



MIDDLEBORO PEDIATRICS

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LYME DISEASE

May through August are the prime months for Lyme disease infection. But the ticks that transmit the Lyme bacterium, *Borrelia burgdorferi*, can spread the disease any time the temperature is above 35 degrees Fahrenheit. Though Lyme disease is rare, children between ages 5 and 9 are at highest risk because they play in wooded areas or on lawns where the ticks live. Here's what you need to know to prevent and recognize Lyme disease.

THE LYME TICK

In the Northeast and Midwest, the culprit is the black-legged, or deer, tick (*Ixodes scapularis*). Its cousin, the western black-legged tick (*Ixodes pacificus*) spreads the disease in the Pacific coastal states. A baby, or "nymph," tick is about the size and color of the period at the end of this sentence. An adult tick is about the size of a small apple seed and has a black head with a rust-colored back and abdomen. Ticks engorged with blood can swell to nearly one quarter of an inch. Nymph ticks cause most cases of Lyme disease in late spring and summer, though adult ticks can transmit it, especially in the fall.

THE TELLTALE SYMPTOMS

Most people infected with Lyme disease develop a circular "bull's-eye" rash, known as erythema migrans, 3 to 30 days after being bitten. It can occur anywhere on the body, including areas such as the groin, the back of the knees, or the armpits. Some kids develop rashes in several areas. Other symptoms can include headache, fatigue, and achiness as well as fever, sore throat, chills, nausea, and vomiting. Most symptoms do disappear. But if not treated, more serious symptoms can appear weeks or months later.

DIAGNOSIS

Consult a doctor. If the doctor thinks your child has been infected, he may order a blood test. But because the blood test can yield false-negative results during the first month after infection, the doctor may repeat the test in four to eight weeks if there is still a suspicion of disease.

THE ABC'S OF TREATMENT

When caught early, Lyme disease is easy to cure. Children under age 9 are usually given a two to four week course of oral Amoxicillin; children 9 and up receive oral Amoxicillin or Doxycycline (Doxycycline can stain younger children's teeth). Only 1 percent of children who are treated with antibiotics go on to develop more serious symptoms, such as meningitis, carditis, or arthritis. In these instances, doctors may prescribe the antibiotic Ceftriaxone or Cefotaxime, given intravenously for up to 30 days. Long-term use of Ceftriaxone has been linked to gallbladder disease and fever, however, so a child must be carefully monitored.

PREVENTATIVE STRATEGIES

Lyme disease has been reported in 49 states, but most cases have occurred in New York, Connecticut, Pennsylvania, New Jersey, Maryland, Rhode Island, Massachusetts, Wisconsin, and Minnesota. If you live in an area where Lyme disease has been found, take these steps:

Check your child daily for ticks. Pay attention to hard-to-see areas such as the scalp, behind the ears, the armpits, the backs of the knees and neck, and the groin. A tick must be attached to skin for 36 to 48 hours before it can transmit Lyme disease.

Dress your child in light-colored clothing before he ventures into wooded areas; that way ticks will be easier to spot. Opt for long-sleeved shirts and long pants; tuck cuffs into socks. Spray an insect repellent containing DEET on your child before she enters a wooded area. Check pets daily for ticks.

INSECT REPELLENTS

When used as directed, an insect repellent containing DEET (diethyl-toluamide) can safely keep bugs at bay. Spray it sparingly on children, and don't use it on babies younger than 1 year. The concentration of DEET in the repellent should not exceed 10 percent. (Products vary, so be sure to check the label.) Apply repellent to exposed skin and cuffs, collars, and socks. Don't spray it on faces or hands (to prevent ingestion) or abraded or irritated skin. You should apply the repellent just before your child enters a wooded or bushy area. Do not reapply more often than instructed on the product label. When your child comes indoors, have him wash or bathe thoroughly to remove all traces of repellent.

In addition to using an insect repellent on the skin, there is also a clothing spray available to prevent tick bites. It is also very effective in preventing mosquito bites. The main ingredient of the clothing spray is called Permethrin. It is sold as the brand name "Permanone" or "Duranon". These products can be found at Winberg's True Value in Lakeville. Use of both a DEET containing insect repellent and Permethrin clothing spray should greatly decrease mosquito and tick bites.

HOW TO REMOVE A TICK

Using fine-tipped tweezers, grasp the tick as near to its mouth and as close to your child's skin as possible. Firmly but gently pull the tick up and out. Don't squeeze or twist the tick's body-bacteria could be released into the bloodstream. (Don't use nail polish or a lit match to remove the tick.) Once the tick has been removed, apply alcohol or antibiotic ointment to the bite site. Flush the tick down the toilet.