Hey Ticks! Pick On Someone Your Own Size



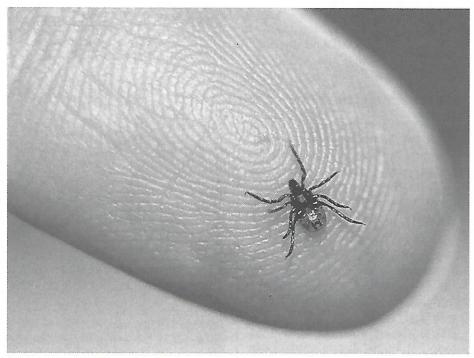
by Kirk Dahl

If you ponder being lethally attacked in the woods by some heartless wild creature, a tick is probably not what first pops to mind. Maybe it should be. Ticks lurk in our woods by the billions, cause illness to tens of thousands of people in Wisconsin each year, and even cause or contribute to a handful of deaths.

At this point, most Wisconsin residents—and hopefully all its woodland owners—are aware of Lyme disease and the fact that it is transmitted by blacklegged "deer" ticks. We live in an area where the disease is far more common (endemic) than in most other states, and thus it is important to be aware of the disease and how to cope with it while it literally crawls all around us.

For perspective, there were roughly 2,000 confirmed or probable reported cases of Lyme in Wisconsin in 2015, though the disease is widely under-reported and may occur as much as ten times more frequently than that. Officially there are about 30 cases per 100,000 persons per year. For at least a decade, the northwestern half of the state has had considerably more reported cases than the southeastern half, with the incidence of infection as much as ten times higher in parts of the Northwest in some years. Consider also that some years are worse for ticks than others, plus your individual risk as one who often visits woodlands is far higher than the statewide average.

It turns out that Lyme disease is not the only tick-borne illness about which to be wary. *Anaplasmosis*, formerly known as HGE, and *ehrlichiosis* are similar in the way in which they are transmitted and in their initial symptoms. Other diseases car-



Their relatively small size gives Lyme disease-bearing black legged "deer" ticks an enormous advantage when it comes to stealth.

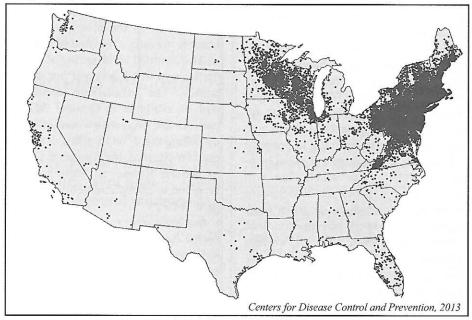
ried by ticks in Wisconsin include rocky mountain spotted fever, *babesiosis*, Powassan disease, and *tularemia*, none of which is any fun to have and all of which have proven to be sometimes serious and occasionally fatal.

The way these diseases get spread is fairly well understood. Sometimes it's the adult ticks that do the dirty work, but more

often it is the immature nymphs. Nymphs are only the size of a poppy seed or a freckle and thus are hard to catch in the act.

As you might expect, most of the disease spread occurs in summer, generally May through August, but surprisingly it can occur any time of year, even on winter days if the temperature gets above about 40 degrees. Interestingly, *anaplasmosis*

Cases of Lyme disease reported in the continential United States in 2013 betray some interesting demographic preferences for this very serious malady.



and *ehrlichiosis* are reported about four times more commonly in persons over age 60 than in folks in their 30s. Sometimes a tick can spread more than one of these diseases with a single bite, a process known as "coinfection."

Severity of the illnesses will depend not only upon the intensity of the tick's bite but also upon the victim's pre-existing health conditions, medications, effectiveness of the immune system, and so on. The impact is usually a variety of symptoms such as fever, achiness, rash, fatigue, nausea and neurologic issues, though some people remain completely asymptomatic while a small minority will progress to a much more severe illness, perhaps even requiring hospitalization and intensive care.

Tick bites are exceedingly common, and there is no need to panic when (not if, but when) it happens to you. Most of us don't really need to know the details about which ticks carry which diseases, or even what the different ticks look like. The bottom line is simple: do what you can to prevent bites, and remove any and all ticks if they latch on.

Even if a tick is only lightly imbedded, it can be stubborn about letting go. Some authorities feel improper removal of ticks can greatly increase the chance of acquiring disease from them. The party line on removal is to grab the head if you can, as close to the skin as possible, rather than just the main body part. Pull straight up with a steady, even force. Tweezers will help with that, and thus you may want to carry some alcohol wipes and a pair of tweezers in your first aid kit.

There are also several commercially made tick removal devices that apparently work quite well. Attempt to get the tick out intact, without leaving any of its parts behind. If the head or pinchers happen to remain imbedded, they can be surprisingly difficult to pick out, though an attempt should be made to do so using needle-nose tweezers. Avoid folklore techniques such as applying a hot object, nail polish, liquid soap, gasoline, etc. These may work, but in the process reportedly can stimulate the tick to expel more infected material.

In extreme cases, the tick can be removed by excision at a clinic or urgent care facility. There is no need to drop everything and run, as a few hours one way or the other is unlikely to make a difference.



