



# FOCUS



Allergy Research Group® Newsletter

January 2004

## New Concepts In Lyme Disease

### Natural Therapies May Change Course of Treatment

#### Lyme Disease Possibly Contagious & Linked to Over 320 Conditions

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# One Woman's Journey Through Lyme

by Sue Massie (N.D. Candidate)

## Mysterious Symptoms for Years

At 42, with six lovely children and a wonderful husband, I thought my life was over! I was very ill with migraines, slurred speech, difficulty swallowing, atrophy in my muscles, excruciating pain throughout my body, memory loss, light and noise sensitivity, etc. These are just a few of the symptoms I suffered from on and off over the years, and they were progressively getting worse.

## Paralyzed From The Neck Down

I eventually became paralyzed from the neck down, and developed an ALS-like condition. My husband was also very ill with debilitating symptoms including "buggy" eyes, migraine headaches, rib pain, radiating jaw pain, chest compression, fatigue and a racing heart (intermittent). We spent years trying a number of neurologists, cardiologists (including Yale), and all kinds of specialists, only to be given a new diagnosis with each visit. These included TIAs, Grave's disease, possible MS, and even stress. Finally a Lyme-literate neighbor suggested my husband might have Lyme disease. I thought it was a ridiculous idea because my dad was supposedly the first case diagnosed back in 1980 in Monmouth County, New Jersey, and he was just fine (or so I thought). Our neighbor handed me the list of symptoms, and my husband had just about every one of them! I asked for her doctor's name and we saw him immediately. He diagnosed my husband with Lyme disease and treated him with long-term antibiotic therapy. Six months after his diagnosis, I was also tested and diagnosed, and I started treatment as well. **Five out of six of our children have now been diagnosed with Lyme disease\*** and had to be put on a special educational program to help them with their studies. (Lyme can often affect children and contribute to ADD, ADHD, memory problems, dyslexia, anger outbursts, fatigue, etc.)

## 102 ALS Patients Tested Positive For Lyme - In Treatment

I have talked with over 8,000 people with Lyme. **102 of these cases are ALS-diagnosed patients who were properly tested for Lyme and came up positive. I feel that people who are diagnosed with ALS/Lou Gehrig's disease, Multiple Sclerosis, Alzheimer's, Lupus, Fibromyalgia, Chronic Fatigue and many other neurological and degenerative diseases, could actually have Lyme disease.** To date, there is no definitive, 100% positive test for Lyme disease. However, patients should request (from a Lyme-literate doctor) to have a PCR test (to determine genetic material of

*Borrelia*) or a Western Blot blood test (antibody assay) done by Igenex Labs in California ([www.igenex.com](http://www.igenex.com)). **Most doctors are following the diagnostic protocol of doing a Lyme titre or ELISA test, which are not accurate.** If a patient who has Lyme disease actually tests positive using the Lyme titre or ELISA test, their doctor would then order a Western Blot blood test. According to the Center for Disease Control, a patient must have a minimum of five bands (specific numbers and bands are how they read these tests), in order to be labeled positive for Lyme by Western Blot. Another important consideration is that Lyme antibodies must be present for a positive result, and if the patient has been taking steroids, Advil, Motrin, or other anti-inflammatories or antibiotics, this could cause a false-negative result. For this reason, patients should be clear of all OTC's and prescription medications for a minimum of six weeks before testing, but even this cannot guarantee an accurate result.

## My Lab Results Would Have Been Considered Negative

After testing, I only had one band - number 41, which is the "flagellin" (or tail) of the spirochete, specific for *Borrelia* bacteria (Lyme), so I would have been told that I was negative. Quite often, patients have to be diagnosed by symptoms alone. I know that most people reading this story probably know of someone who has been to various doctors, and is suffering without an adequate diagnosis, and people just label them as being a hypochondriac, etc.

## Initial Signs Often Missed

Lyme disease is **not** necessarily associated with a "bull's eye rash and sore knees." Less than 20% of patients ever see the tick, and less than 30% get the classic bull's eye rash. Tucking your pants in your shoes or wearing white so you can see ticks does **not** provide full protection. I was the only one in my family that saw a tick on the back of my hand, and only my one son had a rash (not a bull's eye, but more like impetigo all over his body). Co-infections are also a big part of Lyme, meaning not only do the tiny ticks infect you with *Borrelia* bacteria, but there is also possible infection with *Babesia*, *Ehrlichia*, *Bartonella*, mycoplasma, and the conditions of Epstein-Barr and HHV-6 (human herpes-6) viruses.

## Dedicated To Helping Others

I have talked with thousands all over the U.S., including Hawaii and Alaska, Great Britain, Germany, Australia and

\*This raises the question of the contagious aspects of the disease.

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# Feature Article

## Lyme Disease: Nutraceutical Breakthrough Using TOA-Free Cat's Claw

### Study Shows Pentacyclic Alkaloid Chemotype *Uncaria tomentosa* to be Effective In Treating Chronic Lyme Disease (Lyme Borreliosis)

#### INVESTIGATORS:

William Lee Cowden, M.D.  
Hamid Moayad, D.O.  
Joan Vandergriff, N.D.  
Luis Romero, M.D., Ph.D.  
Svetlana Ivanova, M.D., Ph.D.

#### Control Group

A few patients experienced slight improvement, and the rest remained with no positive change in their clinical condition at the end of study.

#### Experimental Group

100% of patients experienced marked clinical improvement; 85% were seronegative for Lyme disease at the end of study.

#### Pilot Study Results

A 6-month pilot study was recently conducted with 28 patients suffering from Advanced Chronic Lyme disease. All the patients tested positive for Lyme disease utilizing the Western Blot blood test for *Borrelia burgdorferi* (*Bb*), the

bacteria that causes Lyme disease. The control group was treated with conventional antibiotic treatment, and at the end of the study, from 14 patients in this group, 3 slightly improved, 3 got worse, and the rest remained with no change in their clinical condition. The experimental group was treated

with Pentacyclic Alkaloid Chemotype *Uncaria tomentosa*. At the end of the study, 85% of the patients in this group tested negative for *Bb*, and all the patients experienced a dramatic improvement in their clinical condition. A full report will be available soon.

#### Pentacyclic Alkaloid Chemotype *Uncaria tomentosa*

Pentacyclic Alkaloid Chemotype *Uncaria tomentosa*, also known as TOA-Free Cat's Claw, is a rare chemotype of a medicinal plant commonly known as Cat's Claw, botanical name *Uncaria tomentosa*. Unlike traditional Cat's Claw products, this chemotype

contains a standardized amount of POAs that primarily affect the immune cells responsible for non-specific and cellular immunity, and demonstrate powerful immune system modulating properties. According to research conducted in Austria, traditional Cat's Claw products may contain as much as 80% TOAs, and as little as 1% TOAs can cause a 30% reduction in immune system modulating properties that POAs provide.

