



**HOW TO PREVENT TICK-BORNE DISEASES:
Lyme, Babesiosis, Bartonella, Ehrlichiosis/Anaplasmosis,
Rocky Mountain Spotted Fever & Powassan Virus**

5 POINTS OF PREVENTION

from a Tick Talk by Paula Jackson-Jones, co-founder, Midcoast Lyme Disease Support & Education

- 1. SKIN.** Use your preferred repellent on your skin daily. Wash off at the end of the day. Re-apply each morning. If you use an organic repellent, like **Lemon Eucalyptus Oil**, reapply every 4 hours. You can also use **Sawyer's Picaridin** lotion or spray, which is based on the Piperine in pepper plants, and lasts 12 hours. It's safe for children over 6 months old. Deet is also effective in repelling ticks. Whatever repellent you choose, read the label carefully before using on children. Apply every morning all over your body. **Shower the repellent off at night.**
- 2. CLOTHING.** Wear clothing (outerwear, shoes, hats, gloves, socks) that have been treated with **Permethrin insect repellent**. Permethrin is an insecticide in the pyrethroid family. Pyrethroids are synthetic chemicals that act like natural extracts from the chrysanthemum flower. *Permethrin should NOT be applied to your skin.* Spray it on your clothes (or soak them in it) and let them dry in a well-ventilated or outdoor location. Once the repellent has bonded to the cloth, it will not rub off or harm you, your children, or your pets. It will last for 6 weeks or 6 washings. If you don't want to treat your own clothing, you can purchase clothing infused with Permethrin from LL Bean, Amazon, WalMart and other retailers, usually under the brand names: NoFly Zone, BugsAway, or InsectShield. They will last for 70 washings. If you have favorite outdoor clothing you want to have treated, you can send them to InsectShield to be treated. **When you come inside, put your clothes in the dryer on high heat for 10 minutes. That will kill any ticks.**
- 3. PETS.** Consult with your Vet on the best form of preventive treatment for your dog or cat. Some breeds may have adverse reactions to certain tick preventive treatments. There are oral treatments, treatments that are applied to the skin, and vaccines available for pets. *Rose Geranium and Tea Tree oil are toxic to pets, causing liver damage. Do not use these oils on or around pets.* For indoor/outdoor cats, you may want to rub diatomaceous earth on your hands and rub it into your cat's fur when petting them. It will dry out the ticks' shells & kill the ticks. In addition to whatever you and your Vet decide upon, **you should have your pet wear a Permethrin-treated jacket that will kill ticks on contact and keep them from being brought into your home.** You can purchase pre-treated dog vests from Dognotgone.com.
- 4. HOUSE.** Use cleaning products in your home that contain: **Cedar, Eucalyptus, Lemongrass, Rosemary, or Lemon Eucalyptus.** These will repel ticks. You can also add a few drops of Permethrin to your preferred cleaning product, spritz your bedding, and treat your furniture and pet bedding with Permethrin (keep off until fully dried).
- 5. YARD.** Keep your grass mowed short. It's possible to **treat your yard to deter ticks with either chemical or organic products.** For more information about chemical lawn treatments or natural organic options, you can go to <http://www.maine.gov/dacf/php/gotpests/bugs/tick-mosquito-companies.htm> to find a pest control company nearest you. You can ask for both chemical and organic options.

What To Do If You Find An Embedded Tick?

- 1. REMOVE IT CAREFULLY.** Use a tick spoon, tick key, or tweezers. Make sure you get all the parts of the tick out. Clean the wound with antiseptic. Apply an anti-bacterial ointment, like Neosporin. Disinfect the tick spoon, key or tweezers. If you can't remove the tick, come to the Boothbay Region Health Center. We will remove it for you and save it for testing. If you didn't save the tick, jump to Step 4 (and remember to save it next time). If the tick was embedded, get treated. Don't wait for symptoms, like a rash, to develop. A tick can infect you within minutes.
- 2. SAVE THE TICK.** Put it in a plastic bag or in scotch tape. If it's still alive, you can freeze it. Don't worry about whether it's squished. It will be pulverized anyway during the testing phase.
- 3. SEND THE TICK TO BE TESTED.** That way you will know what disease(s) your tick was carrying. Go on the Internet to either of these two labs:
 - University of Maine Tick Lab: <https://extension.umaine.edu/ticks/>
 - University of Massachusetts/Amherst Tick Report service: <https://www.tickreport.com/>The *University of Maine Tick Lab* is the least expensive option. They will test the tick for the diseases that are most prevalent in Maine: Lyme, Babesiosis and Ehrlichiosis/Anaplasmosis. The fee is \$15. The *University of Massachusetts' TickReport* is more comprehensive. They will also test for Powassan Virus, Rocky Mountain Spotted Fever, and other tick-borne diseases. Their prices range from \$50 to \$200, depending on how comprehensive you want it to be. Fill in the online form and your credit card info and then mail the tick by regular mail in a regular envelope to the address they give you. You will receive the results via email in 3 days from either Lab. Share these with your medical provider. They should go in to your medical record.
- 4. SEE A LYME-LITERATE PROVIDER ASAP.** Don't wait for the lab results from the tick to go to the doctor. The chances are at least 60% that you have been infected with at least 1 tick-borne disease, and probably 2 or 3. So, you should start on a course of antibiotics right away. The sooner you knock the bacteria out, the better. (If the tick test comes back negative, just stop taking the antibiotic, but it's better to be safe.) Ideally, you should get a **prescription** for 100 to 200 mg of Doxycycline **for 30 days**. A few days isn't enough if you are infected with one or more of the bacteria that cause Lyme and these other co-infections. Watch for symptoms and report any symptoms to your Lyme-literate provider. This will help them determine which blood tests to do. Once you both know which diseases you have, your treatment will attack each one.
- 5. MAKE SURE YOUR BLOOD TEST GOES TO A SPECIALIZED LAB.** Standard lab tests, including Lyme tests, are NOT reliable. You are likely to get a false negative. To be sure, have your blood tested by one of the labs that specializes in detecting tick-borne diseases. The Boothbay Region Health Center uses two such labs: IGeneX and Armin. These tests are expensive and are not always covered by health insurance. Medicare *WILL* cover one thorough test per year. If you need a test and can't afford the cost, ask for information on available scholarships through MidCoast Lyme Diseases Support and Education.