

DARE TO PREVENT

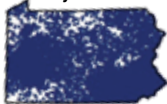
Preventing Lyme & Other Diseases From Ticks



Lyme disease is spread through the bite of an infected tick. It is the fastest growing infectious disease in the country.

- Pennsylvania has one of the highest rates of Lyme disease of all the states.
- Lyme disease cases in PA represent nearly 30-35% of all the cases in the U.S., according to Pennsylvania Department of Health Lyme disease data.
- Lyme disease is in all 67 PA counties.
- Tick testing research has found that many ticks are infected with Lyme and other diseases (also called "tick-borne" infections).

Each dot represents a case of Lyme disease.



All 67 PA counties have Lyme-infected ticks.

The Centers for Disease Control (CDC) estimates that 476,000 people in the U.S. are diagnosed with Lyme disease every year. Lyme disease affects people of all ages. Children ages 5-14 are most at risk for Lyme disease. Adults ages 40-55 also are at high risk. Lyme and tick-borne diseases are preventable. Awareness is the key. That is why we "Dare You to Prevent!"



I'm not an outdoorsman. Why do I need to protect myself?

Any time you go outside, there is a risk of tick contact.

MYTH: Ticks live only in the woods.
TRUTH: Ticks live wherever animals are present (such as the white-footed mouse, birds, deer and more).



How Ticks Track Us

Ticks wait around for long periods of time before attacking for their next meal.

- Ticks are active any time of day, year-round, even in winter when the temperature is above freezing.
- Ticks do not die from frost or snow. They stay in leaf litter, waiting for warmer weather to crawl out and up to look for a meal.
- Ticks do not jump, fly or drop from trees.
- Ticks typically crawl up to the top of grass blades, tall weeds, or bushes where they **QUEST** (reaching out with their legs) waiting* for an animal or you to walk past. As you brush by, ticks will latch onto you, usually low at the feet or lower leg level.
- They also wait on tree trunks, wood benches and wood picnic tables where there is moisture. They are usually found at heights of 8-12 inches above the ground.
- Once on you, ticks quickly crawl up to dark, moist places on the body (i.e., knees, groin, armpits and hair line) where they will bite and push (or embed) their mouthpart into your skin.



Blacklegged tick (deer tick)



Lone Star Tick



American Dog Tick

**Lone Star ticks are more aggressive and will stalk and follow you for several feet.*

When Ticks are Active

Peak tick season is spring through summer/early fall, but ticks are active every season.



SPRING (March-April)

adult ticks

SUMMER (May-September)

nymph ticks (size of a poppy seed or grain of sand)

FALL & WINTER (Sept-Dec)

adult ticks

Where Ticks Live

- Meadows and fields with tall grass
- Gardens with ground cover that shades/retains moisture (pachysandra, ivy, etc.)
- Ornamental plantings
- Thick brush
- Wood's edge – where yards or fields border wooded areas
- Leaf litter/leaf piles
- Areas around bird feeders
- Base of trees (up to lower 4-5 feet)
- Anywhere it is shaded with high humidity



Avoid areas where tick-attracting rodents make their nests such as:

- Stone walls
- Wood piles
- Tree stumps and fallen logs
- Outside storage sheds

Know the Outdoor Risk Wherever You Go

There are risks for ticks in the country, suburbs, cities across the U.S. and other countries. Plan ahead with clothing and repellent spray. Pay attention while traveling or on vacation and stay away from common tick habitats.

I now see the great risk of ticks. How can I protect myself?

It takes just 1 MINUTE to take 2 STEPS:

1. Spray yourself with tick repellents made for skin
2. Pre-treat your socks, shoes and clothing with a tick repellent made especially for clothing. Even easier, wear pretreated tick-repellent clothing that you can buy!

Make using tick repellent a part of your daily routine, just like putting on sunscreen. There is significant evidence that spraying your skin and clothing is the most effective way to reduce tick bites. These should be the two steps that you always take.

TIP: Use two (2) different types of tick repellents to protect yourself...

- One for Skin.
- One for Clothes.

Keep bottles of insect repellent in your garage to grab and go when you head out to kids sporting events, trips to the park or walking the dogs.



NATURAL REPELLENTS

PROS - Increasing evidence that they work, and risk is less than DEET.

CONS - They don't last as long. Herbals are considered safe by the EPA, but don't require EPA approval or "proof" studies of effectiveness. Pure lemon eucalyptus essential oil is not recommended. What works is commercial repellents that use 30% oil of lemon eucalyptus.



DEET REPELLENTS

PROS - They work and last for long periods.

CONS - Recent studies have identified concern about DEET as a neurotoxin at higher concentrations. Spray lightly when applying directly to skin.



STEP 1: SPRAY YOUR SKIN



The following repellents are for your skin and can also be sprayed on your clothing when you head outdoors. To compare product protection time frames and active ingredients, visit <https://www.epa.gov/insect-repellents/find-repellent-right-you>. Always follow manufacturer's recommendation for applying skin repellents.