#### How Pentacyclic Alkaloid Chemotype *Uncaria tomentosa* May Eliminate the Pathogen

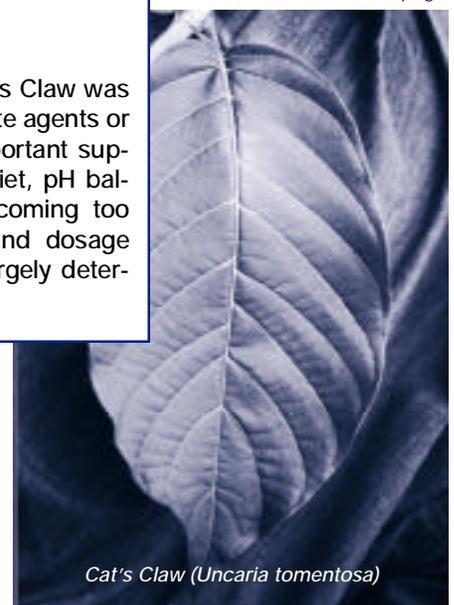
The latest research on *Bb* shows that it exists in at least three different forms: the spirochete, the spheroplast (also known as L-form), and the cyst. During the

*continued next page*

### Editors Note:

This report of the anti-spirochete effects of TOA-free Cat's Claw was prepared by the researchers. While no other anti-spirochete agents or antibiotics were used by the treatment group, other important supportive measures were used, including metabolic-type diet, pH balancing (supplementation to prevent the body from becoming too acidic), and various forms of detoxification. Dosage and dosage increase rate varied among the participants, and was largely determined by how quickly Herxheimer reactions subsided.

does not contain a group of chemical antagonists called tetracyclic oxindole alkaloids (TOAs) that act upon the central nervous system and can greatly inhibit the positive effect of the pentacyclic oxindole alkaloids (POAs). The Pentacyclic Alkaloid Chemotype *Uncaria tomentosa* that was utilized in the study



Cat's Claw (*Uncaria tomentosa*)

# Cat's Claw

course of infection, *Bb* can shift among these three forms, converting from the spirochete form to the others when presented with an unfavorable environment (antibiotics, changes in pH of body fluids in chronic inflammation, etc.), and reverting back to the spirochete form to grow and reproduce upon being released from naturally aging and dying infected cells. It is during the growth period after re-conversion to the spirochete form, as well as in adult spirochete form, that *Bb* is most vulnerable and susceptible to antibiotics and natural elimination by the body's immune system.

**The severity of Lyme presentation is directly related to the spirochete load: low load results in mild or even asymptomatic infections.** With increased spirochete load from subsequent repeated infections and/or reactivated dormant infections, the severity of the disease increases. Higher loads also impair key cells of the immune system and modify the immune response, thus making the immune system unable to fight the pathogen. The negative effects on the immune system increase the longer the spirochetes are present. To prevail in the effort to fight Lyme disease, it is necessary to not only restore the immune system to normal functioning, but to boost it as well. Even a normal functioning immune system is unable to attack and eliminate *Bb* in all its forms.

The results of research on TOA-free Chemotype Cat's Claw demonstrate its powerful immune system modulating and stimulating properties, along with pronounced anti-inflammatory, antioxidant, and anti-infectious effects. The diverse spectrum of the biological activities of TOA-free Chemotype Cat's Claw is due to its biologically active compounds. The pentacyclic oxindole alkaloids (POAs) contained in this Chemotype are generally accepted as the principal immunomodulating and immunostimulating agents. POAs are actively involved in the repair of many elements and functional mechanisms of both the innate and acquired immunity damaged by *Bb* and other co-infections, assisting in restoration of structural and functional integrity of the immune sys-

tem, enhancing its ability to eliminate the pathogens in a natural way. In addition, this Chemotype contains quinovic acid glycosides – compounds with strong natural antibiotic properties (the latest generations of conventional synthetic antibiotics, "Quinolones," are based on quinovic acid glycosides), which further enhance the medicinal effect of TOA-free Chemotype Cat's Claw in fighting the infection.

Considering the life-span of intracellular forms of *Bb* equivalent to the life-span of the cells invaded by these forms, they are constantly released into the surrounding environment upon natural cell death and destruction. The release of intracellular forms of *Bb* is gradual over time due to the various life-spans of various invaded cells. **Since about 90% of these forms reside in various cells (including all blood cells) which have a life-span of 2-3 weeks to 6-8 months,** it may be assumed that within a 6-8 month period, a significant majority of all intracellular forms of *Bb* will be released into the environment where they can be successfully attacked by a properly functioning immune system and a natural powerful antibiotic.

Taking into account all the above, it can be assumed that **continuous use of TOA-free Chemotype Cat's Claw over a period of time consistent with the life-span of several generations of various infected cells (8-12 months), would more likely result in gradual killing and eliminating of *Bb* and co-existing infectious pathogens,** with subsequent reduction of infectious load in the body and restoration of the person's health.

## Dormancy And Subsequent Activation Caused By Weakened Immune System

It is believed that years can pass before symptoms appear in a patient who has been infected with *Bb*. In 1998, a study conducted in Switzerland demonstrated that only 12.5% of the patients that tested positive for *Bb* developed clinical symptoms **confirming that the infection is often asymptomatic.** A report from Germany outlines the case of a 12 year-old boy that developed Lyme Arthritis 5 years after being bit by a tick. The case indicates that **the latency period between tick bite and onset of Lyme**

**Arthritis may be as long as 5 years.** All asymptomatic carriers of *Bb* are at risk of developing Lyme disease at some point. Stress, an increasing health concern for physicians worldwide, may have been the trigger that activated Lyme disease in a patient in Sweden, a 26 year-old woman with latent Lyme borreliosis that was concurrently activated with a herpes simplex virus type 1 infection. Immune suppression by stress may have caused activation of both infections.

## Prevalent On 6 Continents

Lyme disease, known as borreliosis in much of the world, is prevalent on 6 continents and recognized as an epidemic in many countries. Pentacyclic Alkaloid Chemotype *Uncaria tomentosa* has been available to the public in Bulgaria, where a high incidence of Lyme disease exists, since January 2001. Within 2 months, it became the most widely sold natural medicine in that country. Dr. Atanas Tzonkov, director of Bulgaria's largest private medical clinic, has treated thousands of patients with Pentacyclic Alkaloid Chemotype *Uncaria tomentosa*. He reports that it has been **used successfully to treat over 100 conditions. A possible theory is that most of these conditions were actually misdiagnosed Lyme disease or Lyme disease was a component of the illnesses that the patients were suffering from.**

## Over 300 Conditions Connected to Lyme

According to the article *Hidden Plague, Forget About SARS*, Lyme disease is spreading steadily, and some experts say it can elude the standard cure (People Magazine, June 16, 2003). **The article tells the story of a patient suffering from Lyme disease who was misdiagnosed with Lou Gehrig's disease (ALS), an incurable disease that is fatal within 5 years of onset. Dr. Whitaker states that nearly every patient she has tested who is suffering from Parkinson's disease has tested positive for *Bb*.** Professor Luis Romero, M.D., Ph.D., reports three patients that had been diagnosed with Parkinson's disease years ago to be 99% reversed using Pentacyclic Alkaloid Chemotype *Uncaria tomentosa*. ■

*References available on request.*

# The HISTORY of Lyme Disease

**L**yme disease was first recognized in the United States in 1975, following a mysterious outbreak of juvenile rheumatoid arthritis near the community of Lyme, Connecticut. The rural location of the Lyme outbreak and the onset of illness during summer and early fall suggested that the transmission of the disease was by an arthropod vector. In 1982, the etiologic agent of Lyme disease was discovered by Willy Burgdorfer. Burgdorfer isolated spirochetes belonging to the genus *Borrelia* from the mid-guts of Ixodes ticks. He showed that these spirochetes reacted with immune serum from patients that had been diagnosed with Lyme disease. Consequently, the lyme spirochete resembling the syphilis spirochete was given the name *Borrelia burgdorferi* (*Bb*).

