

Northeast Common Ticks & the Known Common Diseases

Lyme Disease: Bacteria

Symptoms: Approximately 70% of cases present with a bullseye rash. Symptoms can vary between individuals and often include headache, sore joints, and fatigue.

Treatment: Antibiotics

Transmission and Infection: Transmission generally occurs within 24 to 48 hours of being bitten. Symptoms appear 3 - 30 days after the tick bite (most commonly 7).

Anaplasmosis: Bacteria

Symptoms: Early symptoms can include fever, chills, severe headache, muscle aches, nausea, vomiting, diarrhea, or loss of appetite. Delayed treatment can cause respiratory failure, bleeding problems, organ failure, or death.

Treatment: Antibiotics, early treatment can prevent severe illness or death.

Transmission and Infection: Symptoms appear 1 – 2 weeks after tick bite.

Ehrlichiosis: Bacteria

Symptoms: Early symptoms can include fever, chills, severe headache, muscle aches, nausea, vomiting, diarrhea, loss of appetite, confusion, or rash (more common in children). Late illness includes damage to the brain or nervous system (e.g. inflammation of the brain), respiratory failure, uncontrolled bleeding, organ failure, or death.

Treatment: Antibiotics

Transmission and Infection: Ehrlichiosis is the general name used to describe diseases caused by the bacteria *Ehrlichia chaffeensis*, *E. ewingii*, or *E. muris eauclairensis*. Symptoms appear 1 – 2 weeks after tick bite.

Babesiosis: Parasite

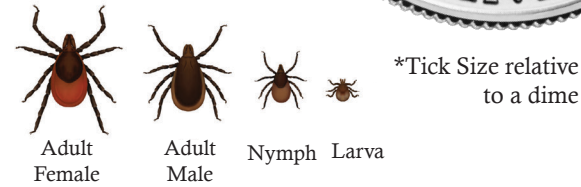
Symptoms: Some people develop nonspecific flu-like symptoms, such as fever, chills, sweats, headache, body aches, loss of appetite, nausea, or fatigue. Babesiosis can be a severe, life-threatening disease.

Treatment: Effective treatments are available. Without symptoms, people usually do not need treatment.

Transmission and Infection: Infection caused by microscopic parasites that infect red blood cells.

While most ticks have associated diseases, most tick borne diseases in the Northeast are carried by the Blacklegged tick. Tick populations are increasing and spreading these diseases.

Black Legged Tick or Deer Tick



American Dog Tick



Lone Star Tick



Powassan: Virus

Symptoms: Initial symptoms can include fever, headache, vomiting, or weakness. Symptoms of severe disease include confusion, loss of coordination, difficulty speaking, or seizures. Approximately half of the survivors with severe disease have permanent neurological symptoms, such as recurrent headaches, muscle wasting and memory problems.

Treatment: There is no medication for the infection. People with severe disease often need to be hospitalized to receive support for breathing, staying hydrated, or reducing swelling in the brain.

Transmission and Infection: Symptoms appear 1 week to 1 month after a tick bite, but many infected have no symptoms. There is death in 1 of 5 reported cases.

Graphics and information adapted from the Centers for Disease Control and Prevention

Actual Tick Size



This material is based upon work supported by USDA/NIFA under Award Number 2018-70027-28588.



United States Department of Agriculture
National Institute of Food and Agriculture

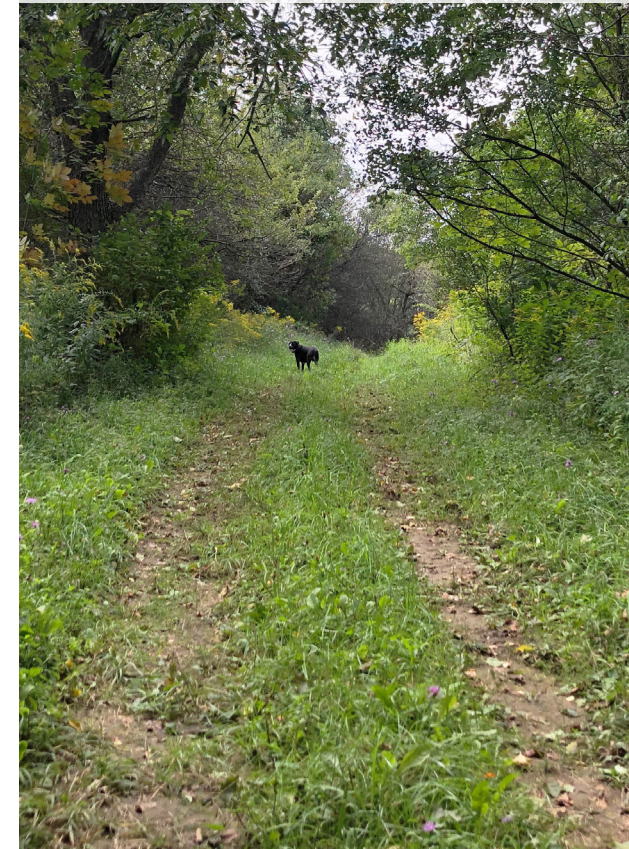
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Avoiding Ticks & Tick Borne Diseases

