Dr. Klinghardt's Treatment of Lyme Disease

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Excerpted From the Writings of Dietrich Klinghardt, MD, Ph.D., edited by Eve Greenberg, LPC, CN, Explore Staff Reporter and Director of the Klinghardt Academy of Neurobiology

In the last decade the majority of outcome-oriented physicians observed a major shift: we realized that it was neither the lack of vitamins or growth hormone that made our patients ill. We discovered that toxicity and chronic infections were most often at the core of the client's suffering.

We watched the discussion, which infection may be the primary one: mycoplasma, stealth viruses, HHV-6, trichomonas, Chlamydia pneumoniae, leptospirosis, mutated strep, or what else?

The new kid on the block is Borrelia burgdorferi (Bb) and some of us have looked at it for a long time as possibly being the bug that opens the door for all the other infections to enter the system. Another one is Lyme disease, which has become a buzzword in the alternative medical field.

Since none of the recommended treatments are specific to either one of the microbes, we can never assume that we really know what we treated once a patient has recovered.

Microbiologist Gitte Jensen, PhD, had shown that the older you get, the more foreign DNA is attached to your own DNA. Somewhere along the line, pathogenic microbes invade the host's DNA and become a permanent part of it. Since you use only 2 percent of your DNA, it may not be a problem. In fact, it may make you who you finally become. It may also cause a number of symptoms and chronic illness.

Genius Guenther Enderlein's discoveries take us off the hook: if one microbe can change into another given the right environment, why bother to find out who we are infected with? The book "Lab 257" suggests that Bb is an escaped man-made US military bio-warfare organism (just like myoplasma incognitus and HHV 6).

Other authors suggest that different subtypes of Borrelia, which cause illness in humans, such as B. afzelii and B.garinii have probably existed longer than B.burgdorferi and occur naturally and have been with us for a long time, maybe centuries or much longer than that.

Making the Diagnosis

It appears that many patients with MS, ALS, Parkinson's disease, autism, joint arthritis, chronic fatigue, sarcoidosis, and even cancer, are infected with Borrelia burgdorferi. But is the infection causing the illness or is it an opportunistic infection simply occurring in people weakened by other illnesses?

My experience is based on:

a) Using direct microscopic proof of the presence of Borrelia burgdoferi (Bb) and other spirochetes (4, 5)

b) The information many affected clients have brought to me

c) My own clinical training and experience (30 years in Medical practice, 15 years Bb cognizant)

d) ART testing (autonomic response testing), which is the most advanced and scientifically validated method of muscle testing (6)

e) Regular lab parameters affected by Lyme:

- Abnormal lipid profile (moderate cholesterol elevation with significant LDL elevation)
- Insulin resistance
- Borderline low white blood cells, normal SED rate and CRP
- Normal thyroid hormone tests but positive Barnes test and excellent response to giving T3
- Type 2 (high cortisol, low DHEA) or type 3 adrenal failure (low cortisol and DHEA)
- Low testosterone and DHEA

- Decreased urine concentration (low specific gravity)
- Complex changes in cytokines, interferones, NK cells, white blood cell indicators, etc.

Bb tends to infect the B-lymphocytes and other components of the immune system that are responsible for creating the antibodies, which are then measured by an ELISA test or Western Blot test. Since antibody production is greatly compromised in infected individuals, it makes no sense to use these tests as the gold standard or benchmark for the presence of Bb (7).

We also are aware that in endemic areas in the US up to 22 percent of stinging flies and mosquitoes (2, 8, 9, and 10) are carriers of Bb and co-infections. In South East Germany and Eastern Europe 12 percent of mosquitoes have been shown to be infected. In addition, many spiders, flees, lice and other stinging insects carry spirochetes and co-infections. *Making the history of a tick bite a condition for a physician to be willing to even consider the possibility of a Bb infection seems cynical and cruel.*

To use conventional diagnostic tests such as the Western Blot, one has to think in paradoxes: the patient has to be treated with an effective treatment modality first before the patient recovers enough to produce the antibodies, which then are looked for in the test. A positive Western Blot proves that the treatment given worked to some degree. *A negative Western Blot does not and cannot prove the absence of the infection.*

Having taken another route altogether, we have recognized that today many if not most Americans are carriers of the infection. Most infected people are symptomatic, but the severity and type of the symptoms varies greatly.

