

## DEER TICKS – The Unwelcoming Arachnid

*Ixodes scapularis*, commonly known as the deer tick or black-legged tick, is a hard-bodied tick of the eastern and midwestern United States and southeastern Canada. It is not an insect but in the arachnid family like spiders and mites. The deer tick is known for spreading Lyme disease, the spiral-shaped bacteria called *Borrelia burgdorferi*. The white-tailed deer do not transmit nor are they infected with Lyme. The tick actually gets the bacteria from infected rodents.

Last fall I had an encounter with an adult deer tick while watching white-tailed deer with my husband. Assuming these ticks are only out in the summer and early fall, I was not overly concerned. A day later I felt an unusual raised bump on my torso. I quickly checked and immediately knew it was a deer tick because of the description and size. Panic ensued and my heart raced and I thought, now what? Why did this tick pick me? If that's not your experience, you are either lucky or are a calm Zen master. I properly removed the tick and placed it in a sealed container and headed for the nearest Urgent Care. It was confirmed as a deer tick by professionals and I was placed on antibiotics. Eight weeks later, after two blood tests were done, I was fortunately confirmed negative for Lyme disease.

Lyme disease can become and is a very serious disease if NOT treated early or properly. Do not wait to act if you find a deer tick embedded. See your doctor if the tick might have been on the skin for more than 24 hours, if part of the tick remains in the skin, or if a rash of any kind develops (especially a red-ringed bull's-eye rash or red dots on wrists and ankles).

**Deer Tick facts:-**Fact 1 Deer ticks are smaller than dog ticks. Take time to learn and identify a deer tick and differentiate it from a dog tick.

-Fact 2 Only adult females and nymphs can transmit Lyme infection through their bite. The male deer tick attaches, but they do not feed or become engorged. Adult females have red and brown bodies and are larger than males. Nymphs are the size of a poppy seed and pose the greatest threat because their size makes them difficult to detect. They can be actively feeding between April and early August.

-Fact 3 Not all female deer ticks are infected with Lyme disease bacteria. Only ticks that have fed on small infected mammals such as the white-footed mouse are carriers. 47 percent of deer ticks are infected with Lyme disease in Pennsylvania. As white-tailed deer populations increase so does the spread of the deer tick. However white-tailed deer do not contract or carry the disease. This is a common misconception; they are a host for the tick but not a carrier of the disease.

-Fact 4 Deer ticks are slow eaters. Deer ticks live about two years and in that time period will have about three blood meals. They insert their mouthparts into the skin much like a corkscrew, which ensure a solid grip. They take about five days to complete their meal.

-Fact 5 Studies have shown it can take only 18 to 24 hours for a tick to transmit *Borrelia burgdorferi*. There is also more concern about the potential of Powassan Virus, which a deer tick can transmit in 15 minutes. This fact is key to reducing your panic when finding the attached tick. Unfortunately 5% of the human cases don't remember seeing a tick and 50% don't get the bull's eye

rash. It is also the reason why checking your body immediately after every possible exposure to a tick-infested environment is very important.

-Fact 6 Deer ticks don't jump, hop, swim or fly. Deer ticks crawl. They usually grab onto people or animals that brush up against plants near ground level. Then they crawl upwards to find a quiet place for their blood meal. Although many sources will say that ticks don't land on you from an overhanging tree branch, I can't rule out the possibility of it happening.

-Fact 7 Ticks live in wooded, brushy areas that provide food and cover for mice, deer, and other mammals. There are several things you can do to protect yourself and others from infection. Wearing permethrin-treated clothing is one of the single most important acts for prevention. It is endorsed by world health agencies, Centers for Disease Control and also the military. Wear light-colored clothing and tuck the pant legs into socks. Do a visual check on clothing during rest breaks and also avoid sitting on the ground or on logs. For your rest breaks use shelters or benches along hiking paths or trails. Treat your pack and groundsheet or outer floor of your shelter with Permethrin spray. Hike in the middle of the trail or walk in the center of the path. Avoid walking in tall grassy areas or where you might rub against brush.

On your person ticks like to feed/hide in several places. The sides of your body, groin area, and along the waistline are favorites. However, the back of the knees, under the armpits, and along the hairline are likely spots to find them also.

Be proactive after being in a possible tick environment. Put your clothing into the dryer on high heat for 10 - 15 minutes when you come back indoors. The high heat kills the ticks and nymphs. Shower after being outdoors to wash off

ticks that have not attached. Also, check your pets on a regular basis also. Your risk increases if you are an owner of a dog or outdoor cat.

In a typical house environment, unfed deer ticks are not likely to survive even 24 hours. Ticks on moist clothing in a hamper can survive 2-3 days. Ticks that have taken a blood meal may survive a bit longer but certainly not the 30+ days it takes to mature and bite again or lay eggs.

If you find a tick on your body do not use matches. Gently pull off the tick with tweezers and place in a small zip lock bag. Take it along when you go to seek medical help. A dead tick will NOT transmit pathogens. Also, a human that has Lyme disease can not transmit to other humans.

### **Tick Predators:**

There are a few animals that actually like to eat ticks such as opossums, chickens, and Guinea fowl. With the threat of infected ticks spreading Lyme disease, these animals can be extremely beneficial to have around your property. Before purchasing any chickens or Guinea fowl, I suggest you check your local town ordinance.

Ticks are a fact of life in most of the USA. educate yourself by learning the differences in the four common ticks found in Pennsylvania. (see link below to learn the differences.) Do not let them keep you from enjoying the great outdoors. Make sure you protect yourself and tell them to bug off!

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**Recorded webinars:** 2018/2019 Tick Updates from the UMass Laboratory of Medical Zoology (LMZ)

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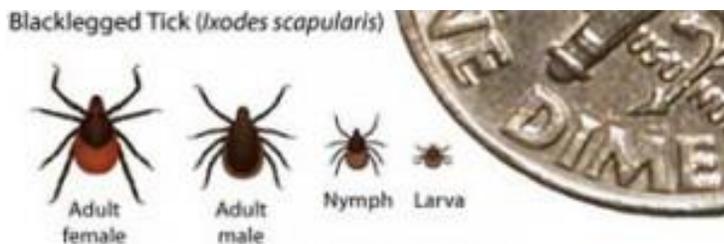
<https://ag.umass.edu/landscape/videos/20182019-tick-updates-from-umass-laboratory-of-medical-zoology-lmz>



Black legged tick (deer)



Brown dog tick



PA LYME source : <https://palyme.org/dare-2b-tick-aware/>

Penn State ID source 4 common ticks: <https://extension.psu.edu/four-common-ticks-in-pennsylvania>

Pet owners: <https://www.ncbi.nlm.nih.gov/pubmed/28631423>

Kathy Rohrbaugh/ Master Gardener/April 2019