



# LYME TREATMENT: What to Expect

## PULSED THERAPY

**Pulsed treatment for chronic Lyme disease means taking various prescription medications, nutraceuticals and herbs in intermittent cycles punctuated with “rest” periods when prescription medications are not taken.**

Pulsing is designed to tackle the elusive nature of the *Borrelia* bacteria that causes Lyme and any co-infections by targeting different bacterial forms including biofilms and persister (hibernating) cells that are able to evade the standard continuous antibiotic treatment.



You can expect a tailored treatment that will include multiple types of prescriptions and supportive nutraceutical therapies which will target biofilms, gut flora support, and Herxheimer reactions. Treatment typically takes 14-18 months and will be adjusted as necessary based on your body's response.

**This comprehensive protocol has been proven to reduce the chance of bacterial resistance, minimize side effects, and enhance immune system recovery.**

## INCLUDED IN EACH PULSE

Typically a pulse of treatment will last two to four weeks with a similar length break before you begin the next pulse. Treatments will include:

<b>Antibiotics, Antifungals, and/or Antiparasitics</b>	To kill bacterial infection and co-infections.
<b>Nutraceuticals</b> (Supplements derived from natural sources)	Used as biofilm disruptors, detoxing agents, antibacterials and gut flora support.
<b>Diet Changes</b>	Some foods can interfere with the action of certain antibiotics so they will need to be avoided during the use of these medications.  Lyme bacteria feed on glucose which are sugars in the body. A low sugar/carbohydrate diet is recommended.
<b>Lab Tests</b>	Blood tests to monitor any potential side effects of treatments.
<b>Herxheimer Reactions</b>	An inflammatory immune response that occurs when dying bacteria release toxins and other byproducts into the body.  This response can affect any system of the body.  Herxheimer reactions can make you feel worse before you feel better.

## THE BREAKS BETWEEN THE PULSES

The main component of each pulse will be prescription medications which will stop during the breaks. You will be taking nutraceuticals and support supplements during each pulse. Some of these supports will be continued during the breaks and some will be paused during the breaks.

- ❖ **SOT Therapy:** You will be taking all nutraceutical and support supplements everyday **even during breaks.**
- ❖ **NO SOT Therapy:** Some nutraceuticals can be stopped during the breaks between pulses.

You will discuss what can be paused during breaks at your follow-up appointments.

## EXPECTED SYMPTOMS & REACTIONS

**Herxheimer reactions are common during treatment pulses and sometimes during breaks.** A variety of potential symptoms are possible as your body is dealing with toxins and byproducts released by dying bacteria. These uncomfortable symptoms are a sign of progress and should improve as you go through the pulses.

See the “*Lyme Treatment: FAQ*” sheet for more information on Herxheimer reactions.

## SUPPORTIVE THERAPIES & LIFESTYLE

**Support is available to ease the discomfort of Herxheimer reactions.** There are a wide variety of therapies and lifestyle adjustments that will help ease your symptoms and support your body while it is fighting the bacterial infections and dealing with the byproducts of dead bacteria.

**Examples include:** additional supplements, diet changes, infrared sauna therapy, massage, and mental health counseling.

See the “*Lyme Treatment: Supportive Therapies*” on the website for information on specific therapies.

**Your body will be working hard. Adjustments to your lifestyle will increase your success.**  
**Consider reducing stress levels, a low glucose diet, and optimizing your sleep.**

## SIDE EFFECTS OF TREATMENT

Potential side effects due to treatment are varied and depend on your unique health circumstances.

**Common side effects are:** stomach upset, head aches, nausea, myalgia, fatigue, joint pain, worsening of existing symptoms, anxiety and depression, skin tingling, heart palpitations, and various bowel function changes.

You may find it helpful to keep a “*Lyme Symptom Log*” through the course of your treatment to monitor your reactions and changes in symptoms. This is available as a printable in the Patient Resource section on the website.

## MONITORING

During treatment, it will be important to monitor how your body is responding to the medications.

**This may include:**

- Blood draws during each pulse to monitor kidney, liver, pancreatic function, inflammation levels, electrolytes and blood counts.
- EKG to monitor heart function

## FOLLOW-UP APPOINTMENTS

Typically, you will have a follow-up appointment after every 1-2 pulses. This will be adjusted if needed.

During this appointment we will:

- ❖ Discuss how your previous pulse(s) went.
- ❖ Review any symptoms you experienced during your pulse and breaks.
- ❖ Consider any necessary adjustments to your treatment.
- ❖ Discuss supportive therapies that may be helpful.
- ❖ Review requirements for the next one or two pulses.
- ❖ Send prescriptions to the appropriate pharmacy.

**We recommend you purchase nutraceuticals and supplements on the day of your follow-up appointment to avoid delays in starting your next pulse.**

Some items are available for purchase on the website, but not all.

## INSURANCE

**We DO NOT bill insurance for your visits or purchases you make in the office.**

We will provide you with a superbill for your visit that you can submit to your insurance company for any reimbursement your plan covers. Please review your insurance company policy on submission for Naturopathic medical expenses.

**Prescribed medications from a pharmacy are sometimes covered by insurance plans.**

If you are a cash pay patient, we recommend you visit the Good Rx website for a printable coupon or download the app for discount coupons. Also check the Mark Cuban Cost Plus Pharmacy for price comparisons.

## HELPFUL RESOURCES

### **On the Website: Lyme Treatment: FAQ**

Answers for the most often asked questions about your treatment.

*Please check this resource before contacting the office or sending a portal message.*

### **On the Website: Lyme Treatment: Supportive Therapies**

A list of optional therapies that may relieve Herxheimer symptoms or a ramp up of your regular symptoms.

### **On the Website (Printable): Lyme & Mold Symptom log**

Found in the "Patient Resources > Printables" section.

A powerful tool for identifying and tracking symptoms before, during and after treatment. Patients see their progress during treatment which can help with motivation and encouragement.

### **On the Website (Printable): Supplement Schedules**

Found in the "Patient Resources > Printables" section.

A blank schedule for you to print to help you organize when to take medications and supplements.

Three style options are available.

### **From the Provider during an office visit: Pulse Information sheets**

For each pulse you will receive a handout with detailed instructions and a list of medications and supplements. A sample medication / supplement schedule will be included.