The microbes often invade tissues that had been injured: your chronic neck pain or sciatica really may be a Bb infection. The same may be true for your chronic TMJ problem, your adrenal fatigue, your thyroid dysfunction, your GERD and many other seemingly unrelated symptoms.

Many Bb symptoms are mistaken for problems of natural or premature aging.

In most places the diagnosis of an active Bb infection is made only if the symptoms are severe, persistent, obvious, and many non-specific and fruitless avenues of treatment have been exhausted. Acute new “typical” cases of Bb infection are rare in my practice. Symptoms tend to get stranger and more obscure every year.

Frequently, if the patient is fortunate enough to see a practitioner who is “Lyme cognizant”, the diagnosis of a supposedly fresh case of symptomatic Lyme disease is made when a significant tissue toxin level has been reached (threshold phenomenon) or when a new co-infection has occurred recently.

The symptoms can mimic any other existing medical, psychological or psychiatric condition.

Common Co-Infections

The list of significant co-infections is limited: roundworms, tapeworms, threadworms, toxoplasmosis, giardia and amoebas, clostridia, the herpes virus family, parvovirus B 19, active measles (in the small intestine), leptospirosis, chronic strep infections and their mutations, Babesia, Brucella, Ehrlichiosis, Bartonella, mycoplasma, Rickettsia, Bartonella and a few others.

Molds and fungi are always part of the picture.

The pattern of co-infections and the other preexisting conditions such as mercury toxicity determine the symptom-picture but not the severity.

What Influences the Severity of Your Symptoms?

The severity of symptoms correlates most closely with the overall summation or body burden of coexisting conditions and with the genetically determined ability to excrete neurotoxins.

The genes coding for the glutathione S-transferase and for the different alleles of apolipoprotein E (E2, E3 and E4) play a major role. E2 can carry twice as much sulfhydryl-affinitive toxins (such as mercury and lead) out of the cell as the E3 subtype, E4 carries out none.

Trouble in the methylation, acetylation and sulfation pathways is also common. Other factors, such as diet and food allergies, past toxic and electromagnetic exposures, emotional factors and unhealed ancestral trauma, scar interference fields and occlusal jaw and bite problems are also important (6).

The severity of symptoms is not related to the number of spirochetes in your system but rather to your individual immune response.

Taking all of the above into account, we do not distinguish between people who have the Bb infection and those who don’t. Instead, we distinguish between people who have Lyme disease and those who do not.

a) Patients who are infected with any type of Borrelia and are symptomatic have “Lyme” disease

b) Healthy people who are not symptomatic often already have a spirochete infection as well. They may or may not be disasters waiting to happen. But they do not (yet) have Lyme “disease”.

Most often several of the “co-infections” are already present prior to the infection with Bb or other spirochetes.

In treatment we focus on exploring the difference between symptomatic and asymptomatic carriers. We treat what the symptomatic person is missing (such as enough magnesium in the diet) or has extra (such as mercury) compared to the asymptomatic one.

The group suffering most is newborn babies and young children, who rarely are diagnosed correctly and therefore are not treated appropriately. They often carry the labels ADHD, autistic spectrum disorder (ASD), seizure disorder and others. Detoxifying these kids with transdermal DMPS and treating the chronic infections is often curative.

The Three Components of Lyme disease

Lyme disease has three components, which should be recognized and addressed with treatment:

Component #1: The presence of spirochete **infection and co-infections**

The co-infections are bacterial, viral, fungal and parasitic. Since the spirochetes paralyze multiple aspects of your immune system, the organism is without defenses against many microbes. Many -- if not most -- of the co-infections are really a consequence of the spirochete infection and not truly a simultaneously occurring “co-infection”.

For treatment options, see below.

Component #2: the illness producing effect of microbial exo- and endotoxins and toxins produced by the host in response to microbial trigger

Most of these are neurotoxins.Some appear to be carcinogenic as well; others block the T3 receptor on the cell wall, etc. Decreased hormonal output of the gonads and adrenals is a commonly observed toxin mediated problem in Lyme patients.

