

Navigating Lyme Disease:

A Comprehensive Guide with
Functional and Integrative Medicine

Forum Health





Lyme disease is a complex and often misunderstood illness that can manifest in a variety of symptoms making it challenging to diagnose and treat.

This guide is designed to empower you with knowledge and resources to navigate Lyme disease using a functional and integrative medicine approach.

You'll find blogs, infographics, videos from our Lyme disease experts, and links to online resources, to help you better understand this condition and the benefits of using a functional and integrative approach.

Whether you are newly diagnosed, seeking alternative treatments, think your symptoms might be the result of a Lyme infection – past or present - or supporting a loved one with Lyme disease, this guide will support you on your journey to better health.

Together in health,

Forum Health



About Forum Health

Forum Health is a nationwide provider of personalized, innovative and transformative health care services and clinics designed to help patients achieve their health goals.

Our mission is to transform the healthcare landscape from a focus on “Sick Care” to a commitment to “Well Care” by harnessing the power of personalized medicine, cutting-edge technology, and anti-aging strategies. We are driving this paradigm shift through the principles of integrative and functional medicine, coupled with advanced technology and data analytics.

Forum Health specializes in hormone health, weight, metabolism and heart health, gut and digestive disorders, complex and undiagnosed chronic illness, brain health and mental wellbeing, longevity, and sexual health.

You don't have to settle when it comes to your health.

Welcome to a transformative conversation between patients and passionate healthcare providers at Forum Health, the leading option in integrative and functional medicine. We invite you to redefine healthcare with us, [WATCH HOW.](#)



Transformative Healthcare: Experience Vibrant Living with Forum Health

About Dr. Petersen

Dr. Petersen is a nationally recognized Lyme disease specialist. His approach to illness is holistic. As such he treats environmental toxins, endocrine dysfunction, autonomic dysfunction, electromagnetic dysfunction, and any other infections in addition to Lyme disease. As a leader in Lyme disease management, Dr. Petersen has dedicated his career to unraveling the complexities of this debilitating condition. His commitment to pushing the boundaries of medicine is evident in his work in areas such as addiction recovery, chronic illness, thyroid disorders, hormone therapy, and pain management.

Dr. Petersen's approach addresses conditions that often elude traditional diagnosis and treatment methods. He has earned a reputation as a trusted advocate for patients struggling with hormonal imbalances, hypothyroidism, chronic fatigue syndrome, diabetes, fibromyalgia, metabolic disorders, and neurodegenerative conditions. His dedication to these complex health challenges has transformed many patient's lives.

Before his tenure as the chief of staff for Forum Health, Dr. Petersen served as the hospital chief of staff in Wellington Texas. This invaluable experience allowed him to recognize the limitations of conventional medicine and inspired him to seek better solutions. With 24 years of experience as a physician, he brings a wealth of knowledge and a visionary perspective to every patient he serves. His pioneering spirit, coupled with his exceptional expertise in Lyme disease and related conditions, makes him a beacon of hope for patients seeking a path to healing and wellness in the face of complex medical challenges.

Affiliations & Accreditations

Dr. Petersen is a fellow of the American Academy of Anti-Aging Medicine. He completed the organization's fellowship in stem cell therapy. He also serves on the board of the International Lyme and Associated Diseases Society.

“ At Forum Health, our primary objective revolves around identifying and addressing the root causes of diseases, placing patients at the center of care and elevating the field of integrative and functional medicine to mainstream status. ”

Andrew Petersen, DO

Chief of Staff, Forum Health





What is Lyme Disease?

Symptoms, Stages and Causes

Lyme disease is caused by the bacterium *Borrelia burgdorferi* and is most commonly transmitted to humans through the bite of infected black-legged ticks. If you often enjoy outdoor activities, you should be particularly cautious, as ticks thrive in wooded, grassy areas. If infected, the bacteria can wreak havoc on your body if not promptly diagnosed and treated so recognizing the symptoms early is key.

