

Note: This excerpt is taken from the book “Insights Into Lyme Disease Treatment: 13 Lyme Literate Health Care Practitioners Share Their Healing Strategies.” You can purchase the book from [www.lymebook.com](http://www.lymebook.com). Dr. Morrison was one of 13 physicians interviewed in the making of this book. The below excerpt represents approximately half of Dr. Morrison’s chapter from the book. To read the rest of Dr. Morrison’s chapter, please purchase the book from [www.lymebook.com](http://www.lymebook.com).

## **Biography**

Dr. Jeffrey Morrison is a medical doctor who champions a nutritional approach to healthcare as well as preventing and reversing degenerative diseases. Dr. Morrison's treatments are aimed at enhancing the body's ability to heal and detoxify itself. Safe, non-toxic and non-invasive treatments are proving to be more powerful than conventional treatments, which involve drugs and surgeries that are often dangerous.

Dr. Morrison completed his undergraduate degree in psychology at the University of Rochester and received his medical doctorate from Jefferson Medical College in Philadelphia. He is trained and board certified in Family Practice and has completed additional training in environmental medicine.

In 2001, Dr. Morrison was on the medical staff at the Atkins Center for Complementary and Alternative Medicine in New York City, where he worked under Dr. Robert Atkins, the developer of the famous low carbohydrate diet, the Atkins Nutritional Approach (or Atkins diet, as it is commonly referred to). He then went on to become the medical director of the Wellness Medical Center of Integrative Medicine in New York City.

In 2002, Dr. Morrison opened The Morrison Center on Fifth Avenue, just steps away from Manhattan's Union Square. Since then, Dr. Morrison has used his successful integrative medicine and nutritional approach for both health optimization and the treatment and prevention of degenerative diseases, such as arthritis, Lyme disease, high blood pressure, hormone imbalance, obesity, diabetes, chronic fatigue, anxiety, depression, heavy metal poisoning and many other ailments.

Dr. Morrison is a member of the American Academy of Environmental Medicine (AAEM) as well as a lecturer and board member for the American College for the Advancement in Medicine (ACAM). He has appeared on television, written journal articles and chapters for textbooks, and lectured throughout the country in the field of integrative and complementary medicine.

Dr. Morrison has been featured as a health specialist on The Discovery Channel, Next Top Model, and in several documentaries related to anti-aging. He has also contributed to articles in publications such as Cosmopolitan, Men's Journal, Shape, Fitness and New York Magazine, as well as in other health related resources around the United States.

## **Healing Philosophy/Treatment Approach**

I became involved in the treatment of Lyme disease when patients started coming in to my practice with symptoms of Lyme and I realized that I didn't know how to treat them. So in 2005, I received six months of advanced training in the treatment of tick-borne infections from Lyme-literate physician Dr. Burrascano, and that helped to shape what I do today.

When treating Lyme disease, my goal is to make sure that I have identified what infections my patients have, which I do through blood work and by taking a thorough history of their symptoms. It isn't always clear to me why some patients don't get better, even after being treated for Lyme disease. Accordingly, when treating them, it's important for practitioners to make sure that all of the common Lyme co-infections have been considered, including Babesia, Bartonella, and Ehrlichia, as well as the opportunistic infections such as Chlamydia pneumoniae and Mycoplasma, and viruses such as HHV-6 and Epstein-Barr.

Often, one person who gets a tick bite will get symptoms, while another won't, which means that genetics and environmental factors probably also determine whether a person will develop chronic Lyme disease. For this reason, in addition to treating the infections, I also treat the immune system and correct for any nutritional deficiencies. Checking quantitative immunoglobulin levels, IgG subtypes, B-12 and folic acid levels, 25-hydroxy Vitamin D, ferritin, and red blood cell levels of magnesium are an important part of this assessment.

I also find that my patients tend to have a hard time getting over infections if they have high levels of environmental toxins in their bodies, such as accumulations of mercury and lead. So I will also establish protocol for removing these toxins, when necessary.

Two other common problems which Lyme patients have and which impact their healing are yeast overgrowth or parasitic infections in their digestive tract. Sometimes, their symptoms are more related to one or both of these issues than to the Lyme infections, so I perform stool testing to clarify whether they are a problem and then treat as necessary.

Finally, I check hormones, including cortisol, DHEA-S, testosterone and growth hormone, as well as others, and if there are imbalances, I correct those, as well.