Central inhibition of the pineal gland, hypothalamus and pituitary gland is almost always an issue that has to be resolved somewhat independently from treating the infection.

Furthermore, biotoxins from the infectious agents have a synergistic effect with heavy metals, xenobiotics and thioethers from cavitations and NICO lesions in the jaw and from root filled teeth.

My published neurotoxin elimination protocol can be downloaded for free (6).

We use toxin binding agents such as fiber-rich ground up raw vegetables, chlorella (14), cholestyramine (13), beta-Sitosterol, propolis powder, apple pectin and Mucuna bean powder (14).

A solid heavy metal detoxification program should be used simultaneously with the first phases of the Lyme treatment. Safe toxic metal elimination is an art unto itself. However, the information is widely available now (15).

The more difficult objective is to choose agents and methods to trigger the release of neurotoxins from their respective binding sites. Only then can they be transported to your liver, be processed, and enter your small intestine from where they can be carried out by the binding agents.

The toxins occupying the T3 receptor are competitively displaced by oral T3 -- cycled with the Wilson protocol (*available at most compounding pharmacies*). The toxins blocking the cortisol receptor are mobilized with the herb forskolin. CGF chlorella -- a sophisticated mix of chlorella and chlorella growth factor -- and cilantro given together with a non-irradiated Mucuna bean powder mobilize most everything else.

I also use alternate-day dosing of an energetically enhanced phospholipid/EDTA/Alpha-Lipoic acid mix (“PhosphoLipid Exchange”) which is currently the most tolerated and effective form of phospholipids for the Lyme patient.

The KMT microcurrent frequencies dramatically increase the speed of toxin mobilization and access body compartments the biochemical compounds cannot .

Psychotherapeutic intervention to uncover and treat old trauma is most profoundly effective in triggering a neurotoxin release when none of the other methods appear to work anymore.

After each APN session we pre-medicate the patient with CGF-chlorella. Sometimes the extraction of a devitalized tooth or the injection of one of the facial/cervical ganglia with glutathione or another detox agent can trigger a major neurotoxin release.

Lymph drainage in combination with colon hydrotherapy accesses toxins stored in the lymphatic body-compartment. German practitioners have pioneered the combination of oral cilantro and the “Toxaway” microcurrent footbath.

Component #3: The **immune reactions** provoked by the presence of both toxins and microbes (there are three sub-possibilities, which have to be recognized and addressed).

Your immune reactions are largely depending on factors such as genetics, prior illnesses, mental-emotional baggage, early childhood traumatization, current exposure to electromagnetic fields (sleeping location, use of cell phones, poor wiring in car or home, etc), food allergies and diet, socio-economic background, marital stress etc.

A multitude of biochemical serum markers is used today to determine the status of the infection (see below). A subset of NK killer cells, CD 57+ is emerging as a valid marker for activity of the illness (lower counts indicate worsening).

1: Anergy -- the absence of reaction due to the successful evasion of the host-defenses.

One of the more known mechanisms the microbes use to create anergy is hyper coagulation. The microbes tend to live in your endothelium where the food is most abundant. There they trigger the coagulation mechanism to lay down a layer of fibrin on top of them to evade recognition by your immune system, etc. For this aspect we use three techniques:

a) The KMT-microcurrent technology and homeopathics to wake up and entrain the immune system

b) Rechtsregulat ("right rotatory fluid") which is an enzyme-rich extract of fermented fruits and vegetables (14). It has outperformed the s.c. injection of heparin in our own trials and frequently leads to rapid subjective improvement.

Lumbrokinase is far more effective than Nattokinase,but both appear weak when compared to Rechtsregulat.

We also work on recognizing and eliminating those factors that block the client's system (geopathic stress, EM stress, food allergies, emotional factors, interference fields such as scars and disturbed ganglia and we substitute vitamins and minerals based on ART testing).

c) The Enderlein remedies (especially the haptens) from Pleomorphic-Sanum

2: Allergy -- appropriate or exaggerated immune reactions (both cellular TH1-reaction and TH2-cytokine activation).