Common ticks and their associated diseases in the Northeastern United States



- ▶ Ticks in the Northeast
- ▶ What are they carrying?
- ▶ Tick Habitat & Management
- ▶ How to Dress
- ▶ If you are bitten

Prevent Tick and Tick Borne Diseases

Avoid Tick Habitat

Ticks live in a variety of habitats, including grassy, brushy, or wooded areas. Some species prefer one habitat over another, but can also be moved into unsuitable habitat by hosts. So it is best to be cautious when spending time outside regardless of where you are walking. Ticks are active year round, but are most common in warmer months; early spring to fall. Outdoor activities put people in contact with ticks and their habitat.

Ticks can't fly or jump. Instead, ticks wait resting on the tips of grasses and shrubs in a position known as "questing". When a host brushes the spot where a tick is waiting, it quickly climbs aboard and finds a suitable place to bite. To avoid questing ticks, avoid high grass or brushy areas.



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Pesticides & Repellents

EPA tested and approved repellents include DEET, picaridin, 2-undecanone, and p-Menthane-3,8-diol. These active ingredients are used in many products sold as insect repellents for the skin. Even though these products have been determined safe, some people prefer natural repellents. A natural product registered with the EPA is lemon of eucalyptus.

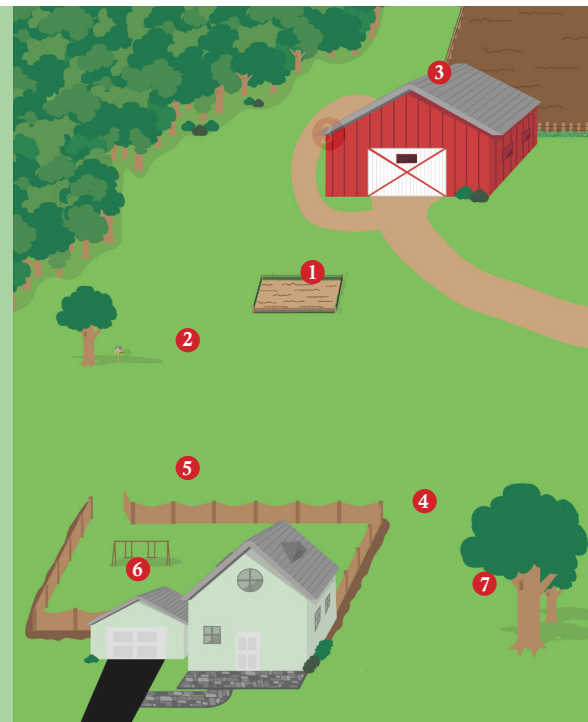
Permethrin is an insecticide used on clothing, not skin. While repellents applied to skin are useful in repelling ticks, permethrin kills ticks on contact. Permethrin is safe for humans and most other vertebrates, but will harm cats. Once dry it is safe, but please use caution when applying wet permethrin to your clothing.



Manage Your Landscape

Managing property to remove tick habitat and attractants is important to preventing tick borne disease. Easy changes can create an unfavorable habitat for ticks.

