

New Ideas About the Cause, Spread and Therapy of Lyme Disease

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Lyme Disease was initially regarded as an uncommon illness caused by the spirochete *Borrelia burgdorferi* (Bb). The disease transmission was thought to be solely by the bite from a tick infected with this spirochete. The Bb spirochete is able to burrow into tendons, muscle cells, ligaments, and directly into organs. A classic bulls-eye rash is often visible in the early stage of the illness. Later in the illness the disease can afflict the heart, nervous system, joints and other organs. *It is now realized that the disease can mimic amyotrophic lateral sclerosis, Parkinson's disease, multiple sclerosis, Bell's Palsy, reflex sympathetic dystrophy, neuritis, psychiatric illnesses such as schizophrenia, chronic fatigue, heart failure, angina, irregular heart rhythms, fibromyalgia, dermatitis, autoimmune diseases such as scleroderma and lupus, eye inflammatory reactions, sudden deafness, AIDS, ADD and hyperactivity, chronic pain and many other conditions.*

Biology professor, Lida Mattman, author of *Cell Wall Deficient Forms: Stealth Pathogens*, has been able to recover live spirochetes of Bb from mosquitos, fleas, mites, semen, urine, blood, and spinal fluid. A factor contributing to making Bb so dangerous is that it can survive and spread without having a cell wall (cell wall-deficient CWD). Many valuable antibiotics kill bacteria by breaking down the cell wall. These antibiotics often prove ineffective against Bb.

Lyme Disease is now thought to be the fastest growing infectious disease in the world. There are believed to be at least 200,000 new cases each year in the US and some experts think that as many as one in every 15 Americans is currently infected (20 million persons). Dr. Robert Rowen knows a family where the mother's infection spread to 5 of her 6 children¹ all of whom *recovered with appropriate therapy*. It is difficult to believe that these children were all bitten by ticks and seems more plausible that person to person spread within the family caused this problem. Dr. Mattman states "I'm convinced Lyme disease is transmissible from person to person." In 1995 Dr. Mattman obtained positive cultures for Bb from 43 of 47 persons with chronic illness. Only 1 of 23 control patients had a positive Bb culture. Dr. Mattman has subsequently recovered Bb spirochetes from 8 out of 8 cases of Parkinson's Disease, 41 cases of multiple sclerosis, 21 cases of amyotrophic lateral sclerosis and *all tested cases of Alzheimer's Disease*. The complete recovery of several patients with terminal amyotrophic lateral sclerosis after appropriate therapy shows the *great importance of establishing the diagnosis of Lyme Disease*.

Some very important information has recently become available about the spread and magnitude of the problem with Lyme Disease. The severity of the Lyme illness is related to the spirochete load in the patient. Few spirochetes produce mild and asymptomatic infection. A study from Switzerland in 1998 pointed out that only 12.5% of patients testing positive for Bb had developed symptoms. A German boy developed Lyme arthritis 5 years after his tick bite. Often mycoplasmal infections remain without symptoms until the victim suffers a traumatic event (stress, injury, accident, etc.). These stressing events enable the mycoplasma to begin consumption of cholesterol and symptoms may begin to present. The mechanism of this deterioration is thought to be suppression of the immune system secondary to stress.

Many patients with LD have concomitant infections with other parasites (*Ehrlichia* in white blood cells and *Babesia* in red blood cells). Some patients have all 3 parasites. Each requires a different therapy with *Babesia being particularly difficult to eradicate*. Recently, Artemisinin appears effective in *Babesia* infections. All co-infections must be eliminated to obtain a successful result.

Dr. Joanne Whitaker relates that nearly every patient with Parkinson's Disease (PD) has tested positive for Bb. Dr. Luis Romero reports that 3 patients with PD are 99% better after TOA-free cat's claw (*Uncaria tomentosa*) therapy. When Dr. Mattman cultures 25 patients with fibromyalgia *all subjects had positive cultures of the CWD Bb, which causes LD*. She relates that Bb can be found in tears and could thus easily appear on the hands where touching could spread LD. Several families are now documented where nearly every family member is infected. How sick the individual patient becomes probably relates to their initial spirochete dose, immune system, detoxification capability and stress levels.