In Lyme disease oftentimes (but not always), TH-1 is overly active early in the illness and can easily be downregulated by fluconazole. Later TH2 becomes overly active.

Nothing works better then the APN-desensitization procedure (15): while the patient is exposed to the allergen (we use a glass-carrier fixated culture of the offending microbes) the ANS is kept in a state of equilibrium using tapping of acupuncture-points, hypnotherapeutic trauma-recall and intervention techniques, and our proprietary psycho kinesiology (muscle-biofeedback psychotherapy).

A very effective and yet simple technique to re-regulate TH1 and TH2 back is auto-urine therapy. The patient's urine concentrates the antigens (disposed cell walls and cell fragments of offending microbes which the immune system has successfully eliminated). By passing the client's urine through a micro pore filter and injecting it intra-muscularly, the lymphocytes on patrol in the connective tissue are brought in contact with the antigen and quickly mount a specific and appropriate immune response.

We use 2 ml of filtered urine once weekly for 12 weeks. All other similar approaches (autohemotherapy, homeopathic autonosodes, manipulating the immune system with supplements) are far less effective.

3: Autoimmunity -- the toxins and microbes often act as haptens -- marking the cell, cell wall or tissue in which they are hiding as foreign and therefore for destruction. This happens especially against a backdrop of pre existing heavy metal toxicity, which has to be addressed aggressively and prior to treating the microbes themselves.

We use the MELISA test (memory lymphocyte immune-stimulation assay) to establish which metals the patient is reactive to. The same lab in Bremen, Germany also offers the most sensitive Bb test.

The KMT microcurrent technology is very effective in recognition entrainment, helping your immune cells to mount a specific and targeted attack on the invaders, sparing your body's own tissues. It breaks through one of the prime mechanisms the offending germs are using: molecular mimicry (the pathogens present antigens on their surface that are indistinguishable from a normal body tissue).

The technique also breaks another trick the spirochetes have developed: the molecular interaction that occurs between a specific Lyme virulence factor (OspE) and a host protein fH (factor H). Some surface antigens in the spirochete are identical to myelin. This explains why anti-myelin antibodies are often present.

The novice in the field tends to treat component #1 only. We have only rarely observed lasting improvement when course after course of antibiotics was given. Because of the defense mechanisms inherent in the Bb and co-infections, current wisdom suggests that 18 months of antibiotics would be curative in many cases (25). But instead we have observed severe, lasting and unacceptable side effects from this approach,such as tinnitus, kidney failure, intractable immune system breakdown and others.

By using the synergistic effect between treatment-modalities that simultaneously address the three issues outlined above, lasting improvements are the norm rather than the exception.

By using the synergy principle and abandoning the arrogant idea of being able to eradicate all of the microbes in the system "for good", chronic Lyme patients can often live a normal healthy life again. The use of herbs alone or in combination with antibiotics has emerged as the most important core strategy.

The Importance of Minerals

To feed, fuel and perk up the cells of the immune system (especially NK cells and macrophages) numerous interventions have been attempted, mostly based on orthomolecular and herbal medicine principles. We found that amongst those approaches, abundant mineral substitution based on the red cell mineral analysis is most rewarding.

Rarely should medical drugs be used.

Amazingly, the most depleted minerals in our Lyme patients are often copper, magnesium, manganese (in Lyme) and iron (in Babesiosis).

Bb and Bartonella need magnesium to duplicate and deplete the host's body rapidly. Copper and iron have all but disappeared from most of our supplements based on faulty interpretation of hair analysis. Your immune system uses those two metals in the process of phagocytosis. They are the main constituent of the enzymes (or "bullets") your immune cells use in the battle against the invaders.

Oxidized used-up iron and copper get displaced into the extracellular compartment and body fluids, and appears in your hair and skin as that's your body's most efficient way of excreting toxins without damaging your kidneys.

This has led to the dangerous, and in its consequence, catastrophic assumption that these metals are the enemy and need to be restricted.

