



Natural Therapies with Judy Rocher: Lyme Disease & the Associated Infections

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November 2016

Overview

- About Lyme/challenges/prevention
- Where to begin?
- Elimination channels/Immune/Liver/
Mitochondrial support
- Cowden protocol
- Condensed Cowden protocol
- Herxheimer remedies
- Neuro-excito toxicity
- Lyme Co-infections

Lyme Disease – fastest growing epidemic

- Data published Eurosurveillance (2011) – 350 cases per 100,000 people
- Rapidly spreading throughout Europe and northeast Asia (The Center for Disease Control and Prevention)
- 100,000 new cases every year in Europe
Lindgren E, Jaenson T. Lyme borreliosis in Europe: influences and climate change, epidemiology, ecology and adaptation measures. World Health Organization Regional Office for Europe, 2006.
- 300,000 new cases in the USA
Kuehn BM. CDC estimates 300 000 US cases of Lyme disease annually. JAMA2013;310:1110.
- Main tick vector *Ixodes ricinus* – 64% increase compared to 2013 (Netherlands)
- Figures from PDSA 56% increase Lyme in pets since 2009 – reported in Telegraph

Valerie Obsomer, Bioengineer PhD – 15 years risk assessment for vector-bourne diseases

Should Lyme Disease be renamed?

- Not only a tick-bourne illness
- Name implies typical infectious disease
- Wayne Anderson ND - Multiple, chronic intracellular infection – slow and progressive harmful effects
- Richard Horowitz – MCIDS – Multiple Chronic Infectious Disease Syndrome
- Dr Lee Cowden calls it – MSMMI - Multi-Symptoms, Multi-Microbial Inflammation
- Not Lyme's disease – Lyme disease



Image courtesy of Google image library

Recap on challenges of Lyme

- Enters cells and hard to get to places like collagen, eyes and heart in the spirochete form
- Shed blebs – a tool to confuse the immune system and for transfection of DNA
- Morphs to round-bodies that resist antibiotics
- Forms biofilm-like colonies to survive unfavourable conditions