Transmission of the disease has been clearly documented after bites by fleas, mites, mosquitos and ticks. There is compelling evidence that Lyme disease (LD) can be spread by sexual and congenital transfer. One physician has cared for 5000 children with LD: *240 of these children were born with the disease*. Dr. Charles Ray Jones, the leading pediatric specialist on Lyme Disease, has found 12 breastfed children who have developed LD. Miscarriage, premature births, stillbirths, birth defects, and transplacental infection of the fetus have all been reported. Studies at the University of Vienna have found Bb in urine and breast milk of LD mothers.

Researchers at the University of Wisconsin have reported that dairy cattle can be infected with Bb, hence milk could be contaminated. Bb can also be transmitted to lab animals by oral intake such as food.

The Sacramento, California blood bank thinks that LD can be spread by blood transfusions. The CDC (Center of Disease Control) in Atlanta, Georgia states that their data indicates that Bb can *survive the blood processing techniques used for transfusions in the US*.

Lyme Disease is the fastest growing epidemic in the world. LD is grossly under-reported so there may be far more than the 200,000 cases reported annually in the US. Drs. Harvey and Salvato estimate that *1 billion persons in the world may be infected with LD. LD is thought to be a contributing factor in 50% of patients who have chronic illness*.

Dr. Joanne Whitaker, a Lyme disease victim from childhood, has developed a reliable test for the presence of Lyme disease. This test looks for the Bb organism, not antibodies, and is able to identify the cell wall deficient (CWD) form of the spirochete as well as the actual Bb organism. The test is called Q-RIBb which stands for quantitative rapid identification of Bb. Dr. Lida Mattman has confirmed that Dr. Whitaker's test is sensitive because there has been a *100% correlation between a positive culture of Bb by Dr. Mattman's lab and a positive Q-RIBb test from Dr. Whitaker's Laboratory*.

Case Reports Illustrating the Critical Importance of Establishing the Diagnosis of Lyme Disease.

Case 1: Larry Powers, a former Mr. America in 1962, became ill with the symptoms of Parkinson's Disease in 1990. Sinemet therapy was taken for eight years but he gradually became worse. He became confined to a wheel chair and required help with eating. After learning that Lyme Disease might be causing his symptoms of PD he started taking TOA-free cat's claw (*Uncaria tomentosa*). Within three weeks he was out of his wheelchair and fishing for 100 pound tarpon.

Case 2: Tom Coffey at age 34 developed diplopia, severe hypertension uncontrolled by drugs, and impaired balance. A diagnosis of amyotrophic lateral sclerosis was made. Surgery was performed to correct the diplopia. By June 2001 he was unable to swallow saliva and feeding tube nutrition was begun. His weight had fallen by 100 pounds. Nutritional support from the tube feedings produced slow resolution of the swallowing problem. Consultation with a Lyme expert uncovered the history of a bulls-eye rash after a tick bite. Therapy with *Rocephin* led to complete recovery.

Case 3: A young male college student developed such sever cognitive difficulties he was forced to drop out of

school. A Q-RIBb test was positive for LD and he resumed a normal life after receiving 4 months of antibiotic therapy.

What Causes Neurone Death in Amyotrophic Lateral Sclerosis (ALS)?

One of the most insidious mimics for Lyme Disease is ALS. The neurotoxins released by the Bb organism are capable of causing neurologic dysfunction in the central nervous system that produces symptoms typical of amyotrophic lateral sclerosis. The pathological hallmark of ALS is motor neurone degeneration and death.

Research performed by Dr. Harold Clark and Dr. Garth Nicholson and coordinated by Donald W. Scott² has resulted in a breakthrough in our understanding of amyotrophic lateral sclerosis.

Mycoplasma was discovered in 1898. These are living particles of bacterial nucleic acid which do not have a cell wall. In 1971 Rottem et al.³ learned that most species of mycoplasma were absolutely dependent for their growth on the consumption of pre-formed sterols including cholesterol obtained from animal and human host cells. These mycoplasmas live harmlessly in host cells until they are stimulated to activity by a stressing traumatic event (bullet wound, bad fall, injury from accident etc.). The growth of the mycoplasma consumes the cell's cholesterol resulting in death of the affected cell. Mycoplasmas have been identified in ALS using high resolution blood morphology. In the November 9, 2001 issue of *Science* Dr. Daniel Mauch⁴ et al. revealed that the glial cells surrounding the motor neurone sully the extra cholesterol needed to repair and replace aging synapses. If the repair does not properly occur, the motor neurone cells proceed to die from overwork. Glial cells are also heavily involved in gathering, processing and storing glutamate. Elevations in glutamate have been found in brain tissue in ALS.