It is true that oxidized metals pose a danger and have to be reduced (=substitution of electrons) or eliminated. However, when copper and iron are needed and substituted appropriately, major improvements have been observed. Appropriate antioxidant treatment can reduce these metals.

Homeopathic copper and iron leads to beneficial redistribution of these metals and makes them bio-available again.

Lithium-orotate or aspartate in low doses (15 mg/day) has been shown to protect your CNS structures from neurotoxin damage.

Patients also almost always benefit clinically from frequent treatment with parenteral magnesium. It is most meaningfully given in a modified Meyer's cocktail. We also use a 5:2 ratio of folic acid (not folinic) and hydroxycobolamine (not methyl- or cyano-) sublingually several times/day.

In addition methyl-cobolamine is givenintra-muscularly twice weekly and is important in the methylation/restoration of reduced glutathione. Hydroxy-B12 protects your brain from nitric oxide induced damage.

Many Lyme patients suffer from Pyrroluria, a metabolic illness where abnormal porphyrins carry out significant amounts of needed zinc and vitamin B6. Diagnosis is made with the appropriate test at Vitamin Diagnostics in New Jersey. Even though it is assumed that this illness is hereditary, I have my doubts, since most Lyme sufferers have a degree of it. I suspect that the appearance of kryptopyrroles in the urine is induced by the illness.

However, I am careful with excessive substitution of zinc. Zinc has a synergistic effect with mercury in the brain and also promotes the growth of the herpes viruses.

If clients show abnormal high losses of sex steroid hormones in the urine, the patient may be cobalt deficient. The urine hormone test and cobalt drops are available at the *Tahoma Clinic* Renton, WA. For a while selenium should be given in high doses to suppress viral replication and render bioavailable mercury non-reactive.

The most critical element in the Lyme patient, however, is iodine. A two inch square of Lugol's iodine is painted on the patient's skin and should remain visible for 24 hours. The sooner it is absorbed the more deficient the patient. An oral form of Lugol's is available under the name *Iodoral (Optimox, Torrance, Ca).*

Filling up your body's mineral reserves has always been the most essential part of our heavy metal detox program. It is also the most essential part of our Lyme treatment.

Sequencing of Effective Treatment

There is an inherent order in which the microbes should be treated. If the order is correct, gentle methods work.

Treatment should always combine electromagnetic interventions, using specific microbial inhibition frequencies (KMT technology) with the appropriate herb, antibiotic or other antimicrobial strategy.

It should also always be combined with a toxin elimination program, good psychotherapy, and general life style hygiene.

Most clients will need some support for several years before they have found and adapted to a new life style in which the symptoms are absent.

Lyme disease is marked by cyclic rhythms and unexpected returns of the symptom from time to time. Once a patient has figured out what works best, most of my patients learn how to manage their illness with very little help.

Klinghardt Lyme Disease Protocol

Biological treatment of Lyme disease and chronic infections: (based on over 900 successful treatment cases)

The treatment of Lyme disease requires 4 distinctive steps:

1. Decreasing toxic body burden/unloading the system
2. Improving disturbed physiology
3. Decreasing microbial count

4. Immune modulation

Decreasing toxic body burden/unloading the system

- Proper sleep
- Low EMF (turn off all fuses, sleep sanctuary, turquoise light/photon wave to increase melatonin and non-rem Delta sleep)
- Non-toxic/allergenic bedding material (cave: flame retardants/PBDEs)
- Avoid light/noise pollution at night

1. Short form of toxin elimination and antimicrobial treatment: "Le Cocktail"
Freeze dried garlic (against microbes, toxins, sulfur), chlorella (viruses, bacteria, toxins, nutrients), cilantro (bacteria, viruses, toxins) and fish oil (for microcirculation and cell wall flexibility)

The Long Form of Healing

Toxin elimination:

- Remove intestinal biofilm: 1 tsp clay followed by 1 tbsp fiber laxative for 6 weeks, prior to do anything else
- Address genetic glitches (methylation, sulfation, acetylation – B12, B2, Folic acid, SAM-e, Methionine, Taurine, MSM)
- Mercury and metal detox -- Phospholipid Exchange (EDTA, phospholipids, alpha lipoic, magnesium, energy), Matrix Metals, CVE and CGF, DMEP(ORS), sound cracked chlorella, nanonized chlorella and cilantro, EDTA, DMSA, DMPS
- Solvent and carbon based detox: glycine, laser-or homeopathy aided detox
- Consider the UNDA remedies (243 is best)

