

Prevalence of Lyme Disease in the US Is 10-Times Higher Than Previously Reported

By Dr. Mercola

It's now been fairly well-established that chronic inflammation is an underlying factor in most chronic illnesses. Diseases, such as Parkinson's, multiple sclerosis, cardiomyopathy, gastritis, and chronic fatigue, are all turning out to be expressions of chronic infections.

Lyme disease appears to be a major, yet oftentimes hidden, player. This may sound shocking to you, but diagnosing Lyme is very difficult, so the actual number of cases is high relative to reporting.

According to preliminary statistics^{1, 2} just released by the Centers for Disease Control and Prevention (CDC), approximately 300,000 new cases of Lyme disease are diagnosed in the US each year. This is about 10 times higher than the officially reported number of cases, indicating that the disease is being vastly underreported.

The data was presented by CDC officials at the 2013 International Conference on Lyme Borreliosis and Other Tick-Borne Diseases in Boston in the middle of August. As reported in the featured article by Medical News Today³:

"This agrees with studies reported in the 1990s that showed the actual number of Lyme diseases cases in the US was likely to be three to twelve times higher than reported... Lyme disease is the most commonly reported tick-borne illness in the US."

What Is Lyme disease?

Lyme disease was named after the East Coast town of Lyme, Connecticut, where the disease was first identified in 1975.⁴ The disease was first referred to as "Lyme arthritis" due to the presentation of atypical arthritic symptoms in children that lived in that city. By 1977, the black-legged tick (*Ixodes scapularis*, also known as the deer tick) was linked to transmission of the infection.

Then in 1982, Willy Burgdorfer, PhD, discovered the bacterium responsible for the infection: the spirochete, named after him, *Borrelia burgdorferi*,⁵ is a cousin to the spirochete bacterium that causes syphilis.

In fact, the two look almost identical under a microscope. *B. burgdorferi*'s corkscrew-shaped form allows it to burrow into and hide in a variety of your body's tissues, which is why it causes such wide-ranging multisystem involvement.

Borrelia burgdorferi does not just exist as a spirochete; it has the ability to live intracellularly (inside your cells) as an “L-form” and also encoated as a “cyst” form. These different morphologies explain why treatment is so difficult and recurrence of symptoms occurs after standard antibiotic protocols.

Adding to the difficulty in treating Lyme, the organisms may live in biofilm communities, which are basically a colony of germs surrounded by a slimy glue-like substance that is hard to unravel. For these reasons you will often see Lyme referred to as “stealth.”

No doubt about it, this clever maneuvering and the pleomorphism of the germ helps it hide and survive despite the most aggressive antibiotics of our time. Furthermore, as reported in the featured article:

“The Lyme disease bacterium has a quirky feature for survival. It can exist without iron, which most other living organisms require to make proteins and enzymes. Instead of iron, B. burgdorferi uses manganese, thus eluding immune system defenses that destroy pathogens by starving them of iron.”

You May Never See the Tick That Bites You

You can be host to the Lyme germ. The tick, which feeds off deer, birds, animals (including your pet), then gets on you. It numbs your skin so you won't feel it. It prefers dark, crevices such as your armpit or behind your ear, or your scalp. Depending on the season, the tick may be a baby, termed a nymph.

It attaches to you (the host) and you may not see it since nymphs are no bigger than a poppy seed. Once it attaches itself to you it feeds on you (they are blood-suckers). At some point, and it may be an hour or a couple of days, it will ‘spit’ its bacterial load into you. The bacteria are released into your blood from the infected tick via saliva. We now know there are five subspecies of *Borrelia burgdorferi*, more than 100 strains in the U.S. and 300 worldwide, many of which have developed resistance to our various antibiotics.