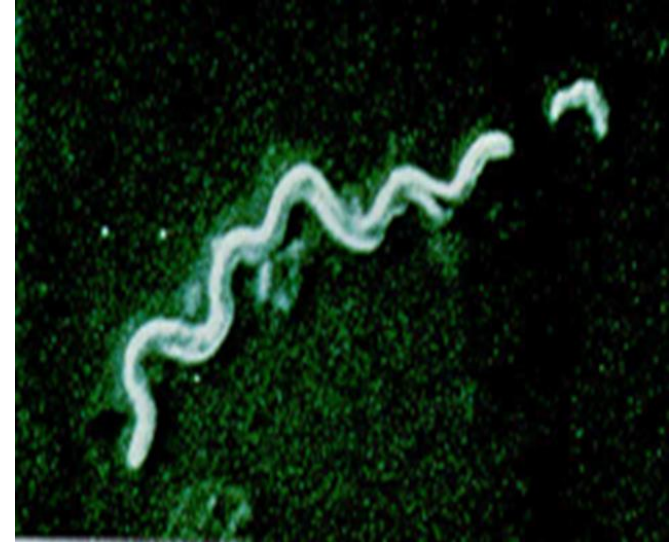


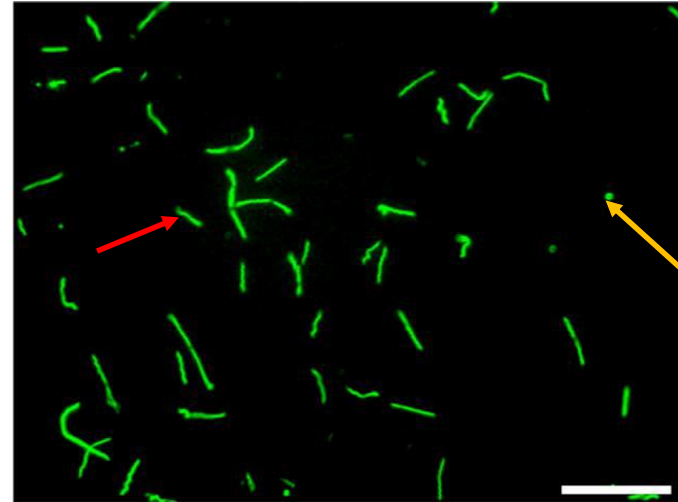
Image courtesy of Google source library

And even harder to kill because

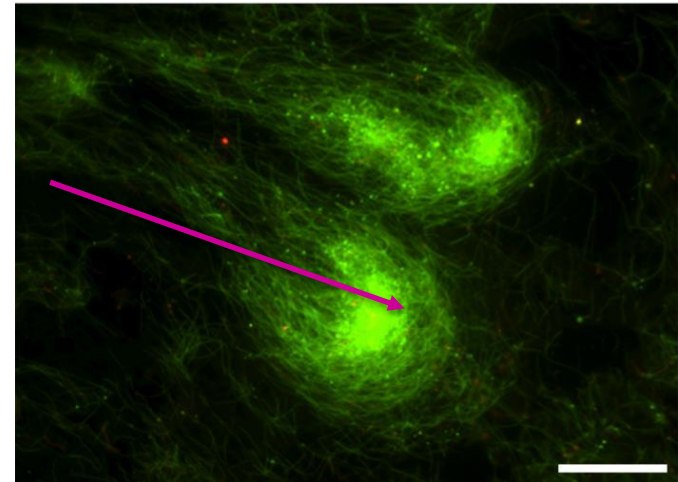
- Has a stealth mode : it mutates its gene structure and outer surface proteins based on host immune system
- Disrupts the immune system (T, B, NK)
- Causes inflammation
- Suppresses detoxification
- Causes problems with hormone balance
- Causes gut hyper-permeability leading to allergies
- Causes Herxheimer reactions due to release of biotoxins

Different forms of Borrelia

Round bodies and
spirochetes



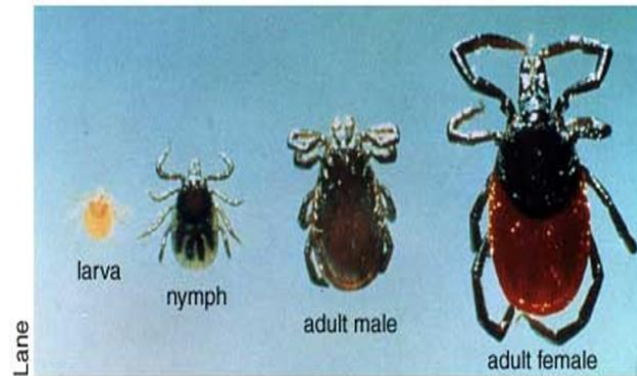
Biofilms



Source: Picture taken from the UNH Lyme Disease Research Group

Prevention better than cure

- Check for ticks immediately after being in woodlands, parks etc
- Practice safe tick removal if any are found
- Remember can be as little as 16 hours to be infected, sooner for viruses
- Dr Klinghardt recommends *Cistus incanus* (tea 4 cups per day or tincture 20 drops twice a day) for a month
- Can take 20 drops Samento 3 times a day for a month
- Attracted by heat, insect repellants have limited success
- If bitten, see your GP for antibiotics



Images courtesy of Google Image library

Prevention better than cure

Only 25% of people get the rash,
and may not be a 'bull's eye'

Excellent if you can get the tick
tested for diseases

Maybe safer to see your GP for
antibiotics – esp if you feel flu-
ish or get a rash

If you have a rash, stay on
antibiotics until the rash is gone



Where to begin?

- 1) Ensure body's elimination channels are working well
- 2) Support heavy metal/chemical detox
- 3) Support the immune system/correct deficiencies
- 4) Support methylation
- 5) Support cellular energy
- 6) Address and resolve past traumas
- 7) Address bacterial and other infections

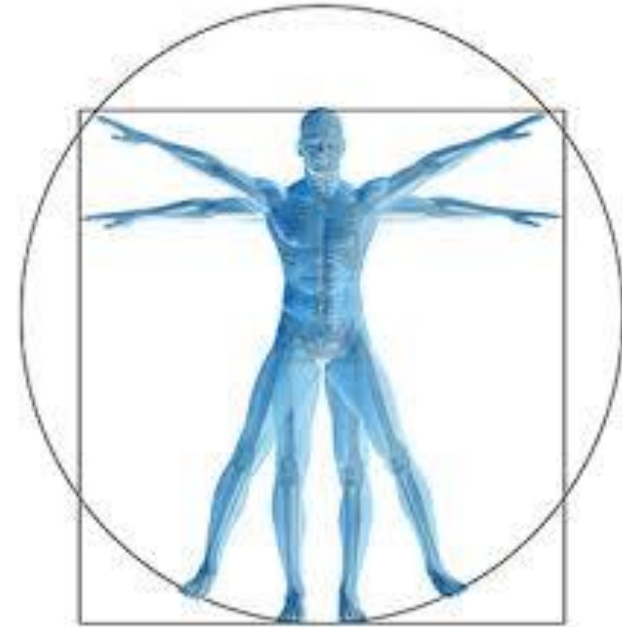


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Elimination channels

Bowels

- Bowel cleanse with clay or zeolite (Clinoptilolite)
- Herbs to ensure no constipation
- Support liver/gallbladder – increase bile acid production
- Identify food allergies and avoid these foods
- Address diet, increase fibre (veg) and fluids, stop gluten/dairy
- Increase magnesium and vitamin C
- Enemas/colonics



Image courtesy of Google image library

Elimination channels

Lymph

- Deep breathing
- Movement
- Chi Machine
- Powerplate
- Lymphatic drainage massage
- Dry skin brushing
- No anti-perspirants
- Herbs that promote lymphatic drainage – Burbur, Cleavers, Calendula, Devil's Claw



