

# Clinical Experience with a Stabilized Iodine Complex in the Treatment of Lyme Disease

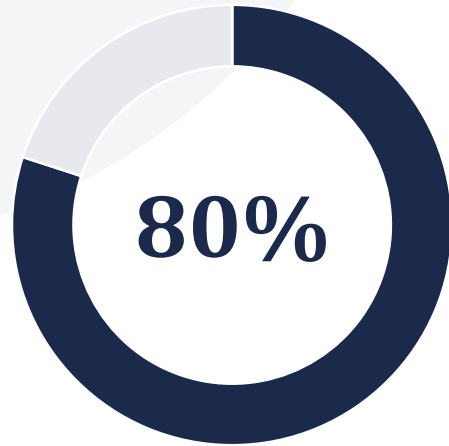
Bert Mathieson, ND, MA, RD, CDCES  
New Hampshire Natural Health Clinic  
304 Riverway Place Bedford, NH 03110

Contact me for questions at:  
[bertmathieson@gmail.com](mailto:bertmathieson@gmail.com)

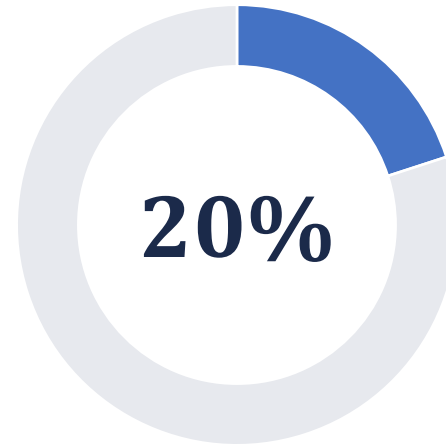


# Clinical Observations

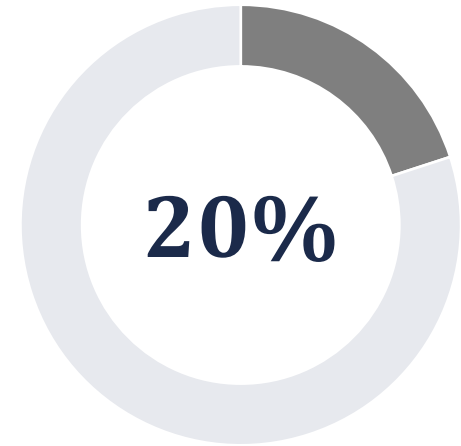
*Over 2-3 Months*



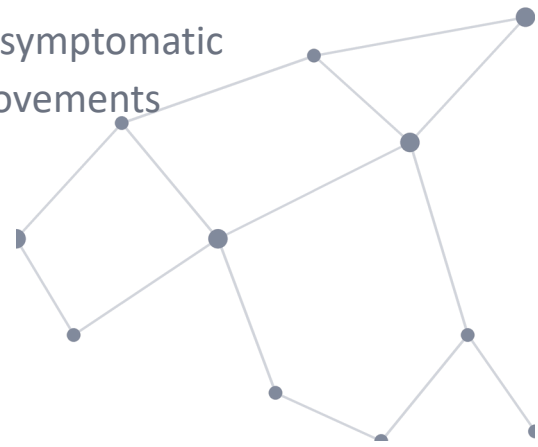
Moderate to substantial  
improvements



Almost complete resolution

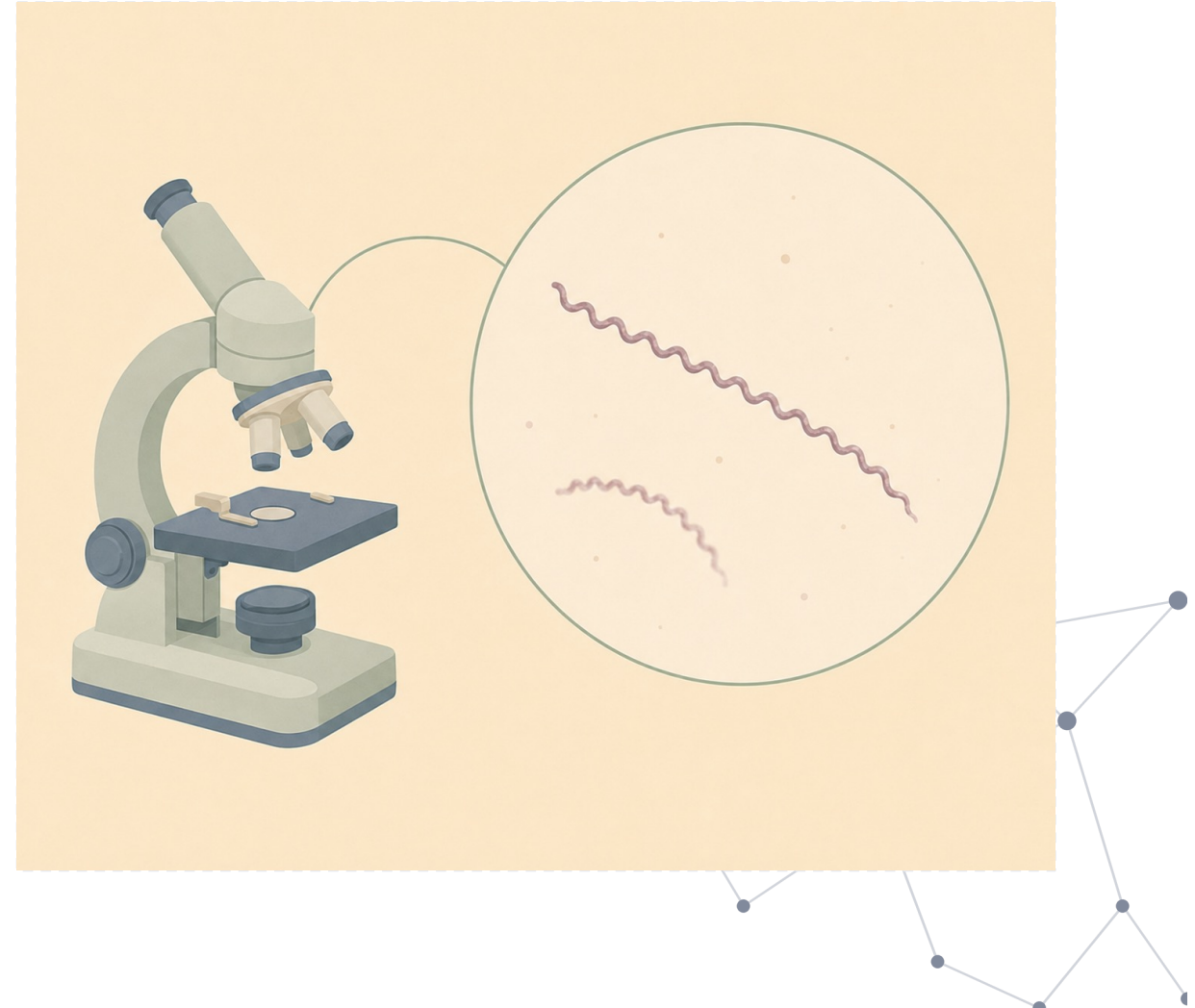


Minimal symptomatic  
improvements



# Defining “Lyme Disease” in This Discussion

- Term "Lyme disease" used here = persistent Lyme + co-infections
- Persistent Lyme ≠ acute Lyme; distinct clinical picture, distinct challenges
- No single test confirms or rules out persistent Lyme disease



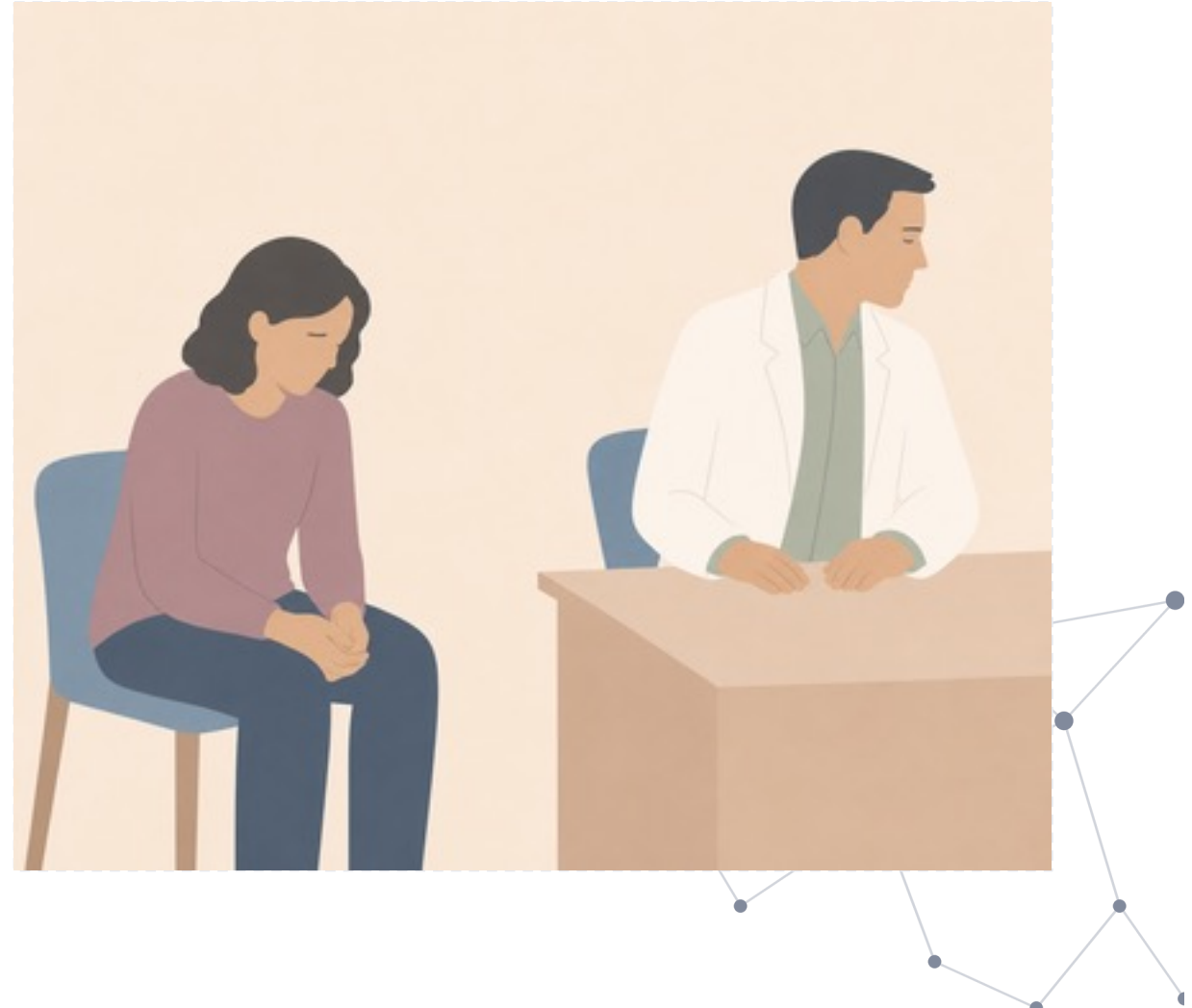
# Understanding the Persistent Lyme Patient

## The Patient Journey

- Frequently gaslit or dismissed
- Bounced between specialists
- Often told: "You don't have Lyme disease"
- Cumulative toll: emotional, physical, financial; patient *and* family

## Clinical Complexity

- No two cases alike
- Once disease is established in body tissues/spaces → wide, varied symptom presentation



## Avoiding Practitioner Burnout when Treating Chronic Lyme

- Patients with chronic Lyme are often traumatized from navigating the medical system.
- Many have developed a deep distrust for doctors and they feel hopeless.
- Many wonder if they will ever get better.
- Treatment takes a long time and symptoms are up and down.
- These dynamics can be hard emotionally/physically for both the patient and the doctor.
- **Clinical Pearl #1: Collect success stories to keep yourself encouraged!**