Discover Lyme Disease Symptoms and Stages

From symptoms to diagnosis and ongoing treatment, Lyme disease can be an intricate journey to navigate alone. Using a functional and integrative approach can be helpful in understanding the cause, what symptoms to look for and effective treatment options to regain health and vitality.

Symptoms You Might Not Recognize Are a Sign of Lyme Disease

Lyme disease manifests in various ways, often mimicking other conditions and making it challenging to diagnose.

For many, the untreated complications of Lyme disease can be debilitating. Diagnosing at the earliest stage and beginning treatment can make all the difference! [READ MORE](#)

Common symptoms include:

- Extreme fatigue
- Headaches
- Recurrent fevers, chills, night sweats
- Muscle and joint pain, often migratory
- Sleep disturbances
- Nervous system disorders
- Loss of feeling in extremities or numbness and tingling, tremors
- Light and sound sensitivity
- Eye pain or blurring
- Ear ringing, buzzing
- Feeling “off balance,” vertigo, lightheaded
- Heartburn, stomach pain, weight gain or loss, diarrhea or constipation
- Irritable bladder
- Cognitive impairments
- Anxiety, panic, mood disorders, OCD
- ADHD and ADD, declining school performance

The 3 Stages

of Lyme Disease its Progression



1. The early localized stage, the infection remains in the site of the tick bite.



2. If untreated, it advances to the early disseminated stage, where the bacteria spreads throughout the body.



3. In the late disseminated stage, severe complications, including joint inflammation, neurological abnormalities, and heart problems, may arise.

What Causes Lyme Disease?

Lyme disease, caused by *Borrelia burgdorferi*, has a complex history tracing back to the ice ages, showcasing its ability to endure and survive harsh conditions over millennia.

“ Lyme disease continues to affect hundreds of thousands of people in the US each year. ”

Contracting Acute Lyme Disease

Coming into contact with Lyme-disease infected ticks is common when outside or through contact with pets in highly affected regions. Infection can occur from a tick bite, a bite from a mouse or rat that has been infected by a tick carrying Lyme disease, or even a household cat that may have eaten a mouse that’s been infected.








If you’ve been bitten by a tick, it is important to remove it as quickly and completely as possible to prevent possible infection. After removing a tick, monitor yourself for the signature “bullseye” rash, fever, and fatigue, which may be signs of a Lyme disease infection.

Chronic Lyme Disease Secondary Symptoms

Lyme disease that goes undetected and untreated can have damaging, lasting, long-term effects on your health. Because the bacteria that causes Lyme disease has been described as “burrowing” within the cells of the body, it can be very difficult to get a positive blood test result, even going undetected for years.

This leads to a heightened immune response to the infection and over time, a range of devastating symptoms.

Chronic and Secondary Symptoms of Lyme Disease Infection:

-  Severe Fatigue, Headaches, Trouble Sleeping
-  Pain in the Joints and Muscles
-  Mood Disorders: Anxiety, Depression
-  Cognitive Problems: Brain Fog, ADHD
-  Hormonal Imbalances
-  Neurological Problems: Sensitivity to Light, Sound, Tingling and Numbness in Extremities, Tremors, Dizziness
-  Gastrointestinal Problems: Heartburn, Stomach Pain, Weight Fluctuations, Diarrhea or Constipation

Neurological & Gastrointestinal Lyme Disease

Left untreated, Lyme disease can continue to spread throughout the body leading to a host of symptoms and further neurological and gastrointestinal problems.

Lyme Neuroborreliosis

Lyme neuroborreliosis or neurological Lyme disease is a secondary symptom of a Lyme disease infection and it's estimated that 10-15% of people that are infected with Lyme may develop the neurological symptoms: headache, fever, fatigue, and brain fog.

Gastrointestinal Lyme

With 80% of the immune system located around the digestive tract, Gastrointestinal Lyme is associated with leaky gut syndrome, constipation, small intestine bacterial overgrowth (SIBO), Crohn's disease, and mast cell activation syndrome.

