



NEW YORK STATE SENATOR

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## Know the Facts About Lyme Disease & Other Tick-Borne Illnesses

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| ISSUE: **LYME AND TICK-BORNE DISEASES**



Learn More to Safeguard Your Health

### **What is Lyme Disease?**

Lyme disease is a bacterial infection spread by the bite of an infected blacklegged tick. Lyme disease can affect the skin, joints, nervous system and/or heart. When detected early, Lyme disease can usually be treated with antibiotics. If left untreated, it can result in serious health problems.

### **How is Lyme Disease spread?**

- The type of tick responsible for spreading Lyme disease in New York is the blacklegged tick.
- Not all ticks carry the bacteria that causes Lyme disease; they become infected after feeding on an infected animal, such as mice or other small mammals.
- You cannot get Lyme disease from another person or an infected animal.
- Transmission times for Lyme and other tick-borne diseases vary, and the sooner a tick is removed, the lower the risk of infection. It is important to always check for ticks after spending time outdoors.
- Blacklegged tick nymphs are the size of a poppy seed and adult ticks are the size of a sesame seed. Both can transmit Lyme, as well as other tick-borne diseases.

Note: Transmission time is a current topic of debate, but some pathogens are transmitted in minutes, others hours. Err on the side of caution: the sooner the better.

### **What about the Lone Star tick?**

In recent years, the Lone Star tick, a southern species, has been detected in parts of Long Island and elsewhere. It is an aggressive predator, and females have a white, star-shaped mark on their back. It does not transmit Lyme disease, but can spread a similar illness called Southern Tick-Associated Rash Illness (STARI).

### **Is there a tick season?**

Ticks can be active all months of the year when temperatures are above freezing. However, most tick encounters occur from April through November. Their preferred habitats are wooded areas and adjacent grasslands. Lawns and gardens at the edge of woods may also be home to blacklegged ticks. Ticks may feed on wild animals such as mice, deer, birds and

raccoons, but domestic animals such as cats, dogs and horses can also carry the ticks closer to home.

### **What are the symptoms of Lyme disease?**

Lyme disease is often hard to diagnose because it has many symptoms that are common in other illnesses. Early symptoms appear anywhere from 3 to 30 days after the bite of an infected tick.

- In 60-80% of cases, a red rash develops within a few days to a few weeks.
- The rash is at least two inches in diameter and may have a clearing in the center or look like a bull's eye.
- The rash may be accompanied by flu-like signs, such as fever, headache, muscle/joint pain and/or swollen glands.
- Other tick-borne diseases cause similar symptoms but do not cause the same type of rash.
- Left untreated, Lyme disease can affect the central nervous system, heart and/or joints.
- Meningitis, stiff neck or facial paralysis can occur within a few weeks to a few months.
- Some people may develop heart problems such as an irregular heartbeat.
- Arthritis can develop in nearly 60% of untreated victims.
- Lyme arthritis has been misdiagnosed as juvenile rheumatoid arthritis in some children.

### **How can I prevent ticks from biting?**

Ticks do not jump or fly onto their victims. They wait on vegetation and cling to animals and humans as they brush by. While there is no way to protect yourself 100% from encountering a tick while in an infested area, there are some steps you can take to reduce your risk:

- Stay on the center of trails and paths- don't brush against vegetation if you can avoid it.
- Wear long pants and long-sleeved shirts, and tuck the legs into your socks or boots. This helps keep ticks from reaching your skin.
- Wear light colored and tightly woven clothing. This makes it easier to see ticks.
- Use repellents that contain 20% or more DEET on the exposed skin for protection that lasts up to several hours. Parents should apply this product to their children, avoiding hands, eyes and mouth.
- Products that contain permethrin can be used to treat boots, clothing and camping gear. Always follow product instructions.
- Check yourself, your children and pets at least once per day for ticks. A tick is so small it can easily go unnoticed. Pay special attention to the backs of knees, behind the ears, the scalp, armpits, and back.

### **How can I safely remove a tick?**

If you DO find a tick attached to your skin, do not panic; plan to remove the tick in a safe and effective way. To best remove a tick:

- **Use fine point tweezers.**
- **Grasp the tick near its head, as close to the skin as possible, and pull away gently to remove the whole tick without crushing it.**
- **Place the tick in a small container of rubbing alcohol to kill it.**
- **Clean the bite wound with rubbing alcohol or hydrogen peroxide.**
- **Monitor the site of the bite for the next 30 days for the appearance of a rash. If you develop a rash anywhere or flu-like symptoms, contact your health care provider immediately.**

### **What can I do if I am bitten by a tick?**

As soon as you find a tick attached to your skin, remove it.

- Use fine-tipped tweezers to grasp the tick's mouth-parts as close to the skin as possible.
- Pull out steadily and firmly, making sure that the entire tick is removed. (If you must touch the tick with your hands, use a tissue.)
- Wash hands and apply antiseptic to the bite immediately to prevent secondary infection.

### **What should I do if I think I might have Lyme disease?**

See your doctor immediately and tell him or her of your suspicions, especially if you have found a tick attached to your skin, or if you were in an area where ticks are present. Since Lyme disease can mimic other illnesses, this information can help your doctor make a diagnosis.

### **Is there treatment for Lyme disease?**

Depending on the type of tick-borne infection a person has, a specific antibiotic will be given. All medical personnel agree that early diagnosis and treatment is critical in preventing a serious later-stage disease and potentially chronic illness.

### **Can ticks carry other diseases?**

Ticks may also carry ehrlichiosis, anaplasmosis, Powassan virus, and/or babesiosis, which primarily have been on Long Island and in the Hudson Valley. These other tick-borne diseases produce many of the same symptoms as Lyme disease, but diagnosis is even more

difficult. They do not produce a rash and also tend to cause higher fevers than Lyme disease. These diseases can be fatal, especially in the elderly and those with weakened immune systems.

Anaplasmosis and ehrlichiosis are caused by bacteria and can be treated with certain antibiotics, which are also effective against Lyme disease. However, babesiosis is caused by a malaria-like parasite, while Powassan is a virus and cannot be treated in the same way.

The more familiar dog tick, which is larger than the deer tick, may carry Rocky Mountain Spotted Fever. Fewer than 50 cases are reported annually in New York State. It, too, is highly responsive to antibiotic treatment.

### **What is being done about Lyme diseases?**

The State Health Department, the State University of New York (SUNY) at Stony Brook, the New York State Senate Task Force on Lyme and Tick-Borne Diseases and many other agencies are currently researching Lyme disease and other tick-borne diseases.

To aid in Lyme disease diagnosis, the FDA approved a first stage rapid blood test, which uses one drop of blood and gives results within 20 minutes. The technology for this test was developed at Brookhaven National Lab and SUNY at Stony Brook with funds provided by the State Senate.

### **Protect your pets**

Ticks can infect dogs and cats, too. Also, their fur can act like a "tick magnet," carrying ticks inside your home. Consult with your veterinarian about tick-protection for your pets.

*Information provided by: New York State Department of Health, Cornell University, Centers for Disease Control and Prevention, Mayo Clinic, John Hopkins Medicine*