

Pests We Live With: TICKS

Dr. Tim Lepore, Medical Director of Nantucket Cottage Hospital, knows more about ticks than just about anyone. He even has a big tick embroidered above the pocket of his crisp, white lab coat. Considered the expert both on and off the island, he is the go-to man for information about



our infamous deer tick, the transmitter of Lyme Disease, which affects both us and our pets, and other serious tick-borne diseases.

For starters, there is some good news. A recent study showed dog ownership is not considered a risk factor for humans in contracting Lyme disease. Cats that go outside, on the other hand, do pose a risk for their humans.

Dr. Lepore said, "Once a tick gets on a dog, it tends to stay there. Cats are better groomers, so there is a likelihood a tick will get flicked off before it attaches when the cat washes itself."

Protecting ourselves and our pets from tick bites is very important, but learning about the tick lifecycle is also helpful. Ticks are Arachnids, like spiders, mites and scorpions; they are not insects. They have a hard, two-piece body and a mouth with harpoon-like barbs that help it attach and a sticky secretion that aids in holding onto its host. The two-year life cycle of the tick occurs in three stages: larvae, nymph and adult. At each stage, the

tick needs a blood meal to progress to the next successive stage in its life cycle.

In the early spring, the female lays approximately 3,000 eggs on the ground under leaves and litter. The eggs that hatch later in the summer, with peak activity typically in August, are six-legged larvae. Primary vectors of Lyme Disease, these larvae are not born infected with disease-carrying bacteria. But, if a larva attaches to an infected host, usually a white-footed mouse or a vole, which harbor thousands of the bacteria in their bodies, then it is highly likely the larvae will also become infected.

After feeding, the larvae drop off their hosts and molt into eight-legged nymphs in the fall. The nymphs remain inactive throughout the winter and early spring. Usually in May, the tiny deer tick nymphs emerge, now one year old, hungry and looking for a warm-blooded host to feed them for two or three days. It is at this nymphal stage the tick is most likely to attack and attach to humans, but field mice or larger mammals such as dogs or deer, will also do nicely. Because the nymph is about the size of a poppy seed, it often goes unnoticed until fully engorged. Although it varies from region to region, Dr. Lepore estimates that 50% of Nantucket's nymphal deer ticks are infected, passing along the bacteria when they bite into their host.

Once again, when fed, the nymph drops off onto the ground and molts into an eight-legged adult. These adults actively seek new hosts throughout the fall, "questing," on stalks of grass or leaf tips, sensing temperature changes, vibrations or shadows for the passing of a host, reaching out with their front legs while clinging to their post with their back ones. Peak activity usually occurs in late October and early November. Dr. Lepore contends these adults pose less of a transmission risk because they are larger, therefore more visible, and people are protected by wearing more clothing when outside.

Adults unsuccessful in finding hosts will return to the ground under the cover of leaves, waiting for the rising temperatures to signal it's time to make their final search for a blood meal to reproduce, after which, both males and females die.

Dr. Lepore breaks down tick prevention into three elements. First, protect yourself with repellents, wear light-colored clothing, tuck pants into socks and check yourself when you return from an outdoor trip. The Buzz-Off clothing line protects the wearer from insects through several washings. Stay away from deep brush and tall grasses.

Second, in your yard, cut back the brush and eliminate the plants that attract deer. In the yard, Damminix tubes are very effective. Filled with Permethrin-treated cotton balls, the ticks feeding on mice are killed without harming the mice. Available locally or online, recommended application is twice a year in April and September.

Finally, in the global strategy, Dr.

Lepore insists we need to reduce our deer herds. This solution is highly controversial in terms of how to accomplish it, but Lepore can cite statistics which prove drastic reduction in the incidence of tick-borne disease in areas where the herds have been significantly reduced or eliminated.

In protecting our pets, there are three approved Lyme vaccines for dogs, although most pet owners use broad-spectrum products that either kill or repel pests on their pets.

Drop-on topicals, including Frontline and Bio-Spot, account for the majority of all purchases. Sprays, shampoos, collars and powders vary in effectiveness. Most of these agents will only kill the tick after it is on the animal, and the longer the tick stays on, the greater the risk for bacterial transmission.

As you do with yourself, after an outdoor excursion, check your pet for ticks and remove any you might find. If a tick is attached, Dr. Lepore suggests removing it with sharp-ended tweezers by grasping the tick as close to the skin as possible and gently pulling away. Try not to crush the tick and try to get the mouth parts, although if left in, the wound will just be inflamed a little longer. After removal, cleanse the area with antiseptic.

We must share our paradise with the natural world, the good and not so good. Our challenge is to learn all we can to keep ourselves and our pets safe and healthy in it.

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THE INDEPENDENT CROSSWORD

PUZZLE BY SAM BELLOTTO JR.

ACROSS

- 1 Where Seaver was terrific
- 5 Jazz guitarist Pass
- 8 Beach at the end of Hummock Pond Road
- 13 Bing Crosby's label
- 15 Massachusetts cape
- 16 Intense dislike
- 17 Start of a Labor Day quip (apologies to Lane Kirkland)
- 20 Revolutionary War side
- 21 Allosaurus battler Alley
- 22 Prefix for thermal
- 23 Pat Benatar's "Love ___ Battle-field"
- 24 Cooking pots
- 26 More of a Labor Day quip
- 33 God with arrows
- 34 Toy boy?
- 35 Place for a gondola
- 36 Eddie in "The Pajama Game"
- 37 More of a Labor Day quip
- 40 Gumby's slimy friend?
- 41 Gourmet mushroom
- 43 Hustle or bustle
- 44 "Brave New World" tablets
- 45 More of a Labor Day quip
- 49 William French Smith's successor
- 50 Rock monogram
- 51 Military lady
- 54 Butter square
- 55 Meat-packing magnate
- 58 End of a Labor Day quip
- 62 Richard's first veep
- 63 Mil. chow
- 64 Artful Dodger Pee Wee

65 Vanessa Noel or White Elephant

66 Joyce & Seward Johnson Gallery org.

67 Worf crewmate

DOWN

- 1 Reagan security prog.
- 2 Test the weight of
- 3 She loved Narcissus
- 4 Blacklegged ticks, e.g.
- 5 Great white's features
- 6 Cousin of the tuna
- 7 Volunteer
- 8 Ram Pasture, you might say
- 9 "Big Momma" Pollitt
- 10 Enrique's enthusiastic agreement
- 11 Blaspheme
- 12 Tale of the South Pacific
- 14 Stand
- 18 Lack
- 19 Caffeine-producing nut
- 24 Act more enthusiastically
- 25 Syllable in '50s tunes
- 26 "___, we happy few, we band of brothers" (Shakespeare)
- 27 City N of Bangor
- 28 "Oh, ___ don't!"
- 29 The other side
- 30 Chunk of gold
- 31 Campbell on covers
- 32 Wallow in
- 37 Where to catch a mussel or two
- 38 Chemical suffix
- 39 Some dopeheads
- 42 Royal Dutch carrier
- 44 Like fishing line
- 46 Miami team

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- 47 Respiratory problem
- 48 Howdy Doody's original name
- 51 Launder
- 52 Gravy Train rival
- 53 Dart
- 55 Thebes deity
- 56 Ocular tunic

- 57 Singer's silence
- 59 Italian trio
- 60 Andy Pettitte stat
- 61 View from Brant Point

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