1. Reduce animal and rodent traffic: this garden is located away from the home, as to not attract animals and rodents near the home and high traffic areas
2. Locate bird feeders in a place that won't put the attracted birds, rodents, and animals close to the home and high traffic areas
3. Maintain lawns and fence lines: limiting edge habitat, removing brush, and keeping grass short
4. Mulch as a barrier to tick habitat, reminding people not to enter and limiting ticks chance of entering the yard
5. Fences act as a barrier for mammals that carry ticks
6. Keep areas for children to play away from tick habitat limiting tick contact
7. Tree litter and bush trimmings cleared from the ground

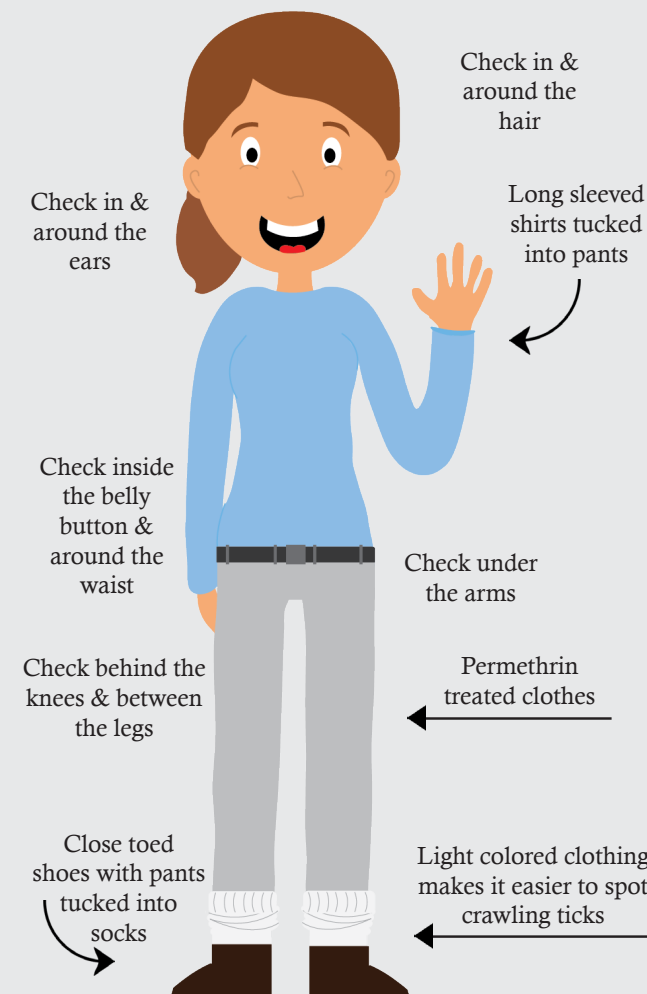


Check Yourself and Your Pets

It is important to always check yourself and your pets for ticks even when using repellents. Ticks can be carried into the house on your clothing, tumble dry clothes in the dryer for ten minutes. Shower soon after coming in from the outdoors. Make sure you also talk to your vet about the best tick prevention products available.

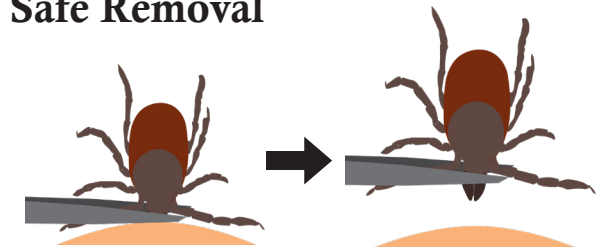
Dress Appropriately

If you are outside around tick habitats you can dress to repel and deter ticks. Wearing light colored clothing that covers skin makes it easier to spot ticks from biting you.



If You Are Bitten

Safe Removal



1. Using fine tipped tweezers, grip the tick as close to the skin surface as possible.
2. Pull upward with steady and even pressure. Do not twist or jerk; this could cause the head to break off in the skin.
3. After removing the tick, thoroughly clean the bite area with rubbing alcohol or soap and water.
4. Dispose of the tick by putting it in alcohol, placing it in a sealed bag or container.

Note: Fast removal of ticks, can help to prevent transmission of diseases.

After Removal

After removing the tick make sure to take note of when you were bitten and watch out for other tick bites. If you experience any flu-like symptoms or other unusual sickness, you should contact a doctor right away. Ask for testing of all known tick borne diseases, not just Lyme.

Research is finding new information, stay up to date!

Check the Centers for Disease Control and Prevention website at cdc.gov/ticks to find the most up to date information. Also visit neregionalvectorcenter.com/ticks for more info.

Find more materials about ticks at ccechenango.org/ticks. You can also contact CCE in Chenango County with any questions, (607) 334-5841.