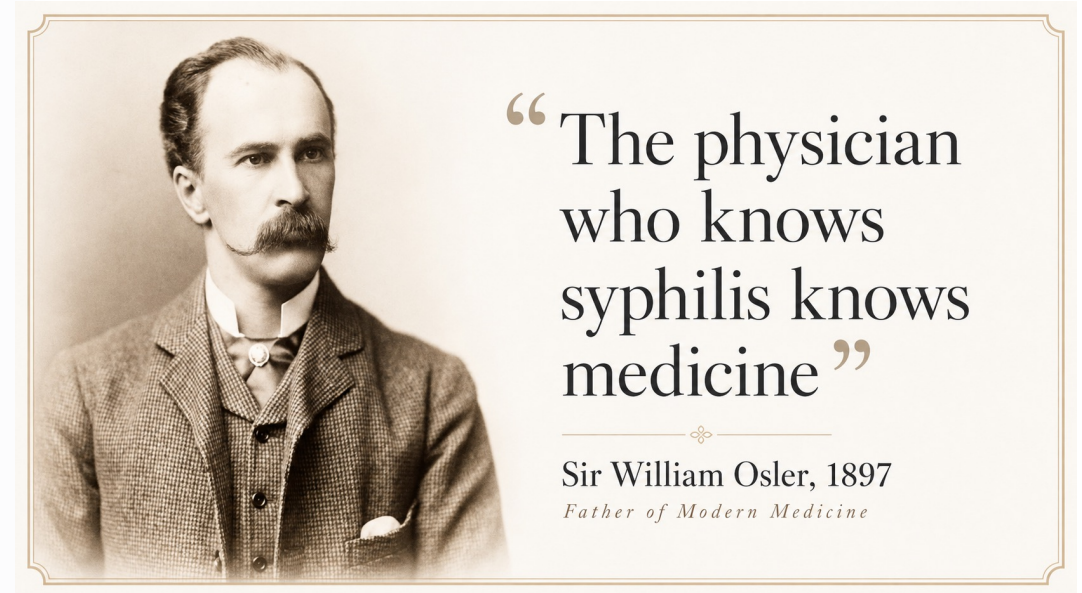
## Patient Testimony #1

“My son just finished the second full week of treatment and we already see so many signs of improvement in him. The biggest one is he gets out bed! This is huge as he usually sleeps until mid-day, cries a lot, and had talked of suicide. Now he is up and moving by 9AM and has been able to get out and do small things with our family. He is looking forward to the future and even says, ‘When I get back to work and school...’ Our family cannot thank you enough.”



# Lyme Disease: A Multisystem Clinical Challenge

- Treating persistent Lyme often means treating several diseases at once. Lyme disease has some clinical similarities to syphilis and has often been called “the new great imitator.”
- Symptoms managed span multiple systems:
  - musculoskeletal pain**
  - neuropathy**
  - autoimmunity**
  - cognitive changes**
  - mood imbalances**
  - hormonal imbalances**
  - sleep disorders**
  - dizziness**
  - headaches**
- Many symptoms are driven by the systemic and local inflammation Lyme disease causes



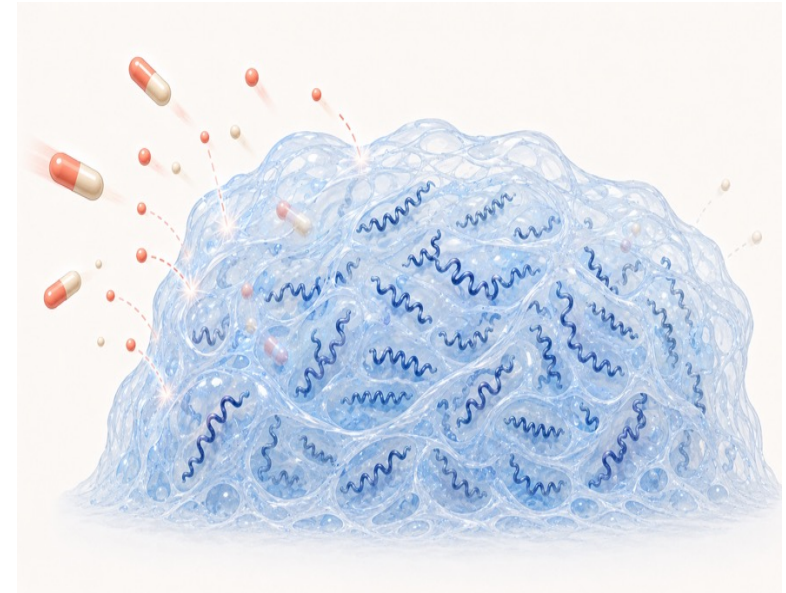
# Lyme Disease: A Multisystem Clinical Challenge

- Patients often don't know when they were infected, so the disease is typically well established by diagnosis.
- Lyme is a "compartmentalized" disease rather than primarily blood-borne, and treatment must reach those specific body spaces.
- The bacteria are adept at evading immune detection
- Lyme can hide behind biofilms
- Lyme may trigger autoimmunity, causing the immune system to attack healthy cells
- Co-infections and opportunistic infections are frequently present alongside Lyme



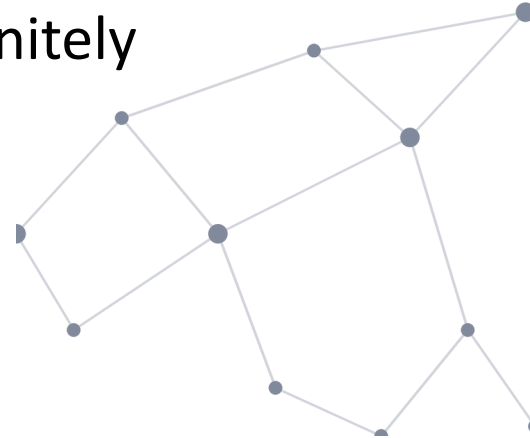
## Why Look for New Lyme Disease Treatments?

- “It is controversial whether prolonged antibiotic treatment is effective for patients in whom symptoms persist after the recommended antibiotic treatment for acute Lyme disease.” (Klempner et al. N Engl J Med.)
- The formation of “persister cells” and “round bodies” or “cysts” are two proposed reasons for the variable effectiveness of antibiotic treatment in patients with chronic Lyme (1, 2)
- It is known that many currently CDC-recommended antibiotics do not work well on round bodies (2)



## Why Look for New Lyme Disease Treatments

- In my clinical experience long-term antibiotics often create significant improvements in chronic Lyme patients (especially if combined with herbal treatments.)
- **Clinical pearl #2:** It is most likely important to take the different forms and locations of the Lyme spirochete into consideration when creating an antimicrobial plan.
- Lyme can exist inside and outside of our cells.
- The downside to long term antibiotic treatment is that it is a bumpy road fraught with potential side effects (especially gut-related.)
- In my opinion safer and more effective Lyme treatments are definitely needed.



## Comorbidities and Lyme

- Preexisting conditions that cause inflammation (or are the result of inflammation) often complicate the treatment of Lyme disease.
- Preexisting orthopedic injuries that were no longer problematic often flair up unexpectedly during a Lyme infection.
- I hypothesize that this is due to weakened joint tissue that spirochetes can populate more easily.
- Preexisting mental/emotional disorders (depression, anxiety, bipolar, etc.) often worsen during a Lyme infection and make adherence to the treatment plan more challenging.



## **Lyme Disease is Frequently Mistaken for other Disorders**

- Patients with Lyme often present to my office with a previous diagnosis of chronic fatigue or fibromyalgia.
- Lyme is often mistaken for autoimmune disorders such as multiple sclerosis, lupus or rheumatoid arthritis.
- In my experience Lyme is often mistaken for depression, anxiety, or bipolar.
- Gut-related issues are often what get people with Lyme in the door. They often have an IBS diagnosis.



## Lyme can Trigger other Disorders

- To make it more complicated Lyme is not only **mistaken** for other conditions but it can **trigger** multiple conditions.
- This becomes a classic chicken or the egg situation.
- I have seen Lyme trigger true autoimmune diseases (especially rheumatoid arthritis) multiple times in practice.



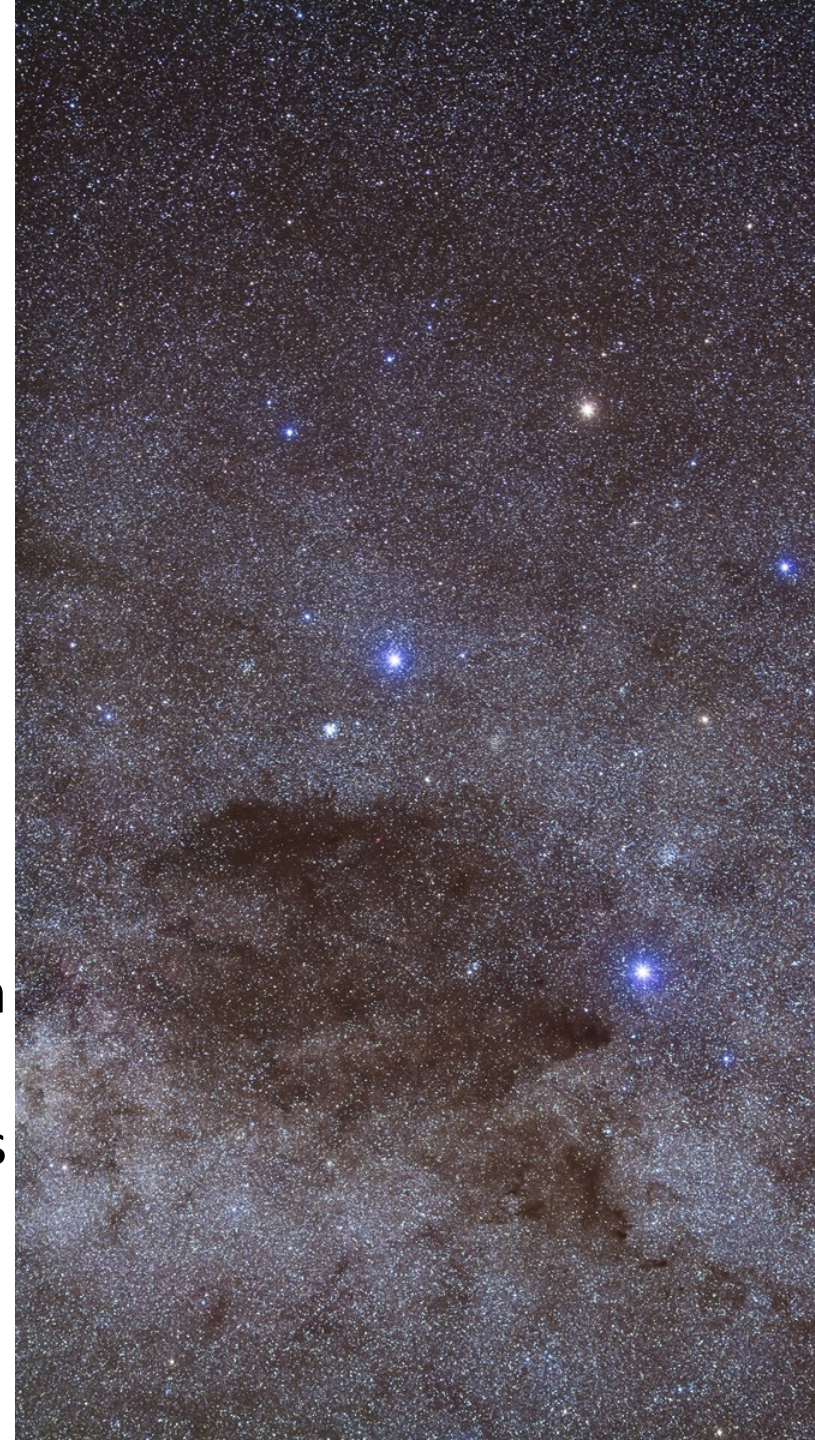
## Other Conditions Triggered by Lyme

- Hormonal imbalances are common in Lyme due to hypothalamic inflammation resulting in dysregulation.
- In my experience Lyme can trigger neuropathy that can persist after most other symptoms have dissipated.
- The central nervous system inflammation caused by Lyme can trigger cognitive decline, depression, and anxiety to name but a few conditions.