## **Treatment Protocol for Borrelia and Co-Infections**

### ***Borrelia***

If my patients have chronic Lyme disease involving just Borrelia (and no co-infections), then I will give them whatever medication is needed to get them better. That could be

oral doxycycline, or another medication. In my practice, we sometimes use a combination of antibiotics to treat *Borrelia* but I find that it isn't always necessary to give patients multiple antibiotics. When it is necessary, Ceftin (cefuroxime) and azithromycin are one combination of medications that I often use. Omnicef (cefdinir) and Biaxin (clarithromycin) is another good combination. I never know which combination is going to work best, however, because every patient is different. Sometimes, the best way to know is by looking at what medications have or have not worked for them in the past, as well as which treatments they still haven't tried.

In addition to the above oral medications, I might also give Flagyl (metronidazole) to my patients, which I prescribe in-between courses of bactericidal antibiotics. For instance, I might have a patient take Ceftin with azithromycin, and then rotate these two drugs with Flagyl. If oral antibiotics are insufficient, I may then use intramuscular Bicillin (penicillin) injections. The next level of treatment, if patients don't respond well to oral medications and/or injections, would involve giving them intravenous antibiotics. In my practice, we try to avoid IV antibiotics, because there are a lot of risks with these, even though they provide a lot of benefits. Intravenous therapy requires a PICC line, (peripherally inserted central catheter) which is left in the patient's body anywhere from four to twelve weeks at a time. PICC lines create susceptibility to skin infection and can irritate blood vessels. The catheter is placed close to the heart, which could also cause irritation in the body if it's placed incorrectly. So there are risks with IV therapy and I tend to administer it only to patients that don't respond well to oral or intra-muscular antibiotics.

### ***Babesia and Bartonella***

For the treatment of patients with *Babesia*, I use Mepron (atovaquone) and azithromycin, or Malarone (atovaquone plus proguanil). I also usually use artemisia, which is an anti-parasitic herb. It's not always obvious when the infection is gone after treatment, so I usually allow one to three months' time to assess patient response to these treatments. Also, it's important to note that the medications themselves can debilitate patients and sometimes it's difficult to know whether they are still having symptoms as a result of their infections or are having side effects from their treatments.

For the treatment of *Bartonella*, I prescribe Levaquin (levofloxacin), Bactrim, or rifampin, for one to three months.

### ***Treating Opportunistic Infections***

While it can be important to discover whether patients have opportunistic infections (which are not the same as common Lyme co-infections), I don't necessarily treat these, because I think that they are not usually the cause of symptoms. They only tend to cause problems if patients have other major issues in addition to Lyme, such as an overgrowth

of yeast, heavy metal toxicity or nutritional deficiencies, and tend to go away once these other problems are addressed. For example, I have used antiviral medications for opportunistic infections in the past, but have inevitably been frustrated because they usually didn't make the patient feel better and didn't get rid of the infection.

## **Are Lyme and Co-Infections Always the Primary Cause of Symptoms?**

Lyme and co-infections are not always the first, or primary, cause of symptoms in my patients that have chronic illnesses involving Lyme. That's why I do other things in my practice in addition to treating Lyme and co-infections, such as detoxification protocol and addressing nutritional deficiencies, yeast overgrowth, and hormone imbalances. For some people, one or more of the above problems is more pronounced in their overall symptom picture than the Lyme infections. So the question is always, what is the underlying cause of patients' symptoms? Sometimes this is easy to figure out, but at other times, it's more complicated.

## **Treating Yeast Infections**

If patients have yeast overgrowth, then this can cause inflammation in their bodies, as well as Herxheimer reactions when the infection is killed off by treatment.

Dietary modification is the single most important treatment for yeast. It's important for patients to maintain a low yeast and carbohydrate diet. Sugar, bread, hard cheese, vinegar, and baked goods are among the foods that they should avoid. I also prescribe certain herbs, such as caprylic acid, berberine and grapefruit seed extract, or drugs such as Nystatin powder, Nizoral, and Diflucan, to help get rid of the yeast.

## **Heavy Metal Detoxification**

If patients have significant heavy metal toxicity, then it's important to rid their bodies of these metals, because they have a negative impact upon the immune system. They lower natural killer (NK) cell activity and create susceptibility to autoimmune disease. Also, patients have much more difficulty healing from chronic Lyme disease if they have high levels of heavy metals, so it is necessary to address these, along with infections.

