

Key Facts in Georgia

In the Southeast, ticks can carry one or more of over a dozen diseases. Scientists have documented the Lyme disease bacteria, *Borrelia burgdorferi*, in thousands of southern ticks and animals for over 20 years. The South has more Lyme strains than the North. Researchers recently discovered two new species.

Lyme-infected black-legged “deer” ticks, *Ixodes scapularis*, have been found for decades in the South. Georgia was 4th highest in the U.S. with 715 CDC-reported Lyme cases in 1989. Now, for many reasons, statistics don’t reflect the true number of cases. What was counted as a case in the North, usually wasn’t in the South, yet thousands of Southerners report contracting LD - many in Georgia.

Many scientists, doctors and citizens believe other ticks may give people Lyme disease. The bacteria have been found in other ticks including the aggressive lone star. The limited studies can’t rule out transmission to humans. Many people test positive and develop LD symptoms after lone star and other tick bites. False positive Lyme tests are rare. More research is needed.



Photo: University of Nebraska

Lone star, black-legged “deer” tick, American dog tick

Although some reports claim that lone star ticks transmit a “mild” Lyme-like illness called *STARI*, no large, long-term studies prove the illness is really mild. Some reports indicate it’s very serious. Since Lyme tests are so unreliable during early infection, it’s impossible to tell whether a rash following a tick bite may be due to Lyme disease. Treating Lyme disease as soon as possible is *extremely important*.

Ticks may carry other diseases: Ehrlichia, Rocky Mountain Spotted Fever, Babesia, Anaplasma, Mycoplasma, Bartonella, etc. See our website to learn more. If you contract a co-infection, diagnosis and treatment may be more complicated.



A. americanum
Female lone star tick. Males lack the white dot in the middle.

How can I prevent tick bites?

Ticks are susceptible to drying out and are most active on calm, cool, damp (humid) days over 60 degrees. In Georgia, ticks may be active year round. Adult deer ticks feed in fall & winter months.

- **Avoid tick-infested areas.** Use caution during high-risk activities: gardening, gathering firewood, picnicking, sitting on logs/against tree trunks. Ticks may hide under pine straw or bedding materials where it’s moist.
- **Control ticks in your yard**- see directions in the *Tick Management Handbook* available from the CT Agricultural Experiment Station. <http://www.ct.gov/caes/>
- **Use tick spray** containing permethrin on your clothing and *DEET* on your skin.
- **Check yourself, your children and pets** for ticks often and for several days after being in a tick-infested area.



What’s the treatment for Lyme?

There are two standards of care for Lyme disease: one promoted by the Infectious Disease Society of America, the other by the International Lyme & Associated Diseases Society (ILADS). GALDA endorses ILADS guidelines, which allow doctors to apply their clinical judgment & give patients freedom of informed choice. ILADS recommends individualized treatment depending on how long you’ve been infected, how seriously ill you are, and your response to treatment. Early treatment is often successful. Unfortunately, LD can be difficult to diagnose and treatment is often delayed. In these cases, response to treatment varies considerably and longer treatments may be necessary. Only you & your doctor can decide on the treatment approach that will best address your medical needs. GALDA supports the patient’s right to make informed choices.

What is GALDA?

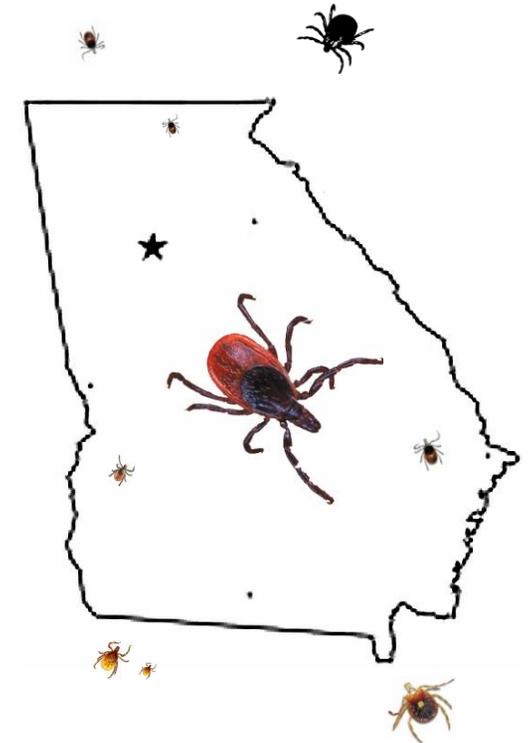
Nonprofit Georgia Lyme Disease Association, *GALDA*, is a 501(3)c all-volunteer patient advocacy group dedicated to the prevention of and education about Lyme & tick-borne diseases. We’re an affiliate of the national Lyme Disease Association. Tax-deductible donations may be made online or mailed to PO Box 2073, Peachtree City, GA 30269.

Lyme Disease

and tick-borne infections



Georgia’s Hidden Epidemic



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What is Lyme disease?

