



Fatal Forecast: Lyme Disease Will Plague America

Story at-a-glance

- ▶ Since national surveillance for Lyme disease began in 1982, the number of reported cases have grown 25-fold, but there could be as many as 10 times more cases that go unreported
- ▶ Also called the “great imitator,” Lyme disease may mimic arthritis, fibromyalgia, neurological symptoms, cognitive deficits and multiple sclerosis to name a few conditions, and the rate of infection is growing
- ▶ Symptoms and testing may baffle physicians, increasing resistance to diagnosis, but antibiotic treatments are not the best option; natural strategies will help your body cope with the infection

By Dr. Mercola

National surveillance for Lyme disease began in 1982 and since then the number of reported cases has grown over 25-fold.¹ Between 1990 and 2015, the number of reported cases in the U.S. doubled.² The disease has also spread geographically.³

According to the Centers for Disease Control and Prevention (CDC), it's the fastest growing vector-borne infectious disease in the U.S.⁴

The CDC reports the disease, and the ticks that carry the disease, are concentrated in the northeast and upper Midwest.⁵ Ticks carry more than Lyme disease, including Rocky Mountain spotted fever and human babesiosis, a rare microscopic parasite that infects red blood cells.

Each year approximately 30,000 cases of Lyme disease are reported to the CDC.⁶ However, this number does not reflect all cases diagnosed in the U.S. Following two studies by the CDC, researchers estimate 10 times that number are infected with Lyme disease each year, for a total ranging between 296,000 and 376,000 cases.

Lyme disease is often called "the great imitator,"⁷ as it may mimic a number of other disorders, such as arthritis, chronic fatigue syndrome, multiple sclerosis (MS), amyotrophic lateral sclerosis (ALS) and Alzheimer's disease.

Outwardly, most infected individuals appear healthy, in spite of suffering severe symptoms. Vague and dispersed pain complaints may be misdiagnosed as fibromyalgia.

What Lyme Disease Is and How It's Spread

Lyme disease is a bacterial infection primarily transmitted by ticks that have previously fed on an infected host. However, some top authorities on [Lyme disease](#), like Dr. Dietrich Klinghardt, warn the bacteria that cause the disease may also be spread by other insects such as fleas, mosquitoes, mites and spiders.

Lyme disease remains one of the most serious and controversial epidemics today. The disease usually starts with fatigue, fever, [headaches](#) and joint or muscle pain.

It can then progress to muscle spasms, loss of motor coordination, intermittent paralysis, meningitis and even heart problems. Lyme disease was named after the east coast town of Lyme, Connecticut, where the illness was first identified in 1975.

It wasn't until 1982 that Willy Burgdorfer, Ph.D., discovered the bacteria responsible for the infection — a cousin to the spirochete that causes [syphilis](#). They look almost identical under a microscope.

Burgdorfer named the bacteria *Borrelia burgdorferi*. The corkscrew shape allows the bacteria to hide in a variety of different body tissues, causing a wide range of symptoms.

The bacteria may also live inside your cells in an "L-form" or coated as a cyst. The ability to change forms explains why diagnosis and treatment is so challenging and why recurrence of symptoms may result after standard antibiotic protocols.

[Ticks](#) are not born with the bacteria, but acquire it after feeding on a host. White-footed mice, which are a common carrier, infect an estimated 75 to 95 percent of larval ticks that feed on them. Urban sprawl and reduction in natural predators have allowed the mouse population to quickly multiply, and with them the infected ticks.

The growing number of infections are not surprising, but how the medical community may respond will determine the extent of the damage in the coming years.

Although chronic Lyme disease is more widely recognized as an actual disease, there continues to be resistance in the medical community and with insurers. Sufferers are often told the problem is psychiatric.

Early Spring Is Creating the Perfect Lyme Storm

The majority of time Lyme disease is spread through tick bites. However, it can also be spread by mosquitoes, spiders, fleas and mites.

According to data from the U.S. Geological Survey, spring was scheduled to arrive three weeks early this year for nearly half of the U.S.⁸ If you love being outside without layers of clothing, this may sound like a good thing. However, the warm weather will also pose public health challenges.

Early spring may have an effect on the spread of insects that spread diseases, such as mosquitoes and ticks. Dr. Aaron Bernstein, associate director of the Harvard T. H. Chan School of Public Health

Center, commented on the spread of disease and diseases for which no good treatment is currently available:⁹

"There's no question that when it's too cold, ticks and mosquitoes cannot thrive. An overall warming trend opens up the chance for them to live in new places and to stay alive for longer periods of time.

We don't want to have to resort to spraying potentially harmful pesticides over large swaths of land to kill mosquitoes, or quarantining people who enter the country from certain parts of the world, or exposing our children to vaccines that haven't been tested thoroughly."

The combination of higher risks of flooding with an early spring, milder temperatures, growing populations of ticks and Lyme infected mice and more people being more active outdoors, may increase the number of people infected with Lyme disease.