The symptoms of heavy metal toxicity are sometimes similar to those of Lyme, and may include poor concentration, memory changes, tremors and brain fog, so I must take this fact into account when diagnosing patients. After a preliminary clinical diagnosis, I perform blood tests for mercury, lead or the metal in question, as well as a provoked heavy metal urine test. The urine test involves giving patients a chelating agent such as DMSA, or calcium EDTA, and then asking them to collect their urine for six hours to see if any metals come out in the urine. If they have high levels of metals, then I also make sure that it isn't due to a current exposure and then perform some type of detoxification

protocol. This might include saunas and taking certain nutrients that improve the elimination of metals, such as sulfur-containing amino acids like MSM and alpha-lipoic acid. I may also recommend agents such as DMSA or calcium EDTA. Ionic footbaths or colonic therapy can be helpful, too.

## **Treating Hormonal Dysfunction**

Balancing patients' hormones is an important component of any successful Lyme disease protocol. The hormones of the body function like an orchestra, and when one group of hormones is off balance, then the others get sent off balance, as well. In my practice, we check the functioning of a variety of hormones, including the sex hormones such as estradiol, progesterone, testosterone and DHEA-S. We also check pituitary hormones such as LH (luteinizing hormone), FSH (follicle-stimulating hormone), prolactin, and HGH, or growth hormone. We check adrenal hormones such as cortisol and pregnenolone, as well as thyroid hormones, including TSH, Free T3, and Free T4. Blood tests are a very accurate way to measure the hormones. Depending upon our level of suspicion about which hormones might be off-balance in our patients, we may perform follow-up tests to better clarify where and/or what their specific problems are. So for instance, if patients have low cortisol levels, then this would suggest that they have an adrenal problem, and we would follow up with a Cortrosyn stimulation test to confirm this. This test determines whether the body can create cortisol in response to stress, and if it reveals that patients' cortisol levels are low, then we support their adrenals with cortisol replacement therapy or supportive herbs.

In my practice, we use bioidentical hormone replacement (BHRT) for most hormone problems. BHRT refers to replacing hormones with the same type of hormones that the human body produces. These are made at compounding pharmacies.

For treating thyroid problems, I may recommend a product called Armour thyroid, which is considered to be bioidentical, but not everyone has good results with it. For example, patients with autoimmune thyroid conditions might fare better with non-bioidentical thyroid replacement, such as Synthroid.

Response to bioidentical hormones can vary. For example, if patients respond well to bioidentical cortisol, they tend to respond very well. If they don't respond well, I tend to know very quickly by their symptoms. Sometimes, using alternatives to bioidentical cortisol, such as ginseng or licorice, or nutrients that support the adrenals, such as fish oil, and Vitamins B-5 and C, can be beneficial.

Hormonal dysfunction can sometimes be the primary cause of symptoms in those with Lyme disease. Too often, people get stuck into thinking about chronic illness in terms of categories, such as "Lyme", and they don't stop to consider whether there might be another problem in the body that is allowing the *Borrelia* infection to thrive.

## Treating Nutritional Deficiencies

Basic nutrients that I recommend to my patients include a good multi-vitamin, fish oil, (at least 1000 mg, 2x/day), magnesium glycinate, (200 mg/day), Vitamin C, (1000 mg, 2x/day), probiotics (Essential Formulas makes a good product), and digestive enzymes (like Benezyme). Also, I often recommend Cordyceps mushroom (200mg/day) because it increases Natural Killer cell counts and improves patients' energy. Vitamin B-12 (1000mcg/day), as an injection or sublingual liquid can aid in energy, memory and mood. Iron supplements, in the form of iron glycinate, are sometimes necessary if patients have anemia. Ferrasorb by Thorne Research, Inc. is one good iron product that I use. Finally, I also use intravenous Vitamin C and trace nutrients in my practice, since these seem to be beneficial for strengthening patients' immune systems. Sometimes, I will add magnesium to the Vitamin C IV, and I find that people have absolutely fantastic results with this combination.

The nutritional supplementation protocol that I recommend for my patients also depends upon their symptoms. Most of them have vitamin B-12 deficiencies, partly because it's one of the most difficult nutrients for the body to absorb. Also, if they have been on antibiotics, then they are likely to have a loss of beneficial bacteria in their guts, which is needed to help absorb the B-12.