Any time the temperature is greater than 40°F in Wisconsin, tick-borne illnesses pose a risk for those enjoying outdoor activities.

The initial treatment after that is not too critical. Wipe the spot with alcohol if available, or wash it a bit with ordinary soap and water. Washing the site does not realistically do much to reduce the chance of spreading disease, but do it in honor of your mom. Wash your hands, too.

Diagnosis can sometimes be obvious, but not always. It can also be a confusing and difficult process. The symptom pattern and laboratory blood tests are not always conclusive. Lyme disease is especially tricky, as it can often masquerade as numerous other unrelated illnesses. But symptoms of any of the tick-borne illnesses are not going to show up for at least several days, so the question always is whether or not to start treatment before symptoms begin.

For most tick illnesses, an antibiotic, preferably doxycycline, is usually effective. There may be reasons to start this right away, for example when a tick has been imbedded for an extended time, such as several days. Older patients (60+), those with other concurrent illnesses which may compromise their overall health, and preg-

nant women should more strongly consider starting treatment right away. For the majority of bites, a wait-and-see approach is usually appropriate. It typically can take five to ten days to develop symptoms, and sometimes much longer. It is a good idea to report the tick bite to your doctor at the onset of any new and otherwise unexplained illness that develops within the first two months or so after the bite.

Tick-borne illnesses can start out looking like a broad variety of other more benign viral illnesses, so the tendency is to wait too long if symptoms emerge. Lyme and most other tick illnesses are fairly easy to treat if treatment begins early, but they can be nasty if left untreated. In the case of Lyme, it can become severe, chronic, and ultimately resistant to treatment.

It might at first appear wise to just get started on an antibiotic after any tick bite, and minimize the likelihood of becoming ill. However, this "empiric" treatment approach is not widely recommended, primarily because the vast majority of tick bites do not cause any problems and don't automatically call for a trip to the doctor and drug store. Medications have side effects, and the undesirable effects of antibiotic overuse are well documented. It is worth noting that on average, only about one tick out of three actually carries Lyme disease, and that the disease is unlikely to spread unless the tick is attached for more than 24 hours. Other tick illnesses, however, can spread much sooner. Powassan virus, for example, can take as little time as 15 minutes to infect a person.

I frequently pull ticks off my arms or out of my hair while driving home in my pickup. Sometimes I get multiple bites in one outing, and I once came home with over a dozen hitchhikers on me. As a physician, I could just start myself on doxycycline, but I don't. Again, most tick bites do not result in disease.

Prevention is worth some consideration.

Ticks pay no attention to "no trespassing" signs or fences. For what it's worth, the Center for Disease Control (CDC) says we should "avoid exposure to tick habitats." You and I are not going to do that. But they further caution to "avoid wooded and brushy areas with high grass and leaf litter" and to "walk in the center of trails." We aren't realistically going to do that all the time, either. But these precautions are worth keeping in mind, especially if you have a school group or other visitors on site for a casual visit. At least don't take a nap on the ground in the summer. At home, after cleaning up, go tick hunting on your scalp, under your arms, in skin folds, and everywhere else. Remember, the frecklesize nymphs are harder to see but they apparently do most of the infecting.

For clothing, the CDC suggests long

sleeve shirts, caps, and tucking pant legs inside of socks. Light colored clothing is often recommended, but only to make it easier to spot ticks on the clothing; the color otherwise does nothing to repel them.

The best repellents are products containing 20-30 percent of a chemical called DEET. Apply it to clothing and exposed skin. It lasts several hours. Clothing, backpacks, and other gear can also be treated with products containing permethrin, which offers protection through several washings. Remember, ticks transmit these diseases, not humans, so you cannot catch these diseases simply by being in contact with infected people.

Two good sources of updated information are the CDC at *CDC.gov*, and of the American Lyme Disease Foundation, *ALDF.com*.

My own experience with *anaplasmosis* may be of interest. I came down with that several summers ago. I had to have been bitten by a tick, but retrospectively I did not remember finding one on me at any time in the several weeks prior. The illness came on as fever and chills, with tremendous fatigue, but no rash or anything else.

I spent the Fourth of July shivering in bed under two heavy blankets. When I got around to having lab testing done, the numbers for the *anaplasmosis* test were off the charts. Antibiotics settled things down within a day or two, and I had a complete recovery. The key point here is that people who are in the Wisconsin woods a good deal run a high risk of exposure to tick-borne illness, and even if you don't remember being bitten by a tick, you should be more ready than most to report any illness early, make it clear that you are frequently exposed to ticks, and be screened for these illnesses as a possible cause.

Remain vigilant about ticks. Make reasonable efforts at prevention, remove any hitchhikers completely, report any new illnesses, and get medical advice early regarding treatment if you are in a higher risk group due to your age or health. Beyond that, don't let ticks scare you out of the woods. Stay macho. We are bigger than they are.

Kirk Dahl is a lifetime member of WWOA and has been a woodland owner since 1982. He was founder of the Chippewa Valley Chapter of WWOA in 1987 and hosted the field day for the 2011 WWOA Annual Meeting. He resides in Eau Claire.