## Persistent Lyme has a Broad Symptom Constellation

- **Clinical Pearl #3:** It is best to use a very broad symptom checklist that can be scored numerically to help make the diagnosis and to track progress between visits.
- Because chronic Lyme takes so long to treat (and causes changes in cognition/memory) people often forget how they felt at their last follow up.
- I helps reduce patient and practitioner discouragement to score their symptoms at each follow up.
- I suggest using the Horowitz Lyme-MSIDS Questionnaire which is readily available on line.
- This questionnaire has been validated and if the patient scores high enough on it this usually correlates with a Lyme infection.



## “I Don’t Think you Have Lyme”

- One of the reasons that Lyme patients have been gaslighted for so long is that Lyme can present with so many symptoms.
- Clinicians get overwhelmed and it is hard for them to believe that one disease can cause so many symptoms.
- Thus begins the specialist shuffle.
- **Clinical pearl #4:** If a patient presents after multiple specialist visits without a clear diagnosis think “Lyme.”



## The Horowitz MSIDS Model of Persistent Lyme Disease

- Understanding Lyme from a Multiple Systemic Infectious Disease model (Horowitz) helps us understand the symptoms.
- Lyme is often the core inflammatory issue surrounded by multiple other potential contributing factors.
- Understanding chronic Lyme in this manner generally pushes the treatment of this disease out of the realm of conventional medicine and squarely into the realm of naturopathic/integrative medicine.
- Horowitz outlines 16 overlapping factors that he suggests people use to work up any chronic condition (not just Lyme disease)



## The Horowitz 16- Point DDX

- Lyme disease and co-infecting organisms
- Disorders of immune function
- General Inflammation
- Environmental toxins
- Nutrient deficiencies and other “functional medicine” issues
- Mitochondrial problems
- Endocrine issues
- Sleep problems
- Dysfunction of the autonomic nervous system such as POTS
- Allergies
- Lack of exercise
- Gastrointestinal issues
- Liver problems
- Psychiatric disorders
- Pain issues and addictions that may come along with pain meds
- Disorders of neurodegeneration

(Source: Why Can't I Get Better, Richard I. Horowitz, MD)



# A Naturopathic Approach to Lyme Disease

- Effective healing from persistent Lyme disease requires both removing obstacles to cure and actively supporting the body's underlying terrain.
- The use of the **stabilized iodine complex** that is the main focus of this presentation fits nicely into the category of terrain support.
- It combines immediate iodine antimicrobial chemistry with consistent hypoiodous acid generation over the treatment period and longer-term redox support.



## Testimonial #2

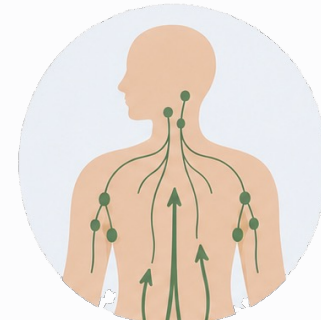
“It has brought my family back to life! We were living a complete nightmare with myself and three of our five children suffering severely with Lyme symptoms. I was basically bedridden for three years and my children were in and out of school and suffering physically and mentally for MANY years. We all did the antibiotic treatment where I even had IV antibiotics for eight months, only to get worse and worse. I was completely devastated as I could not help my children, let alone myself. We were spending thousands and thousands of dollars every year with no hope. Once we started the 60-day treatment, we all gradually started to feel better and came back to life. It was a very gradual process and we still have some healing to do. But a year later, we are back to living a normal, joyful life doing the things we love to do instead of laying around exhausted, in pain, feeling anxious and depressed. My children are now back in school getting better grades than ever and excited to get back into their sports activities. We will forever feel completely blessed and thankful.”



# Five Supportive Factors in Treatment

**Beyond antimicrobials, I often focus on five supportive factors, introduced one at a time to avoid overwhelming the patient:**

- Anti-inflammatory diet
- Enhanced detoxification
- Improved lymphatic flow
- Emotional balance
- Reduced EMF exposure



## The Herxheimer Response

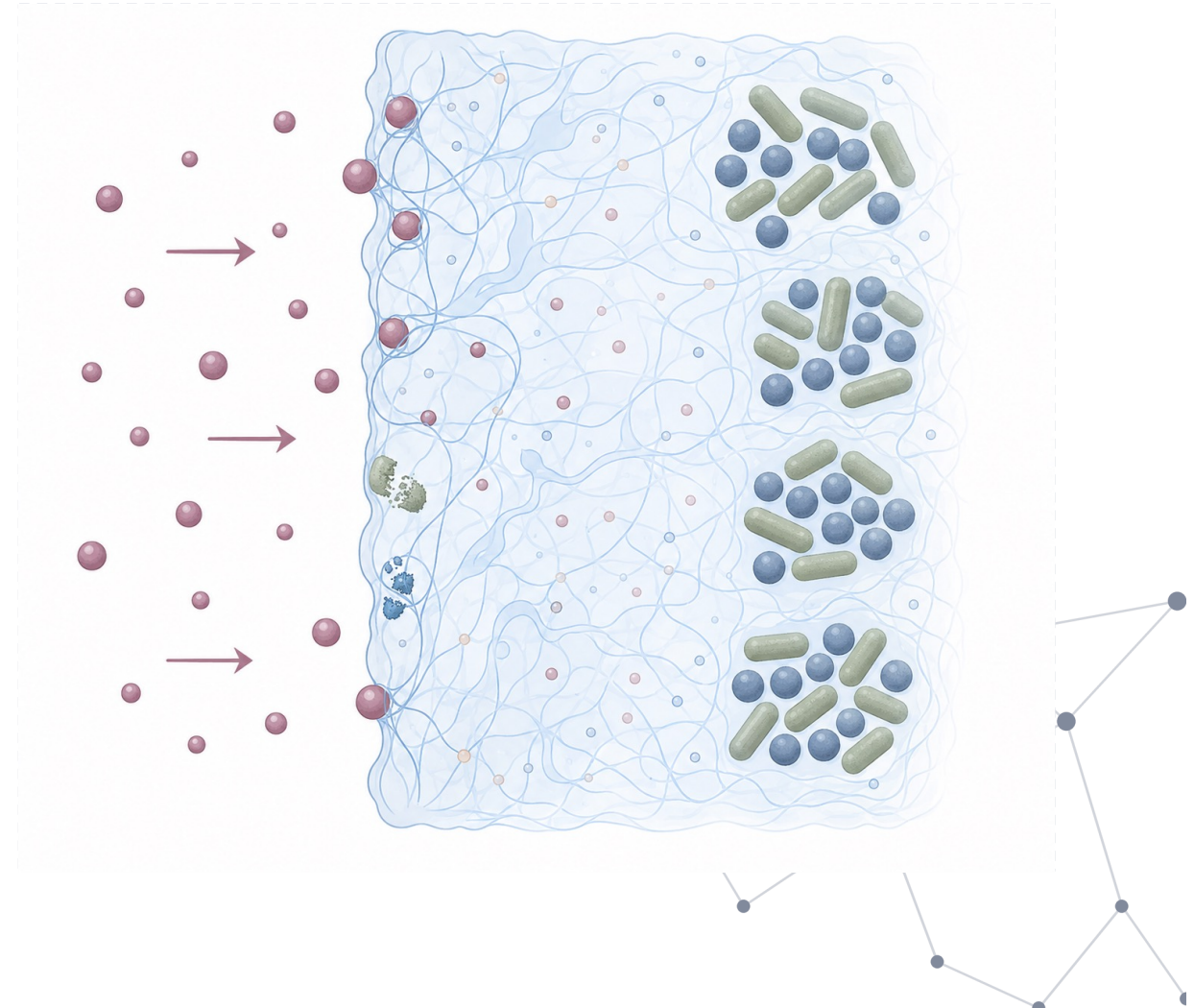
- **Clinical Pearl #5:** Tell the patient that they will **probably** have a Herxheimer response and give them a plan for managing it before they start treatment.
- This will decrease the number of panicked phone calls and make everyone's life easier.
- In my experience a few items/procedures that help reduce the frequency and severity of Herxheimer responses include:  
taking chlorella several times daily between meals, glutathione, herbal anti-inflammatories, far infrared sauna, and Epsom salt baths.



# A Naturopathic Approach to Lyme Disease: Obstacles

**Biofilms function as a barrier to treatment.**

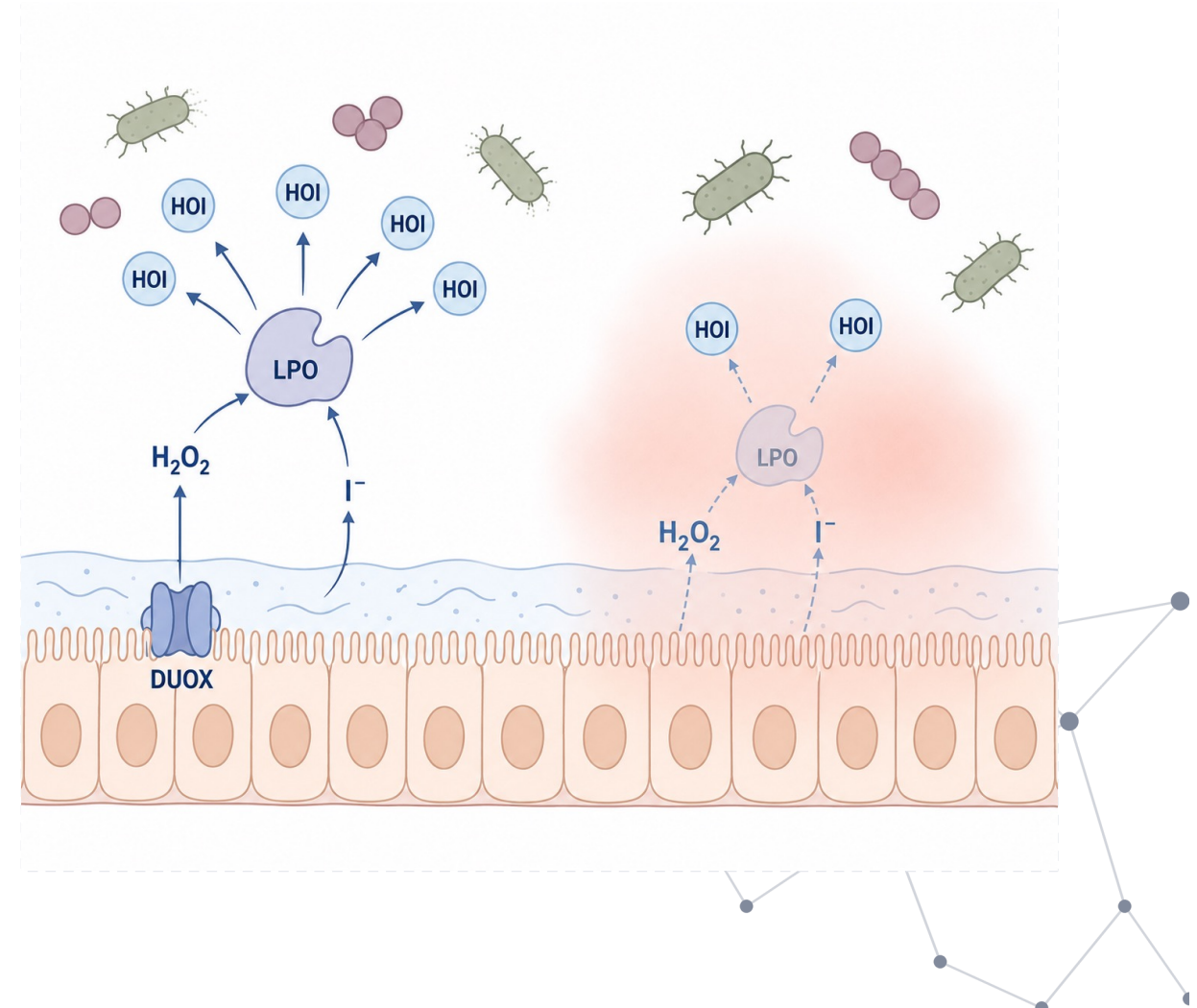
Microbial biofilms can shield pathogens from both the immune system and antimicrobial therapy, and are increasingly recognized as an obstacle to lasting therapeutic effect in chronic infection.