Image courtesy of Flexxicare.com

Elimination channels

Kidneys

- Kidneys – adequate fluid intake – filtered water, add pinch bicarb of soda
- Herbs – cinnamon, nettle, parsley, bearberry, also aged garlic and watermelon juice
- Parsley decoction – simmer bunch parsley in 2 litres water for 10 minutes, strain and refrigerate – drink 1 glass daily
- Quebra pedra tea
- KIScience - Renolo
- Kidney cleanse – juice of $\frac{1}{4}$ lemon, 1 tsp organic apple cider vinegar with mother, $\frac{1}{4}$ bicarb, $\frac{1}{2}$ glass of warm water, $\frac{1}{2}$ tsp raw honey (opt)



Image courtesy of Google image library

Elimination channels

Skin

- No chemicals on the skin
- Chlorine filters on shower/bath
- Replace all chemical skincare/haircare products
- Encourage sweating
 - ✓ Exercise
 - ✓ Far infrared saunas – niacinamide 1gm before sauna
 - ✓ Diaphoretic herbs – peppermint, ginger, cayenne, lemon balm

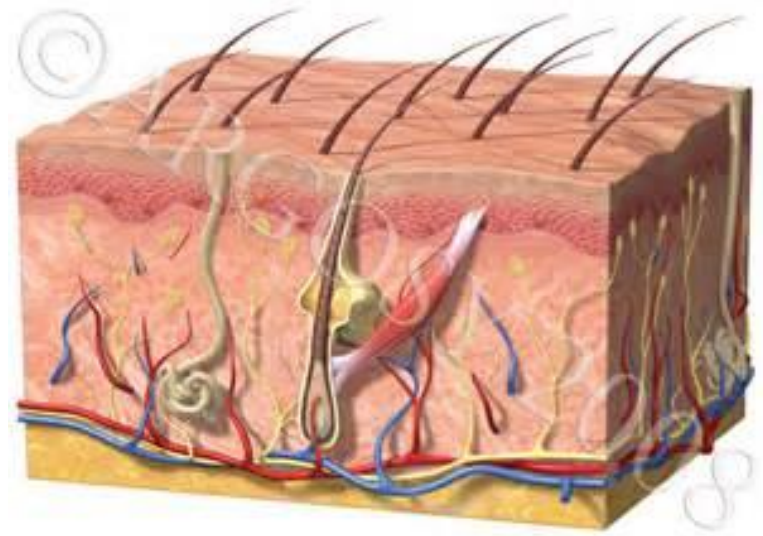


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Elimination channels

Emotional Blocks

- Deal with past traumas
- Emotional Freedom technique
- Homeopathy
- Family Constellations
- Counselling



