



# FLORIDA LYME DISEASE ASSOCIATION



**FLORIDA  
LYME DISEASE  
ASSOCIATION**

### PREVENT TICK BITES

Avoid tick-infested areas, walk in the middle of trails, treat skin, clothing and gear with appropriate repellents and tuck pants into socks.

### TICK CHECK

Perform routine, at least daily, tick checks anytime you are outdoors. Ticks can be as small as a poppy seed and may look like a freckle. Ticks like to attach around moist areas of the body, and can often be found between the toes, behind the knees, in the navel and groin areas, armpits, back of neck, skin creases, and in hair.

### TICK REMOVAL

Use fine-point tweezers to grasp the tick at the place of attachment, as close to the skin as possible. Gently pull the tick straight out, without twisting. Wash your hands and disinfect the bite site. Do not grab the body or use heat, oils or other topical agents which may cause the tick to expel pathogens. Save the tick for testing.

### PROPHYLACTIC TREATMENT

Carefully weigh the risks and benefits of prophylactic antibiotic treatment in the case of a known tick bite, even before symptoms appear.

### WHAT IS LYME

Lyme disease is caused by a spirochete, a corkscrew shaped bacteria (*Borrelia burgdorferi*), and is primarily transmitted by certain species of black-legged ticks. The nymphal, or immature, form of the tick, which is about the size of a poppy seed, causes most human cases. Because the bite is painless, many people do not realize they have been bitten. Lyme can also be spread from mother to child during pregnancy.

The Centers for Disease Control (CDC) estimate that approximately a half million people are diagnosed with Lyme disease in the United States every year. Lyme has been reported in all 50 states. The entire state of Florida is considered endemic for Lyme.

In addition to Lyme disease, ticks may harbor other pathogens, including other bacterial infections, viruses or parasites. Indeed, there are many pathogens carried by ticks that can complicate tick-borne disease diagnosis, treatment and recovery, including *Babesia*, *Francisella*, *Anaplasma*, *Mycoplasma*, *Ehrlichia*, Spotted Fever *Rickettsia*, *Borrelia miyamotoi*, *Bartonella*, Bourbon Virus, Heartland Virus, and Powassan Virus among others.

### OUR MISSION

Florida Lyme Disease Association (FLDA) is a 501(c)(3) non-profit organization dedicated to improving the prevention, diagnosis and successful treatment of Lyme and related tick-borne diseases through education and support of scientific research.

 [FLDA@comcast.net](mailto:FLDA@comcast.net)

 [www.FLDA.org](http://www.FLDA.org)

 3948 3rd St S, # 285  
Jacksonville Beach, FL 32250

## TESTING

Currently, there is no reliable test to determine if someone has contracted Lyme disease, the effectiveness of a course of treatment, and the endpoint of treatment. Due to difficulty in culturing the actual bacteria, most Lyme disease tests rely upon an antibody response. Laboratories have varying levels of sensitivity, specificity, and cost.

False positives and false negatives often occur, but false negatives are far more common. Indeed, numerous peer-reviewed studies show that standard tests miss approximately 1/2 of actual cases. As a result, doctors who are experienced treating Lyme disease may make a clinical diagnosis based upon patient symptoms, health history, exposure risks and laboratory tests.

We recommend using CLIA certified laboratories such as IGeneX, Vibrant Wellness, Medical Diagnostics Laboratory, or Stony Brook University Medical Center (if the ordering healthcare provider checks the box to include CDC non-specific bands on the Western Blot report).

In addition to Lyme, it's important to consider other vector-borne infections including *Bartonella*, *Babesia*, *Anaplasma*, *Ehrlichia*, spotted fever *Rickettsia*, and relapsing fever *Borrelia*.



## LYME SYMPTOMS

### Dermatological

- Rash - Often circular; may or may not resemble a bullseye; may appear away from the bite site
- Skin changes/nodules under the skin,

### Musculoskeletal System

- Joint pain or swelling
- Stiffness of joints, back, neck
- Muscle pain, cramps
- Twitching of facial or other muscles
- Restless legs

### Neurological System

- Headache
- Numbness and tingling
- Weakness or partial paralysis
- Light-headedness or dizziness
- Bell's Palsy (facial paralysis)
- Memory Loss (short or long term)
- Confusion or brain fog
- Speech difficulty
- Seizures/stroke symptoms

### Vision / Hearing

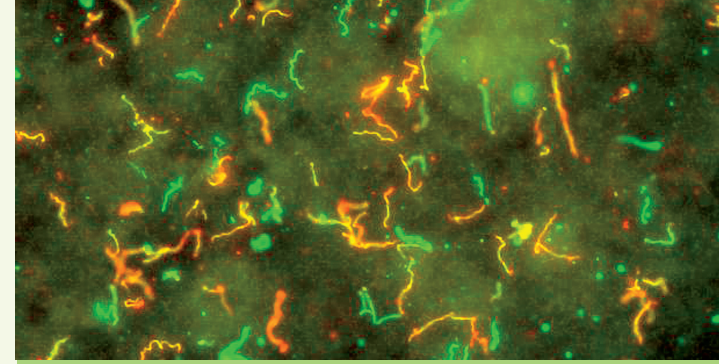
- Blurry or double vision, vision change
- Sensitivity to light and flashing lights
- Tinnitus (ringing)
- Sound sensitivity

### Psychological

- Mood swings, irritability
- Depression, panic/anxiety attacks
- Aggression/rage
- Insomnia or sleeping too much
- Obsessive-compulsive behavior
- Suicidal thoughts

### General Well Being/Other

- Extreme fatigue
- Weight gain/loss
- Sensitivity/increased allergic reactions
- Shortness of breath
- Night sweats or chills
- Heart palpitations, arrhythmia
- Flu-like symptoms/fever



## TREATMENT

While individuals who are promptly diagnosed and treated with antibiotics generally have a better prognosis, the CDC estimates that up to 20% of these patients will still suffer persistent symptoms after standard antibiotic treatment. The treatment failure rate is much higher for those not timely diagnosed or adequately treated. There's a growing body of credible research demonstrating persistent infection after antibiotic treatment.

There is a deep division within the medical community as to how patients should be treated if they do not respond to a standard course of antibiotics lasting several weeks. FLDA endorses the International Lyme and Associated Diseases Society (ILADS) guidelines, which allow greater exercise of clinical discretion by physicians and provide patients with more treatment options. FLDA also recommends for patients to seek out ILADS trained medical care providers.