Lyme disease can be diagnosed clinically even with negative *Borrelia burgdorferi* blood tests, considering symptoms, co-infections, and exclusion of other diseases.

[LEARN MORE](#)

Take Steps to Prevent Lyme Disease!



Wear protective clothing including long pants, long sleeve shirt and high socks



Use tick repellents



Conduct thorough tick checks on both yourself and your pet after outdoor activities



Creating tick-safe zones around homes



Invest in pet treatments





Mystery & Controversy

Diagnosing and Treating Lyme Disease

Lyme disease, known as “The Great Mimicker,” presents vague symptoms **mimicking around 350 different disease conditions**, posing significant challenges for diagnosis and treatment.

Additionally, Lyme disease is often the underlying cause of other diagnosed diseases, most commonly:

- Fibromyalgia
- Chronic fatigue syndrome
- Rheumatoid arthritis
- Multiple sclerosis
- Depression and anxiety
- Parkinson’s and Alzheimer’s

Have Unexplained Symptoms?

Watch this latest masterclass on Unlocking the Mystery: Diagnosing and Treating Your Unexplained Symptoms where Dr. Wally Taylor and Dr. Clayton Bell discuss the latest, cutting-edge testing to uncover the root cause of complex illnesses (that conventional medicine often misses), provide a deeper understanding of your health challenges, and offer advanced treatments to help you heal. [WATCH NOW](#)

The Emergence of New Bacterial Strains: Lyme Disease

Did you know there are multiple bacterial strains that have now been associated with Lyme disease infection? Lyme disease is most often transmitted by ticks infected with the bacterium *Borrelia burgdorferi*, of which there are several species and strains.

[READ MORE](#)

Lyme Disease: A Mystery Illness Covered in Controversy

Lyme disease, a subject entangled in controversy in both diagnosis and treatment, poses a complex challenge for patients and providers. While opinions differ on chronic Lyme disease and post Lyme disease syndrome, Forum Health recognizes the reality of these conditions, affirming the struggles of affected individuals and their need for comprehensive treatment.

Testing Challenges: “They Checked, But I Tested Negative”

In conventional medicine, the primary tests used to diagnose Lyme disease are the Enzyme-Linked Immunosorbent Assay (ELISA) and the Western blot test, both of which are FDA-approved. These tests detect antibodies produced by the body in response to the Lyme bacteria.

However, they have limitations and challenges, including a high rate of false negatives in early infection, the inability to distinguish between past and current infection, and the potential for cross-reactivity with other infections.

Functional and integrative medicine approaches may include these tests but also consider a broader range of factors, such as clinical symptoms, medical history, and specialized testing for co-infections and immune system function, to provide a more comprehensive assessment of Lyme disease.



Why Lyme Disease Is Hard to Diagnose

Failed Treatments: “They Treated, But I Didn’t Get Better”

Traditional treatments primarily rely on antibiotics. This is great if they work. However, studies show **standard short-term protocols fail 24-50% of the time** due to the Lyme bacteria’s ability to evade antibiotics. Consequently, even after treatment, lingering symptoms and post-treatment Lyme disease syndrome (PTLDS) can occur.

In fact, the larger medical community says **10–20% of patients get post-treatment Lyme disease syndrome (PTLDS)**. This is marked by lingering symptoms like fatigue, musculoskeletal pain, disrupted sleep, and reduced mental function.

To understand why acute treatment might fail, it’s important to know the three factors that add up to chronic infection:

1. Immune Dysfunction

Your immune system keeps a catalog of cells native to your body. When it notices a foreign substance — like a pathogenic bacterium or virus — it can create neutralizing antibodies. When functioning normally, the immune system leaves bacteria alone unless they’re causing a problem; this is like when police ignore low-level speeders. But your immune system can also overreact, creating too many antibodies. They attach to anything that looks similar to the original bacteria. That’s an autoimmune disease.

2. Excess Toxins

Some toxicity is normal. Your body deals with it through elimination organs: the liver, lungs, colon, kidneys, lymph, and skin. But sometimes, whether due to organ malfunction or increased exposure, we can accumulate heavy metals like lead, mercury, and arsenic. These toxins can reduce the cells available to suppress undue immune response.