TRAUMA

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Immune Support

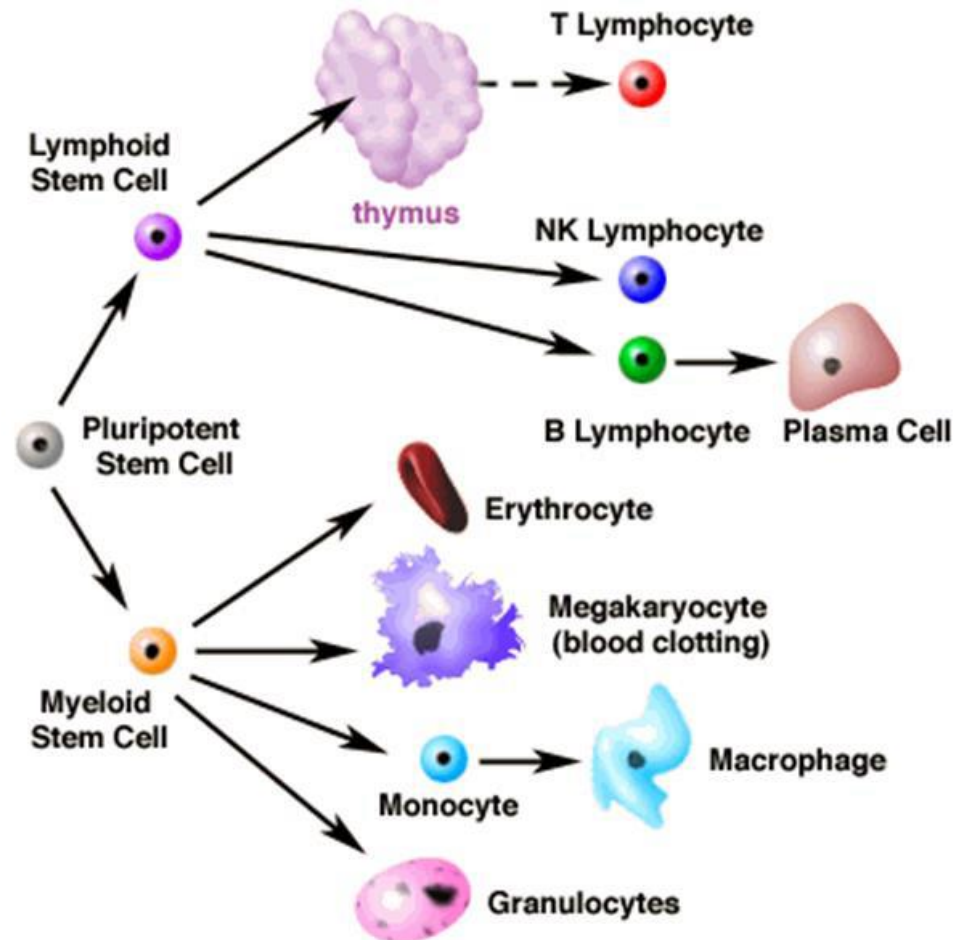


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Immune Support

- Check for KPU – lose vast amounts of zinc, B6, Biotin, manganese, magnesium
- Support Th1 - Lyme create shift to Th2 and Th1 is reduced
- Reduce cortisol - Elevated cortisol due to long-term stressors suppresses cell-mediated immune response
- Address deficiencies
- Address gut dysbiosis and low levels beneficial gut flora

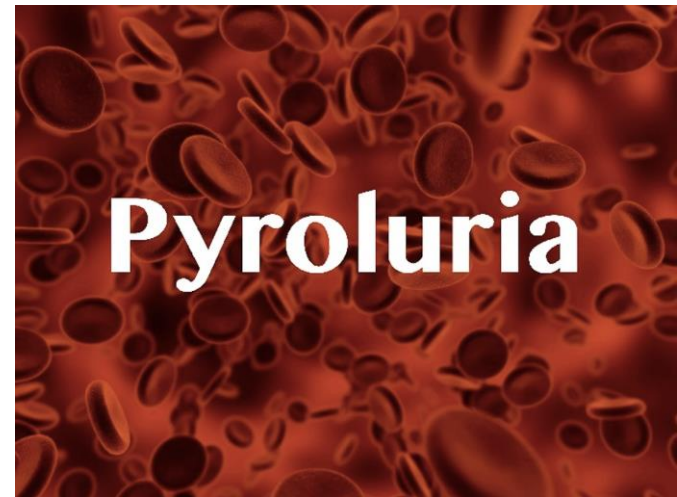


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Immune Support

Kryptopyrroluria or pyrrole disorder – a metabolic disorder where abnormal porphyrins carry out significant amounts of zinc in the urine

- 80% of persistent Lyme disease sufferers have KPU
- Can be genetic, early childhood trauma or acquired through stress, leaky gut and the overuse of antibiotics
- Caused by overproduction of HPL (hydroxyhempyrolin) binds zinc and B6 – excreted through urine and hair



KPU

- Losing supra-physiological amounts of zinc and manganese disarms the immune system. These minerals are an essential part of the white blood cells
- Affects synthesis of heme – not only needed for haemoglobin, but also involved in the cytochrome enzymes important for detoxification
- Mercury and other heavy metals not detoxified and build up in the system
- Need EFA, especially GLA – Blackcurrant seed oil
- Also may need biotin, B3, B5, B12, manganese, vitamins C and E, and magnesium – copper levels may be high



Testing for KPU

- Do not take any vitamins, minerals or antimicrobials 5 days prior to doing the test
- Should be exposed to stress prior to doing the test
- Freeze the sample prior to sending it for analysis
- Protect test from light
- Afternoon urine higher in pyrroles
- Add 500mg ascorbic acid per litre of urine
- Upper limit of kryptopyrrole test is 15 mcg/dl – anything above 20mcg/dl have pyrroluria and 30mcg/dl is a severe condition
- Can order a Kryptopyrrole test through Biolab



Immune Support

Support Th1/Th2 balance

- Samento
- Astragalus
- Echinacea
- Maitake mushrooms
- Beta glucans
- Biobran
- Larch Arabinogalactan
- Lemon balm
- Ginseng
- Chlorella
- Glycyrrhiza
- Selenium, zinc, Vit C, Vit D