## Methods of Lyme Disease Transmission

W.T. Harvey, M.D., M.S., M.P.H., and Patricia Salvato, M.D., of Diversified Medical Practices in Houston, Texas, were puzzled by the high number of patients testing positive for Lyme disease. **Many of these patients presented with "established" criteria for Lyme disease, but others did not.** The fact that southeastern Texas is a 'non-endemic' region, and that many of the patients had no history of erythema migrans rash, led the doctors to question established methods for Lyme disease consideration. Careful reflection of published research lead them to conclude the following. **First, the arthropod is not the exclusive vector of Lyme disease. In addition to ticks, *Bb* may be carried and transmitted by fleas, mosquitos, and mites. Second, Lyme disease is not exclusively vector-borne. Compelling evidence supports horizontal (sexual) and vertical (congenital) human-to-human transfer. Other front-line physicians are arriving at the same conclusions. "Of the more than 5,000 children I've treated, 240 have been born with the disease," says Charles Ray Jones, M.D. Dr. Jones, who is the world's leading pediatric specialist on Lyme disease, says that about 90% of his practice is comprised of patients with the disease. He also states, "Twelve children who've been breast-fed have subsequently developed Lyme." University of Wisconsin researchers state that dairy cattle and other food animals can be infected with *B. burgdorferi* and hence some raw foods of animal origin might be contaminated with the pathogen. Recent findings indicate that the pathogen may be transmitted orally to laboratory ani-**

**mals, without an arthropod vector. Thus, the possibility exists that Lyme disease can be a food infection.** Citing limitations of laboratory tests for the detection of antibodies to *Bb*, a study was conducted in 1995 at the University of Vienna (Austria) for its detection. Utilizing polymerase chain reaction testing for DNA, *Bb* was found to be present in both the urine and breast milk of patients previously diagnosed with Lyme disease. A study conducted at the Sacramento (California) Medical Foundation Blood Center in 1989 concluded that there is **evidence that the transmission of *Bb* is possible by blood transfusion**. Furthermore, in 1990, a study by the Centers for Disease Control (CDC) in Atlanta, Georgia stated that **the data demonstrates that *Bb* can survive the blood processing procedures normally applied to transfused blood in the USA.**

## Number of Cases

**Lyme disease is the fastest-growing epidemic in the world.** The Center for Disease Control (CDC) in Atlanta, Georgia, U.S.A. affirms that "there is considerable under-reporting" of Lyme disease, maintaining that the actual infection rate may be 1.8 million, 10 times higher than the 180,000 cases currently reported. Nick Harris, Ph.D., Director of the International Lyme and Associated Diseases Society (ILADS), states **"Lyme is grossly under-reported.** In the U.S., we probably have about 200,000 cases per year." **Dan Kinderleher, M.D., an expert on Lyme disease, stated on the Today Show on June 10, 2002 that the number of cases may be 100 times higher (18 million in the United States alone)** than reported by the CDC. Jo Anne Whitaker, M.D., has developed a "Rapid Identification of *Borrelia burgdorferi*" and has over 2900 positive specimens for *Bb* from forty-six (46) states, including Alaska and Hawaii. In addition, Dr. Whitaker has had positive specimens from Canada, Brazil, Denmark, Scotland, The Netherlands, Ireland, England, France, Spain, Germany, Switzerland, and the Canary Islands. Considering vector, congenital and sexual transfer, Dr. Harvey and Dr. Salvato estimate that 15.5% of the global population, nearly 1 billion people, could be infected with *Bb*. **Lee Cowden, M.D., states that there are very few symptoms where one should not consider Lyme, especially given that a quarter of the U.S. population may be affected. It is estimated that Lyme disease may be a contributing factor in more than 50% of chronically ill people.**

*continued on page 15*

# Most Common Conditions Connected to Lyme

We asked our Lyme experts which diseases and conditions they found were most commonly connected to Lyme:

## Svetlana Ivanova, M.D., Ph.D.

Acrodermatitis Chronica Atrophicans (ACA)	Demyelinating Disorders
Acute Transitory Atrioventricular Block	Depression
Allergies	Encephalopathy
Arrhythmia	Erythema Chronicum Migrans
Arthralgias	Fibromyalgia
Arthritis	Meningitis
Attention Deficit Disorder (ADD)	Meningoencephalomyelitis
Attention Deficit Hyperactivity Disorder (ADHD)	Multiple Sclerosis
Autoimmune disorders	Myopericarditis
Bell's Palsy	Parkinson's Disease
Chronic Encephalitis and Encephalomyelitis	Progressive Visual Deterioration
Chronic Fatigue Syndrome	Reversible Dementia
Cognitive Dysfunction	Sensory or Motor Radiculoneuropathies
Complex Regional Pain Syndrome (CRPS)	Sleeping Disorders
Cranial Polyneuritis	

## Jo Anne Whitaker, M.D.

Acrodermatitis chronica atrophicans (ACA)  
Alzheimer's Disease  
ALS - Lou Gehrig's Disease (Amyotrophic lateral sclerosis)  
Bell's Palsy  
Chronic Fatigue Syndrome  
Fibromyalgia  
Irritable Bowel Syndrome  
Lupus  
Multiple Sclerosis  
Parkinson's Disease  
Polymyalgia rheumatica  
Reflex sympathetic dystrophy  
Rheumatoid Arthritis  
Scleroderma  
Syphilis

In addition to her list above, Dr. Whitaker feels that all rheumatological diseases and many connective tissue diseases may be Lyme-related.

*Note: A list of over 320 conditions that may be related to Lyme were compiled by means of a non-exhaustive search of published scientific literature by the authors of our feature article. (for more info about list call ARG at 800-545-9960)*

# Q-RIBb<sup>®</sup>

## A New Quantitative Rapid Test For Diagnosing Lyme Disease

by Jo Anne Whitaker, M.D.

**J**o Anne Whitaker, M.D., a prominent international medical researcher suffering from Lyme disease, and her associates have developed a new method to provide physicians with an accurate quick diagnosis of this disease. Dr. Whitaker has authored over 70 scholarly publications and has accumulated numerous awards and citations throughout her career. For more on Dr. Whitaker, see sidebar at right.

