

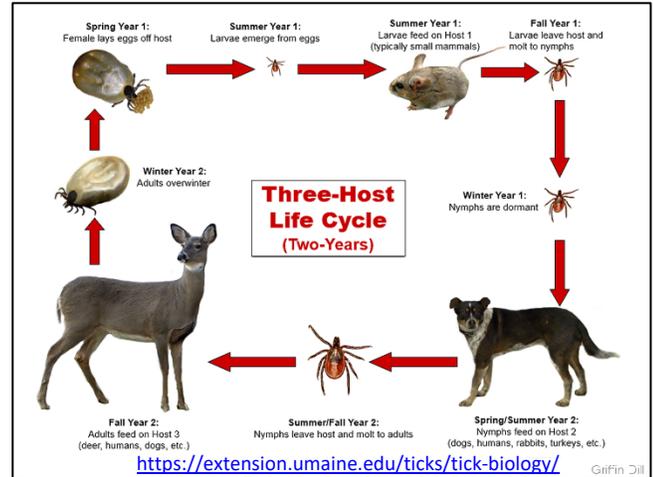
Report to the Boards of Health
 Jennifer Morse, MD, MPH, FAAFP
 Medical Director

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Ticks

Ticks are arachnids, relatives of spiders, scorpions, and mites. The lifecycle of a tick lasts two years. The 6-legged larvae hatch early in the summer free of any diseases. Larvae feed to repletion (or completely full) on one animal, drop to the ground and molt to an 8-legged nymph. Nymphs are then dormant over winter and reappear in the spring. The nymphs must find and attach to another animal, engorge, drop to the ground, and molt to an adult. The adult tick feeds on a third animal in the fall then is dormant over the winter. In the spring, an engorged (blood filled) female tick will produce a single large batch of eggs and then die. Depending upon the species of tick, the mass of eggs deposited can range roughly from 1,000 to 18,000. Then the cycle starts all over again.



Common Ticks in Michigan

American dog tick (wood tick)



American dog ticks are large brown ticks with ornate white markings. They make up 70% of all ticks submitted in Michigan for identification. They are widespread throughout the Lower and Upper Peninsulas of Michigan in wooded and grassy areas. It is mainly the adult ticks, active from April through July, that will bite people and pets. They may carry Rocky Mountain spotted fever or tularemia.

Blacklegged tick (deer tick)



The blacklegged tick is a small tick with black legs and has a round black shield behind its head. They make up 20% of all ticks submitted in Michigan and their habitat is spreading throughout the Lower and Upper Peninsulas of Michigan in wooded and grassy areas. The adult tick is active in the spring and the fall, and the nymph stage is active throughout the summer months. Both stages can transmit diseases. They may carry Lyme disease, anaplasmosis, babesiosis, deer tick virus, and Ehrlichia muris-like disease.

Lone star tick



The adult female of the Lone star tick has a distinctive "lone star" marking. They are rare in Michigan, only 5% of all ticks submitted for identification, but becoming more common. They are usually found in the southern Lower Peninsula in wooded areas, but their habitat is expanding. All stages of this tick will readily bite people and their pets. They may carry ehrlichiosis and tularemia.

Woodchuck tick



Woodchuck ticks are normally found in the dens of wild animals such as woodchuck and skunk. They make up only 3% of all ticks submitted in Michigan. They may bite pets when they are near animal dens. People spending time in the woods near animal dens may also be bitten. They may carry Powassan encephalitis, a potentially serious viral illness.

Brown dog tick (kennel tick)



The brown dog tick may be hard to distinguish from other ticks because of “plain” brown appearance. This tick can be found in animal shelters, breeding facilities, and dog kennels. It can survive and breed in indoor environments as well as outdoors in grassy and brushy areas. Proper cleaning in these facilities can prevent infestations. It makes up 1% of all ticks submitted in Michigan and can carry Rocky Mountain spotted fever, canine babesiosis, and canine ehrlichiosis.

Top Ten Things Everyone Should Know About Ticks

From: TickEncounter, The University of Rhode Island <https://web.uri.edu/tickencounter/>

10. Ticks crawl up.

Ticks don’t jump, fly, or drop from trees onto your head and back. If you find one attached there, it most likely latched onto your foot or leg and crawled up over your entire body. Ticks are “programmed” to try and attach around your head or ears where the skin is thinner, and hosts have more trouble grooming.

9. All ticks (including blacklegged ticks) come in small, medium, and large sizes.

Ticks hatch from eggs and develop through three active (and blood-feeding) stages: larvae (small-the size of sand grains); nymphs (medium-the size of poppy seeds); adults (large-the size of apples seeds). If you see them bigger, they’re probably partially full or full of blood.

8. Ticks can be active even in the winter.

Adult stage blacklegged ticks become active every year after the first frost. They are not killed by freezing temperatures, and blacklegged ticks will be active any winter day that the ground is not snow covered or frozen.

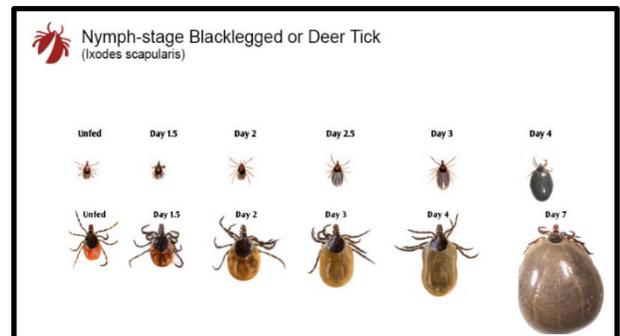
7. Ticks carry disease-causing microbes.

