

# Deer Ticks and Their Diseases are on the Increase

by Lyn Chimera

The information for this article was condensed from the Center for Disease Control (CDC) in Atlanta.

Due to the mild winters and increase in black footed mice and white tailed deer, the incidence of encountering ticks is also increasing. While deer ticks can transmit Lyme disease they also carry a number of other diseases including babesiosis and anaplasmosis and a relatively new one, powassan.

Powassan (POW) virus is transmitted to humans by infected deer ticks. Approximately 75 cases of POW virus disease were reported in the United States over the past 10 years. Most cases have occurred in the Northeast and Great Lakes region. There have been no cases reported in WNY. The closest is mid-state, although NYS is one of the top states for these cases. One of the biggest problems with this disease is that it can be transmitted from tick to human in under an hour.

Symptoms of infection can include fever, headache, vomiting, weakness, confusion, seizures, and memory loss. Long-term neurologic problems may occur. There is no specific treatment, but people with severe POW virus illnesses often need to be hospitalized to receive respiratory support, intravenous fluids, or medications to reduce swelling in the brain.

Lyme disease is a more common problem in our area but still not a major risk as not all ticks are infected. Lyme disease is caused by bacteria called *Borrelia burgdorferi* and is transmitted to humans through the bite of infected deer ticks. In general, ticks need to be attached for 36 to 48 hours before they can transmit Lyme disease bacteria. Typical symptoms include fever, headache, fatigue, and a characteristic skin rash called erythema migrans. If left untreated, infection can spread to joints, the heart, and the

nervous system. Lyme disease is diagnosed based on symptoms, physical findings (e.g., rash), and the possibility of exposure to infected ticks; laboratory testing is helpful if used correctly and performed with validated methods. Most cases of Lyme disease can be treated successfully with a few weeks of antibiotics.

## How ticks spread Lyme disease

Most humans are infected through the bites of immature ticks called nymphs. Nymphs are tiny (less than 2 mm) and difficult to see; they feed during the spring and summer months. Ticks crawl onto animals or people as they brush against them; ticks cannot jump or fly. Ticks found on the scalp usually have crawled there from lower parts of the body. Ticks obtain blood by inserting their mouth parts (not their whole bodies) into the skin of a person or animal. As they feed, their bodies slowly enlarge.

The risk of exposure to ticks is greatest in the woods and in the edge area between lawns and woods; however, ticks can also be carried by animals onto lawns and gardens and into houses by pets. Campers, hikers, outdoor workers, and others may be exposed to infected ticks in wooded, brushy, and grassy places.

## Prevention

Steps to prevent Lyme disease include using insect repellents containing Deet, removing ticks promptly, applying pesticides, and reducing tick habitat. It is suggested to take a shower after being in tick infested areas and put your clothing in a hot dryer for 15 minutes.

Ticks can attach to any part of the human body but are often found in hard-to-see areas such as the groin, armpits, and scalp.



For more information please contact:

Centers for Disease Control and Prevention  
Telephone: 1-800-CDC-INFO (232-4636)

**Web:** [www.cdc.gov/Lyme](http://www.cdc.gov/Lyme)  
**For fast tick identification contact:** <https://www.tickreport.com/>

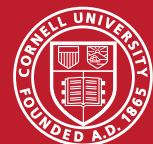
**For local info:**

Contact ECDOH  
Environmental Health Division, Buffalo

**Phone:** (716) 961-6800  
(After Hours Emergency: (716) 961-7898)

Videos & pictures on ticks:

<http://www2.erie.gov/health/index.php?q=ticks-lyme-disease>



Cornell University  
Cooperative Extension  
Erie County



21 South Grove Street  
East Aurora, NY 14052