- Commercial repellents – repellents with 20% or more DEET (i.e., Ultrathon™ and Cutter® Backwoods); Note: Deet does not kill ticks, it repels them. DEET comes with percentages from 5-100 percent. Avoid repellents with more than 30% DEET. The higher the concentration the longer amount of time the protection, but the risk of negative health effects goes up too. Use the lowest concentration that provides the protection duration you need. Neurological reactions to DEET have occurred but are predominantly the result of ingestion or skin use inconsistent with label directions.
- Less toxic repellents – BioUD™ (tomato plants), Picaridin and IR3535 (i.e., Natrapel® and Bug Guard Plus).
- Natural repellents – products with camphor, castor, cedar, citronella, eucalyptus, geranium, lemongrass, lemon eucalyptus, neem, peppermint, lavender and rosemary oils may have repellent benefits (i.e., Buzz Away Extreme®, Avon's Skin-So-Soft Bug Guard Plus, REPEL's Lemon Eucalyptus, etc.). Note: natural oils evaporate quickly from the skin and may need to be applied more often. Sprays use varying percentages of the essential oils, and this can affect their protection level; be sure to read labels. Not all natural repellents have been fully studied; they do not require EPA registration. Do your research and choose a repellent that best meets your needs.

STEP 2: SPRAY YOUR CLOTHES



Permethrin is an ideal choice for pretreating your clothing and outdoor accessories. *Cautionary note: permethrin is NOT to be used on the skin; follow manufacturer's application guidelines to safely apply these products.* The U.S. EPA approved pretreated clothing in 2003 as safe for people of all ages, including pregnant women.

Permethrin kills ticks that come in contact with treated clothing. A tick need only cross 8-10 inches of permethrin pretreated fabric before it falls off and dies. Permethrin can be sprayed on:

- Clothing - socks, t-shirts, shirts, shorts, pants, sweatshirts (especially any clothing for children, e.g. summer camp)
- Hats & Shoes
- Backpacks, sporting bags and golf bags
- Picnic/sporting event blankets
- Camping gear such as tents, folding chairs, sleeping bags



Easy Options for Pretreated Clothing

Make it easy for yourself. Have your tick-protected clothing ready for any occasion.

1. Pretreat your own clothes with permethrin (i.e., Sawyer®, Tick Block, etc.); this takes just a few minutes to spray, a few hours to dry and then it's good for roughly 4-5 machine washings; shoes, backpacks, etc. should be pretreated on a monthly basis for maximum effectiveness.
2. Send your clothes to insectshield.org: have them pretreat your outdoor clothing with permethrin; lasts up to 70 washings.
3. Purchase clothing pretreated with permethrin: Insect Shield® (lasts up to 70 washings) is an example of a clothing brand, and stores that sell permethrin embedded items may include REI™, Orvis, Ex Officio®, Zorrel®, Gamehide/ElimiTick®, Kidz Stuff®, LL Bean®, etc.



WHAT IS PERMETHRIN? Permethrin is a man-made chemical based on the natural pyrethum compounds found in chrysanthemum flowers. It repels and kills ticks on contact. Permethrin has a very low toxicity level to mammals and is not easily absorbed into the skin. It is odorless and will not stain clothing. It has been used as a clothing treatment to prevent tick bites since the 1970s. Permethrin can be purchased through most large sporting goods stores or online. Remember, permethrin is for use on clothing only, not on skin.

NOTE: Permethrin is toxic to cats when exposed to wet garments sprayed with permethrin. Always allow sprayed clothing to dry completely before bringing it indoors.

Spraying socks and shoes with permethrin alone offers 74 times the protection from ticks latching onto your shoes and crawling up your leg!



3X PROTECTION
from ticks latching onto hands or arms and crawling under t-shirt*



5X PROTECTION
from ticks latching onto legs and crawling under shorts*



74X PROTECTION
from ticks latching onto shoes and crawling up leg*

*Most ticks attached under treated clothing were dead.



~ The University of Rhode Island TickEncounter Resource Center

STEP 3: ADDITIONAL STEPS FOR SUCCESS

Consider added protection when gardening, taking a hike or venturing into the rough at a golf outing. While steps 1 & 2 of spraying your skin and clothing have the most evidence of reducing tick bites, there are additional steps you can take:

- Wear light-colored permethrin treated clothing to see ticks more easily.
- Tuck pants into your socks.
- Wear long sleeves.
- Wear enclosed shoes (i.e. no flip flops).
- Pull back and secure long hair, especially when gardening.
- Wear a hat.



Additional Resources

- University of Rhode Island TickEncounter Resource Center: www.tickencounter.org
- Pennsylvania Department of Health: www.health.pa.gov
- CDC: www.cdc.gov/lyme/index.html
- Columbia University Medical Center: www.columbia-lyme.org
- Book - Preventing Lyme Disease and other Tick-Borne Infections, by Bob Oley, PE, MSPH



To learn more about prevention measures, visit our website or social media pages.

www.palyme.org

 PA Lyme Resource Network

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PA Lyme Resource Network (www.palyme.org) is an all-volunteer 501(c)(3) non-profit organization that provides awareness, education, support, advocacy and resources to navigate Lyme and Tick-Borne Diseases in the state of Pennsylvania.

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