Interestingly, the ticks do not get sick from the bacteria they carry. Joao Pedra, Ph.D., studies microbiology and immunology at the University of Maryland School of Medicine. He wanted to know what was happening in the ticks' immune system and found several genes necessary for mosquito immunity was absent in ticks.¹⁰

Instead of identifying a foreign invader by sugar molecules, a tick's immunity identifies lipid molecules, making them uniquely adapted to handle a bacteria that uses lipids to keep the cell structure intact. Pedra speculates the bacteria may also enable ticks to live through cold weather.

Areas Affected by Lyme Disease in the United States Are Growing

Areas of the U.S. affected by Lyme disease are growing, and most notably in the coldest, more northern states. The CDC estimates the two states to be hardest hit by Lyme disease this season are New Jersey and Pennsylvania.¹¹ Researchers in New York have also found the regional mouse population is exploding.

Lyme disease is not exclusive to the eastern U.S., but also has a presence in Wisconsin and Minnesota. However, in recent years the tick population has spread to Michigan, in both the Upper and Lower Peninsulas.

The number of diagnosed cases increased five times over a four-year study period, indicating an expanding geographic distribution northward.¹²

The increasing number of people diagnosed with Lyme disease may be the result of better diagnosis and an increasing number of physicians who suspect Lyme disease. It may also be attributed to an increasing number of people who are moving to suburban areas that are being reforested.¹³

Although the number of areas affected by Lyme disease is growing, another challenge is convincing people the threat of this condition is real.

According to a survey of more than 11,000 people done by the CDC between 2009 and 2012, 21 percent of households had one person bitten by a tick in the past year,¹⁴ but only 10 percent of those reported seeing a health professional.

Unfortunately, over 50 percent of the respondents to the survey reported they did not take any precautionary or preventive measures during warm weather.

The survey found that exposure to ticks was common and the understanding of Lyme disease was widespread, but preventive methods were used infrequently. This may indicate a poor understanding of the secondary effects of chronic Lyme disease, or a belief that the respondents would not contract the disease.

Symptoms of Lyme Disease May Baffle Your Physician

In this video, U.S. Congressman for New Jersey's 4th District, Chris Smith, describes the challenges patients are facing in the recognition and treatment of Lyme disease. People with Lyme disease are often described as "looking good" and their blood work often comes back normal, making diagnosis of the acute and chronic condition challenging.

In fact, the Infectious Disease Society of America (IDSA) doesn't believe there is a chronic condition, stating symptoms should be gone in two to four weeks after [antibiotic](#) treatment.¹⁵ As a result, many patients are referred to a psychiatrist and some doctors have gone so far as to accuse patients of being attention seekers fabricating their symptoms. A significant contributing challenge is the disease is notoriously difficult to diagnose using lab testing.

The bacteria is able to infect your white blood cells. Testing measures the antibodies white cells produce, but infected cells don't respond appropriately. Antibodies to the disease appear only after your white cells are functioning normally. This means that to get an accurate blood test, you first have to undergo treatment.¹⁶ To overcome this challenge, the CDC recommends a two-step testing process.¹⁷

IGeneX lab, which specializes in Lyme testing, has a potentially more accurate test. They are accredited by the Centers for Medicare and Medicaid Services and hold licensure in several states. Their test is highly specific for bacterial strains and co-infections. They check for bacterial DNA, ideal for people who do not produce antibodies to Lyme disease.^{18,19}

There is great variation in presenting symptoms and the characteristic "bull's-eye" rash is not present in nearly half of patients. The difficulty in diagnosis has led to resistance in acknowledging both the acute and chronic phase of the disease. This occurs in patients who are medical professionals as

well. Dr. Neil Spector, oncologist at Duke University, recounts his journey with Lyme disease in his autobiographical book, "Gone in a Heartbeat."²⁰

Spector's doctors attributed his symptoms to stress as his blood work was negative, until severe heart failure required a transplant. He commented:²¹

"Heaven help the patient whose diagnostic tests do not point to a specific disease. They are likely to end up neglected by the very system that was designed to help them ... despite my instincts and research into the field, I was largely being discounted by the medical community. If this can happen to a physician-scientist with extensive knowledge of medicine, just imagine what is happening to others who lack a medical background."

Important to Take Prevention Seriously

The treatment for Lyme disease is challenging and often controversial, making [prevention vital](#). Many people are unaware that young ticks are the size of poppy seeds and may crawl over your shoes and up your pants. Adult ticks are more likely to drop from trees or crawl under an untucked shirt.²²

If you live or travel through a high-risk area, maintain your guard against tick bites. Here are several ways you can prevent contracting Lyme disease:^{23,24,25}

Avoid tick-infested areas, such as leaf piles around trees. Walk in the middle of trails and avoid brushing against long grasses. Don't sit on logs, wooden stumps, stonewalls or the ground.