# A Naturopathic Approach to Lyme Disease: Obstacles

Impaired *endogenous* antimicrobial defense weakens the body's own first line of clearance

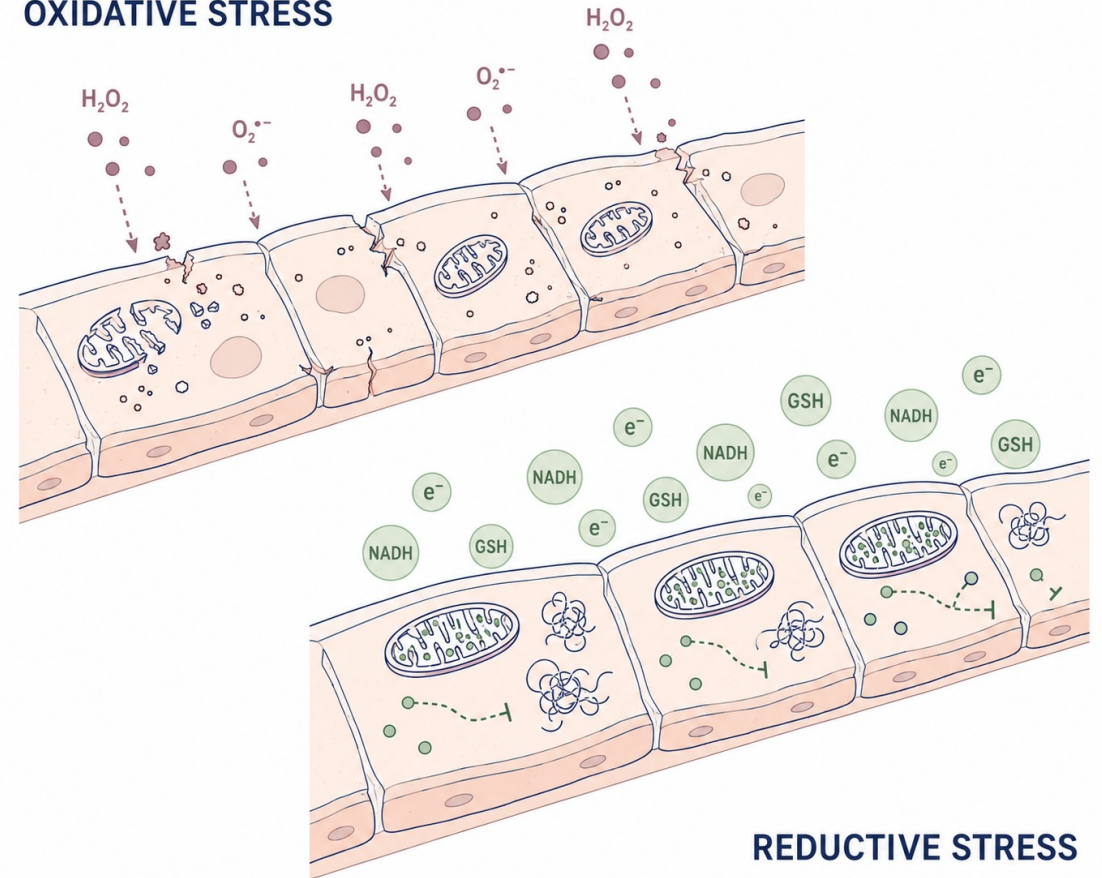
- Peroxidase-generated oxidants like hypoiodous acid (HOI) provide rapid antimicrobial activity at mucosal surfaces (3)
- But chronic inflammation disrupts the substrate and enzymatic activity this system depends on, reducing the body's capacity to clear pathogens



# A Naturopathic Approach to Lyme Disease: Obstacles

- Redox balance influences immune clearance of infections and repair of tissue damage
- Chronic disease involves sustained disruption of redox homeostasis, including both oxidative stress and under-recognized "reductive stress" (4)
- Iodine is an under-recognized antioxidant and immune modulator (5)

OXIDATIVE STRESS



# A Novel Iodine Complex

Having covered the complexities and challenges to treating chronic Lyme disease this section introduces a newer treatment approach: **a novel iodine complex**.

The mechanisms of action proposed here are theoretical; they have not yet been formally studied in clinical trials.

This isn't unusual; many common pharmaceuticals are prescribed without a fully known mechanism of action.



## Testimonials #3 and #4

“It is nothing like you've ever heard! [The iodine complex] is amazing stuff. Absolutely brilliant!! Saved my life. And helped my whole family. It also helped my boyfriend and an acquaintance's son! He was skeptical at first and now praises my help and advice. He is a doctor and is now working to carry the treatment as well.”

“I thought I would let you know, my daughter, Elke took [the iodine complex]. It made a huge difference for her. I'm pretty sure if you asked Elke to do a testimonial, she would be happy to do it. We pulled her out of college, initially for a semester at Christmas break 2023 so she could do treatment. We saw immediate changes and she was able to go back to school without even missing the semester. We are so thankful for this treatment!”

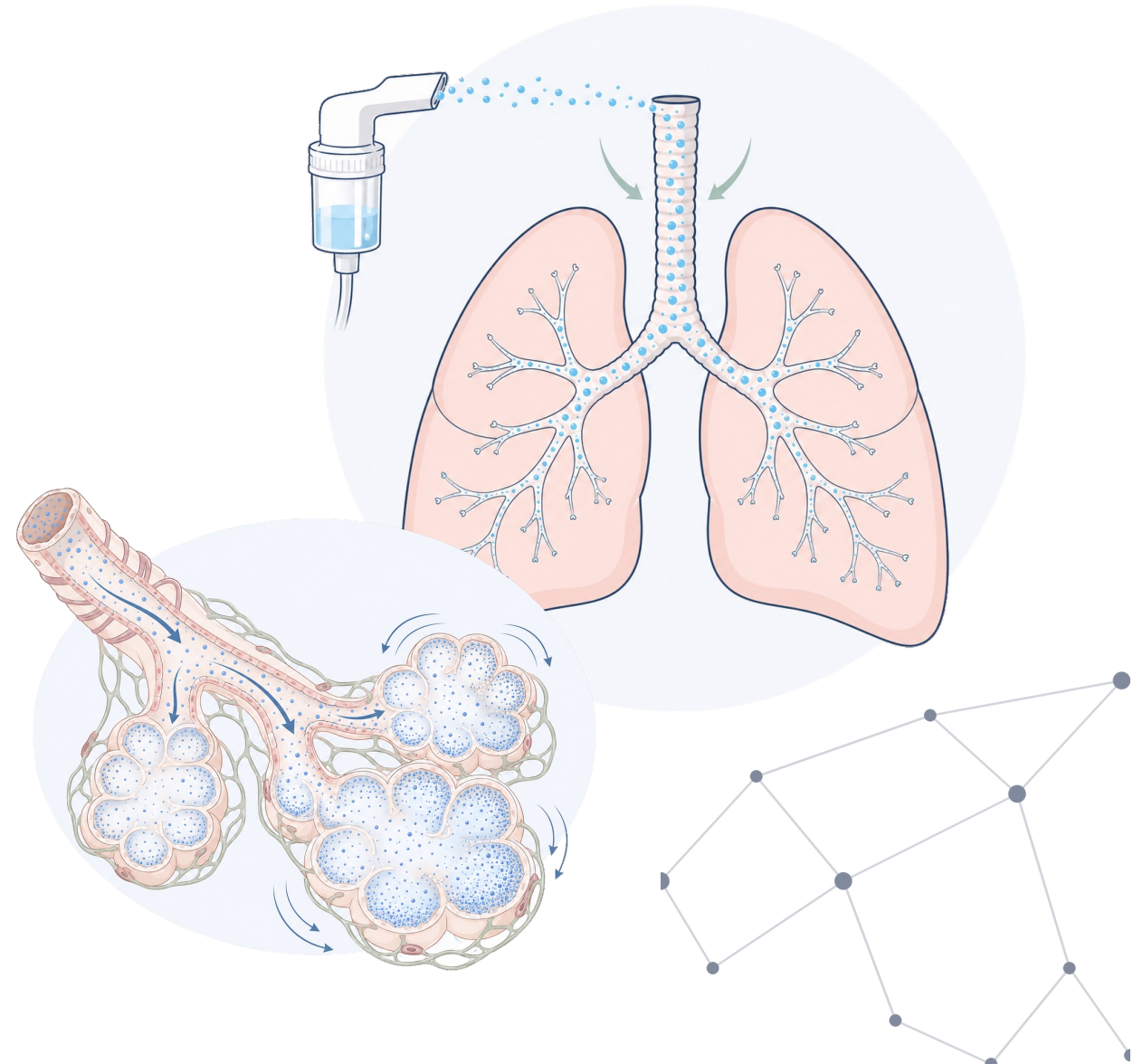


# Why Nebulized?

- Nebulization converts the novel treatment into an aerosol capable of distributing across a much larger portion of the respiratory tract than conventional oral or topical administration.
- Faster systemic absorption while avoiding gastric breakdown and hepatic first-pass metabolism

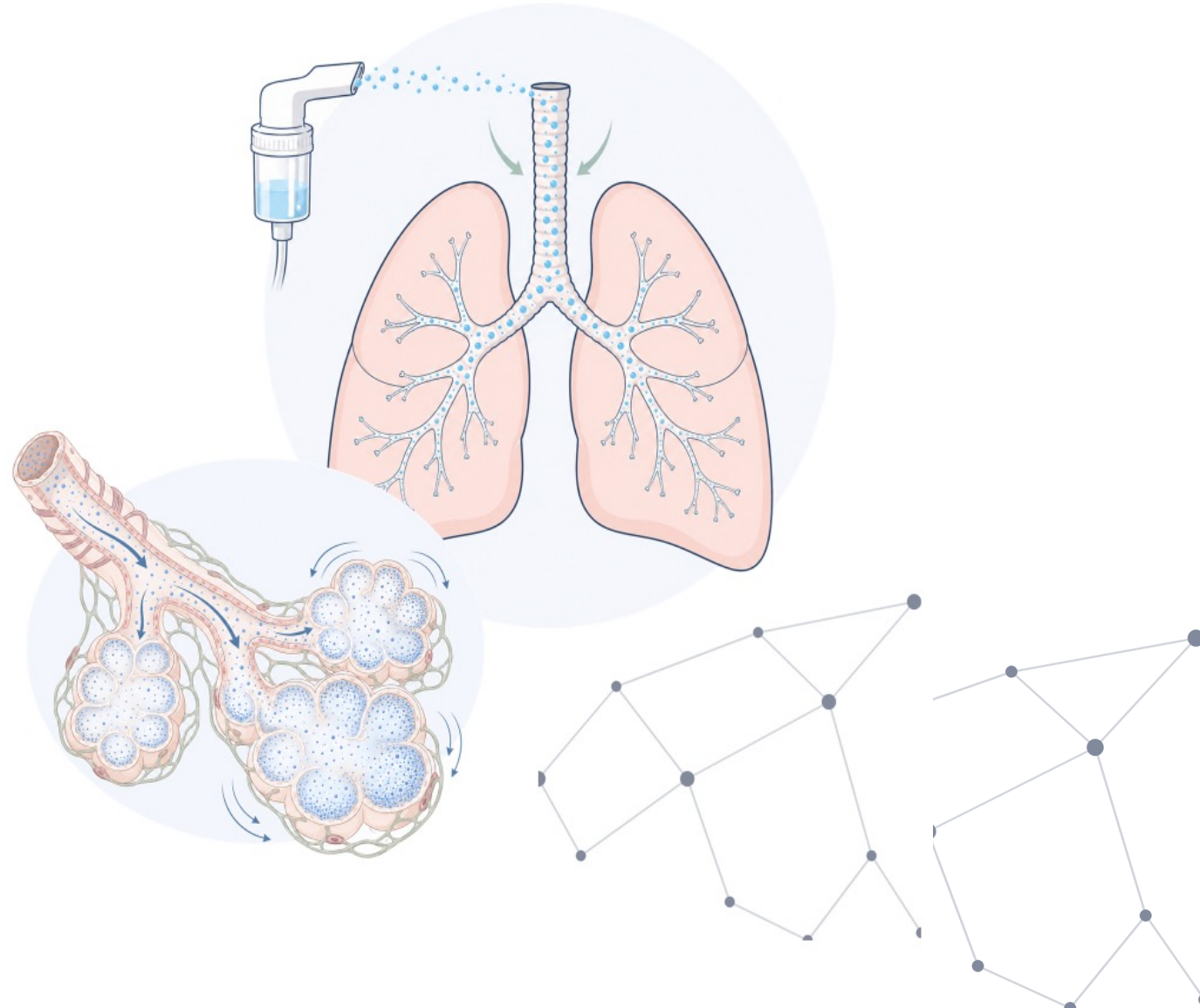
## Why nebulized vs. ingested?