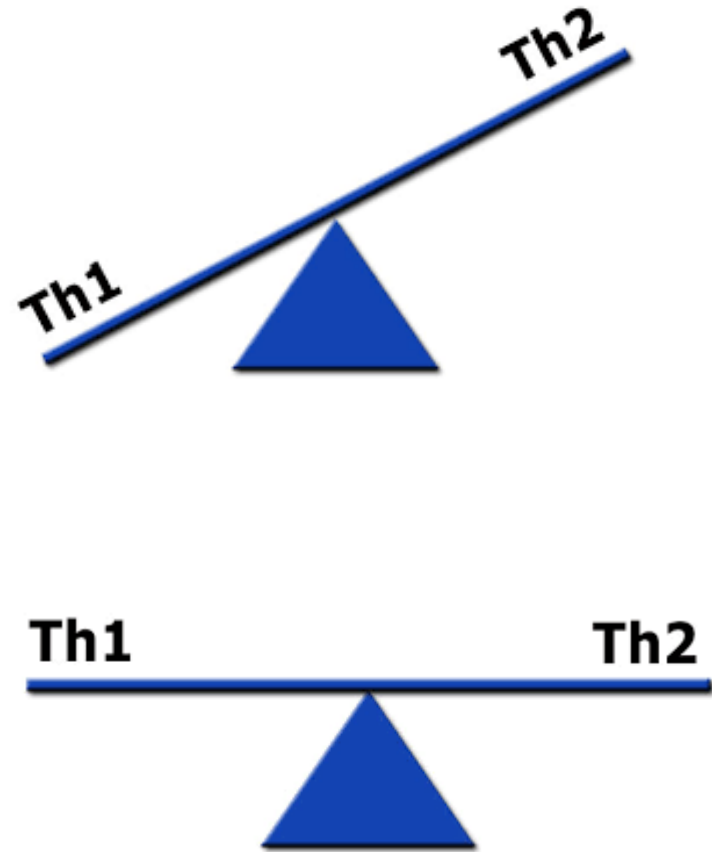


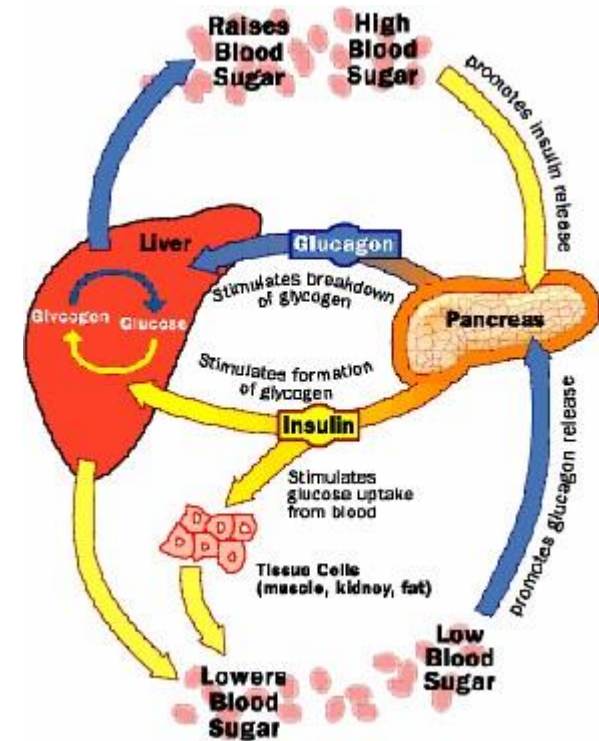
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Immune Support

Reduce Cortisol

Factors which affect our response to stress:

- Nutrient density of diet
- Blood sugar control
- Exercise and overtraining
- Sleep quality and circadian rhythm
- Relationships
- Past trauma
- Social support and community presence



Immune Support

Reduce Cortisol

- Stress reduction lifestyle changes
- Listening to Mozart for 1/2 hour = 1 valium
- Diaphragmatic breathing exercises
- Increase DHEA through meditation, sleep, essential fatty acids
- Nourish the adrenals – wholesome diet, B vits, magnesium, high levels of good fats, no stimulants
- Essential oils lavender, ylang ylang and bergamot – research on this combination
- Exercise – walks/yoga/pilates/stretching



Immune Support

Address deficiencies

Micronutrient screen

- Iodine
- Co enzyme Q10
- Selenium
- Zinc
- Iron/ferritin
- B vits/folate
- Vitamin C
- Vitamin D
- Phospatidyl choline
- Vitamin E
- Silica
- Glutathione
- N-Acetyl-Cysteine
- Magnesium
- Manganese
- Molybdenum
- Chromium