Ticks are very tiny. You want to find and remove them before they bite, so do a thorough tick check upon returning inside and take a shower.

Continue to check your body and bedding for several days after being in an area likely to have ticks.

Considering the high infection rate of rats, you'd be wise to take precautions if you're in an area where rats have been sighted.

Tuck your pants into socks and wear closed shoes and a hat, especially if venturing out into wooded areas. Also tuck your shirt into your pants.

Wear light-colored long pants and long sleeves with a tight weave, to make it easier to see the ticks.

Once you return home, place your clothing in the dryer (before washing) on high heat for 60 minutes to kill any ticks on your clothes.

Your [pet can become a host for ticks](#) and may also become infected with Lyme disease, although it is more likely they will test positive but won't experience symptoms.

I don't recommend using chemical repellents directly on your skin as this introduces toxins directly into your body. If you choose to use them, spray the outside of your clothes while outside and avoid inhaling the fumes.

Keep long hair tied back, especially when you are gardening. Remove leaves from your lawn each fall, as ticks will seek shelter from cold weather and snow under piles of leaves.

If you find that a tick has latched onto you, it's very important to remove it properly. For detailed instructions, please see lymedisease.org's tick removal page.²⁶

Once removed, make sure you save the tick so that it can be tested for presence of pathogenic organisms.

Antibiotics Are NOT the Best Treatment Option

While early treatment is critical to prevent complications, traditional treatment involving a course of antibiotics is often unsuccessful in preventing complications, including arthritis, cognitive deficits, heart rhythm irregularities or neurological symptoms.²⁷ Antibiotics damage your gut microbiome and increase your risk of yeast and fungal infections.

For these reasons, it is advisable to exhaust natural strategies to help your body fight Lyme disease. One example is the Nutramedix line of herbal antimicrobials, recommended by one of the most prominent alternative medicine experts, Dr. Lee Cowden. The best feature of this natural treatment for Lyme disease is that it rotates various herbal antimicrobials, so you don't have to worry about bacteria developing resistance.

To help your body fight the infection, you should consume a nutritious diet rich in [antioxidants](#). You can also take antioxidants and other supplements, to help your body fight the infection and relieve symptoms. Here are some supplement recommendations if you are embracing a natural treatment approach:

Astaxanthin: neutralizes toxins and relieves joint pain

Probiotics: optimizes gut flora and supports immunity

Grapefruit seed extract: may help treat Borrelia in cyst form

Cilantro: a natural chelator for heavy metals

Krill oil: helps in reducing inflammation and relieving [Lyme symptoms](#)

Resveratrol: helps with detoxification and it may treat the common co-infection, Bartonella

Quercetin: reduces histamine, which is usually high in Lyme patients

Whey protein concentrate: may help with nutrition, a common problem in Lyme patients who are unable to eat properly

Andrographis and Artemisinin: herbs that treat the common co-infection, Babesia

Curcumin: helps reduce brain swelling and eliminates neurological toxins

GABA and melatonin: addresses insomnia, which is common in people with Lyme disease

CoQ10: supports cardiac health, alleviates muscle pain and reduces brain fog

Transfer factors: helps boost immune function

Dr. Dietrich Klinghardt is one of the [top authorities on Lyme disease](#). He has a Lyme disease protocol that can help you recover from the infection. His website explains the protocol in detail, but here are the basic steps to give you an idea of what it entails:²⁸

1. Evaluate all external factors, and address as appropriate. These include molds, electromagnetic fields, electrosmog and microwave radiation in connection to wireless technologies. Klinghardt advises shielding your home using Y shield (special graphite paint) in order to reduce microwave radiation coming from the outside. Cloth coated with silver is used for curtains. Patients are advised to turn off all fuses at night and eliminate all cordless telephones until they recover from the illness.
2. Address stress and emotional issues. Energy psychology tools like the Emotional Freedom Techniques can be helpful to address the emotional components of Lyme.
3. Address parasitic, bacterial and viral infections. Parasites need to be addressed first, followed by bacteria and then viruses. Klinghardt uses an antimicrobial cocktail composed of wormwood, vitamin C, phospholipids and different herbs. Viral infections are addressed with BioPure's Viressence, a tincture of Native American herbs.
4. Address other lifestyle factors. Determine your need for supplementation (antioxidants) to address nutritional deficiencies.

Additional Resources

- [International Lyme and Associated Disease Society \(ILADS\)](#)
- [Tick-Borne Disease Alliance \(TBDA\)](#). Under the "Diagnosing TBDS" tab, you can find a listing of medical professionals knowledgeable in the treatment of Lyme
- [Lyme Disease Association, Inc.](#)
- [LymeDisease.org](#)
- Lyme disease expert Dr. Joseph J. Burrascano, wrote what is essentially a manual for managing Lyme disease, "Advanced Topics in Lyme Disease," which is worth adding to your resources. However, beware that his treatment focus is long-term antibiotics, which I believe should not be your first choice. Nevertheless, there is some good information there.