### Lyme Disease

Lyme disease is called the “New Great Imitator” because, like syphilis, it attacks multiple organ systems and mimics many diseases. Both diseases are caused by a spirochete. Lyme diseases are caused by *Borrelia burgdorferi* (*Bb*). *Bb*, previously thought to be transmitted only by the deer tick (*Ixodes dammini*) is now recognized to be transmitted by fleas, mosquitoes and mites.

If ignored, the early symptoms may disappear but more serious problems can develop months or even years later. The later symptoms of Lyme disease can be quite severe and chronic. Muscle pain and arthritis, usually of the large joints, is common. Neurological symptoms include cognitive impairment, memory loss, depression, numbness, tingling, burning sensations in the extremities, Bell's palsy, severe pain and fatigue. Involvement of all systems such as cardiac, ophthalmic, respiratory and gastrointestinal problems can develop. Miscarriage, premature births, stillbirths, birth defects and transplacental infection of the fetus have been reported. Symptoms are often intermittent lasting from a few days to several months and sometimes years. Chronic Lyme disease, because of its diverse symptoms, mimics many other diseases and can be difficult to diagnose.

*\*Pharmaceutical antibiotics are usually the first choice, but based upon enclosed research, natural therapies have become a viable option.*

### Treatment

Timely treatment increases chances of recovery and may lessen the severity of any later symptoms. The most effective treatment will depend on the stage of the disease. Treatment for later stages is more difficult and may often require extended and repeated courses of antibiotic therapy\* and a holistic approach. The diagnostic tests now being used for Lyme disease are neither sensitive nor specific and consequently, results are not reliable.

The serologic blood test for Lyme is insensitive, inaccurate and misses over 40 percent of cases. It is important to understand the nature of the *Bb* organism. *Bb* can change its shape from a spiral to a filament, cyst, granule, hooked rod or elbow. These variants are called L-forms, a name given by the Lister Institute where they were first studied. These L-forms are also called cell-wall deficient (CWD) bacteria taking the non-spiral shape when they have lost much of the cell wall. In this form they do not produce an antibody response, as they have no cell wall, making it impossible for the individual's immune system to respond. Classic L-forms are active metabolism centers for the production of CWD pleomorphic organisms (*Bb*). In this form they are able to hide within most tissues in the body, thus protecting them from any host response adverse to their well-being. CWD organisms can revert to typical morphology and may revert into adult forms. For this reason most of the diagnostic tests, i.e. ELISA and Western Blot, which depend on the production of antibodies, are inadequate. Much like the hepatitis model, antigen is present early after initial infection. Later, there is an

Jo Anne Whitaker, M.D.  
Lyme Pioneer

Dr. Whitaker conducted the first clinical study to identify pathogenic *E. coli* by using the fluorescent antibody test (FAT) on infant stool specimens at a children's hospital in Detroit in 1956. She adapted the methodology to identify beta hemolytic strep disease, diphtheria and pertussis. Also using the FAT, she was instrumental in developing an anti nuclear antibody test for Lupus; a method for blood and parasitic antigens and tumor markers. Now some 40 years later, Dr. Whitaker has found this technique to be applicable in identifying the causative agent of Lyme disease.

Dr. Whitaker has had extensive fellowship programs in pediatrics, hematology, oncology, nutrition and psychiatry; taught in seven different medical schools and retired as a full professor of pediatrics; spent 9 years in Southeast Asia to start a new medical school and nutritional laboratory in Thailand and a post-graduate training program in Vietnam during the war. After returning from Vietnam, she served as Director of the Florida Mental Health Center in Tampa. She is also a Master Bowen Practitioner and teacher.

antibody response in about seventy percent of patients. Tests that look for antibody response will not support an early diagnosis, nor reliably confirm presence of the disease.

### Fibromyalgia Patients All Positive

I had been working with fibromyalgia patients, and after learning about the Bowen Technique and experiencing how this simple, gentle therapy relieved so many of my symptoms, I established the Bowen Research & Training Institute. Bowen Therapy is a gentle non-invasive body therapy that seems to bring the autonomic nervous system into balance. Dr. Lida Mattman, who has been culturing cell-wall deficient (CWD) organisms from blood for 40 years was contacted to culture specimens from **25 individuals diagnosed with Fibromyalgia Syndrome. She found every sample**

*Continued page 12*



## Lyme Q&A:

### A Panel of Experts Answer Our Questions About Lyme

Luis Romero, M.D., Ph.D.

Svetlana Ivanova, M.D., Ph.D.

Sue Massie, CNHP, N.D. Candidate

Rick David Bierman, L.Ac



**Q:** Can you say something more about the potential contagious aspects of the disease?



**A:** **Massie:** Lyme disease is potentially contagious. There are numerous scientific abstracts, documented cases, websites, etc. to prove this statement. According to Dr. Charles Ray Jones, Pediatric Lyme specialist, "Of more than 5,000 children I've treated, 240 have been born with the disease. Twelve children who've been breast-fed have subsequently developed Lyme. *Borrelia* bacteria (*Bb*) can be transmitted transplacentally, even with *in vitro* fertilization; I've seen 8 children infected in this way. People from Asia who come to me with the classic Lyme rash have been infected by fleas and gnats." Dr. Gregory Bach, D.O., presented a study on transmission via semen at the American Psychiatric Association meeting in November 2000 in which he confirmed *Bb* DNA in semen using the PCR test. Dr. Tang states "Transmission may also occur via blood transfusion and through the bite of mosquitoes or other insects." I do not believe we all need to panic, but we should take necessary precautions. I have found time and time again that when one spouse is Lyme-positive, the other spouse usually has Lyme as well.



**Q:** Can you run through the advantages and disadvantages of the basic tests such as Elisa, Western Blot, etc.?



**A:** **Massie:** The advantages and disadvantages of the common tests are numerous. I feel the most reliable are the Western Blot blood test; the antibody assay for *Bb* by Igenex Labs, the RIBb test (Rapid Identification of *Bb*) by Dr. Whitaker, and Dr. Mattman's culture test using live cultures done under a fluorescent microscope. It has to be understood though, that these are still not 100% reliable, but are the best currently available.



**Q:** Can you comment on the reported Herxheimer or toxicity effects associated with either natural or synthetic antibiotic treatments? What are the best ways to offset this toxicity? How should treatment proceed in relation to the quite significant toxicity/Herxheimer reactions that occur?



**A:** **Massie:** I have personally experienced Herxheimer reactions and toxicity accumulation with both allopathic prescription medications, as well as natural remedies for Lyme. I am currently experiencing Herxheimer reactions because I just started treatment with **Artemisinin** for *Babesia* and have been symptomatic with chills, fever, flu-like symptoms and fatigue. Herxheimer reactions can last anywhere from a day or two to a month at a time. I have been bedridden at times because of them. Be sure that patients drink plenty of water, rest, and build the immune system. I recently learned about a great product called **Chitosan** that can also help quite a bit with Herxheimer reactions. As far as toxicity, I feel it is crucial for all patients to do internal cleansing, which includes thorough colon cleansing and liver detoxification, followed by kidney detoxification, etc. It is also imperative to balance patients' pH. With Lyme, it is believed that it is the toxicities or "die-off" that keeps many patients sick for years. By cleansing the toxicity, patients improve dramatically. Since each patient is different, individual assessments and protocols are a necessity. (There are over 300 strains of *Bb* and the co-infections also vary greatly.) I start every client slowly so that the Herxheimer reactions are not too extreme.

