

Lyme Disease - Getting the Facts

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As summer fast approaches, the topic of Lyme disease comes up in our practice as we speak with our patients about other common summer safety issues such as water safety and sun protection. Just a few years ago, Lyme disease was a very rare diagnosis in Northern Virginia. Unfortunately, this is no longer true. Loudoun County has one of the highest rates of Lyme disease in the country and a rate 20 times higher than the rest of Virginia. That's the bad news. The good news is that the disease is highly preventable and highly treatable, especially in children. There are some very easy and specific things you and your family can do to considerably lower your risk of getting the disease. If your child does get Lyme, you should feel reassured that the vast majority of children have complete recovery after antibiotic therapy.

Here are some of the most common questions we get in our office about Lyme:

What causes Lyme disease?

Lyme disease is caused by the bacterium, *Borrelia burgdorferi*. This organism can infect the deer tick ("Blacklegged tick") which can then infect mammals like mice, deer and humans. Mammals cannot spread Lyme disease to other mammals, so this pesky tick is the only known vector of Lyme disease to humans. The most common time of the year for Lyme disease in humans is late spring and early summer, although we do see cases from April until late October.

How do I identify a deer tick and where do they live?

Deer ticks can most easily be differentiated from a dog tick by it's much smaller size. The deer tick has a complex life cycle but the take home message is that the nymphal stage of the deer tick is the stage most likely to carry and transmit Lyme to humans. Take a look at the image. The nymph deer tick is about the size of the D on the dime. As I tell my patients, look for a freckle with legs. Deer ticks love wooded and bushy areas, as well as long grass and areas with lots of leafy debris. This can include wooded trails, playgrounds and backyards. Other common ticks, as well as deer ticks, can transmit other diseases so try to avoid all ticks.

How can I decrease my chances of getting bitten by a tick?

This is the key. You can really decrease the chance of getting bitten by a tick with a few simple precautions:

1. Keep your grass well mowed and leaf and debris piles away from the area you play.
2. If you are walking on a trail in the woods, try to stay on the trail and away from areas of long grass and debris.
3. If you are in wooded areas (or, like most parents, you can't keep track of where your kids are running), wear light colored clothing so ticks can be easily spotted. Weather permitting, wear long cool pants and socks to protect yourself.
4. Choose a bug repellent with which you feel comfortable and which works. This link to the CDC website allows you to type in the active ingredient for your bug spray and see the efficacy for both mosquitos and ticks. <http://cfpub.epa.gov/oppref/insect/index.cfm> DEET is the most commonly recommended and best studied repellent. There are some other choices which work well. Lemon Eucalyptus does well on the CDC list, is a natural product well tolerated by children, and is widely available. Most recently, Picaridin was approved for

use in the US and has done well for many years in Europe. It has less of an odor than DEET products.

5. Check for ticks on yourself, your children and clothing every evening once you are inside. Check head to toe including between fingers and toes, behind the ears and along the hairline.

If I do get bitten by a tick, will I get Lyme disease?

Here is the really good news. Even you do get bitten by a deer tick, *the chances of getting Lyme disease are exceedingly low if the tick is removed within the first 24-36 hours!*

This is why nightly tick checking is so important. You can minimize your Lyme risk, and give yourself some peace of mind. If you do find a tick, use a fine-tipped tweezers, grab the body close to the skin and pull it up and out as steadily as possible. Try not to squeeze the tick. Wash the area with warm water and soap. If mouth parts or legs remain, these will not cause disease. Don't dig too deeply as the disruption to the skin can cause skin infections. If you remove a tick and you don't know how long it had been there or you experience any of the symptoms described below, your chances of Lyme are higher and it is important to talk to your doctor about treatment.

What are the early symptoms of Lyme disease?

About 80% of people who are infected with Lyme disease will get a circular rash called erythema migrans (EM) as the first sign. Usually the rash starts within a few days of the bite but can take as long as a month to appear. The rash will enlarge over several days and oftentimes the center is clear so the rash looks like a bulls-eye. Some patients will get multiple EM lesions. Others may experience a flu-like illness, including joint pain, with or without the rash.

If I am diagnosed with Lyme disease what is the treatment and does it work?

The treatment for Lyme disease is a several week course (depending on the symptoms) with an oral antibiotic like Amoxicillin if under age 8 or Doxycycline if over age 8. Almost all cases in children will be fully treated and will not recur. There are very rare cases of long term multi-system involvement, mostly seen in cases not treated until late in the course.

Where can I read more about Lyme disease?

These are excellent and scientifically accurate resources about Lyme disease and good preventive measures:

- CDC website <http://www.cdc.gov/ncidod/dvbid/lyme/> The pictures in this article are from the CDC website.
- Loudoun County Department of Health <http://www.loudoun.gov/Default.aspx?tabid=726>