- The pH of the lung lining fluid is near-neutral, allowing the negatively charged molecular carrier to remain more dispersed, whereas stomach acid could protonate their surfaces and promote disassembly.



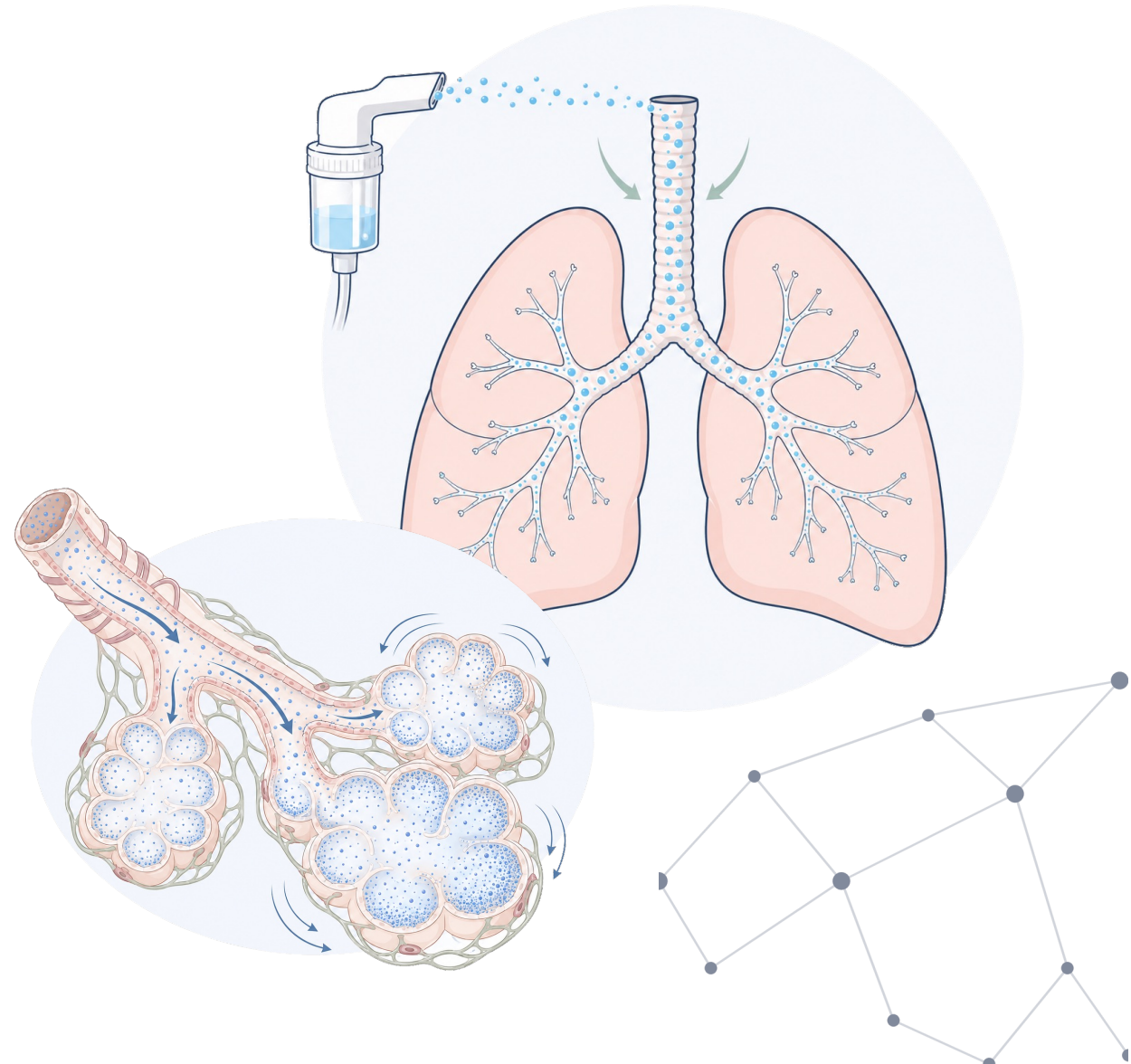
## Why 60 days?

- Immune-mediated clearance of *Borrelia* does happen.
- Acute Lyme infections that go untreated don't universally progress to permanent chronic disease; a functioning immune response can and does clear infection.
- With steady immune pressure over time, and steady antimicrobial use, the microbial population can shrink significantly, especially when its ability to reproduce is also suppressed by the complex.
- Because Lyme replicates slowly, fewer new organisms are produced to replace those eliminated by the novel iodine complex.



# A Unique Molecular Nanocarrier

- The proprietary nanocarrier allows the chemistry to release gradually.
- The nanocarrier keeps a small amount of active molecular iodine continuously available, enough to damage microbes, but below the level that irritates human tissue
- Molecular iodine is extremely reactive. Before reaching the circulation, it encounters mucus, glutathione, cysteine, proteins, lipids and epithelial cells. These consume the iodine and reduce most of it to iodide.
- The complex's stabilized component overcomes this by protecting reactive iodine from immediate scavenging and extending epithelial residence time.

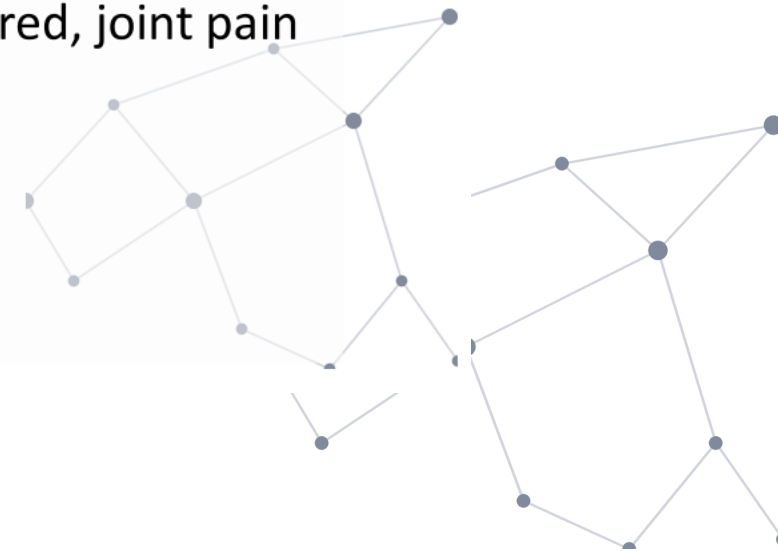


## Testimonials #5,#6, and #7

“My wife tested positive for Lyme Disease and was bed ridden for over three years from advanced Lyme Disease. A year after completing this treatment, she is completely back to normal. She took another test, and tested negative. Thank you for giving me my wife back!”

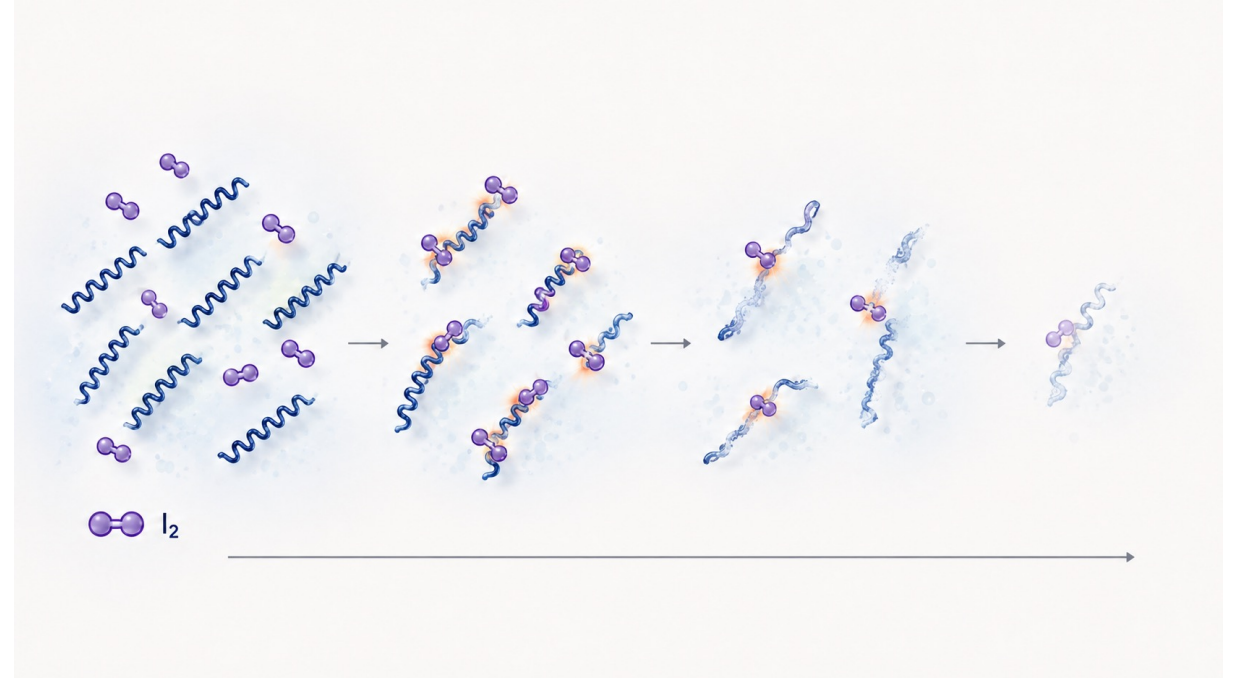
“It's the ONLY thing that has worked for our family. 4 out of 5 of us had it. Lyme affected all of us differently. All I know is, it's safe and effective. ”

“All of my symptoms went away. It cured me. Chronic fatigue disappeared, joint pain disappeared, could exercise again, hair loss [resolved].”



## MOA #1: Direct Kill

- Upon direct contact, iodine rapidly oxidizes *Borrelia*'s membranes and their proteins, disrupting structural integrity and metabolic function.
- The carrier-associated molecular iodine retains enough reactive  $I_2$  to damage *Borrelia* upon direct contact.
- Pulmonary administration changes iodine pharmacokinetics and distribution sufficiently for iodine species to reach biologically relevant sites, not just the respiratory surface.