# Lyme Q&A:



**Bierman:** The severity of Herxheimer reactions appears to be related to a number of issues including mineral status, pH balance, toxicity of the liver and gall bladder, general health of the patient, cranial sacral movement, heavy metal toxicity, etc. There is anecdotal evidence to show that **many patients do not have to go through severe Herxheimer reactions in order to get well.** Severe Herxheimer reactions, in my opinion, are a result of an overload of toxins. Relief can be achieved by pH balancing using electrolytes, green drinks, and buffered vitamin C; opening up the cranial flows with cranial sacral therapy, etc., increasing the general vitality of the body, providing adequate mineral support and various detoxification protocols. It may be a mistaken belief that the severity of the Herxheimer reaction always means that more microbes are being killed. It may be more of a sign that the person's body is more toxic to begin with. Contact info: rickb@healthfreedomssolutions.com

**Q:** Can you tell us more about the natural remedies that have been successful for you? And your recommended dosages?

**A:** **Massie:** I feel *Babesia* is the most difficult co-infection to cure. For years, I have done many prescription combinations for the infection with no success. I tried Zithromax, Mepron and Flagyl with no lasting results. Then I tried the natural herb **artemisia** and that alone helped, but still did not quite eradicate the infection. Then I tried **artemisinin**, and THAT did the trick! I experienced an intensifying of symptoms right from the start, which included night sweats, chest compression/shortness of breath, chills, and body aches (flu-like symptoms). It has been suggested that when working with these co-infections, a six-month minimum time period is recommended. I now recommend artemisinin to my clients and have had tremendous feedback regarding its effectiveness. I highly suggest this product to anyone who has been told they were negative for *Babesia*, but experience symptoms which may include night sweats, chills/fevers, shortness of breath, chest compression, heart pain, loss of appetite, etc. Tests are unreliable and if a patient has *Babesia* and does not address it, they will not show improvement - all co-infections must be addressed. The typical dosage I recommend for artemisinin is 1 capsule 3 times per day, 1 hour away from prescription medications and other natural supplements. One more product I want to mention is **Chitosan** which I recommend for Herxheimer reactions. Chitosan is wonderful in assisting the body with bowel transit time because it is a dietary fiber, and increases stool bulk and hydrates as well. (Chitosan is made from the shells of crustaceans so caution to patients who are allergic to shellfish.) Also, high quality essential fatty acid supplements and fat soluble nutrients, i.e. Vitamins A, D, E and K should be taken 1 hour away from Chitosan. In addition, I have clients drink a minimum of 8 glasses of water per day. The typical dosage I recommend is 2 capsules taken 1/2 hour before one meal per day to start. I usually follow this moderate dosage schedule for 2-3 days to confirm tolerance, and then increase as needed.

**Q:** Do you find that if one family member has Lyme, the other family members have it as well?

**A:** **Massie:** What I have found time and time again (myself included) is that people diagnosed with Lyme usually find that several, if not all of their family members, are Lyme-positive as well. There can be several reasons for this. First of all, families are exposed because they share the same environment. For instance, a family can have a home in Howell, NJ, which is rural and highly endemic for Lyme. Their backyard can be all woods, with the family taking walks together. Also, they may have a family dog/cat that frequents the woods, bringing the ticks back to the home, lying on beds/couches, etc. The family is now highly exposed. When I work with a new client, I always ask about other family members and their health. Every time I hear how a son/daughter/husband/mother/aunt has MS, ALS, kids with ADD/ADHD, fibromyalgia, chronic fatigue, Alzheimer's, etc., I get suspicious. These are often a misdiagnosis and I usually recommend that these family members all be tested for Lyme. Lyme can also be transmitted person-to-person.



## Lyme Q&A: *Continued*

**Q:** What about the neurotoxins produced by the organism? How do they affect patients? Is this believed to be the causative factor of the psychiatric symptoms?

**A:** **Dr. Romero:** A great deal of global research exists on microbial toxins and the evaluation of their clinical and molecular toxicology on cells. This includes both tissue direct effects and effects on the bloodstream (toxemia). In particular, *Borrelia burgdorferi* (Lyme borreliosis) toxicant production and its direct effect on cells, tissues and organs is a highly relevant topic in terms of both the mechanism of action and showing targets for proposed and potential therapies.

There are reported cases of patients with diseases today known to be Lyme borreliosis mimics, who have received Pentacyclic Chemotype *Uncaria tomentosa* and have shown remarkable clinical and physical improvement within a period of as little as 24 to 72 hours. These are individuals who have been suffering for years and have been treated with conventional and CAM therapies. The rapid response to this treatment may be assumed to be toxicant blockage/inhibition more than immune system response or spirochete bactericidal effects in a very short period of time.

Since 1819, when James Parkinson described Parkinson's disease (PD) by stating, "No pathologic finding was conclusive to brain-specific lesions as the true clue for the origin and evolution of PD", we have more questions than answers about the etiology of PD and other diseases such as Multiple Sclerosis, Alzheimer's and many others. This leads to the reality of NOT having good and effective treatments (with no side effects), and more importantly, treatments that control, stop, or reverse these diseases.

Current molecular and clinical toxicology have permitted the introduction of the term "Biotoxin-induced illness," the most important in this category being Lyme borreliosis, which is a rapidly-spreading worldwide epidemic. From the molecular toxicological point of view, as stated by Dr. C. Shoemaker, M.D., and H. Kenneth Hudnell, Ph.D., "*Borrelia burgdorferi* produces a large suite of biotoxins that have tissue (cells) affinity, **mainly NEUROTOXINS with high molecular tropism for lipid structures, i.e., central nervous system (CNS), peripheral nerves, muscles, joints (synovial fluid composition and joint cartilage), lungs, and many others. Bb's biotoxins are more cellular than toxic (bloodstream)**".

If this is true, the origin and evolution of, and complications from, chronic degenerative diseases such as PD in young adults is much more understandable. In many cases, autopsies performed on individuals in their early 30's have not demonstrated the "degenerative process" of basal brain ganglia associated with their diagnosed brain-altering diseases.

These deaths seem to have been caused by the introduction of biotoxins that have altered a specific site (i.e., neurotransmitters – pre- and post-synapse membranes, altered dopamine, serotonin, GABA, and acetylcholine molecules, thereby blocking surface membrane receptors of different kinds, altering normal molecular action of enzymes, coenzymes and hormones). All of these, and many more are widely demonstrated to be the route of action of different biotoxins.