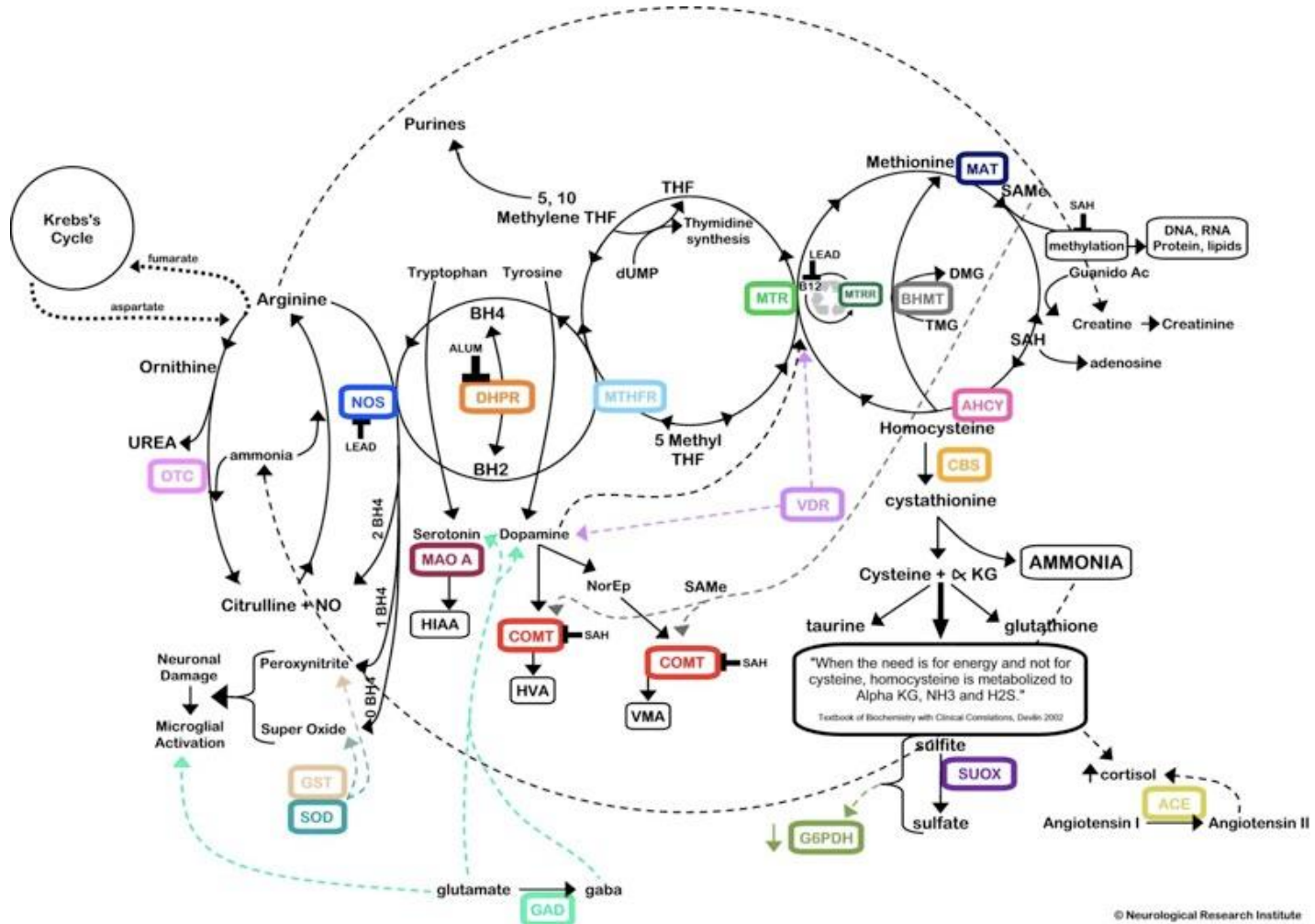
Immune Support



Gut Dysbiosis

- Gut testing/allergen testing
- Remove pathogens, decrease toxic load, remove food allergens (gluten, dairy, soy, eggs, shellfish, nuts)
- Replace enzymes/HCl (+zinc/B6)/pepsin/bile
- Reinoculate – Prebiotics/Probiotics
- Repair – Vits A, C, E, magnesium, colostrum, gamma oryzanol, n-acetyl-glucosamine, zinc carnosine, quercetin, lignite extracts

Support Methylation



© Neurological Research Institute

Images courtesy of Google Image library

Support Methylation

Recap on Methylation

- Controls overall sulphur metabolism, balancing need for methyl groups for GSH to control oxidative stress, and for other sulfur metabolites, including cysteine, taurine and sulfate
- Provides methyl groups in the synthesis of
 - Creatinine
 - Choline
 - Carnitine
 - Coenzyme-Q10
 - Melatonin
 - Catecholines – dopamine, noradrenaline and adrenaline
 - Phospholipids
- Methyl groups also needed :
 - To deactivate histamine
 - Control oxidative stress

Support Methylation

Methylation problems

- Occur frequently in chronic illness, including Lyme
- Cells lining blood vessels must be methylated to repair them – otherwise CV disease and hardened arteries
- Monocytes and lymphocytes must be methylated – otherwise excessive clotting – thromboses and strokes – chronic inflammation
- High homocysteine levels – undermethylation (COMT --)
- Low homocysteine – overmethylation (COMT ++)

Other factors in reduced methylation:

- Deficiencies of nutrients and co-factors
- Heavy metals – mercury and lead
- Drugs, infections, pesticides

Support Methylation

Methylation problems

- Glutathione depletion likely to be responsible for reactivation of EBV, CMV and HHV-6
- Glutathione depletion also caused magnesium depletion in rbc's

How can we resolve:

- B12
- MTHFR
- TMG, B2, B6, zinc, glutathione, NAC
- EFAs
- Chelation of heavy metals

Liver Support

- Quebra Pedra
- Milk Thistle
- Calcium-D-glucarate
- Artichoke
- Dandelion
- R-Lipoic Acid
- Choline
- N-Acetyl-Cysteine
- Glutathione
- Taurine
- MSM