Self Help:

- Colon hydrotherapy and lymphatic drainage, rhythmic cranial and liver compression
- Dry skin brushing and warm/cold showers
- Swedish sauna and Toxaway ionic foot bath

Detect and resolve interference fields:

- Scars
- Jaw infections and devitalized teeth
- Chronic localized infections (tonsils, appendix, sinuses, etc)
- Dysfunctional autonomic ganglia (superior cervical, sphenopalatine, pelvic ganglia, etc.)

Remove "allergenic triggers" from your environment

- Food allergies
- Volatile organic compounds from carpets, furniture and paints
- New car smell (phthalates)
- Newspaper and office printing ink
- Work/profession related compounds

Removing psychological toxins

- 20 minute writing exercise to overcome past trauma
- Family constellation work to resolve trans-generational issues
- Applied Psycho-Neurobiology to resolve conflicts and severe trauma
- Regular time spent in healthy nature
- Regular massage
- Qi Gong, Tai Chi or Meditation

Removing structural blockages

- Optimize the dental occlusion to restore cranial lymphatic pump
- Craniosacral therapy to improve fluid dynamics in CNS
- Visceral manipulation to improve organ function

2. Improving disturbed physiology and biochemistry (vitality, detox, immune responses, tissue repair)

Biochemistry

- Always start with KPU urine test and address it!
- Assessment via lab work or ART -- correct what is missing and what is too much (hormones, minerals and electrolytes, glutathione, sulfur, etc.)
- Genetic testing: find minimal bypass nutrition to correct for SNPs or gene deletions/mutations
- Diet: gluten and casein free diet, Specific carbohydrate diet, Metabolic typing, blood group diet or ART based diet
- Common deficiencies in Lyme: magnesium: has to be given transdermal or via injection. Oral Magnesium feeds spirochetes
- Copper, zinc and iron are spent by macrophages and appear in oxidized form in hair and serum, giving the wrong appearance of excess

Improving disturbed biochemistry and physiology: KPU/HPU

- Over 80 percent of our Lyme patients have developed HPU (hemo-pyrrol-lactam-uria). The term falsely used in most US literature is KPU (krypto-pyrrol-uria)
- HPU disarms the immune system by catastrophic depletion of zinc, manganese, arachidonic acid, histamin, taurine.
- These losses are hard to detect with any current technology (only bone and CNS biopsies are reliable.
- Labs to consider:

KPU urine test (Vitamin Diagnostics)

- alkaline phosphatase low normal
- copper: zinc ration greater than 1 in hair and urine
- low Omega 6 in red cell membrane fatty acid test
- white blood cell zinc, red cell copper level

If KPU is treated first and the system is restored to normal levels (4-8 months), Borrelia, Bartonella-like organisms and Babesia respond to much milder interventions without significant Herxes or problems

Neurophysiology

- Gives your brain healthy rhythms: KMT technology
- Listen to Lyme entrainment CDs
- Spend time in nature
- Avoid EMF's (cordless phones, cell phones, wireless technology, home near airport (radar), computer

Exercise

- Stretching
- Weight lifting
- Movement (dance, Tai Chi, Qi Gong, etc.)
- Aerobic exercise -- avoid post exercise fatigue and pain

3. Rizols (ozonated castor oil treated with high voltage electrolysis) **decrease microbial count**. ***Rizols have strong and specific anti-microbial properties, no known adverse long term effects, are relatively inexpensive and are pleasant to take.***

They have been used successfully since 1905. (You'll find the recipes below.)

1: treat **parasites, mold and anaerobes**

Rizol Gamma (effective dose: 15-20 drops tid)

2: treat both RNA (Borna, etc.) and DNA (HHV-6, EBV, etc.) **viruses**: Rizol Zeta (20 drops tid)

3: when on full dose of Gamma and Zeta, treat **Babesia**:

After 2 months on full treatment: stop or reduce Rizol Gamma and treat **Bartonella:** Rizol My (20 drops tid).