Finally, in explaining the lack of energy and fatigue that is almost invariably present in Lyme borreliosis and in the list of more than 300 illnesses reported to be "related" to *Bb*'s biotoxins, one molecular toxicology fact has been correlated: **The calcium channels' normal functioning may be altered by Bb's neurotoxins.** Therefore those neurotoxins will act on cell membrane surfaces and receptors, within the inner cell membrane sub-molecular components, and in the cytosol. There are published reports attesting to the toxicant effects on cell granules - even at RNA and DNA expression levels.

*Uncaria tomentosa* Pentacyclic Oxindoles Chemotype may have three "modulating" and direct actions on individuals suffering from Lyme borreliosis and related illnesses: a) the proven immune system modulator effect; b) the proven broad spectrum anti-microbial effect; and c) the modulating "blocking" effects on the adverse bioneurotoxin molecular actions. Nonetheless, further research is indispensable in this matter.

## Lyme Q&A:



**Q:** Are you aware of the Visual Contrast Test? Can you say something about the Visual Contrast Test and neurotoxins?



**A:** *Dr. Ivanova:* In patients with neuroborreliosis (chronic Lyme disease with CNS involvement), the chronic inflammatory lesions can be located in any part of the visual pathway, causing a deficit in retinal processing (due to damaged retinal cells and/or conduction block of the retinal nerve fibers), in ocular nerve fiber processing (due to chronic ocular neuritis), and in cortical visual processing (due to impaired neuron interaction in the brain). All of these damages result in various clinical symptoms: blurred vision, progressive visual deterioration, changes in visual fields, increased light sensitivity, etc., and can be assessed using the Visual Contrast Test.

# Detoxifying Lyme

By Patricia Kane, Ph.D.

In our experience, patients with Lyme often suffer for many years without significant response to medical intervention for their illness. The brain fog, joint pain, intense fatigue, poor memory/concentration, and disorientation continue endlessly with course after course of antibiotic therapy.

In our clinic we begin with an innovative protocol to mobilize and remove Lyme along with co-infections that complicate the patients' progress. Lyme is a fat soluble infection that may reside in fatty tissue, the liver, the biliary tree and gall bladder. Hidden in the fatty tissue rather than in blood, testing for Lyme results in negative findings whether PCR, ELISA (IgG, IgM), Lyme Dot Blot, or Reverse Western Blot is utilized. Treatment procedures must be targeted towards removal of deeply embedded infection in the liver, biliary tree and gall bladder.

We monitor Lyme patients with some basic testing: Chem-28/CBC, BodyBio Red Cell Lipid Analysis, Urinary Neurotransmitters and the Visual Contrast Test.

Our regimen includes dietary changes with emphasis on nutrient dense foods such as seeds, nuts, free-range eggs, balanced 4:1 omega 6 to omega 3 oil, organic protein foods, and green leafy vegetables. All grain/flour, sugar, processed foods, and hydrogenated fats are removed. Supplementation is targeted

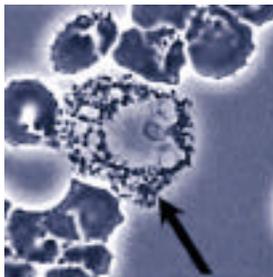
towards cleansing the liver with the short chain fat butyrate and phosphatidylcholine. Building a strong nutritional foundation is paramount and is accomplished by raising the mineral base, stabilizing the electrolytes, increasing and balancing the essential fatty acid status. We administer appropriate catalysts (vitamins, minerals) and substrates (lipids, amino acids) indicated by the patients' test results.

We begin IV therapy on a weekly or biweekly basis with IV Phospholipid Exchange with Essentiale N as 500 mg and follow with a Glutathione Fast Push 1800-2500 mg. Response to IV therapy in Lyme patients usually takes approximately 7 infusions for significant improvement in symptoms. It is essential that a nutrient dense, low carbohydrate diet and appropriate supplementation is utilized. Two to three times weekly patients are asked to perform an Oral Liver Flush with 2 Tablespoons of PhosChol, one capsule of Ox Bile, and several capsules of TOA-free Cat's Claw herb.

Patient outcomes have been positive in every instance with good compliance of recommended therapy.

For more information on Dr. Kane's protocols and seminars, please contact BodyBio at: 888-320-8338 or 856-825-8338.

# Q-RIBb<sup>®</sup> Test continued from page 7



Phase contrast image of a cell showing *Borrelia burgdorferi*

positive for CWD *Bb*, the causative organism of Lyme disease.

Following this finding, **103 seriously ill subjects with a variety of diagnoses were tested and found to be positive for *Bb* based on Mattman's Gold Standard Culture method.** The conditions included: Fibromyalgia, Osteoarthritis, Mixed Connective Tissue Diseases, Polymyalgia Rheumatica, Ankylosing Spondylitis, Lupus Erythematosus, Palindromic Rheumatism, Chronic Fatigue Syndrome, Multiple Sclerosis, and Amyotrophic Lateral Sclerosis. I was shocked as I was one of that group (my diagnosis at the time was Polymyalgia Rheumatica).

When did all this start? I grew up in Polk County, Florida and spent a lot of time in the woods and had numerous tick bites. I was never diagnosed with any particular malady in my childhood and I never had an EM rash. As a young adult I had bouts of multiple muscle and joint aches and pains but was able to function. I was very athletic in my youth and even won a few amateur golf tournaments. I did have periodic muscle and joint aches and pains throughout my life, receiving a variety of diagnoses - Rheumatoid arthritis, Lupus, and Polymyositis Rheumatica, but because of my strong constitution, I continued to live a productive life.

For the past six to seven years I have had severe muscle and joint pain. **I noticed changes in one of my molars. The tooth was extracted in 2000 and its contents tested positive for cell wall deficient (CWD) *Bb* by the RIBb test and Mattman's culture test.**

The usual negative antibody tests were also all positive, including a Lyme

Urine Antigen Test (LUAT), which was exceptionally high (over 400). This confirmed I had Lyme disease and had probably had it since I was a little girl. At that time, my symptoms were becoming more intense. I had many neurological symptoms - brain fog, short-term memory loss, stiff neck, night sweats, alternating feelings of hot and cold. I had extreme hypersensitivity to light, sound and odors. I had very little energy, was easily fatigued and often had a sore throat. It was very difficult for me to work for more than an hour or two. I began to search for more information and found that my case was not atypical and was most likely chronic. I contacted several known specialists in Lyme disease and one advised me to go on long-term doxycycline, which I did. I have been more or less on continuous antibiotic therapy.

## Developing A New Test

After finding that there were few accurate tests for *Bb*, my colleague, Eleanor Fort, a medical laboratory technologist, with a long history of research involvement in pediatric hematology/oncology and I, at Bowen Research and Training, developed a Rapid Identification Profile (RIBb<sup>®</sup>) for the Lyme organism. The method uses a fluorescent antibody technique on whole blood and is noteworthy for sensitivity and for the brief time required to complete the test (less than 60 minutes). **The accuracy of this method was tested in two other laboratories with identical results.** In addition, we look at a concentrated suspension of red and white blood cells (rather than a routine blood smear) to identify the co-infections associated with Lyme disease (*Ehrlichia* in the white blood cell and the parasite *Babesia* in the red blood cell). **Occasionally, we see all three infections in the same individual - *Bb*, *Ehrlichia*, and *Babesia*.** All of these patients have definite abnormal peripheral red blood cell morphology. This is noteworthy, as all require different treatment.