A mycoplasma species, probably fermentans, which was harmlessly sequestered in a glial cell, becomes aroused by some traumatic stressful event. This mycoplasma then consumes the glial cholesterol which makes up 40% of the glial cell membrane, causing rupture and death of the glial cell. The death of these glial cells releases large amounts of glutamate which becomes elevated in brain tissue. Within the neurone some of the excess glutamate accesses a urea molecule. The urea molecule gives up an ammonia ion which converts a glutamate molecule into less dangerous glutamine. This leaves the former urea molecule as a cyanate ion which damages the motor neurone's mitochondria. One of the consequences of the damaged mitochondria is a decrease in the energy output available to the neurone. This produces the severe weakness and fatigue seen in patients with chronic fatigue syndrome. If the mitochondrial injury is severe the neurone dies. The death of motor neurone stops message delivery to muscle tissue – a universal finding in ALS.

This avid consumption of cholesterol may also contribute to the endocrine dysfunction seen in ALS because it decreases the amount of cholesterol available to produce estrogen, testosterone, progesterone, hydrocortisone, and aldosterone. Patients with ALS, fibromyalgia, and chronic fatigue syndrome often have hypothalamic dysfunction which may result in adrenal insufficiency, hypothyroidism, and gonadal failure.

Lyme disease frequently exhibits neurologic abnormalities because the Bb neurotoxins are drawn to the fatty tissue found in the brain and peripheral nerves. As a consequence sudden deafness, Bells palsy, Parkinson's Disease, Multiple Sclerosis, reflex sympathetic dystrophy, peripheral neuritis, and chronic pain may appear.

The Influence of Toxins from Bb on the Symptoms and Course of Lyme Disease

Autopsy examinations of young persons (30s) dying from what appeared to be Parkinson's disease (PD) have frequently failed to confirm the basal ganglion damage that would be expected in classic PD seen in the elderly. Some patients with illnesses of many years' duration misdiagnosed as Amyotrophic Lateral Sclerosis, Multiple Sclerosis, and Parkinson's Disease have made incredible recoveries within periods as short as 24 to 72 hours when placed on TOA-free *Uncaria tomentosa* (cat's claw) for LD. This rapid response could not rationally be

attributed to improved immune function or bacteriocidal effects on spirochetes. Bb is known to produce a *group of neurotoxins*. The most sensible explanation for this recovery lies in turning off or blocking the neurotoxins effects of Bb on the lipid containing structures that the Bb neurotoxins are attracted to (central nervous system, peripheral nerves, muscles, joints, etc.). This sudden improvement appears to be the result of blockage and inhibition of the neurotoxins.⁵ The most important example of a “Biotoxin Illness” appears to be Lyme Disease.⁶ Patients with symptoms of Parkinson’s Disease at a young age caused by neurotoxins would not be expected to show permanent structural destruction in the basal ganglia. These neurotoxins probably act at specific sites such as neuro-transmitters-pre and post synaptic membranes, altering dopamine, serotonin, GABA, and acetylcholine molecules, thereby blocking surface membrane receptors of various kinds which would interfere with the proper action of enzymes, coenzymes and hormones. This is only one of the damaging mechanisms of action of the neurotoxins.

The *Uncaria tomentosa* may have three direct beneficial effects in humans with LD:

- Immune modulation (correcting immune dysfunction).
- Direct broad spectrum anti-microbial effect on spirochetes. Quinovic acid glycosides found in TOA-free cat’s claw are similar to the quinilones widely used as antibiotics.
- Blocking the adverse neurotoxic effects on cells, enzymes, and hormones.

Whether the serious lack of energy and fatigue seen in LD are similar to the cyanate⁷ induced damage to the mitochondria’s ability to produce energy in the motor neurone found in amyotrophic lateral sclerosis, or is due to failure of proper calcium channel function is not clear.