It's worth noting that while many still attribute Lyme transmission exclusively to ticks, [Dr. Deitrich Klinghardt](#), one of the leading authorities on Lyme disease, warns that the bacteria can also be spread by other insects, including mosquitoes, spiders, fleas, and mites. This may be the reason so few Lyme sufferers recall being bitten by a tick. The other reason of course, is that you don't feel the bite, and usually don't see the tick! In fact, fewer than half of Lyme patients recall ever getting a tick bite. Many Lyme patients don't remember such an event because the tick numbs your skin before biting so it is never felt. In some studies, this number is as low as 15 percent. So, if you don't

recall seeing a tick on your body, that doesn't rule out the possibility of Lyme disease. There's even some evidence pointing to Lyme disease being capable of sexual and congenital transmission...

To add confusion to the story of Lyme disease, ticks usually transmit more than the *Borrelia* organism. They could simultaneously infect you with *Bartonella*, *Rickettsia*, *Ehrlichia* and *Babesia*. Any or all of these organisms can travel with *Borrelia burgdorferi* (the causative agent of Lyme) and each causes a different set of symptoms. When a person has Lyme, they often have some co-infections. Simply put, you can have one tick bite, and wind up with five different infections. Each patient with "Lyme disease" presents differently based upon their co-infections, making a standard treatment plan impossible. Treatment is based upon presentation of symptoms.

Lyme Disease: 'The Great Imitator'

Many Lyme patients who battle this disease on a daily basis appear healthy, which is why Lyme disease has been called "the invisible illness." They often "look good," and their routine blood work appears normal, but their internal experience is a far different story. Several people close to me have struggled with Lyme disease for between 15 and 20 years. They recently tested positive through the IgeneX blood test discussed below. This is actually a common scenario for many Lyme patients.

The problem of misdiagnosis is typical for many Lyme patients because conventional labs are not good at detecting the causative agent (*Borrelia burgdorferi*) or its co-infecting pathogens. Additionally, physicians have been told for years that Lyme does not occur in some states which is incorrect. Lyme is in every state, and in fact worldwide.

With Lyme, the most disabling symptoms are always invisible. You never feel completely well, there is always some issue to deal with, and as soon as one symptom retreats, another appears. The dial is spinning all the time. The constant and sometimes disabling symptoms leave you physically depleted and spiritually weakened. Complicating matters further, Lyme disease is also notoriously difficult to diagnose, and laboratory tests are known to be unreliable. It's difficult to test for Lyme for a variety of reasons, but one of the main ones is that there are so many species of the germ, and only a handful of strains are detectable with current lab science technology.

It Can Happen to Anyone

Because Lyme and all of its co-infections cause so many constant symptoms, it easily mimics disorders, such as multiple sclerosis (MS), arthritis, Parkinson's, chronic fatigue syndrome, fibromyalgia, ALS, ADHD and [Alzheimer's](#) disease. The only distinctive hallmark unique to Lyme disease is the "bull's-eye" rash known as Erythema Migrans,⁶ a red rash with an expanding red ring around it and this occurs soon after the tick bite. After it clears up, this bull's-eye rash is gone.

And for the record, it's not even always in the shape of a bull's eye. Perhaps now you understand why the cases reported to the CDC have been woefully low. But as just mentioned, less than half of all cases of Lyme can be traced to a tick bite, so this hallmark rash is absent in many of those infected.

So how do you know if you have Lyme disease? Besides the rash, some of the first symptoms of Lyme disease may include a flu-like condition with fever, chills, headache, stiff neck, achiness and fatigue. Treatment at this point is crucial because it may help you avoid chronic Lyme. If you don't see the tick and remove it, it can progress to ailments like arthritis, facial palsy, nervous system and heart problems and a hundred other symptoms. For a more extensive list of symptoms, refer to the Tick-Borne Disease Alliance⁷ (TBDA), but some of the more frequent symptoms include the following:

- Muscle and joint pain
- Neurological problems
- Heart involvement
- Vision and hearing problems
- Migraines

To give you an example, recently the College of Charleston President George Benson was hospitalized for Lyme disease according to an email he addressed to campus members. Prior to this, he had been hospitalized for severe back pain, but no one was sure of the exact cause. His possible successor, Republican Lt. Gov. Glenn McConnell was also ill from Lyme disease last year according to The Associated Press. Lyme is everywhere, I suspect that even the most recent numbers reported by the CDC (300,000 cases) is lower than the actual real-life cases. For more real-life examples, see the discussion below, featuring two Lyme patients, and this recent CNN Health article⁸ by Erik Nivison, producer for HLN's "In Session," who was recently diagnosed with Lyme disease after 2 years of symptoms.