The RIBb test has been further refined. We are currently doing **Quantitative Rapid Identification of *Borrelia burgdorferi* (Q-RIBb<sup>®</sup>).** This process provides a quantitative titration (serial dilution) method of detecting the antigen in a fluid sample of a subject. The test is considered positive for Lyme disease upon detection of brightly fluorescent antigen-antibody complexes. **Antibiotics do not affect the test so it is effective whether or not the person being tested is on antibiotics.** When observed in phase contrast, the L-forms can be described morphologically. A preliminary report of the findings is provided within 24 hours of receiving the specimen and the final report includes digital photographs of the findings. This test is useful in evaluating treatment by comparing pre- and post-serial dilution results.

We have now tested over 3500 specimens, with 500 of these very sick children, from a wide geographical distribution, and are positive for cell wall deficient Lyme disease. The primary question is, **"Why are there no negatives?"** Does everyone have it? (*See commentary from the Editors & Dr. Mattman at right*) While the majority of our specimens come from individuals who have been diagnosed clinically, **we have tested individuals who we thought were asymptomatic, but were positive for *Bb*.** An interesting finding is that in 1995, Mattman found 43 of 47 patients with chronic diseases to be positive for Lyme disease, while 22 of 23 control cultures were negative. **Since 1999, all blood cultures have been positive with *Bb*, and there were no negatives.** We believe this indicates the magnitude of the problem. The CDC is now reporting that Lyme disease is more widespread than earlier thought. We believe the problem is not only endemic but may also be reaching epidemic proportions. Early diagnosis is mandatory so that treatment can begin immediately to provide opportunity for cure and prevent chronic Lyme disease.

## Examples of Misdiagnosis

The following stories of 4 individuals with diagnosis of ALS illustrate how important early diagnosis is:

*continued opposite page*

# Why Are All Q-RIBb Test Results Positive?

Commentary from the Editors & Lida Mattman, Ph.D.

**Editors:** All samples tested positive for Lyme by the fluorescent antibody test (Q-RIBb). This finding initially prompted our concern over the integrity of the assay. However, if the assay is not producing false positives, as shown by the development data and analysis by two other independent laboratories, then the spirochete antigen is present throughout the population of sick individuals, as indicated by Dr. Whitaker's findings. We believe the Q-RIBb (Quantitative-Rapid Identification of *Borrelia burgdorferi*) can be valuable for identifying the magnitude of infection and for tracking the progress of treatment.

Why should you believe this data? Dr. Whitaker has a strong background in developing fluorescent assays. The assay was evaluated by two independent laboratories and determined to be accurate.

Equally important, we spoke with Dr. Lida Mattman, Ph.D., previous laboratory director of Nelson Medical Research Institute in Warren, Michigan. Dr. Mattman has clarified the situation. Mattman, a Yale graduate and previous Director of Research of the laboratories of the UN, was culturing the organism in live culture, considered to be the GOLD STANDARD of Lyme identification. "During the last six months we were in operation, out of 400 patients, there were only two negative findings. One of the negative cases was a man from Germany and the other was a dog" - Dr. Mattman.

Dr. Mattman believes that spirochetes can become endemic in the population. In the early 1980's, Yaws, a tropical spirochete disease causing elephantiasis-like symptoms was endemic in Haiti. The public health department gave everyone penicillin. In France, 1 out of every 7 people tested positive for syphilis, but tests were poor and it could have been much higher. Secondary syphilis may be found in the mouth and skin so it can be communicable by touch alone.

Dr. Mattman believes that touching can spread Lyme disease. The Lyme spirochete can actually occur in tears, and therefore can be transmitted to hands, which contaminates doorknobs, pens, people shaking hands, etc. This appears to be consistent with the observation that whole families often culture positive for Lyme and present with symptoms.

Because of the contagious aspect, just about everyone who is sick, and many who are well, have a high probability of having Lyme spirochetes. Differences in susceptibility to illness may lie in areas of immunity, detoxification capabilities, stress, or many other factors that affect the expression of illness. For those who are sick and not responding to therapy, it would be wise to look for the presence and magnitude of Lyme and co-infections.

## Warren Levin, M.D., Wilton, Connecticut

"Our little local newspaper published that 49% of the families from Richfield and 56% of the families from Wilton, Connecticut have at least one family member with Lyme disease. And that's just what they know about using conventional testing. I live and practice in the epicenter of this epidemic."

**Case 1:** The first is an individual with a 10-year diagnosis of ALS from whom we received a spinal fluid and blood specimen. The spinal fluid was highly positive for *Bb*, as was the blood. We reported the findings within a 24-hour period of receiving the specimens only to learn that the individual had died.

**Case 2:** The second individual also had a long history of problems identified as ALS. His RIBb test was positive and he was not able to get any physician to treat him for Lyme disease. His health deteriorated and he was admitted to a hospital and was on life support. When his wife was told of his impending death she obtained a court order to have him treated with antibiotic therapy for Lyme disease. He recovered enough to get off life support and was subsequently discharged. He gained weight (32 pounds) and lived eight more months and then died of a heart attack.

**Case 3:** The third individual is a 25-year-old professional golfer, who became so ill he was unable to play golf. He was diagnosed with ALS. Using our test, he tested positive for Lyme. He was started on appropriate antibiotic therapy and was soon able to resume his golf career. Having an early diagnosis made the difference for this young man in living a productive, active life.

**Case 4:** A young college student began having cognitive difficulties and had to drop out of school. Using our test, he was found to be positive for Lyme. After four months on antibiotics he was able to resume a normal active life.

These examples shed light on the importance of early diagnosis and appropriate treatment for Lyme disease. Left untreated, the outcome of Lyme disease can result in a chronic, debilitating condition and possible death. Are you sure you don't have Lyme disease? **Use RIBb for life. ■**

*Jo Anne Whitaker, M.D., is President and Director of Research at Bowen Research & Training Institute, Inc., 38541 US Highway 19 North, Palm Harbor, Florida, 34684*

*For Q-RIBb test info contact the Bowen Institute at: 727-937-9077; email: JoAnne@bowen.org; or visit their website at: www.bowen.org*

# Herxheimer Reaction Protection

Herxheimer reactions, also known as “die-off,” can vary in severity from mild to debilitating. Helping your patients be prepared can make all the difference when it comes to compliance.

**H**erxheimer reactions can occur anytime the body is trying to rid itself of an infection, whether it be bacterial, viral, fungal, toxin, etc. Mild to debilitating symptoms can occur when the major organs of elimination (mainly the liver, but also the kidneys and colon) get overwhelmed and cannot detoxify the body of dead bacteria, etc., fast enough. While Herxheimer reactions occur when treating infections in general, the Herxheimer reaction to Lyme disease can be particularly problematic because the Lyme organism appears to produce neurotoxins when stressed, such as during antibiotic treatment.