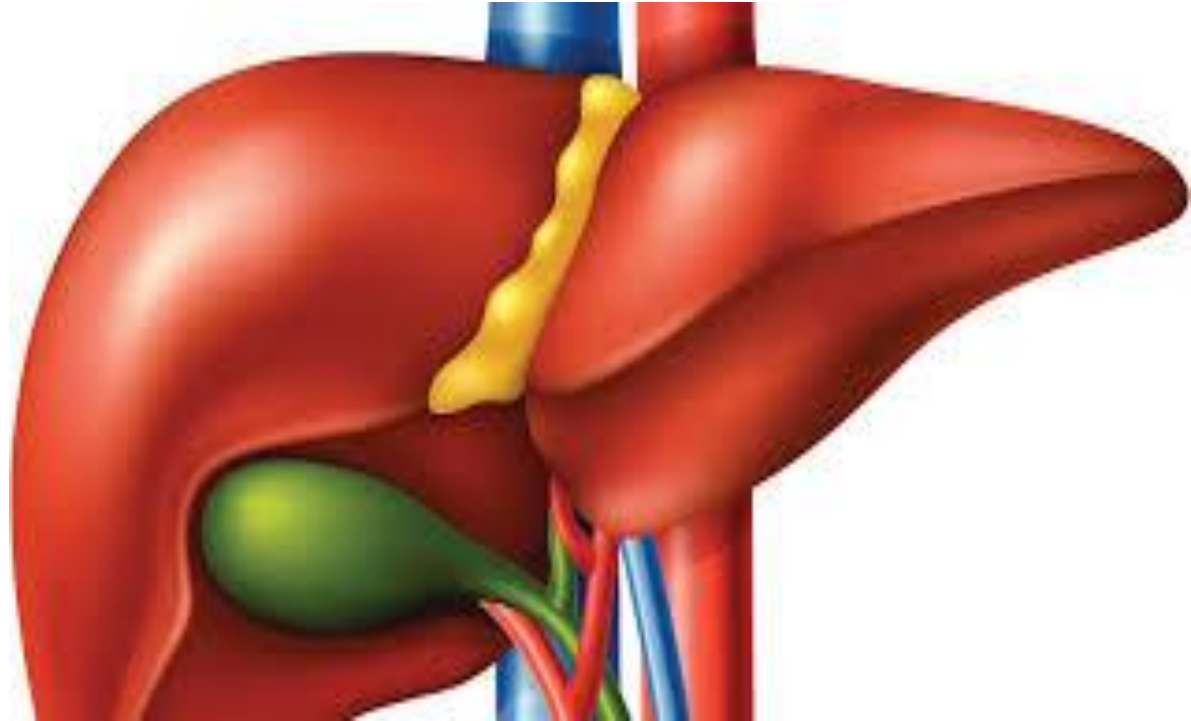


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Support mitochondria



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Support mitochondria

Supporting the Mitochondrial ETC

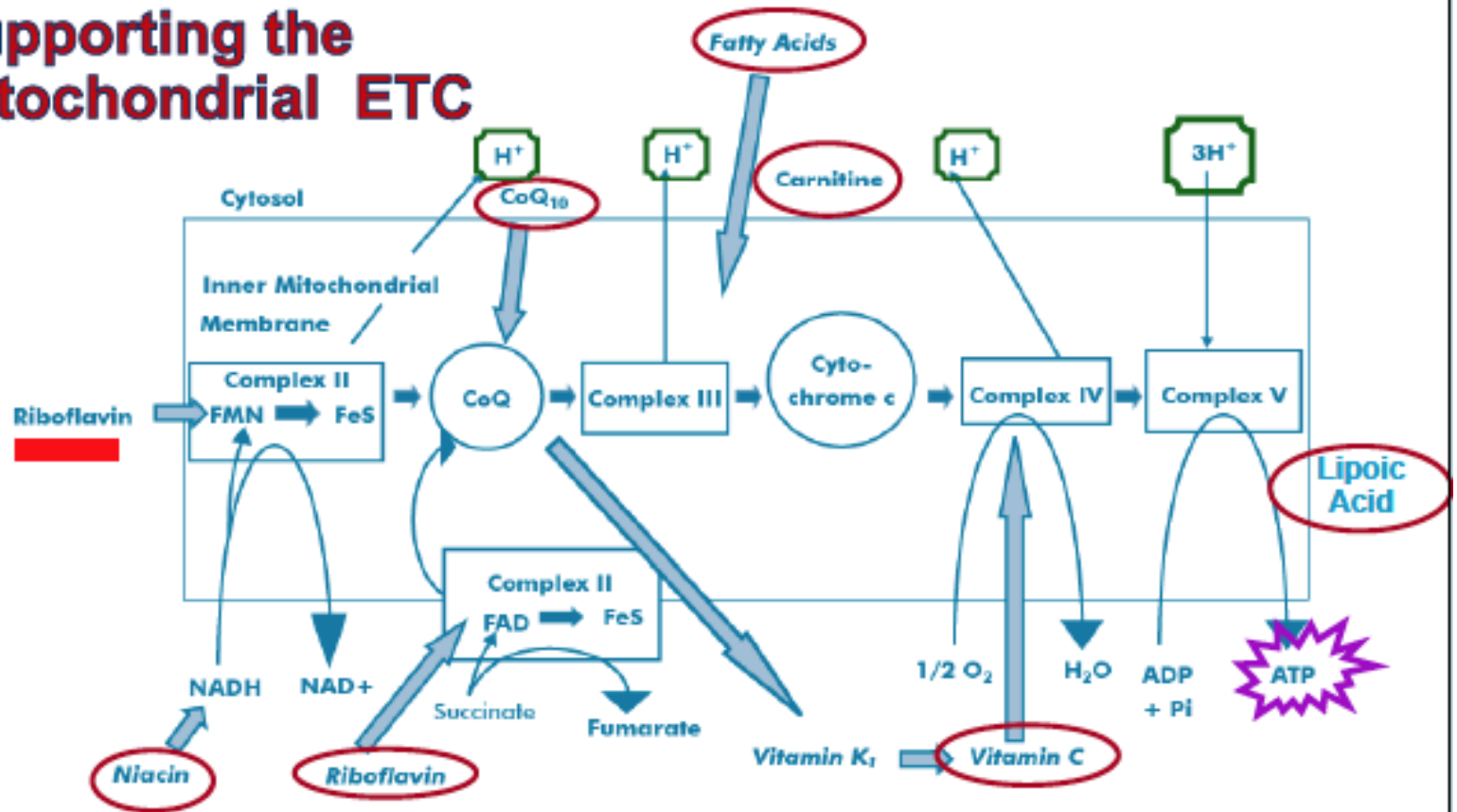


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Support mitochondria

Magnesium (as bisglycinate, oxide)	50mg
Vitamin C (as ascorbic acid)	50mg
Creatine monohydrate	100mg
Alpha-lipoic acid	50mg
L-Glutathione	50mg
N-Acetyl-Cysteine	50mg
Vitamin E (as d-alpha tocopheryl acetate)	24mg
N-acetyl-L-carnitine	30mg
Vitamin B1 (as thiamin mononitrate)	4.2mg
Vitamin B2 (as riboflavin)	4.8mg
Co-Enzyme Q10 (ubiquinone)	5mg
Grape Skin Extract (<i>Vitis vinifera</i>)	5mg
MSM	

Support mitochondria

NT Factor® Proprietary Blend
(soy lecithin extract)

containing:

Phosphatidic acid (PA)

Phosphatidyl-choline (PC)

Phosphatidyl-ethanolamine (PE) 1087mg

Phosphatidyl-glycerol(PG)

Phosphatidyl-inositol (PI)

Phosphatidyl-serine (PS)

Digalactosyldiacylglyceride (DGDG)

Monoglactosyldiacylglyceride (MGDG)

Cowden Adult Lyme Program



Cowden Support Protocol

Detoxification

- **Burbur** – detoxifier man-made toxins, - lymph, interstitial spaces, also kidneys and liver
- **Parsley** – milder than Burbur
- **Pinella** –elimination of neuro-toxins brain and CNS
- **Sealantro** - a combination of sea weed, chlorella and cilantro extracts that mobilize and bind heavy metals
- **Sparga** – detox sulfite and sulfate toxicity – detoxifies kidneys