Tick-borne illnesses in the U.S. have more than doubled in the past two decades, due to factors such as increased awareness, a growing population, and environmental change. As there are still many unknowns about tick-borne diseases, clinicians and researchers are concerned about the increasing public health threat.

6. Only blacklegged ticks transmit Lyme bacteria.

The only way to get Lyme disease is by being bitten by a blacklegged tick or one of its relatives found around the world. Blacklegged ticks also are known as deer ticks in the U.S., sheep ticks in Europe, or Taiga ticks in Asia. Dog ticks, Lone star ticks and other types of ticks don’t seem to be able to transmit Lyme disease.

5. For most tick-borne diseases, you have at least 24 hours to find and remove a feeding tick before it transmits an infection.



Many of the disease-causing microbes transmitted by ticks need a reactivation period in the tick once it begins to feed. The germs eventually make their way into the tick's salivary glands and the tick spits them into you while feeding. Some infections, especially viruses, move into the tick salivary glands faster than others. Lyme disease bacteria take well over 24 hours to invade the tick's saliva. A quick daily tick check at bath or shower time can be helpful in finding and removing attached ticks before they can transmit an infection. You will want to check even more carefully if you know you have likely been exposed.

4. Blacklegged tick nymphs look like a poppy seed on your skin.

They are easy to miss, their bites are generally painless, and they have a habit of climbing up under your clothing and biting in hard-to-see places.



There are FIVE blacklegged nymph ticks in the blue circle!

3. The easiest and safest way to remove a tick is with a pointy tweezer.

Think of a tick as a little germ filled balloon. Squeeze the body too hard, and all the germs get pushed to the front end, which is attached to you by the tick's straw-like mouthpart. Using pointy tweezers, it's possible to grab even the poppy-seed sized nymphs right down next to the skin. Don't worry if the mouthpart stays in your skin if you've got the rest of the tick by its head. You can watch an instructional video at

<https://www.youtube.com/watch?v=h9EBOV5GCRk>

Steps to remove ticks safely:

I. Find pointy tweezers.

A good brand is <https://tickease.com/>



II. Disinfect the area.

Disinfect the tick-bite area with rubbing alcohol.

III. Grab the head.

Place your tweezers as close to the skin as possible. With a pointy tweezer you should be able to grab the tick's head or directly above the head.



IV. Firmly pull straight out.

Apply a slow, steady, upwards pull in order to avoid breaking the tick. You should not be concerned if the tick head breaks off and remains in the skin. Tickborne disease transmission is not possible without the tick's body.



V. Disinfect again.

Once the tick is removed, disinfect the tick-bite area again with rubbing alcohol.

VI. Consider tick identification.



[Tick ID by photo \(fastest\)](#)



[Tick ID by mail](#)

or find detailed images of ticks at the TickEncounter Field Guide: <https://web.uri.edu/tickencounter/fieldguide/>.

2. Clothing with built-in tick repellent is best for preventing tick bites.

An easy way to avoid tick bites and disease is to wear clothing (shoes, socks, shorts or pants, and shirts) with [permethrin tick repellent built-in or sprayed on](#). This strategy can be especially effective for protecting children. Commercially treated tick repellent clothes last through at least 70 washes, while using kits or sprays to treat your own clothes can last through 6 washes.

1. Tick bites and tick-borne diseases are completely preventable.

There is only one way to get a tick transmitted disease - from a tick bite. Reducing tick abundance in your yard where you spend a lot of time, wearing tick repellent clothing every day, treating pets every month with tick repellent spot-on products, getting into a habit of doing a quick body scan for attached ticks, and pulling ticks off quickly and safely are all great ways to prevent tick bites and illness.

A Few More Tips

- After being in a tick prone area, take clothes and socks off and put them in the dryer on high heat for at least 10 minutes
 - Ticks are sensitive to dryness. Ticks are NOT killed in washing machine. By drying your clothing right away, you will kill ticks before they can escape in your home.
- Stay in the middle of trails
 - Nymph- and larval-stage ticks will more commonly be encountered in the leaf litter that accumulates on the sides of trails. Adult-stage ticks are commonly shin-to-knee high on low vegetation at the trail edge just waiting for a host to pass by. By hiking in the middle of the path, you're less likely to pick up ticks, as well as get lost, damage plants, cause erosion, or run into poison ivy.
- Identify and eliminate tick habitats in your yard
 - See <https://web.uri.edu/tickencounter/identify-and-eliminate-tick-habitat/> for an interactive tool and links to resources to help make your yard tick safe.

Recommendations:

1. Take steps to avoid tick bites.
2. Check for ticks regularly and remove ticks properly.
3. Go to www.michigan.gov/emergingdiseases for information on submitting ticks for ID, submitting photos of ticks for ID, tickborne illnesses, and other insect and animal-linked illnesses.

Sources:

Stafford, K. C. (2007). Tick management handbook: an integrated guide for homeowners, pest control operators, and public health officials for the prevention of tick-associated disease. <https://portal.ct.gov/-/media/CAES/DOCUMENTS/Publications/Bulletins/b1010pdf.pdf?la=en>

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TickEncounter, The University of Rhode Island <https://web.uri.edu/tickencounter/>