Favorable Therapeutic Results with TOA-Free Cat’s Claw in Lyme Disease

A pilot study treated 28 patients with *Advanced* Chronic Lyme Disease with TOA-Free *Uncaria tomentosa*. Conventional cat’s claw contains TOA alkaloids that interfere with the desired immune modulation. The 14 person control group was given antibiotic therapy. At the study’s termination 85% of those receiving the cat’s claw preparation *no longer had positive blood tests for Bb*. All 28 persons had experienced a *dramatic improvement in their clinical condition*. No significant changes were seen in the control group. The Prima Uña de Gato can be obtained from Allergy Research Group 800-545-9960, Nutramedix (product name Samento Plus) 561-745-2917, and from Farmacopia at 800-896-1484. Dr. Whitaker’s lab can be reached by Internet at www.Bowen.org or by calling 727-937-9077 to arrange blood Bb testing. Improving nutrition, detoxifying and improving mental health all contribute to good results. Removal of mercury amalgams and treatment of heavy metals may be needed.

Much of this information about LD was obtained from “Lyme disease: Nutraceutical Breakthrough Using TOA-Free Cat’s Claw” published in Focus by Allergy Research Group (October 2003) and from the November and December 2003 issues of Dr. Robert Rowen’s *Second Opinion*.

Why Are We Experiencing an Epidemic of Lyme Disease?

I do not have a certain answer to this question. There are some facts that may be relevant. Several US government scientists including Dr. Shuy-Ching Lo, of the American Institute of Pathology, hold a patent on a Pathogenic Mycoplasma (mycoplasma fermentans) which has been converted into a crystalline form. In the patent application the diseases AIDS, chronic fatigue syndrome, Wegener’s Granulomatosis, Sarcoidosis, lupus and Alzheimer’s Disease were mentioned as related to this patented form of mycoplasma fermentans. The crystalline form of mycoplasma fermentans contains the part of the brucella bacteria that causes disease in patients. In its crystalline form this mycoplasma can be transmitted into subjects *by intravenous administration or injections, spread as an aerosol, implanted by the bite of an insect, or placed into food or water*. *There is no laboratory evidence for infection by brucella in subjects who have received the “crystalline pathogenic mycoplasma.”*

When a nation is developing biologic warfare agents it is imperative that these agents be tested on humans to evaluate the results. If an infectious biologic warfare agent was able to produce person to person transfer it would have to be regarded as a gigantic success.

In the Faroe Islands in 1943 British biowar researchers ran tests to see if sheep could be infected by air-borne brucella. The brucella spread into sheep dogs as brucella canis and then appeared to cause several humans to develop multiple sclerosis.

In 1947 and 1948, approximately 1,100 school children in remote northern Icelandic villages (Akureyri) became ill with a new disease that caused severe burning pain in the limbs, profound muscle weakness, and severe fatigue. Of these 1,100 teenagers who became ill, 5 of the students developed an aggressive form of Parkinson's disease and proceeded to die (unheard of in teenagers not using methedrine-like drugs). The United States had effective control of Iceland during these years and a research scientist trained in plant and animal virology at the Rockefeller Institute (oriented toward eugenics), Dr. Bjorn Sigurdson, was installed to start an Institute of Experimental Pathology at the University of Iceland with \$200,000 in grant money from the Rockefeller Institute. In 1950 a group of American physicians, microbiologists, and biologic researchers sponsored by the Rockefeller Foundation arrived in Iceland to study the effects of the mystery illness that had struck Northern Iceland. The appearance of a new disease was of such great interest that Icelandic Disease was promptly reported in the *New England Journal of Medicine*.

The Canadian government set up the Dominion Parasite Laboratory in Belleville, Ontario in the 1950's and 60's to *grow one hundred million mosquitos a month*. In late August of 1984, 500 persons in the St. Lawrence Valley became ill with a mystery illness which had the profound weakness seen in brucellosis without any laboratory evidence of brucella infection. One woman was certain her illness came from a mosquito bite. She recalled being bitten by a mosquito and woke up the next day with a target skin lesion at the bite site (same skin lesion as seen in Lyme Disease) and such profound weakness she was unable to get out of bed. Another woman recalled a target lesion at the site of a mosquito bite. *Both women remain ill 20 years later.*

Citizens in Punta Gorda, Florida woke up one spring morning in 1956 with a cloud of mosquitos in their town. Calls to the Meteorological Service about the mosquito influx were answered with the information that there had been a forest fire thirty miles away in the Everglades and that these mosquitos had fled the fire. The truth is mosquitos will not move from one side of a barn to the other when a fire breaks out, let alone *fly 30 miles*. One week later 5 persons appeared in the local medical clinic with symptoms of chronic fatigue syndrome.