3. Pathologic Microbes

A microbe is a living organism that’s too small to be seen with the naked eye. They live on and inside our bodies. Commensal microbes are like the neighbors you never see — neither helping you nor causing harm. Other microbes are symbiotic, or mutually beneficial; they’re the few neighbors you like. Still other microbes, including bacteria and viruses, are potentially pathologic. The last type is like a bad neighbor who parks on your grass. They’re a nuisance, but they’re not a big problem unless provoked.

Functional and integrative medicine understands these challenges and works to address the root cause to help you heal, recover and thrive.






Groundbreaking Lyme Disease Testing & Treatment

Advanced Testing and a Holistic Approach is the Key to Diagnosing and Overcoming Lyme Disease

Working with a functional or integrative medicine provider whose expertise is in the complexity of Lyme disease is the key to healing. If you think your symptoms might be the result of a Lyme infection – past or present – **Forum Health believes you.** We will listen to you and start treatment based on clinical judgment – even if your results are initially negative. Then we'll keep exploring until you recover.



When it comes to conventional treatment, Lyme disease has been tackled with aggressive antibiotic regimens yet the National Institutes of Health (NIH) reports that up to 20% of patients grapple with post Lyme disease syndrome (PTLDS), characterized by persistent pain, fatigue, and cognitive dysfunction.

This challenge underscores the critical role of Forum Health's nationwide network of integrative and functional medicine clinics, providing a lifeline for those in regions lacking specialized care.

Transforming Lyme Disease Diagnosis and Treatment with RGCC & SOT Therapy

In a groundbreaking initiative, Forum Health is forging a collaboration with the **Research Genetics Cancer Center (RGCC)** - an advanced laboratory based in Greece renowned for cancer testing and bacterial and viral analysis, is at the forefront of a revolutionary approach to Lyme disease diagnosis and treatment.

The process involves first drawing the patient's blood to obtain the circulating Lyme bacteria. It's then sent to the RGCC lab where unique genetic sequences from the targeted pathogen are identified, and a complementary oligonucleotide sequence is created. This is known as **Supportive Oligonucleotide Therapy (SOT)** and it's unique to you and your infection.

Like a key fitting into a lock, the **SOT molecules attach to the Lyme bacteria to stop it from replicating** and to allow the ongoing life cycle of the bacteria to be eliminated. SOT therapy continues to fight Lyme bacteria for 3 to 6 months; however, one round of SOT may be all you need to eliminate the bacteria.

The treatment is easily administered through an IV infusion and takes around 90 minutes. SOT therapy can also be integrated with other treatments including diet and lifestyle modifications, IV nutrient therapy, nutraceuticals, medical-grade detox and brain restoration programs.

This collaboration allows Forum Health to take a pioneering role in accurate diagnosis and treatment for Lyme disease, especially considering the CDC's report of nearly half a million people diagnosed with Lyme disease in the U.S. each year. This collaboration offers a significant leap forward, addressing the limitations of conventional diagnostic tools and treatment in Lyme disease management.

Overcome Bacterial and Viral Infections with SOT and the RGCC Test

Hear from Lyme expert and functional medicine provider, Dr. Clayton Bell to learn how RGCC testing and SOT Therapy is a highly effective and individualized method that can aid the body in overcoming bacterial and viral infections so you can feel like yourself again.



Masterclass: How to Overcome Bacterial and Viral Infections with SOT and the RGCC Test

Dr. Petersen sheds light on diverse and innovative treatment strategies.

“ Our providers use a spectrum of treatments, from antibiotics and herbal antimicrobials to oxidative therapies like Ozone IV and High Dose Vitamin C IV, targeting Lyme and co-infections. ”

Notably, Forum Health deploys supportive oligonucleotide therapy (SOT), an individualized, genomic approach administered through IV, empowering the body to overcome viral and bacterial infections associated with Lyme disease.