## A Little History

The Herxheimer reaction was originally defined in 1895 by two Austrian dermatologists, Dr. Jarisch Adolf Herxheimer, and his brother, Dr. Karl Herxheimer. Both had been treating syphilitic lesions. They both noticed that when treating patients, many of them developed signs of high fever, profuse perspiration, night sweats, nausea and vomiting. They also observed that the skin lesions became larger and inflamed before settling down and healing. In addition, the doctors found that those cases that responded in the most violent manner healed the best and fastest. The patients would be very ill for 2-3 days, after which the syphilitic lesions resolved.

## 5 Simple Rules

One of the most helpful, yet lesser known tools for Herxheimer reactions is **pH balancing (buffering acidity)**. During Herxheimer reactions, especially with Lyme, the body can get very acidic. Buffered Vitamin C Powder is an excellent way to alkalize the body and alleviate detox symptoms quickly. Other alkalizing minerals may be helpful as well. The second most important rule is to **take it slow**. Always titrate protocols - building up slowly and gradually, allowing the liver to keep up with the toxin load. Ultimately, if detox symptoms get too intense, patients won't be able to function, which can be counter-productive in terms of compliance, and may be potentially dangerous. The third rule is to **drink plenty of water and get extra sleep**. The body needs help in flushing out toxins and extra rest to repair cells and tissues. The fourth rule is to **support the body's organs of elimination**. There are many natural supplements available that support liver detoxification, such as milk thistle, dandelion, phyllanthus, lipotropic formulas, phosphatidylcholine, coffee or chlorophyll enemas, etc. Keeping the colon moving is another important factor. Chitosan oligosaccharides (pre-metabolized chitosan) may be particularly helpful for Lyme. Patients report symptom relief, and it has been suggested that it binds to fat-soluble

toxins and neurotoxins to help pull them out of the body. Other bulk-forming fibers such as ground flax seeds, oat bran, psyllium seed husks, etc., may also be helpful. The fifth rule is to help your patients keep a positive attitude and **don't let them get discouraged**. Herxheimer reactions can make patients feel extra fatigue which can cause them to discontinue an otherwise successful treatment protocol. Just remind them it's only detox, to take appropriate measures and that healing is on the horizon!

## Basic Rules for Herxheimer

- 1 PH BALANCING (BUFFER ACIDITY)** during Herxheimer reactions, the body can become very acidic, aggravating symptoms. Balance pH using Buffered C Powder or other alkalizing minerals.
- 2 TAKE IT SLOW** titrate therapeutic protocols slowly and gradually allowing the body's organs of elimination to keep up with the toxin load.
- 3 SUPPORT THE ORGANS OF DETOXIFICATION** the liver is working overtime detoxifying all the debris from the infection - suggest supportive supplements such as milk thistle, dandelion, phyllanthus, lipotropic formulas, phosphatidylcholine, and coffee or chlorophyll enemas. Keep the colon moving using bulk-forming fibers such as chitosan, ground flax seeds, oat bran, psyllium seed husks, etc.
- 4 ENCOURAGE PATIENTS TO DRINK EXTRA WATER & GET EXTRA SLEEP** the body needs help flushing out toxins and extra rest for cell & tissue repair.
- 5 DON'T LET YOUR PATIENTS GET DISCOURAGED** it's very easy for patients to get discouraged when they are feeling the extra fatigue and discomfort of Herxheimer reactions. If symptoms get too intense, adjust their treatment protocol, take appropriate detox measures, advise them to drink extra water, get extra sleep and remind them that healing is on the horizon.

# HISTORY continued

## Frequently Misdiagnosed

Katrina Tang, M.D., H.M.D., founder and Director of Research at the Sierra Integrative Medicine Clinic in Reno, Nevada, states that Lyme disease eludes many doctors because of its ability to mimic many other diseases. **According to an informal study conducted by the American Lyme Disease Alliance (ALDA), most patients diagnosed with Chronic Fatigue Syndrome (CFS) are actually suffering from Lyme disease. In a study of 31 patients diagnosed with CFS, 28 patients, or 90.3%, were found to be ill as a result of Lyme. Dr. Paul Fink, past president of the American Psychiatric Association, has acknowledged that Lyme disease can contribute to every psychiatric disorder in the Diagnostic Symptoms Manual IV (DSM-IV).** This manual is used to diagnose psychiatric conditions such as attention deficit disorder (ADD), antisocial personality, panic attacks, anorexia nervosa, autism and Aspergers syndrome (a form of autism), to name a few. Lyme borreliosis causes, mimics, is manifested as, is misdiagnosed as, or is a contributing factor to many conditions. ■

*References available on request.*

## One Woman's Journey continued

even Japan. I am now a Certified Natural Health Professional. My health has improved about 95% and I have been off antibiotics for 2 years (after being on a multitude of them for 3 1/2 years). It has been a long journey for me, but now I am dedicated to helping others heal from Lyme. ■

*For references go to:*

[www.lymenet.org](http://www.lymenet.org)

[www.geocities.com/HotSprings/Oasis/6455/lyme-links.html](http://www.geocities.com/HotSprings/Oasis/6455/lyme-links.html)

[www.actionlyme.com](http://www.actionlyme.com)

*Sue Massie is a Certified Natural Health Professional, an Iridologist, and is currently finishing her studies to become a Naturopathic Doctor.*

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## LYME DISEASE: SPECTRUM OF SIGNS & SYMPTOMS

*Patricia Kane, Ph.D.*

- Intense fatigue
- Diminished or absent reflexes
- Brain fog
- Insomnia or excessive sleep
- Memory loss (short & long term)
- Joint pain/swelling/stiffness
- Poor coordination/ataxia
- Difficulty reading
- Slow or slurred speech
- Unexplained chills & fevers
- Rash
- Sudden abrupt mood swings
- Continual infections
- Poor concentration
- Decreased ability to spell correctly
- Unusual depression
- Tremors
- Disorientation
- Burning/stabbing pain
- Facial paralysis (Bell's Palsy)
- GI distress/abdominal pain
- Poor word retrieval/Aphasia
- Shortness of breath
- Anxiety
- Heart palpitations/chest pain
- Weight changes (loss or gain)
- Difficulty swallowing
- Sore throat
- Swollen glands
- Nausea/vomiting
- Anorexia
- Cough
- Vasculitis
- Muscle pain or cramps
- Loss of muscle tone
- Changes in taste or smell
- Twitching of muscles (face or other)
- Obsessive-Compulsive symptoms
- Panic attacks
- Changes in cerebral blood flow/brain waves
- Peripheral neuropathy/tingling/numbness
- Number reversal
- Lightheadedness
- Headaches/Migraines
- Light Sensitivity
- Menstrual irregularities
- Change in hearing/buzzing/tinnitus
- Trigeminal neuralgia (TMJ)
- Unexplained hair loss
- Dilated cardiomyopathy
- Visual disturbance
- Loss of temperature control

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Herxheimer Reaction Protection

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