Controversy Surrounding Lyme Disease

There's a load of controversy around Lyme disease. In the past, sufferers were told their ailments were "all in their head," and the disease was largely swept under the rug. Sadly, this still occurs today and this is frequently missed. The controversy for the most part today largely revolves around whether or not antibiotics are effective against chronic Lyme disease, and whether there even is such a thing as chronic Lyme.

According to Suzy Cohen, doctors that belong to the Infectious Disease Society of America (IDSA) do not believe in chronic Lyme and typically will not treat a Lyme patient beyond four weeks. Some medical doctors and practitioners belong to the International Lyme and Associated Diseases Society⁹ (ILADS) group, which does believe that Lyme can and often persists beyond a few weeks, and are willing to treat you beyond the four-week period.

I can tell you, chronic Lyme does exist, and no matter how long you've had it, there is always hope for a full recovery. It baffles me as to how physicians can deny infection when these organisms are stealth and evade detection and standard treatment protocols. As described by investigative journalist Beth Daley in the PBS interview¹⁰ above:

"It's a very controversial disease, in large part because there are so many questions about treatment and lingering symptoms of people with Lyme and if people actually have Lyme disease who are sick... [T]raditionally, you get bit by a tick, you might see a rash or feel a fever or you go to the doctor. They sort of diagnose you through tests or clinically. And you would probably get three to four weeks of oral antibiotics. And that is -- most people agree, is usually enough to knock the disease from your system completely. Sometimes, it goes a little bit longer if it's more involved, but short courses of antibiotics overall.

However, a large segment of people believe that their symptoms linger for years sometimes, and the only way to treat them is to use long-course antibiotics, often through intravenously or orally, for years on end to -- so they can live, so they can really get out of bed in the morning. And that is a controversy. The medical establishment says, listen, there's no proof this longer course of antibiotics work at all. And these Lyme patients say, yes, it does... And a lot of the debate centers on, a lot of insurance companies won't pay for those antibiotics. As a result, lots of people go bankrupt..."

According to Daley, there's little discussion within the medical community to determine whether patients with lingering symptoms actually benefit from long-course antibiotics or not. However, some researchers are looking into the matter. Researchers at Yale, for example, are investigating whether the killed-off bacteria might be leaving protein

residues behind, causing long-term symptoms. Other research being performed at Tufts suggests that the bacteria can indeed survive, at least in animal studies, and that this weakened bacteria might still contribute to problems. Daley also points out that these latest statistics really bring Lyme disease to the fore politically:

“If you just consider Massachusetts, which is -- where The Boston Globe is, we spend \$10 million a year and more on mosquito control. We spend \$60,000 on tick-borne diseases. The disparity is great. And as Lyme disease burden grows on public health, hopefully -- I think people are hoping that the political forces will come to bear, that they will start seeing money to eradicate ticks in the environment or help people learn more about them.”

I personally believe that long term antibiotic treatment is not a wise choice for most, and that every natural alternative should be considered prior to that strategy as there is a major danger for impairing your beneficial bacteria and developing a yeast or fungal co-infections, which are already common in the disease.

The use of antifungals like fluconazole and nystatin may certainly be appropriate and helpful when a secondary yeast infection is present, and it often is present in cases of Lyme disease. In an ideal world, you would boost your immune function with a healthy diet, antioxidants such as astaxanthin and even a compounded drug called low-dose naltrexone (LDN), known to help your body fight harder. A gentler solution to conventional antibiotics that can strip your body of needed probiotics and cause a myriad of symptoms is the Nutramedix line of herbal antimicrobials. This was developed by my friend Dr. Lee Cowden and is often termed the “Cowden Protocol.” It is not thought to cause resistance because this protocol cycles various herbal antimicrobials.