Complimentary Therapies for Chronic Lyme Disease Management

In addition to the RGCC collaboration, Forum Health has developed two medically supervised programs specifically tailored to enhance the immune response and address neurological issues in Lyme disease patients.

The [GDRx program](#), a medical-grade detox program, and the [BrainRX program](#), focused on neurotransmitter restoration, aim to provide comprehensive care for individuals affected by Lyme disease.

Why Detoxing is Important in Fighting Lyme Disease

The decision to detox is a great way for your body to naturally rid itself of toxins and free radicals that accumulate over time. Exposure to elements in your environment, cleaning products, allergens in the air, and what you consume through diet all contribute to toxin buildup. Additionally, the Lyme bacteria releases neurotoxins that can contribute to overall toxin load.

Detoxing is critical for Lyme disease patients because it helps to reduce inflammation, support the immune system, and promote overall recovery.

To effectively remove toxins and reset your system, a detox that focuses on the whole body is essential.

The Forum Health GDRx Detox was designed by doctors and is led by health coaches to reset your health. The 10-day and 5-week programs combine powerful detox supplements, nutrient-dense shakes and a nutrition plan designed to remove toxin build up from your gut and help your body heal. [LEARN MORE](#)

Unlock Your Brain's Full Potential: Is BrainRx Right for You?

Dr. Petersen underscores the significance of specialized Forum Health programs, such as BrainRx, addressing neurotransmitter support—an essential consideration for those battling Lyme disease. The Lyme bacteria can enter the central nervous system leading to neurological symptoms like brain fog, difficulty concentrating, memory problems and cognitive impairment. It can also decrease serotonin production, increase neuroinflammation and affect mood resulting in depression and anxiety.

BrainRx with health coach support can be beneficial for a number of people but is ideal for individuals experiencing mild to moderate cognitive or mental health issues. If you have been struggling with Lyme disease symptoms, BrainRx could provide the support you need to recover cognitive health. [LEARN MORE](#)

Moreover, Forum Health's offerings encompass unique treatments like ketamine-assisted psychotherapy for chronic pain management and trauma resolution, a critical option not universally available in traditional Lyme practices.





Lyme Disease Care

A Whole-Body Approach to Healing

Contrary to the common belief that antibiotics alone can suffice in Lyme disease treatment, Forum Health acknowledges that a broader perspective is crucial. Antibiotics may target bacteria, but the complexities of immune system health, especially the role of the gastrointestinal system, cannot be ignored. A compromised immune system requires a comprehensive approach for a patient to fully recover.

Lyme Disease and Autoimmunity

While not classified as an autoimmune disease, research indicates that Lyme disease may trigger an autoimmune response and/or its symptoms may mimic an autoimmune disease.

With functional medicine, the goal for chronic Lyme disease patients is to lower the viral toxic load affecting the immune system. Functional and integrative medicine providers at Forum Health focus on boosting the immune system to function properly, decreasing inflammation with an anti-inflammatory protocol, managing the maintenance of this condition with supplemental therapies, and always working as a team with the patient.

How Inflammation Leads to Autoimmune Disease

Autoimmunity and autoimmune disease are common and are becoming ever more common. And if you have one autoimmune disorder, you are more likely to develop other autoimmune disorders on top of the first one.

[READ MORE](#)

“ It is estimated that the incidence of autoimmune illness in the US is between 3 and 11%. Some people put that number even higher if you include other diseases where the cause may include autoimmunity. ”

The 6 Pillars

of a Healthy Immune System



Gut Health and
Microbiome



Balanced Hormones



Quality Sleep



Stress Management



Exercise



Supplementation

The 6 Pillars of a Healthy Immune System

Did you know that a dysregulated immune response can contribute to the development of chronic inflammatory conditions associated with Lyme disease? Therefore, maintaining optimal immune health through a healthy lifestyle, proper nutrition, and stress management is essential for both preventing and managing Lyme disease.