Lyme disease is caused by spiral-shaped bacteria known as spirochetes (“SPY-ROH-KEETS”). The Lyme spirochete is named *Borrelia burgdorferi* for its discoverer, Dr. Willy Burgdorfer. It can infect any organ of the body, including the brain, heart, joints and nervous system.



B. burgdorferi
A. MacDonald

How do people get the disease?

Ticks feed on deer, mice, rats, squirrels, rabbits, birds, reptiles & other wildlife and may pick up diseases from these animals. Some animals, even certain lizards, can harbor the Lyme disease bacteria.



Most people catch Lyme disease from the bite of an infected nymphal tick. Nymphs are *the size of poppy-seeds*; many people don't notice or remove them. The bite is painless so *people may not even realize they have been bitten*.

The longer an infected tick is attached, the greater the chance it will pass a disease. If ticks remain attached for several days, infection risk is extremely high. *Five to seven percent of infected nymphs transmit the bacteria in the first 24 hours; about 50% will transmit after 2 days.*

Some authorities believe Lyme may be spread through intimate contact; the evidence is still being debated. Research shows that babies *in utero* may become infected if their mothers have LD or are bitten during pregnancy. There is a small chance babies will be born with birth defects; miscarriages and stillbirths linked to Lyme disease have also been reported.

Where should I get tested?

No test can rule out Lyme disease nor determine whether the bacteria have been cleared by treatment. Most labs use test kits that miss nearly half the positive cases. Ask for a Western blot test; it's more sensitive than an ELISA. The following diagnostic labs are CLIA & Medicare approved. They report all bands on the Western blot, not just CDC-reportable bands:

1. IGeneX, Tel. 800-832-3200, www.igenex.com
2. MDL, Tel. 877-269- 0090, www.mdlab.com
3. Stony Brook Lab, Pathology Dept: 631-444-3824, www.path.sunysb.edu/labsvs/ticklab.htm

What are the symptoms?

Lyme disease is called the “Great Imitator” because it can look like other diseases. Many Lyme patients have been misdiagnosed with more familiar conditions such as rheumatoid arthritis (JRA in children), fibromyalgia, or chronic fatigue. If your brain is infected, the doctor might think you have MS, ALS, ADHD, Parkinson's, or even mental illness. Below is a partial list of symptoms. They may come and go and worsen over time if not treated.

- *Flu-like illness, sick feeling (malaise)*
- *Rash (in less than 60% of cases)*
- *Bell's palsy (facial paralysis)*
- *Palpitations, chest pain, shortness of breath*
- *Extreme fatigue*
- *Stiff, aching neck*
- *Dizziness, ringing in ears, hearing loss or sensitivity*
- *Eye problems - light sensitivity, blurred vision, etc.*
- *Cognitive problems, difficulty concentrating*
- *Depression, irritability, mood swings, panic attacks*
- *Forgetfulness, poor short-term memory*
- *Insomnia*
- *Headache, new onset migraine*
- *Joint pain, joint swelling*
- *Muscle pain, muscle twitching, “growing pains”*
- *Abdominal pain, nausea, diarrhea*
- *Tingling, burning, shooting pains, numbness*



What about the rash?

Sometimes a rash called *erythema migrans* (EM) develops at the bite site. It may start days to weeks after the bite and expands gradually. 40% or more of patients don't get a rash. Bull's eye rashes are most recognized but most EMs are uniformly red areas that may be mistaken for a bruise, spider bite or ringworm. Multiple rashes may occur. Take photos and consult a doctor immediately. About 70% of patients don't test positive when a rash is present; it can be 4-6 wks before antibody levels peak. Early and adequate treatment is crucial.



How should I remove a tick?

- ✓ Use tweezers or a special tick-removal tool. Do not touch ticks with bare fingers.
- ✓ Grasp tick as close to skin as possible and pull straight out.
- ✓ Do not squeeze, twist, burn or squash tick.
- ✓ Disinfect bite area; wash hands thoroughly.
- ✓ Save tick in a small bottle or plastic bag with a damp piece of tissue or place in a baggy in the freezer for testing later. Label all containers with name, phone #, and location of bite.
- ✓ Consult your physician about the need for preventative treatment. 1-dose oral treatment is controversial; a study found this left most mice infected, but caused them to test negative.
- ✓ Watch for signs & symptoms, which can develop weeks, months and even years later.

Can the tick be tested?



Ticks may be tested for Lyme and other tick-borne diseases but *tests are not perfect and cannot completely rule out* whether a tick has an infection nor determine if the tick passed it on to you. Contact: IGeneX, 797 San Antonio Rd, Palo Alto CA 94303, Tel. 800-832-3200, www.igenex.com

Where can I find more information?

- ☼ Website-www.GeorgiaLymeDisease.org (Become a Facebook fan, follow us on Twitter)
- ☼ CALDA: www.lymedisease.org
- ☼ International Lyme & Associated Diseases Society: www.ILADS.org
- ☼ <http://health.groups.yahoo.com/group/GeorgiaLyme-online-support-group>
- ☼ Lyme info - www.lymeinfo.net