Is There Such a Thing as Chronic Lyme Disease?

*Slate Magazine*¹¹ ran an article earlier this summer highlighting the controversy surrounding chronic Lyme disease, also referred to as “post-treatment Lyme disease syndrome” (PTLDS). According to some studies,¹² PTLDS affects 0.5 to 13 percent of patients treated for Lyme:

*“Doctors divide chronic Lyme disease into two categories, broadly speaking. The first involves patients who have a known history of infection by *Borrelia burgdorferi*, the spirochete responsible for Lyme disease. A small subgroup of patients treated for the disease experiences aches, fatigue, and other nonspecific symptoms more than a year after the infection clears. Whether these symptoms have anything to do with the initial infection or treatment is a subject of controversy among mainstream doctors, because we don’t have enough data to make a judgment.*

Then there are patients with no proven history of actual infection, who represent the overwhelming majority of people claiming to suffer from chronic Lyme. This form of chronic Lyme is controversial in the same sense that rhinoceros horn therapy is controversial: There's no reliable data to support it."

While some patients do report success on long-term antibiotic treatments, there are clearly risks associated with such a strategy. For one, you raise your risk of developing antibiotic-resistant disease, and antibiotics kill off both good and bad bacteria, making it virtually impossible to maintain optimal gut health without rigorous reseeded of probiotics. By disrupting your gut flora, you then expose yourself to a whole host of other pathologies. This is an important point, and a major part of the overall controversy. So should you be treated with long-term antibiotics if you do not have a history of active Lyme infection? I believe the side effects of taking antibiotics long-term are detrimental enough to consider your alternatives. And remember, Lyme organisms can exist in three different forms (cyst, spirochete and L-form) so they are really very good at hiding from antibiotics anyway.

If you are one of those people that are sensitive to alcohol, medications, antibiotics or perfume, this is a sign that you likely have a methylation defect in your genetics. The methylation pathway is a detoxification pathway in your body that clears toxins. Lyme disease sufferers often have a methylation problem, especially those people with neurological symptoms that are unresponsive to conventional treatments. Suzy Cohen wrote a detailed article about methylation and explains how to naturally circumvent this problem if you have Lyme disease, and ease your symptoms.¹³

Tests and Treatment Protocols for Lyme Disease

One of the reasons blood tests are so unreliable as indicators of Lyme infection is that the spirochete has found a way to infect your white blood cells. Lab tests rely on the normal function of these cells to produce the antibodies they measure. If your white cells are infected, they don't respond to an infection appropriately. And the worse your *Borrelia* infection is, the less likely it will show up on a blood test. So, in order for Lyme tests to be useful, you have to be treated first. Once your immune system begins to respond normally, only then will the antibodies show up...

If your blood test comes back with positive IgM antibodies, take this as a positive confirmation of active Lyme in your body. I tell you this because many physicians will dismiss a positive IgM antibody and tell you that you do not have an active infection. They will tell you it is a false positive and not to worry, and not to treat. Nothing could be

further from the truth. Because of a process called antigenic variation, the proteins on the outer surface of the Lyme germ move around, causing your body to see the germ as new and different, even if it's been living inside your body for decades. This is what causes the positive IgM years after the initial infection. It's also called "epitope switching." So I want you to know that if you have a blood test that shows positive IgM antibodies, I would consider this a positive test, and you are best served by getting treatment, especially if you have symptoms of Lyme.

Another reason is because a vaccine was developed years ago, and conventional testing does not identify the most popular surface proteins or "bands" as they are sometimes called because those were in the original vaccine (Lymmerix) now removed from the market. So if you can't test for the most common bands of Lyme, how will you find the infection in people? This is yet another reason Lyme is so underreported. If you take a standard "Western Blot" blood test for it, your test is likely to be negative even if you have full-blown Lyme disease.

For this reason, I recommend the specialized lab called [Igenex](#) because they test for more outer surface proteins (bands), and can often detect Lyme while standard blood tests cannot. Igenex also tests for a few strains of co-infections such as Babesia and Ehrlichia. That said, a negative on the Igenex test for these co-infections doesn't necessarily mean you are not infected, there are many more strains than they can test for.

