, and mouth.

  - *Permethrin:* Treat clothing and gear, such as: boots, pants, socks and tents with products containing 0.5% permethrin. Permethrin is available OTC as a solution for application to clothing. Once applied, it remains effective for up to 6 weeks, even after washing. The repellent should be applied outdoors and before clothing is worn.

Tick Removal / Treatment Options

Remove any embedded ticks with tweezers or tick removal tool and magnifying glass. Place tweezers on head of tick as close to the skin as possible and pull slowly and steadily in an upward direction. Don't twist, squeeze, jerk or crush the tick. Wash removal site with soap and water.

Pharmacological prophylaxis of Lyme Disease: The Infectious Disease Society of America recommends prophylaxis of a tick bite only when:

- Attached tick identified as an adult deer tick.
- Tick is estimated to have been attached for 36 + hours.
- The antibiotic can be given within 72 hours of tick removal.
- Doxycycline is not contraindicated. Don't give if the patient is pregnant, nursing or a pediatric patient.
  - **Recommended dose**: Doxycycline 100mg (2) tablets as a single dose with food.

Pharmacological Treatment of Lyme Disease:

- Doxycycline (Vibra-tab) 100mg twice daily for 14-21 days. Avoid doxycycline if pregnant or under age 8.
- Amoxicillin (Amoxil) 500mg three times daily for 14-21 days.
- Cefuroxime (Ceftin) 500mg twice daily for 14-21 days.

It is very important to be educated about Lyme Disease, prevention strategies, and how to appropriately remove an embedded tick. As always, ProAct encourages you to seek medical attention if you experience a tick bite or if you notice any of the signs and symptoms listed above.

Wishing you a happy and healthy summer season.

Sincerely,
Your ProAct Team

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