



Tech Note #19

Look out for those ticks!!

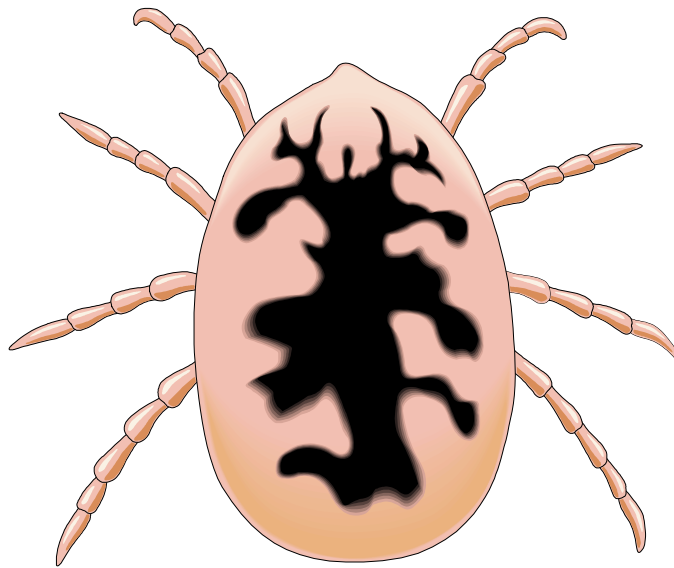
Warning: Ticks Can be Carriers of Risky Diseases

Finally, it's that time of year where outside work isn't driving behind the wheel of a plow truck; the outside work of doing road repair and mowing begins. One benefit of living and working in New England is that we take it for granted that we don't have deadly reptiles or insects. We should be aware, however, that ticks are a serious danger.

There are two varieties of ticks: hard ticks and soft ticks. Hard ticks are the most important types because they bite people and/or animals and are known to transmit disease. Of the hard ticks, the most common are the American Dog Tick and the Black-legged Tick (Deer Tick).

The life span of a tick can be relatively short. Some live only 3 months, but others can live up to a couple of years. A female tick lays hundreds of eggs on the ground. The eggs become larvae, living on the ground or in low vegetation until a small mammal walks by. It will attach itself to the mammal and feed for several days. Then, it drops off; molts (into a nymph), and waits for another host. On the new

host, it repeats the first cycle of feeding, dropping off; and molting; this time to the adult stage. Adult ticks live in shrubs or tall grass and attach themselves to larger mammals until they are fully engorged. Then, they drop off and reattach themselves to a new host to feed.



The American Dog Tick, *Dermacentor Variabilis*, can transmit Rocky Mountain Spotted Fever, which is rare in New England and more common further south. Lyme disease has been found in the American Dog Tick which carries the disease but isn't capable of transmitting it to humans.

The Blacklegged (Deer) Tick

is the carrier of Lyme Disease, the most common vector-borne (transmitted by insects or ticks) disease in the United States. The Blacklegged Tick looks similar to other ticks but is smaller and rounded. Adult males are very brown, almost black. Adult females are two-toned

dark chestnut brown on their head and orange-red on the rear half of the body. Eighty-five percent of the recorded ticks are within 35 miles of the coast. The coastal abundance pattern occurs in many states, including New Hampshire, Maine, and Massachusetts. Luckily, the frequency of Lyme disease is low. The Blacklegged Tick starts its life with mice as its host.

Then, as it grows, it moves to medium-sized animals and humans as hosts, later graduating to larger animals (like deer) in its adult phase. Although the tick has been known to bite people, there must be a large population of deer around for the tick to be plentiful.

Although the incidence of Lyme disease is low, its ef-

fects can be very serious. It was first identified near Lyme, Connecticut in the mid 1970's. Symptoms begin with a characteristic red zone around the bite. This usually appears within 20 days of being bitten and slowly expands in size. The redness is often ring-shaped and warm to touch. Fatigue, fever, headaches, stiffness and pain in muscles and joints are common symptoms. Treatment with antibiotics is most successful in the early stages. If left untreated, the rash may disappear, but dizziness, irregular heartbeat, arthritis, and nervous system disorders can follow. Swelling and pain in the knees are common symptoms in untreated cases months or years later.

Vaccinations with LYMERix are available, however, they are only 80% effective. The vaccine is given in three shots (the second dose one month after the first; the third 12 months after the first) and each shot is about \$60. Because the vaccine is not guaranteed protection against Lyme disease and does not provide any protec-

tion against other tick-borne illnesses, doctors urge even those vaccinated to take clothing precautions when in tick-prone areas. The vaccine is not necessary for most people. Unless you are in tick-prone areas a great deal during warm-weather months, the chances of getting Lyme disease from a single tick are small.

May through August is the prime period for the American Dog Tick. April through early July and September through mid-November are the periods when the Blacklegged (Deer) Ticks are most active, but they have been known to be active year round. If you spend time in tick-infected areas, wear the proper clothing.

Good shoes are necessary (no sandals or bare feet) as are long pants tucked into socks. A long-sleeved shirt with snug collars and cuffs also offer protection. Light colored clothing makes it easy to see ticks and wipe them off. Clothing can be treated with tick repellent for added protection. The most effective repellents contain n-dimethyl-m-toluamide or "DEET." Use DEET sparingly and with care; some people are sensitive to it. Take extra care not to get it into eyes or mucous membranes.

Since ticks are usually discovered after they have begun to feed, it is important to remove them carefully to prevent leaving parts embedded under the skin. Removal is fairly

easy, tweezers should be used to grasp the tick rather than using bare fingers. It is easier to get a good grip on the head of the tick with tweezers as fingers may be contaminated. Firmly grasp the tick as close to its head as possible, and pull gently using slow, steady pressure. DO NOT YANK or pull it sideways because the head might break off under the skin. It may take a few minutes to remove it. Don't be fooled by the old wife's tale of using a lighted match or Vaseline. After the safe removal of the tick, apply anti-septic to the wound.

Be sure to check for ticks every day. Do not neglect to check your head, especially under your hair. If you find a tick that has begun to feed, carefully remove it. If you are concerned it might be a carrier of disease, you can call the MA Dept. of Health Epidemiology and Immunization Program at (617) 983-6800 for information and testing referrals. If a rash forms around the area of the tick bite, see your doctor. In some cases, the rash might occur from an allergy. Be prepared to give your doctor details about where and when you were bitten, and any symptoms. If your pet has joint disorders, you should see your veterinarian for advice.

For additional information, check out these websites:

www.lyme.org
www.lymedisease.org

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