When your immune system is out of balance, it makes you more susceptible to acute infections and chronic diseases. [READ MORE](#)



Optimizing Overall Health for Improved Lyme Disease Treatment Outcomes

Once you truly understand the complexities of Lyme disease and how it affects your overall wellbeing, you understand why having optimal health in all areas of your life leads to better results in treatment.

Our Forum Health providers are dedicated to offering integrative medicine solutions that optimize your health, making any treatment you choose more effective.

Food and Gut Health – How Your Nutrition Affects Your Gut Microbiome

Did you know that you're sharing your body with many different microorganisms, among which you'll find bacteria of all sorts? Most of them are located in your digestive tract, they make up your gut microbiome, and their primary roles are to help your body absorb the nutrients from food, prevent diseases and infections, boost your immune system resilience, and many other to boot.

Supplements: Healthy Support or Waste of Money

Even the "cleanest" food isn't working at its best potential. Depleted soils, the storage and transportation of our food, genetic alterations of traditional heirloom species, and the increased stress and nutritional demands from a toxic environment all make it nearly impossible to get 100% whole, clean foods. To put it simply, our bodies need an extra hand.

At Forum Health, we only use third-party tested, pharmaceutical-grade supplements that we get directly from manufacturers we trust. We know where they came from and what they do. We meet weekly with representatives from those manufacturers to stay on the latest science and research behind everything we prescribe

[READ MORE](#)

To help you maintain that balance of good bacteria in your gut, here are some practical food tips to keep in mind! [READ MORE](#)



Fermented Foods Feed Your Good Bacteria



Consume a Diverse Menu for Balance



Probiotics and Prebiotics to the Rescue



Say NO to Process Foods and Alcohol



Antibiotics Only When You Need Them

Customized IV Therapy Solutions for Your Specific Health Needs

At Forum Health, whether you need essential nutrients or to address symptoms related to dehydration, anxiety, pain, or chronic illnesses, our providers will prescribe the right therapy for your body.

By bypassing the gut and going straight into the bloodstream, IV therapy delivers a potent dose of energizing, immune-boosting nutrients, helping your body repair at a cellular level. [LEARN MORE](#)

Recognizing that Lyme disease often involves biofilm issues, Forum Health unveils a range of advanced treatments that go beyond the conventional. Supplements such as Lumbrokinase, Nattokinase, or Bromelain, or medications like sublingual heparin are identified as effective tools in combating biofilm-related challenges. Forum Health's providers are equipped with this essential knowledge to optimize the use of these supplements, ensuring a more successful outcome for patients on their journey to recovery.

Forum Health collaborates with Inwell Biosciences, a professional-grade supplement line crafted by and for practitioners. This partnership is designed to provide both providers and patients with optimal options and prices, reflecting its commitment to accessibility and excellence in care.



Guiding Your Lyme Journey

In conventional medicine, the solutions for health issues often seem limited to pharmaceuticals, surgeries, or incremental lifestyle changes.

However, Forum Health recognizes the path to recovery, especially in conditions like Lyme disease. We believe in offering a diverse array of choices, including hormone replacement therapy, medical grade detoxes, nutraceuticals, antimicrobial herbs, IV therapy, gastrointestinal support, and, other emerging therapies, often overlooked or disregarded in mainstream healthcare.

We hope that this information has been a valuable resource for you, providing education and empowerment as you navigate your journey with Lyme disease.

It is crucial to recognize that managing Lyme disease is a complex and multifaceted process, and our team is here to guide you every step of the way. From offering cutting-edge diagnostic tools to providing innovative treatments that complement conventional approaches, we are dedicated to helping you achieve the best possible outcomes.

By taking an active role in your care and embracing the principles of functional and integrative medicine, you can empower yourself to make informed decisions and take control of your health.

Remember, you are not alone in this journey. Our providers are committed to supporting you, offering expertise, compassion, and personalized care to help you live your best life despite Lyme disease. Together, we can work towards a future where Lyme disease is better understood, more effectively treated, and ultimately, conquered.

Together in Health

Forum Health

Glossary

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