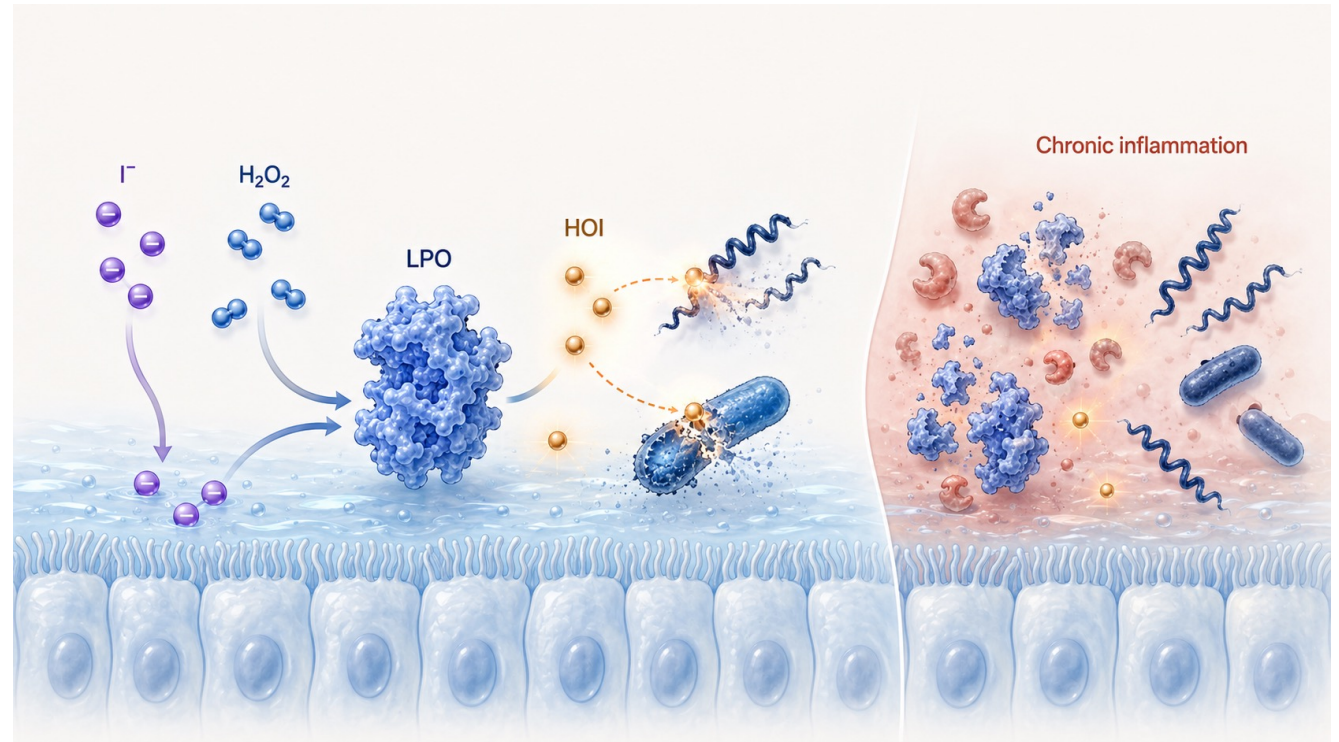


## MOA #2: Enhancement of HOI

The lactoperoxidase system (LPO) is one of the body's front-line antimicrobial defenses. In chronic inflammatory states like Lyme disease, LPO is degraded.

LPO converts iodide into hypoiodous acid (HOI), a highly reactive antimicrobial oxidant.

Without enough iodide, HOI production becomes substrate-limited, reducing antimicrobial pressure on *Borrelia* and allowing more of the bacteria to survive.



## MOA #3: Decreases Microbial Burden

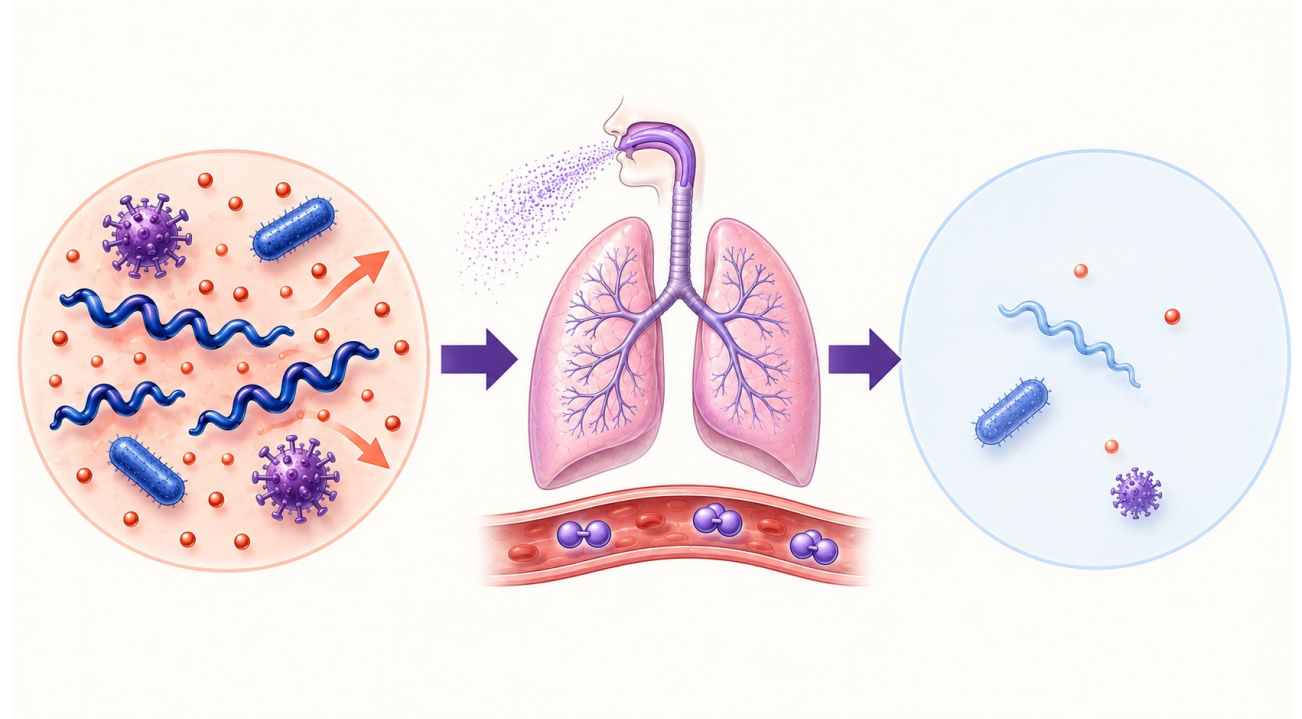
- A high overall microbial burden can amplify the host response to Lyme disease.
- Tick-borne co-infections, and opportunistic viruses/bacteria can modulate the immune system in unhelpful ways.
- For example, a high burden of other microbes (apart from Lyme) can skew the host's cytokine profile and induce a relative decrease in Th1-mediated cellular immune responses (like IFN- $\gamma$  and IL-12),
- These changes in the immune system can effectively act as a green light for *Borrelia* to replicate and disseminate deeper into target tissues.



## MOA #3: Decreases Microbial Burden

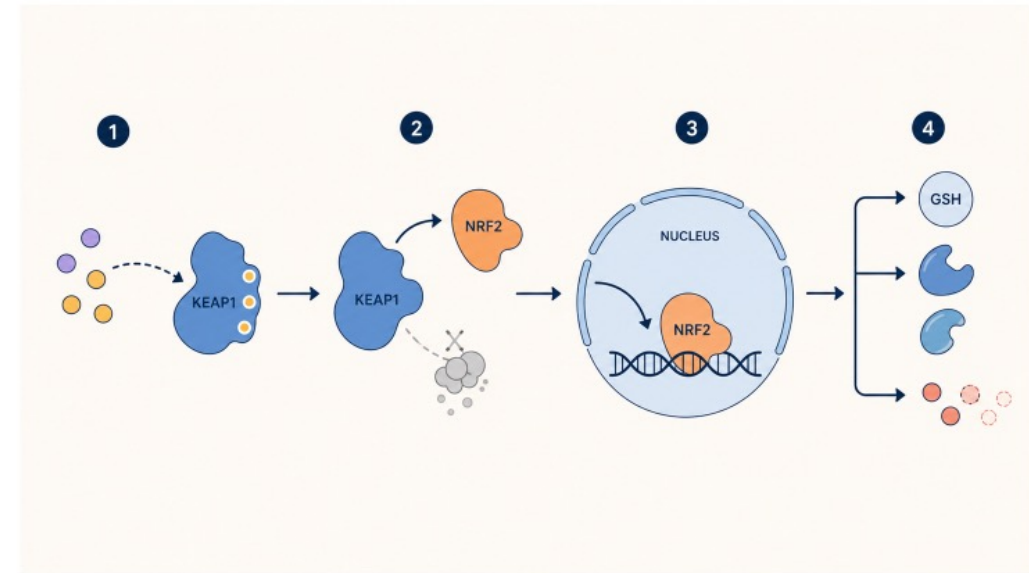
In summary:

- Co-infections and viruses amplify symptoms
- High burden skews cytokine profile
- Allows *Borrelia* to replicate and disseminate
- The novel iodine protocol lowers the microbial and viral burden systemically – not just *Borrelia*



## MOA #4: NRF2 Activation via KEAP1

- KEAP1 senses cellular stress and normally targets NRF2 for degradation
- KEAP1 has reactive cysteine residues that act as its stress sensors; studies suggest **an iodine-derived redox signal may *modify* these cysteine residues**, allowing more NRF2 to *escape degradation* and remain active
- Active NRF2 turns on genes for glutathione production and other protective enzymes



Reduced NRF2 breakdown, movement into the nucleus, and increased glutathione and protective enzymes



## MOA #4: NRF2 Activation via KEAP1

- Balanced redox signaling *reduces persistent NF- $\kappa$ B–driven inflammation*. NF- $\kappa$ B activation is a well-documented driver of *Borrelia burgdorferi*-induced inflammation, and it's cited directly in Lyme drug-discovery research
- The stabilized iodine complex supports mitochondrial function (by decreasing oxidative damage), tissue repair, and recovery from infection-related oxidative damage

Balanced redox signaling helps the body calm damaging inflammation, rebuild antioxidant defenses, and repair cells and tissues stressed by Lyme disease. This balance is **vital** for ailing patients because the body cannot repair effectively while persistent inflammation and oxidative damage continue to overwhelm its protective systems.



## Testimonial #8

"I was so fortunate to have learned about the protocol. I had, for many months, undiagnosed Lyme disease. I begged my primary care to run a Lyme test. The first test came back positive. I did 2 rounds of doxycycline antibiotic. I admit I felt some relief but within just a few weeks of completing the antibiotic, all my worse symptoms came back, pain and gross fatigue.

My wife and I we were introduced to a novel iodine complex. Within 3 days of starting it, the fog started leaving my brain. Over the following weeks of taking it my fatigue began improving, the extreme pain in my joints began to ease. Here it is four months after the protocol. The assorted other symptoms for which I suffered are gone as well. I cannot say enough about the amazing results.

In my travels I have encountered several people who have for years been treated for Lyme via the AMA protocols. These people have so far never been able to recover from Lyme disease. I have recommended and encouraged them to seek out this treatment. For me, the protocol has been transformational!"



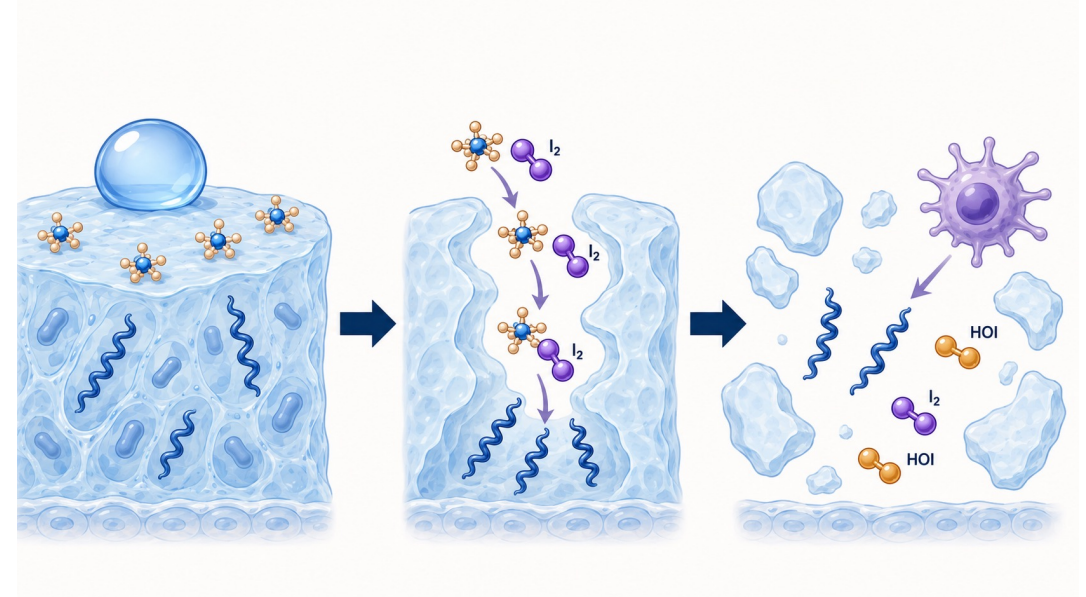
# Redox Thoughts

- I have often noted in clinical practice that the improvements in the patient's symptom constellation continue to occur for many months after the patient has stopped administering it.
- This speaks of a durable effect which may be related to improvements in the redox pathway with a resultant decrease in systemic inflammation.