In 1984 mycoplasma may have been transmitted by aerosol into a high school in Incline Village, Nevada, where many persons suddenly developed chronic fatigue syndrome. Children became ill with a similar mysterious illness in 1984 after drinking goat's milk in Lyndonville, New York. The cities of Adelaide, Australia 1949, West Otago, New Zealand 1984, and Royal Free Hospital London, England 1955 have all been visited by mini-epidemics of chronic fatigue syndrome.

These mycoplasmas, when activated by stress, are avid consumers of sterols including cholesterol. A series of chemical reactions ensues culminating in the creation of cyanate which causes failure of normal energy production by the mitochondria of the cells. This could produce the profound weakness and fatigue characteristics of chronic fatigue syndrome. A 2 to 3 month trial of 300 to 500 mg. of CoQ10 daily might be able to improve energy output by the mitochondria thus possibly alleviating the profound fatigue.

When the illness causes painful trigger points, it is best termed fibromyalgia. These painful sites are located where blood flow is stagnant. Chronic infections are known to produce high viscosity blood which tends to clot a flow more slowly than normal.

Profound dysfunction of the hypothalamus, pituitary, adrenal, thyroid glands and gonads is very common in

mycoplasmal, fungal, and anerobic bacterial infections. The avid consumption of cholesterol by activated mycoplasma could be a contributing factor to these endocrine disorders because cholesterol is needed to create several important hormones (estrogen, testosterone, progesterone, hydrocortisone, aldosterone).

Bacteriologist Dr. Arthur Kendall was able to produce 16 distinct bacteria⁸ by simply using different culture media to culture the same bacteria. Dr. Royal Rife's Universal Microscope could see organisms as small as viruses. By using Dr. Rife's microscope Dr. Kendall could actually see living organisms change their characteristics as the culture media were changed. Dr. G.C. Gruner of McGill University used an asparagus media to grow a fungus found in the blood of patients with cancer. When this fungus was grown in Kendall's medium it converted into the Bx virus which had been proven by Koch's postulates to cause cancer. These experiments proved that the fungus that Dr. Gruner saw in the blood of cancer patients *was actually the same organism as the Bx virus that Dr. Kendall had proven causes cancer*. Obviously, biologic micro-organisms exhibit considerable pleomorphism which may explain why observers do not find the same organisms in patients with chronic fatigue syndrome, fibromyalgia, and Lyme Disease as those being found by other observers (HHN-G, CMV, EBV viruses, parasites Bb, ehrlichiae, babesia, bartonella, mycoplasma, Chlamydia, anerobic bacteria, yeast and fungi have all been implicated).

There is considerable evidence that many patients with Chronic Fatigue Syndrome, Fibromyalgia, and Lyme disease have an infectious disease. Lyme disease needs to be considered in every patient with a chronic illness. LD can produce *every disease found in the Diagnostic Symptoms Manual for psychiatric illness (attention deficit disorder ADD, antisocial personality, panic attacks, anorexia nervosa, autism, Aspergers syndrome, etc.)*. Skilled antimicrobial therapy should permit many of these unfortunate patients to regain their health. TOA-free cat's claw will be valuable for many persons with Bb found by blood tests and culture. *Sulfoxime and dioxychlor* will relieve the pain found in fibromyalgia. Dietary changes, correction of pH, detoxification and stress reduction counseling can all be beneficial.

The United States maintains a biological warfare research laboratory on Plum Island directly across Long Island Sound from the sites where Lyme Disease and West Nile Disease were first encountered in Old Lyme and Madison, Connecticut. Massive deaths of birds are common at the sites where West Nile viral disease appears, suggesting that the illness may afflict birds before entering humans. *Dr. Warren Levin of Wilton, Connecticut states that 56% of the families in Wilton have at least one family member with LD. Could seagulls containing crystalline mycoplasma fermentens and West Nile Virus have escaped or been released from Plum Island?*

Much of this information about biowarfare agents and crystalline mycoplasma fermentens is from an article written by biochemist Donald W. Scott and published in the Winter 2003 edition of *The Journal of Degenerative Diseases Volume 5 Number 1*. The publisher is Common Cause Medical Research Foundation, Box 133, Station B, Sudbury, Ontario, Canada P3E 4NR Canada.

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