

The Very Bad Tick Situation Complete Resource Guide

General

- Because of warmer weather, tick season has pretty much become a year-round problem with the ticks carrying a greater number of disease-causing pathogens.
- Ticks become active any time the temperature goes above 32 degrees.
- Children between ages five and nine are at greatest risk for tickborne diseases because rolling in the grass and playing outside puts them more at risk of getting an embedded tick.
- Encourage your child's school to participate in a program teaching children how to identify and manage a life with ticks: [Tick JEDI School Health Program by LymeTV](#)
- Deer ticks are commonly found in wooded, leafy, and shrubby areas, which may include areas around the yard.
- Keep the grass short. They don't like that. Prune shrubs at the base so there is good airflow at ground level.
- Letting pets on your furniture or bed increases the chance that a tick will get transferred from pet to human.

Diseases

- Deer tick causes Lyme disease, anaplasmosis, babesiosis, hard tick relapsing fever and Powassan encephalitis virus.
- Milder winters could lead to the appearance of the Lone Star tick which can cause Alpha-gal syndrome. This strange condition causes food allergies to beef, pork and other mammal products and can last a lifetime. Experts are now on the watch for this in Maine.
- Testing has started in Maine for the Heartland virus caused by the Lone Star tick and the Powassan virus transmitted by deer and woodchuck ticks. In about 10 percent of cases, the outcome is fatal. Fifteen cases have been identified in Maine since 2015 with three of those being fatal.

Managing Life with Ticks

- Deer ticks are commonly found in wooded, leafy, and shrubby areas, which may include areas around the yard.
- Wear protective clothing – long sleeves, long pants, light colored – and tuck pants into socks.
- Use an EPA-registered repellent like DEET, picaridin, IR3535 or oil of lemon eucalyptus.
- Do frequent tick checks.
- When you go inside, put clothes on high heat in the dryer for 20 minutes or wash in hot water and go straight to the shower.

Symptoms

- Common symptom of Lyme is the bull's-eye rash, but other common symptoms include body aches, chills, fever, headache, and swollen lymph nodes.
- If you have the symptoms, talk to a health provider and mention the possibility of a recent tick exposure.

You find a tick. Now what?

- For \$20 [you can send a tick](#) to the University of Maine Cooperative Extension Tick Lab in Orono to be tested for the pathogens causing Lyme disease and other co-infections causing anaplasmosis and the potentially deadly babesiosis. Federal health officials say cases of the disease have skyrocketed by more than 1,400 percent over an 8-year period. **If caught early conditions are treatable. Hence, we need to faithfully do our tick checks.**
- [Frequently asked questions about submitting a tick.](#)

Getting a tick-related disease diagnosed, Dr. Jessica Bloom-Foster

Dr. Bloom-Foster is Chief of the Family Medicine Services and has been a Faculty Physician for Northern Light Eastern Maine Medical Center Family Medicine Residency Program for 14 years.

- Testing for tick-borne disease can be complex. What's important to know for Lyme disease is that if there is the classic "bullseye" rash known as Erythema migrans, in a person who lives in an area where Lyme disease is "endemic" (fairly common, which includes most of Maine), no

further testing is needed or recommended: treat for Lyme disease right away. (Be aware that not all cases of Lyme have the bullseye rash – about 70 – 80% do.)

- It's also good to know that if you have other symptoms of concern and/or a history of a tick bite, the initial test for Lyme is a highly sensitive immunoassay for an enzyme linked to the disease (an "ELISA" test). If this test is negative, it effectively rules out the disease. If it's positive, a second test is needed to see whether it's really Lyme disease. This is a DNA test called a Western Blot, and it is prone to "false positives" so it needs to be interpreted carefully by your doctor, and the test should only be done if there is a real suspicion for Lyme.
- People who are very sick with possible Lyme disease such as with severe, sudden joint swelling or neurologic symptoms might need testing from joint or cerebrospinal fluid, but this is rare.
- There are several other diseases ticks can carry in Maine—these typically cause a fairly severe illness with significant fever and a low blood cell count, and don't necessarily need to be tested for just because of a tick bite when no flu-like febrile (fever) illness is present.
- Finding and removing ticks quickly is key! Ticks virtually never transmit Lyme disease if they are attached less than 72 hours. Check carefully for ticks whenever you've been spending time in the woods, fields, or gardens and remove them safely.

Tick prevention tips & instructions from the [Centers for Disease Control](#)

- Use [Environmental Protection Agency \(EPA\)-registered insect repellents](#) containing DEET, picaridin, IR3535, Oil of Lemon Eucalyptus (OLE), para-menthane-diol (PMD), or 2-undecanone. Always follow product instructions. Do not use products containing OLE or PMD on children under 3 years old.
- Showering within two hours of coming indoors has been shown to reduce your risk of getting Lyme disease and may be effective in reducing the risk of other tickborne diseases. Showering may help wash off unattached ticks and is a good opportunity to do a tick check.

Safely applying tick repellent

- Read and follow the label directions to ensure proper use; be sure you understand how much to apply.
- Apply repellents only to exposed skin and/or clothing. Do not use under clothing.
- Do not apply near eyes and mouth and apply sparingly around ears.
- When using sprays, do not spray directly into face; spray on hands first and then apply to face.

- Never use repellents over cuts, wounds, or irritated skin.
- Do not spray in enclosed areas.
- Avoid breathing a spray product.
- Do not use it near food.
- Do not allow children to handle this product, and **do not apply to children's hands**. When using on children, apply to your own hands and then put it on the child
- After returning indoors, wash your child's treated skin and clothes with soap and water or bathe.
- According to the product labels, **some oil of lemon eucalyptus products should not be used on children under the age of three**. There are no restrictions for use on children under three years of age for certain insect repellent products containing oil of lemon eucalyptus as their sole active ingredient at concentrations of 30% or less.
- DEET is approved for use on children with no age restriction. Also, there is no restriction on the percentage of DEET in the product for use on children, since data do not show any difference in effects between young animals and adult animals in tests done for product registration. There also are no data showing incidents that would lead us to believe there is a need to restrict the use of DEET.

Where on the body to check

- Under the arms
- In and around the ears
- Inside the belly button
- Back of the knees
- In and around the hair
- In and around the ears
- Around the waist
- Between the legs

Removing a tick

1. Use clean, fine-tipped tweezers to grasp the tick as close to the skin's surface as possible.
2. Pull upward with steady, even pressure. Don't twist or jerk the tick; this can cause the mouth-parts to break off and remain in the skin. If this happens, remove the mouth-parts with tweezers. If you cannot remove the mouth easily with tweezers, leave it alone and let the skin heal.
3. After removing the tick, thoroughly clean the bite area and your hands with rubbing alcohol or soap and water.
4. Never crush a tick with your fingers. Dispose of a live tick by
 - Putting it in alcohol,
 - Placing it in a sealed bag/container,
 - Wrapping it tightly in tape, or
 - Flushing it down the toilet.

A vaccine in the works?

Yes. In fact, [Eastern Maine Medical Center Family Residency Program](#) and [Eastern Maine Medical Center Clinical Research Services](#) are participating in the Pfizer Lyme Vaccine Phase 3 clinical trial. Dr. Rung-Chi Li, an allergy and immunology physician at Eastern Maine Medical Center, is the site Principal Investigator with Dr. Bloom-Foster serving as Sub Investigator. Subjects receive a series of three doses of vaccine or placebo and are monitored with lab work and if they have a tick bite or symptoms of concern for Lyme disease for the following year's tick season. It will be a few years before the vaccine is publicly available assuming the results of the trial support FDA approval.