Most of my patients are also deficient in Vitamin D. Women tend to have low iron levels. If patients have been on Mepron, then they have low levels of Co-Q10, because Mepron depletes Co-Q10. Magnesium deficiencies are probably also as common as B-12 deficiencies. Magnesium levels get depleted whenever a person is under stress, which is basically anyone being treated for Lyme disease, and once intracellular magnesium levels get low, they are hard to replenish, because the cellular mechanism that is responsible for pumping magnesium into the cell becomes dysfunctional. A person with a magnesium deficiency might have chronic muscle cramping or twitches. Magnesium deficiencies also add to the problem of chronic fatigue, because magnesium is needed to stabilize ATP, the energy currency of the cell.

I believe that nutritional deficiencies can also sometimes be the first, or primary, cause of patients' symptoms, and can be present whether or not they have taken antibiotics for Lyme disease. People in the United States don't eat an optimal diet. They tend to eat junk food, or if they eat their veggies, those veggies are often depleted in nutrients because of the prevalence of non-organic farming practices and nutrient-depleted soil. So they may be consuming inferior food products, even though they might be trying to eat the "right" types of food. Then there are the chronically ill, who require higher levels of nutrients in order to heal. This popular concept that people have similar nutrient needs is rubbish. Nobody would expect an Olympic athlete to have the same nutritional needs as someone who sits on the couch all day. And in the chronically ill, the immune

system is running an Olympic marathon, and therefore, the bodies of such people require more nutrition than the bodies of those who aren't ill. Our bodies are machines, (with the difference that, unlike a machine, the body can heal itself) and will run properly if we give them the proper nutrition, but we have to make sure that the building blocks are there so that they can heal themselves. This sometimes means giving IV vitamin or intramuscular vitamin shots to my patients, in addition to recommending a proper diet and supplements for them.

## **Magnesium**

In my practice, we are also known for giving a lot of magnesium injections to our patients. As mentioned earlier, this is important because once magnesium levels are low inside of the cell, the only effective way to raise them is by ensuring that the magnesium gets to where it needs to go inside the body. The body's magnesium levels are ordinarily higher inside of the cell than outside of the cell, while calcium levels are higher outside of the cell, but when cells become dysfunctional, the cell's magnesium pump gets damaged and the result is that magnesium cannot build up inside of the cells properly. So in order to overcome the barrier to entry, there must be higher concentrations of magnesium outside of the cell. This can be achieved through the administration of magnesium injections, which restore the calcium/magnesium pump back to normal.

The body has an efficient way of regulating magnesium, and its ability to achieve a high concentration in the cells via oral administration is limited. Hence, I find it necessary to give my patients magnesium intramuscularly or intravenously in order to get a high peak concentration of the mineral in their blood. Administering magnesium in these ways, has to be done under a doctor's supervision, because there are risks to the procedure. For instance, if someone has kidney damage or low blood pressure, then that could create problems.

## **Dietary Recommendations**

In general, if yeast isn't a primary problem for my patients, I recommend that they follow a diet that we in my practice call the Balanced Approach meal plan. This plan allows for the consumption of the following protein sources: free range chicken, grass-fed beef, turkey, duck and fish that is low in mercury. Tuna fish, for example, should be avoided. Most vegetables are also allowed on this plan, but I advise patients with joint symptoms to avoid nightshade veggies, such as white potatoes, tomatoes, eggplant and peppers. Seaweed is OK, as are low glycemic index fruits, when eaten only seasonally. So in the spring, for example, citrus fruit, summer berries and cherries are fine to eat; in the fall, melons, apples and pears are best. The reason that I recommend eating fruits seasonally is because they are not as likely to be picked too early or sprayed with pesticides or preservatives when grown in season. Also, getting food locally is best because it supports local farms and the food doesn't have to be picked early and shipped. When fruit is picked too early, its level of nutrients is lower than in fruit that

has been allowed to fully ripen. In addition to the above foods, I also recommend whole grains, such as brown rice, buckwheat, millet, quinoa, and oatmeal. I find that if whole grains are unprocessed, they tend to be OK for most people, but it also depends upon the person. Beans are OK, as are healthy oils, such as olive, coconut and grapeseed. Finally, avoiding white foods is important, including white rice, bread, potatoes and dairy products (except yogurt, for some people).

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