After 2 months reduce dose of rizols Zeta and My to 10 drops tid and treat **spirochetes**: add Rizol Epsilon and Jota, 10 drops tid each.

Always follow rizol with adsorbent (**biosorption**): chlorella (20 tbl), chitosan (1-2 caps), zeolite (1 tsp) or charcoal (2 caps)

Rizol-Gamma

70 percent Rizol-raw material (ozonated castor oil treated with high voltage electrolysis)

10 percent clove oil

10 percent oil of artemesia

10 percent black walnut oil

Rizol-Zeta

69.3 percent Rizol-raw material

10.0 percent oil of artemesia annua

10.0 percent clove oil

5.0 percent black cumin oil

3.0 percent moxa oil

1.8 percent walnut oil

0.9 percent oil of majoram

Biological effects, according to the Steidl/Carstens studies:

- The ozonides transfer oxygen and change the environment in which anaerobic pathogenic germs live, making it aerobic
- This prevents anaerobic germs, such as Clostridia, from multiplying
- The oil is surface-active and, with its active substances, moistens your intestinal mucous membrane where nests of fungi and bacteria and parasites might be located
- Rizol constituents have been found intracellularly and in the matrix (indicating anti-microbial activity both intra-and extracellularly)

Cell toxicology studies:

- Mitochondria are not damaged,
- OECD test for mutagenicity produced the result: not mutagenic.
- Normal human cells are guided into apoptosis (beneficial and genetically pre-programmed cell death)
- Previously damaged and tumor cells are destroyed
- No adverse pharmacological effects were found in numerous cell culture tests

4. Immune modulation

- Use the CD 57 test (Labcorp – Stricker panel) to monitor immune status
- Enderlein remedies: treat immune responses to mold: Pleo Nig, Not, Muc, Fort, Pef, Ut and UT-S, Lat
- Auto-hemotherapy or auto-urine therapy (2 ml biw)
- Buhner herbs (Quintessence from BioPure) 8-10 dropperfull in 1 liter water
- Adjunctive physics based immune modulation tools:

1. KMT frequency-based biofield treatment
2. Health Light super LED treatment of focal areas

3. Valkion: singlet oxygen energy delivery via inhaled air or drinking water
4. Photon Wave or Jae Laser immune modulation

Medical drugs: Occasionally the use of medical antimicrobials is beneficial in addition to this program (ILADS recommendations). Top of the list:

- anti-virals (Valtrex and Valcyte)
- anti-fungals (itra- and voriconazole)
- anti-parasitics (Alinia and Biltricide)
- antibiotics (with above program, minocycline, and anti-Malarials work again!)

Lyme Disease as a Messenger

In the course of conquering this illness there has been a lot of personal growth and a lot of learning.

There has been much speculation as to why Lyme disease seems to be increasingly common. The book “Lab 257” is an investigative report on the issues involved.

The insects which are the vectors for these microbes thrive in warmer climates. I have no doubt that to a large degree the greenhouse effect is responsible and will be confronting us with the onslaught of more and more aggressive microbes.

The partial pressure of oxygen on the earth at sea level has decreased from 30 percent 150 years ago to 19 percent today. The oxygen producing algae in the oceans are dying…

The response of the public health system so far has been denial and anger towards those who try to uncover the puzzle and help the afflicted patients. This will certainly change in the near future.

I expect that by the time the institutions discover Lyme disease as a far more important factor in chronic illness than is currently acknowledged, we will be confronted with new, far more dangerous microbes.

Antibiotics have disappointed in the treatment of Lyme disease as a single modality. Antibiotics alone will not help us to cope with the coming plagues.

All of us as practitioners have to start looking beyond antibiotics for help and for hope. The microbes have always been with us. They are not the enemy. It is us who have altered the environment so severely and in a way that facilitates the growth of lower evolved species like cell wall deficient microbes and viruses -- and ends the life for many more evolved species. Extinction may be forever.