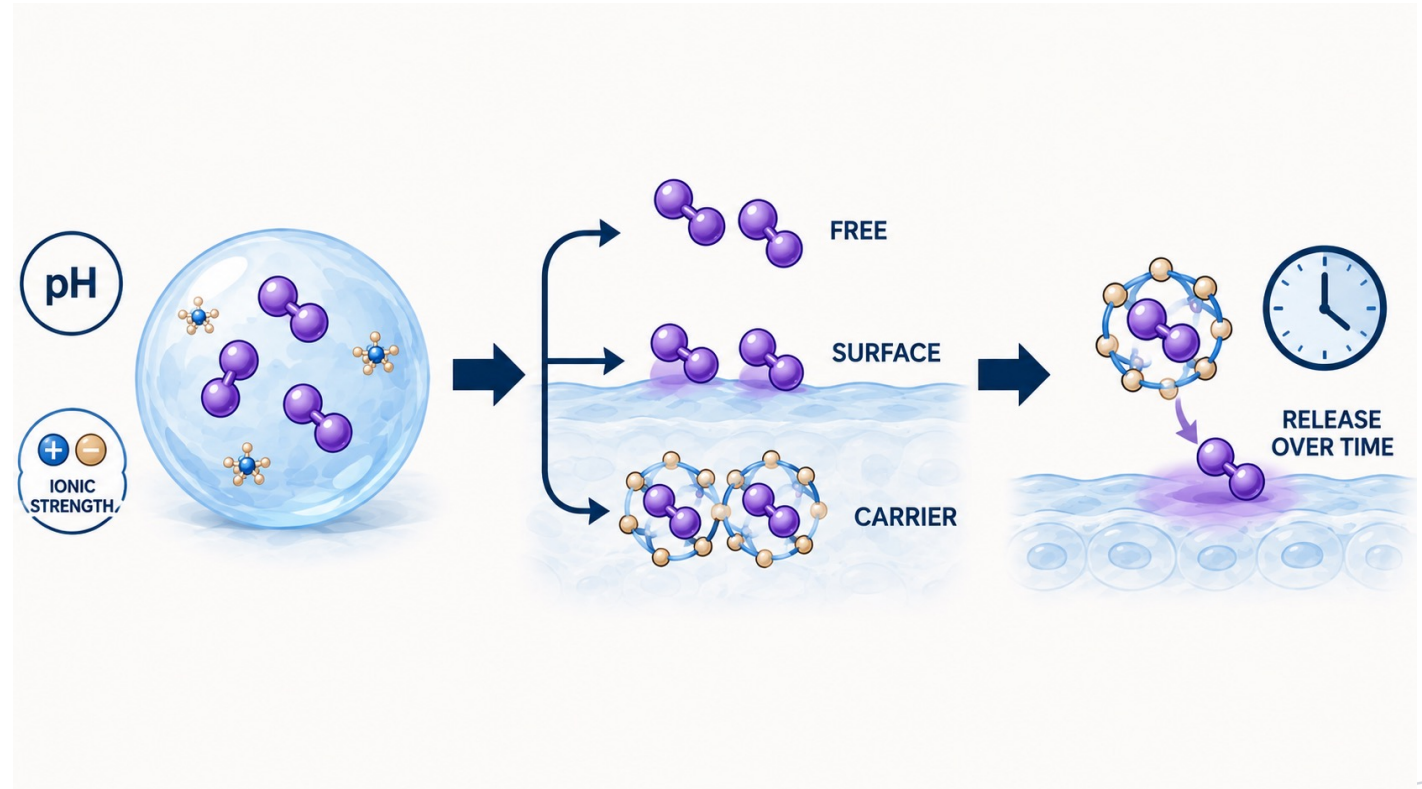
## MOA #5: Biofilm Buster

- Its unique molecular properties promote even contact with the biofilm's water-resistant surface
- The molecular carrier quickly penetrates and loosens the biofilm's protective lipid-protein matrix
- This transports iodine deeper into areas ordinary aqueous solutions may not reach
- Weakened biofilm structure may expose protected microbes to  $I_2$ , HOI, and immune defenses
- Repeated exposure gradually reduces microbial adhesion and supports clearance



# Stabilization Enhances Iodine Speciation and Body Distribution

- By controlling pH and ionic strength, the stabilized matrix may influence how iodine species partition in the body compared with conventional aqueous iodine.
- The matrix may extend tissue contact and modulate release over time.



- Rather than behaving as a simple iodine solution, the complex creates a distinct chemical environment that may alter iodine availability, localization, and reactivity.





## Case Study #1

- A 52-year-old man presented to my office with a diagnosis of psoriatic arthritis from a rheumatologist.
- He was a type I diabetic but he stated that he was generally healthy, active, and took good care of himself.
- Recently he had developed diffuse pain “all over his body.” He had a tick attachment earlier in the summer.
- The tick was attached for 40 minutes.
- This is interesting since the USDA says that generally a tick needs to be attached for 24-48 hours to transmit Lyme (6)



## Case Study #1

- He reported that his joint pain came on suddenly after the tick attachment.
- He tested positive for Lyme disease (IgM) and Babesia microti (IgM.)
- This was one of the first cases in which I decided to use the stabilized iodine complex for a patient that had BOTH Lyme and a lab-confirmed coinfection.
- He started the complex on 11/27/18 and was then lost to follow up (usually a good sign after Lyme treatment)



## Case Study #1

- The same patient presented again to my office on 5/12/22 for and acute tick bite.
- He had gone to an urgent care and was given a one-day dose of doxycycline.
- He stated that when he had used the stabilized iodine complex in 2018 the effects were “immediate and he was tempted to use it again” for his recent tick bite.
- He had no symptoms of Lyme disease so we decided instead to use doxycycline 100 mg twice daily for 3 weeks combined with an herbal plan to prevent infection.



## Case Study #1

- I saw him again on 3/8/23 with the chief concerns of foggy thinking, fatigue, paroxysmal swollen lymph nodes, joint pain, and muscle pain.
- He reported that his symptoms had gradually been creeping in since his last tick bite.
- He scored 56 on the Horowitz symptom survey (above 46 usually indicates and active infection.)
- Since he had experienced such good symptomatic improvements from his initial treatment with the stabilized iodine complex, we decided to repeat the treatment for his present infection.



## Case Study #2

- I first saw this 56- year- old man on 12/12/18. His primary concerns were headaches, sore muscles, fatigue, and erectile dysfunction.
- He worked in construction and remembers several tick bites but never a target rash.
- His symptoms came on suddenly two and a half years prior our visit. He had been referred to both a neurologist and a rheumatologist by his PCP.
- The Rheumatologist refused to see him because he did not feel that his rheumatological labs were convincing enough for a consult.
- He had tested negative for Lyme three times via conventional labs though his PCP.
- He scored 58 points on the Horowitz symptom questionnaire which is well into the range indicating a high suspicion for Lyme disease.



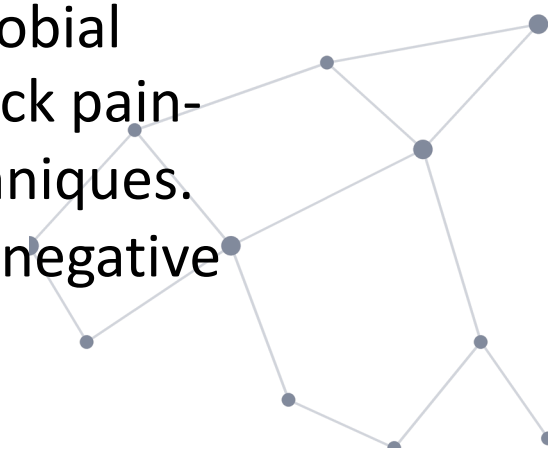
## Case Study #2

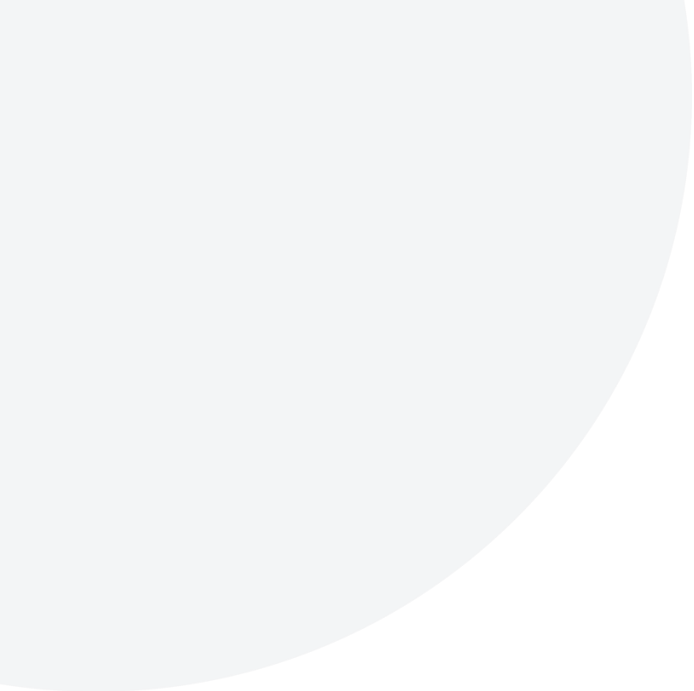
- I saw him again on 1/7/19 and reviewed his labs which were negative for Lyme, bartonella, babesia, and ehrlichia.
- Because of his fatigue I also ran a lab panel looking multiple opportunistic bacterial and viral infections all of which were negative.
- Given his history of multiple tick bites and his symptoms we made the decision to treat him empirically with the stabilized iodine complex.
- I followed up with him again on 4/22/19 after he had finished nebulizing. He reported that he felt much more energetic and that his headaches were less frequent.
- His symptom score on a alternative symptom survey (not the Horowitz MSIDS survey) had decreased from 177 points before treatment to 97 points.



## Case Study #2

- I saw him again on 6/26/19 and he was excited to tell me that, after having headaches every morning for two years he now had not had a headache at all in the last two weeks.
- Although he still had some symptoms that concerned him, he rated the majority of his symptoms as moderately better since our last visit.
- This fit the pattern that I have often seen with the stabilized iodine complex.
- Symptoms gradually continue to improve for months after the treatment.
- After this follow up, we decided not to pursue any further antimicrobial treatment for Lyme disease and we started working on neck and back pain-related osteoarthritis with acupuncture and myofascial release techniques.
- **Clinical Pearl #5:** Don't be scared to treat empirically if the labs are negative but the symptoms and history are screaming Lyme.





## Case Study #3

- On 6/27/17 a 40-year-old woman presented to my office with chief concerns of joint cracking and foggy thinking.
- She also reported multiple other symptoms including: sweats, fatigue, breast pain, palpitations, joint pain, joint stiffness, headaches, neck pain, tremor, confusion, poor attention, word finding difficulties, and others.
- She last remembers feeling well at age 22. Her worst symptoms started 11 years ago during which time she remembers having a tick bite.
- Four years later she tested IgM positive on a western blot for Lyme disease and was treated for one month with doxycycline.
- She noted no improvements in her symptoms from the doxycycline.
- She felt that dietary improvements and gluten avoidance after that point improved her symptoms substantially



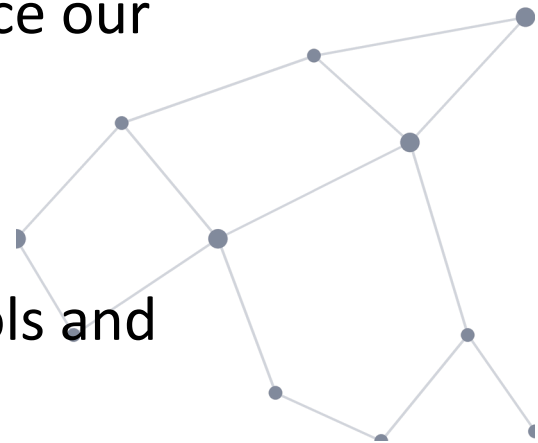
## Case Study #3

- The previous winter she went through a very stressful period and her symptoms began to worsen and this time dietary modulations were not helping.
- We ran a Lyme western blot which had several positive IgM and IgG bands.
- The IgM western blot was “equivocal” as per that lab’s standards. Most of the common Lyme co-infections were negative but there was a positive IgM value for mycoplasma pneumonia.
- Cytomegalo virus and HHV-6 labs showed moderately elevated IgG values.



