**BUSINESS FOCUS:** 

Getting "Ticked Off" by Spring in New Hampshire

By Irene M. Orzano, MD

## **Spring in New Hampshire**

**S** pring in New Hampshire brings longer days, tulips and daffodils, and relief from the snow. It also brings a new season of TICKS! With this comes a renewed concern about Lyme disease for us, our children, and our pets. In New Hampshire, Lyme disease is the most common tick-borne illness. Transmitted to people through the bite of an infected black-legged tick, previously known as the deer tick, it is caused by bacteria called Borrelia borgdorferi. Often less than 2 millimeters in size, the black-legged tick can be very difficult to see. These ticks are most active from May to September, so this is the time when people are most likely to become infected. According to the NH Department of Health and Human Services, up to 60% of the black-legged ticks in New Hampshire tested positive for Lyme disease in 2013. This is one of the highest percentages in the United States!

## Signs, Symptoms and Diagnosis

Lyme disease can cause a variety of symptoms, depending on the stage at which it presents. When diagnosed and treated early, the complications of late Lyme disease can be avoided. Early infection typically occurs in the summer months and can include symptoms of fever, headache, muscle and joint pain, fatigue, and a characteristic skin rash, called erythema migrans. If not treated early, later stages can present as arthritis, most commonly swelling and pain of the knee, meningitis, heart rhythm abnormalities or facial palsy.

Given the high percentage of ticks in New Hampshire that carry Lyme disease, if a person has a known tick bite in the summer months and presents with a typical rash and symptoms, early stage disease can often be treated with antibiotics without specific testing. Because the Lyme organism is difficult to grow in a laboratory, cultures are not routinely performed. The standard test is an antibody test looking for your body's immune response to the organism. This frequently becomes positive within four to six weeks of exposure. Thus, it is important for laboratory tests to be correctly interpreted within the duration of exposure and symptoms. The good news is that when caught early, Lyme disease is very responsive to common antibiotics!

## Prevention

The best way to avoid Lyme disease is to prevent a tick bite in the first place. Additionally, if you do get a bite, the risk of infection is extremely small if a tick is attached to your skin for less than 24-36 hours. There are many strategies you can use to limit your chance of infection. These include tick control measures and tick bite prevention.

Tick control measures include techniques to limit exposure to the environments where ticks thrive. Ticks enjoy woodlands and tall grasses. Clearing tall grasses, bushes, and leaf piles from around your home or children's play areas can create a barrier that ticks have a difficult time crossing. Making your home less hospitable to tick-infected deer can also be helpful. Installing fences or planting deer-resistant plants can discourage deer from entering your yard. Tick bite prevention is key to limiting risk of Lyme disease. When outdoors, use insect repellent containing at least 20% DEET and clothing treated with Permethrin. Wear light-colored long pants and long sleeves so ticks can be seen more easily. After spending time outdoors, do a thorough body check for ticks including the hard to see areas of the scalp, behind the ears, underarms, groin area, and between fingers and toes. Remember to check pets too!



What should you do if you are bitten? Use tweezers to promptly remove the

tick by grasping the tick as close to the skin as possible taking care to remove the entire tick. Afterwards, thoroughly wash your hands and disinfect the tick site with rubbing alcohol. DO NOT squeeze the tick, rub petroleum jelly on the tick, or use a hot match on the tick as these can increase your chances of infection. If the tick has been attached for more that 24-36 hours or you develop symptoms typical of Lyme disease, contact your health care provider promptly.

## **Get Out and Enjoy!**

Those of us who live in New Hampshire enjoy spending time outdoors with our family and friends. After this long winter, don't let a fear of Lyme disease keep you from participating in activities you enjoy. Make a tick bite prevention plan for your family, then get out and enjoy! For more information on Lyme disease, visit the NH Department of Health and Human Services website at http://www.dhhs.nh.gov/dphs/cdcs/lyme/index.htm.

Dr. Irene Orzano is board certified in both Internal Medicine and Rheumatology. A graduate of Georgetown University and Georgetown University School of Medicine, Dr. Orzano completed her internship and residency in Internal Medicine at Rhode Island Hospital/Brown University and a fellowship in Rheumatology at Roger Williams Medical Center through Boston University School of Medicine. Dr. Orzano practices at Concord Orthopaedics, located at 264 Pleasant Street in Concord. For more information, call (603) 224-3369 or visit www.concordortho.com.



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