Lyme disease is a messenger. If we don’t change, we may be on the endangered species list someday not too far from now.

Dr. Mercola's Comments:

I want to thank my good friend and mentor Dr. Dietrich Klinghardt for allowing me to post this thorough and in-depth review of Lyme disease and his expert treatment protocols.

Lyme disease was first recognized in the United States in 1975, after a mysterious outbreak of arthritis near Lyme, Connecticut. It wasn't until 1982 that the spirochete that causes Lyme was identified. It was subsequently named Borrelia burgdorferi (Bb), in honor of pioneer researcher Willy Burgdorfer, Ph.D.

According to CDC statistics, reported cases of Lyme disease rose by nearly 38 percent between 2007 and 2008.

Some are now questioning whether Lyme disease might in fact be a silent epidemic.

Millions of people who are diagnosed with multiple sclerosis, fibromyalgia, Alzheimer's, chronic fatigue syndrome and other degenerative diseases could actually have Lyme disease causing or contributing to their condition.

Traditional Signs and Symptoms

Traditionally, signs and symptoms of Lyme disease include:

- A skin rash, often resembling a bulls-eye
- Fever
- Headache

- Muscle pain
- Stiff neck
- Swelling of your knees and other large joints

However, as discussed by Dr. Klinghardt above, there are numerous other symptoms not traditionally considered as signs of Lyme disease; everything from sciatica to chronic TMJ problems, adrenal fatigue, GERD, and other seemingly unrelated symptoms.

Unfortunately, many still believe Lyme disease is tick-borne only, which as it turns out, is incorrect. It can also be transmitted by other insects, including fleas, mosquitoes and mites -- and by human-to-human contact. So whether or not you've ever been bitten by a tick might not matter.

The Elusive Nature of Lyme Disease

Lyme can disseminate through your body with remarkable speed. In its classic spirochete form, the bacteria can contract like a spring and twist to propel itself forward. It can travel through your blood vessel walls as well as your connective tissue. (Because of its spring-like movement, it can actually swim better in tissue than in blood.)

Studies have shown that less than a week after being infected, the Lyme spirochete can be deeply embedded inside your tendons, muscle, heart, and brain.

It invades tissue, replicates, and then destroys its host cell as it emerges.

Sometimes the cell wall can collapse around the bacterium, forming a cloaking device that allows it to evade detection by many tests and by your body's immune system.

Why Drugs Don't Work for This Mystery Illness

Adding further complexity, the Lyme spirochete (Bb) is pleomorphic, meaning it can radically change form, from spirochete to round cell wall deficient (CWD) forms, and back again!

This is partly why the conventional antibiotic treatments rarely work.

The problem is that a CWD organism does not have a fixed exterior membrane presenting information -- a target -- that would allow your immune system or drugs to attack it. This feature also effectively deters detection through many medical tests.

Additionally, because Bb is pleomorphic, you can't expect any one antibiotic to be effective. Bacteria share genetic material with one another, so the offspring of the next bug can have a new genetic sequence that can resist the antibiotic just given.

Lyme disease is notoriously difficult to diagnose and frequently even harder to treat. But as Dr. Klinghardt mentioned, drugs are rarely the way to go.

Another case in point: in 1999, SmithKline Beecham was sued over their Lyme disease vaccine as it turned out to cause an incurable form of autoimmune arthritis, and in many cases produced symptoms worse than those of the illness. SmithKline stopped producing the vaccine three years later, citing "insufficient consumer demand."

Thankfully, experts like Dr. Klinghardt, who has dedicated over a decade to this disease, are finding gentler, safer, non-toxic alternatives so that you, or anyone you know who may be affected with Lyme disease, can finally take control of your health and return to living a pain free existence.

He is actually providing a world class seminar on this topic in the fall. My schedule prevents me from attending but it should be awesome.

You can go to his site for more information on how to register for this event, and learn even more about this important topic that was not covered above.

Related Links:

- **Bee Venom Treatment for Lyme Disease**
- **Lyme Disease: The Unknown Epidemic**
- **The Detoxx System: Detoxification of Biotoxins in Chronic Neurotoxic Syndrome**