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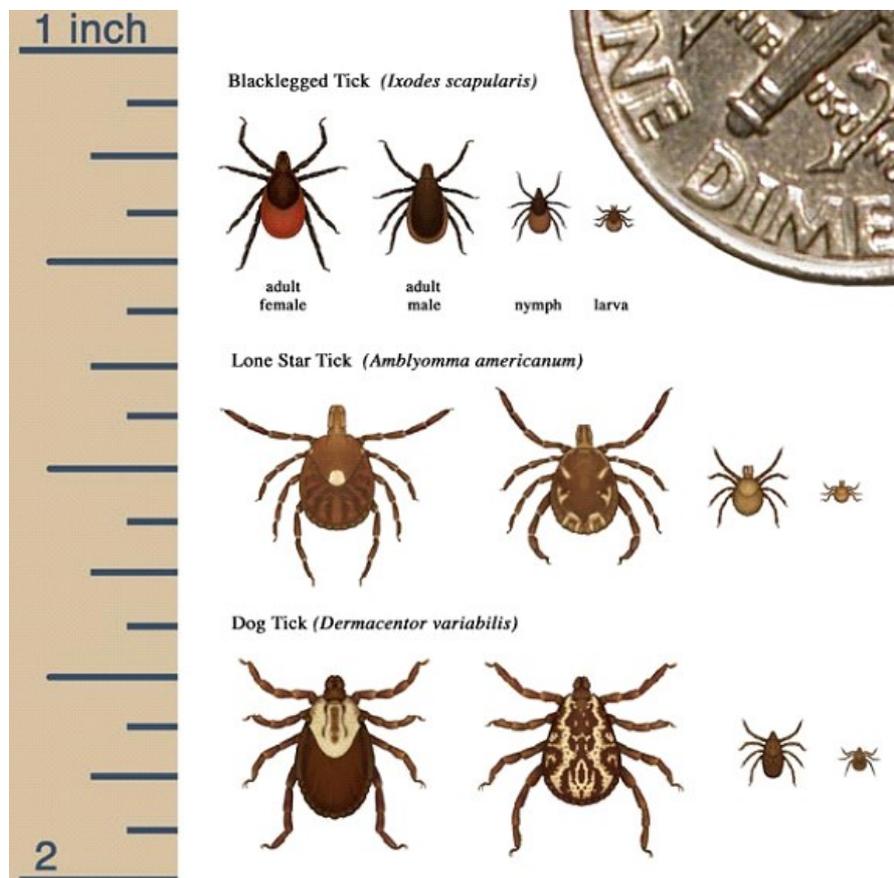
Internal Medicine Physician



Lyme Disease

It is spring and soon we will all be outside working in the yard. This means we will come in contact with ticks because we live in an area that is endemic for deer ticks and Lyme disease. The biggest issue is all of the misconceptions surrounding the disease. Hopefully, I will clear some of that up in this letter.

The deer tick is about the size of a poppy seed when not engorged with blood.



They live near the edges of forests or trees in grass or small shrubs. Generally lawns drenched in sun have no deer ticks. Pets can bring the tick into the house. Many of the ticks (not all) carry a bacterium in its gut named Borrelia. The dog tick is a brown tick about the size of an eraser with a white collar. This is the other most common tick and rarely causes Rocky Mountain Spotted Fever, but this is exceedingly rare. The deer tick usually comes out late spring and early summer. They can persist into early fall. For some reason I have found that the tick has an affinity for pachysandra.

If you have been working outside it is reasonable to shower and do a skin check after coming in. Repellents with DEET help, but skin checks for ticks work the best. If you find a tick remove it with tweezers grabbing it as close to the skin as possible. Apply firm gentle pressure to remove the tick. Do not use alcohol or other irritants to get the tick to release as this only causes the tick to regurgitate its stomach contents into you (where the bacterium lives). If a small piece of the tick is left inside of you, your body will push it out over time.

It takes a tick at least 36 hours of being attached to infect a person. The tick should be

engorged with blood if you are to be at any risk. A tick does not feed for the first 24 hours. A flat tick does not mean you are at risk. You should be observed, not treated. The infection rate after a tick bite is 1.4%. If you do have an engorged tick we can cure the disease with one dose of doxycycline given in the first 72 hours. Therefore, it is important to look at the tick when you remove it.

If you need to be observed, you will need to look for signs of fever, headache, swollen lymph nodes, and muscle and joint aches. The hallmark is the Erythema Migrans rash.



This is a red ring with an area of central clearing. It also could be a salmon colored patch. About 80% of people with Lyme will develop the rash. It typically occurs near the belt line, groin, armpit, or back of knees. If you have this rash, there is no need for blood testing, it is positive. We would treat you for 21 days. There is rarely a need for a follow up blood test. In the first 48 hours after a tick bite there could be redness at the site of the bite. This is a reaction to the bite not an Erythema Migrans rash.

We do not test everyone who has a tick bite with blood work. To be tested you need to have been in an area at risk for Lyme, and have symptoms of early Lyme disease. Testing is usually done several weeks after the bite and is a two step process. First, an Elisa assay is performed to see if there is a good chance that you have the disease. If this is positive, a more expensive antibody test or Western Blot is performed. For now this is the best test available. A new test called the C6 Elisa may eventually replace some of the above tests. Tests such as PCR and urinary antigen testing are not reliable and not recommended.

Lyme disease can lead to serious complications: heart conduction system disease, meningitis, Bell's (a weakness on one side of the face) palsy, and arthritis of the large joints (hips, knees, shoulders). Fortunately we have many different antibiotic regimens that will cure these. It is rare for anyone to not get better, but there are small subsets of people who develop chronic muscle aches, headache or fatigue. These symptoms need to occur within six months of the diagnosis and persist for at least six months after treatment. Although this is rare, if it does occur, you need to see an infectious disease specialist.

Lyme disease always needs to be thought about when you have vague symptoms, but you should be reassured that the disease is treatable and unlikely to cause any permanent damage. To see pictures of the rash or for more detailed information check out www.cdc.gov/lyme or call me.