Below are the five steps Dr. Klinghardt recommends to consider when treating Lyme Disease:

1. Evaluation of all external factors. External factors include electrosmog, EMF, microwave radiation from wireless technologies, and molds.
2. Remediation and mitigation of external factors. Once external factors have been assessed, they're remediated and mitigated. (Please refer to our previous article on [mold remediation](#).) To mitigate microwave radiation, Dr. Klinghardt recommends shielding the outside of your home with a graphite paint called Y Shield. Inside, he uses a special silver-coated cloth for your curtains. Patients are instructed to remove all cordless telephones and turn off all the fuses at night, until they have recovered from Lyme disease.
3. Addressing emotional issues. Emotional components of the disease are addressed using Energy Psychology tools, including psychokinesiology (PK), which is similar to the [Emotional Freedom Technique](#) (EFT), but more refined and advanced.
4. Addressing parasitic, bacterial and viral infections. Dr. Klinghardt addresses the parasites first, followed by the bacteria and the viruses. The "Klinghardt antimicrobial cocktail," which includes wormwood (artemisinin), phospholipids, vitamin C, and various herbs, is an integral part of this treatment. He addresses

viral infections with Viressence (by BioPure), which is a tincture of Native American herbs.

5. Addressing other lifestyle factors. [Nutritional considerations](#) and supplements are addressed.

Also, the following table lists a variety of different treatment strategies that have been found to be useful in Lyme disease by those embracing natural methods.

Probiotics to improve immunity and restore microflora during and after antibiotics	Curcumin is helpful at reducing neurological toxins and brain swelling
Astaxanthin to neutralize toxins, improve vision & relieve joint pain, common in Lyme	Whey protein concentrate may help with nutrition, often poor in Lyme patients who don't feel well enough to eat properly
Grapefruit seed extract may treat the cyst form of Borrelia	Krill oil to reduce inflammation
Cilantro as a natural chelator for heavy metals	Serrapeptase helps to break biofilms
Resveratrol may treat Bartonella, a co-infection and also helps detoxification	GABA and melatonin to help with insomnia
Artemisinin and Andrographis, two herbs that may treat Babesia, a common co-infection	CoQ10 to support cardiac health and reduce muscle pain and brain fog
Quercetin reduces histamine (often high in Lyme)	Transfer factors can help boost immune function

Tips for Preventing Lyme Disease

Clearly, preventing infection is your best strategy. To avoid tick and other [insect bites](#), make sure to tuck your pants into socks and wear closed shoes and a hat—especially if venturing out into wooded areas. The CDC also recommends cutting down your risk of Lyme and other tickborne diseases by following these steps¹⁴:

Check for ticks daily, on yourself, your child and pets	Bathe or shower soon after being outdoors (preferably within two hours) to wash off and more easily find any lingering ticks or tick bites	If you've been in a tick-infested area, do a careful full body check. Use a mirror to view all parts of your body
Check for ticks in your child's hair, under the arms, in and around the ears, the belly button, between the legs, around the waist, and behind the knees	Inspect clothing for ticks. Tumble clothes on high heat for an hour to kill ticks you may have missed	See a doctor if you develop a telltale "bull's-eye" rash

Additional Resources

In Dr. Klinghardt's experience, the International Lyme and Associated Disease Society¹⁵ (ILADS) is by far the best and most responsible group. The following are some other resources you might find helpful:

- "Under Our Skin" website¹⁶
- Tick-Borne Disease Alliance¹⁷ (TBDA)
- Lymedisease.org¹⁸ (formerly CALDA)

Another leading Lyme disease expert Richard Horowitz, MD and author of the new book, *Why Can't I Get Better? Solving the Mystery of Lyme and Chronic Disease*, has stated:

"This condition is better termed Lyme MSIDS, short for Multiple Systemic Infectious Disease Syndrome. MSIDS is like Pandora's Box because it includes many infections, co-infections and secondary infections. Treatment should be tailored to each patient individually."