## Case Study #3

- We followed up on 7/20/17 to review her labs and to start a treatment plan.
- She tried minocycline previously with another provider and was unable to tolerate it.
- She preferred herbal rather than antibiotic treatment. We decided to use herbal protocols for Lyme, mycoplasma pneumonia with possible CMV and HHV-6 overlap.
- We followed up again on 11/14/17 and she stated that joint pain and fatigue were now her primary concerns
- Both of those symptoms (as well as several others) had improved since our last follow up.
- She was seeing gradual symptomatic improvements on the herbal protocols.
- To speed up her progress we decided to start stop the herbal protocols and start the stabilized iodine complex



## Case Study #3

- We followed up again on 6/17/18 and she had finished nebulizing the iodine complex 4 months prior.
- At this point the symptoms decreased enough that we were able to begin working on other health issues such as trying to wean her off of Effexor that she had been on for 17 years.
- I was quite impressed with the symptomatic improvements she had experienced in a 6-month period given that most of her symptoms had been present for 11 years.



## Case Study #4

- A 21-year-old women presented to my office with chief concerns of perioral dermatitis, bloating, constipation, and diarrhea.
- She had a history of bloating and dermatitis but these symptoms worsened after a trip to Nepal.
- Her PCP did a stool test for parasites which was negative.
- I suggested doing a SIBO test and a “functional” stool test to look more broadly at her microbiome, digestive capacity, and to look for any markers of gut inflammation.
- She also started on a nutrient protocol for dermatitis.



## Case Study #4

- We followed up on 2/27/19 to review her labs. On the stool test I noted that she had increased fecal secretory IgA and dysbiosis.
- She was negative on the SIBO breath test.
- Although she had mostly spoken about her dermatitis and gut issues during her initial visit this time she shared more medical history with me.
- She shared that she had brain fog and fatigue that started summer of 2017 while working on a farm.
- These symptoms, as well as food sensitivities, were getting worse over the last year.
- Between visits she had gone to another doctor and gotten a Lyme western blot which was IgM positive. There were no coinfection labs done so I decided to run some.



## Case Study #4

- We followed up 4/2/19 and she informed me that she was having some laryngitis which she attributed to the iodine complex.
- We followed up again on 5/23/19 and she had finished the stabilized iodine complex. She told me that most of her symptoms had improved quite significantly.
- In particular she had noted much less brain fog and more energy. She was still noting dermatitis and gut issues.
- At this point we began a gut healing plan based on the results of her previous stool test.



## Case Study #5

- I first saw this 56- year-old man on 10/25/18. His chief concerns were fatigue, joint pain, muscle pain, and brain fog.
- He reported that he had felt “lousy for many years.”
- He had a very toxic job working in an auto body shop and he had high risk of exposure to tick bites.
- He stated that he may have contracted Lyme disease in 1993 although none of his labs at that time were positive.
- He never received any treatment for Lyme disease. He reported that by 1996 he was couch-bound due to fatigue.
- After that time the symptoms had come and gone to the present time.
- He had been to an infectious disease doctor who found no concrete diagnosis to explain his symptoms.
- After that he went to an integrative practitioner but was overwhelmed with the treatment plan he received so he did not follow through with it.



## Case Study #5

- In 2005 he tested positive for Babesiosis and was given two weeks of treatment with an anti-malarial by his PCP. He also received nutrition counselling and felt some improvements in his symptoms on a food sensitivity elimination diet.
- He reported that he was a poor historian when it came to his symptoms because he did not remember what treatments helped and which did not.
- He sometimes had four good days in a row during which time his symptoms would lessen but then they would return full force.
- I ran a Lyme, co-infection, and viral panel. He was negative for babesia, bartonella, and ehrlichia. His Lyme western blot was IgM negative but marked as equivocal on IgG. All his viral labs were negative.



## Case Study #5

- We followed up on 12/8/18 to review his labs and he scored 242 points on the alternative symptom questionnaire (not the Horowitz.)
- He began nebulizing the iodine complex at that time.
- I followed up him again on 3/19/19 and he had finished nebulizing the complex 21 days prior. He now scored 154 points on the symptom questionnaire.
- I was very impressed with his symptomatic improvements in the 3-month period given that had felt poorly for 26 years.



## Case Study #6

- A 61-year- old woman presented to my office on 7/11/26
- She reported that she had been diagnosed with Lyme in 1999.
- Her symptoms started after running the Boston Marathon.
- She was treated by an ILADS doctor for 1 ½ years using pulsed rounds of antibiotics.
- After 1 ½ years of antibiotic treatment she was 80% back to normal
- She was feeling relatively well until 2024 when she started to develop headaches, dizziness, visual changes, tinnitus, fatigue, and migrating pain.



## Case Study #6

- Her dizziness and visual changes were so intense that they resulted in two hospitalizations.
- In the hospital she was diagnosed with “complex migraines.”
- The migraines did not respond to medication.
- After two years of these episodes, she began to suspect a Lyme relapse or reinfection.
- She opted to start the stabilized iodine complex.
- She noted a Herx. reaction during the first 2 weeks of nebulization.
- Her case is ongoing but after two months of nebulization she reports her symptoms have improved by is 60-70%.
- She has been struggling with coughing from the nebulization but finds kombucha, cough lozenges, and cold plunges help reduce the coughing.



## Case Study #7

- A 46- year- old woman presented to my office on 9/5/17 with chronic headaches being her chief concern.
- She had struggled with headaches for many years but they had worsened this year. She stated that she was usually quite healthy and was an avid hiker.
- She had a car accident recently after which several other symptoms (apart from the headaches) started including: stiff neck, diffuse joint pain, poor sleep, palpitations, muscle pain, muscle twitches, and cold intolerance.
- Her PCP referred her to a neurologist but the neurologist refused to test her for Lyme.
- She did not remember any tick bites.



## Case Study #7

- I was convinced by her symptoms and history that she had Lyme and I suggested we run a Lyme and co-infection panel.
- She was eager to pursue treatment immediately and not to wait for the results of her labs to come back.
- After discussing the risk benefit ratios of the various methods of treatment she decided to go the combined antibiotic/herbal route.
- The results of her western blot eventually revealed several positive bands in both IgG and IgM but they did not meet the lab's cut off for a positive test. This may have been due to the fact that she had already began treatment and thus was creating less antibodies.
- Her coinfection labs were also negative.



## Case Study #7

- We started treatment with herbals, doxycycline, and tinidazole. This began an 11-month journey involving alternating antibiotics, herbals, neural therapy, myofascial release, and nutrient IV therapies over multiple follow up visits.
- By 9/5/17 she stated that most of her symptoms were much better and she had discontinued the antibiotics before the follow up. After that time, she was lost to follow up.
- I saw her again on 1/22/19 and she reported that she was having a flair up of her initial symptom of diffuse joint pain.
- We decided to try the iodine complex at that time.



## Case Study #7

- I followed up with her after one month of nebulization and she reported that she had been noting some worsening of joint pain which we attributed to a Herxheimer reaction.
- She was having some lung occasional lung discomfort while nebulizing.
- We followed up again on 5/29/19 and she had finished nebulizing about 6 weeks prior. She reported that she did not feel much improvement **during** the nebulization period but **6 weeks after finishing** she felt much better overall.
- Her headaches were minimal, and she had only had one flair up of joint pain over the last 5 weeks which was a dramatic reduction in frequency.



## Case Study #7

- I include this case study because it demonstrates what I believe to be the value of the iodine complex as a “finisher treatment” in cases where a patient has a relapse of symptoms after antibiotic and/or herbal treatment.
- It is well known that antibiotics can work well for the rapid growth phase of borrelia but they can leave some “persisters” behind.
- I was first attracted to the iodine complex because I felt it had a good chance of penetrating body spaces where persisters and biofilm-protected spirochetes may be hiding.



## Case Study #8

- A 56-year- old woman presented to my office with a diagnosis of mast cell activation syndrome, Lyme, bartonellosis, and anaplasmosis
- She reported that she had a tick bite 13 years ago and was hospitalized and given antibiotic treatment.
- 3 years later she had a bullseye rash on her calve and presented at an urgent care.
- She received one dose of doxycycline at the time.
- Shortly after that time she started to develop food allergies



## Case Study #8

- In 2022 she presented at a colleague's office and was diagnosed with Lyme, bartonellosis, anaplasmosis, and mast cell activation syndrome.
- By this time, she had developed severe anaphylactic reactions to mold that necessitated large doses of daily diphenhydramine to keep in check.
- She was very reactive even to homeopathics.
- Her reactivity and allergies had prevented her from getting tick-borne disease treatment with her previous ND so she went looking for alternative treatment approaches.
- On 12/1/24 she presented to my office.
- During my intake visit she scored 74 on the Horowitz Lyme-MSIDS Questionnaire (a score of 46 or more almost always correlates with an active infection.)



## Case Study #8

- She decided to try the stabilized iodine complex to treat her chronic Lyme and co-infections.
- At this time, I suggested that she start ultra-low dose allergen immunotherapy (LDA) for her allergic reaction to mold.
- We followed up on 2/6/25 after nebulizing for 60 day and she reported feeling much better overall.
- She also noted much less reactions to foods.
- She reported that she had such a good response to the complex that she would like to get ½ a bottle and continue nebulizing for another month.



## Case Study #8

- We followed up again on 5/22/25 at which time she reported that after nebulizing for four months she was now able to eat all the foods that she was previously reacting to.
- This was an unexpected results since we had not treated her food sensitivities directly but had been focusing on Lyme and co-infections.
- This may have been an example of the inflammation from Lyme causing other inflammatory issues such as food sensitivities.
- She also reported that “all her Lyme symptoms were gone.”
- Her score on the Horowitz questionnaire was now down to 10 points from her previous 74 points.



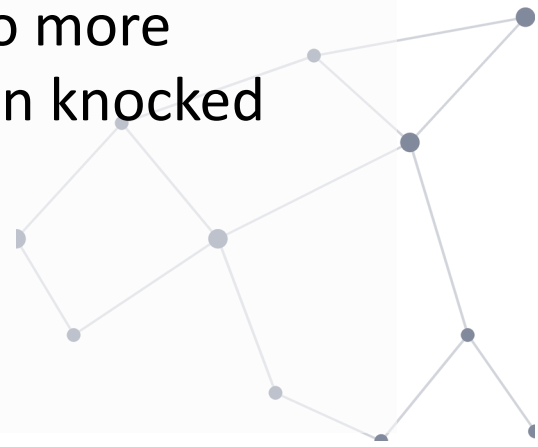
## Conclusions

- I have used a stabilized iodine complex to treat approximately 200 patients with various stages of Lyme disease and co-infections over the last decade.
- I have found that it generally works better than antibiotics, has fewer side effects, and fewer symptom relapses.
- I hypothesize that it eradicates the various stages of Lyme (growth phase and dormant phase.)
- My clinical observations indicate that it most likely reaches Lyme inside the cells, outside the cells, and when integrated into biofilms
- **In my opinion this could represent a breakthrough in the treatment of Lyme disease and it needs to be more widely known and utilized.**
- Contact [bertmathieson@gmail.com](mailto:bertmathieson@gmail.com) if you have any questions.



## Testimonial #9

“Thank you for this medicine that has completely turned my life around! Before I learned about this treatment, I had resigned myself to the belief that I would never get my life back. Today is my 24th day of treatment, and the difference before I started and now is incredible! Day by day, my mind cleared. I now awake with clarity. Before treatment, I would be in pain and my joints would be sorely inflamed. My vision had become so bad. I was severely paranoid, suffered panic attacks, seizures, and delusions. Often, I could not speak. I could no longer read. I had several neuropathies impacting my ability to walk and causing falls and subsequent injuries. After 24 days of treatment, my life is returning anew! I have energy. My cognition is returning. I look forward to each new day. No more vision problems. No more psychiatric disturbances. I can actually read now. My pain level has been knocked down. I most humbly thank you from my heart.”



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