Source: Pictures from Google image library

Cowden Support Protocol

Antimicrobials



- **Samento**

- 1) Antimicrobial for Borrelia and co-infections
- 2) Immune system modulator
- 3) Blocks neurotoxins

Best to take in Redbush tea – strengthens its effect
(no dairy - blocks the effect of samento as does black tea)

- **Banderol** – main antibacterial product for Borrelia
- **Cumanda** – main anti-fungal (candida/aspergillus)
- **Enula** – broad spectrum anti-parasitic
- **Houttuynia** – Bartonella and viruses
- **Mora and Quina** – anti-parasitic – Babesia

Source: Pictures from Google image library

Cowden Support Protocol

- **Serrapeptase** – proteolytic enzyme, biofilms, digests fibrin – improves oxygen transport
- **Magnesium Malate** – excellent transporter – 100% Lyme patients have magnesium deficiency

If too sensitive for Banderol or Cumanda, Tangarana better tolerated.
30 drops twice a day is dose for **Tangarana**

Stevia – excellent to add in at the same time as Samento – 30 drops twice a day is the therapeutic dose

Other products individualized for clients as needed

Cowden Support Protocol

EFFECTIVENESS OF *STEVIA REBAUDIANA* WHOLE LEAF EXTRACT AGAINST THE VARIOUS MORPHOLOGICAL FORMS OF *BORRELIA BURGENDORFERI* IN VITRO

P. A. S. Theophilus, M. J. Victoria, K. M. Socarras, K. R. Filush, K. Gupta, D. F. Luecke, E. Sapi*
Department of Biology and Environmental Science, University of New Haven, West Haven, CT, USA

Image courtesy of Google image library

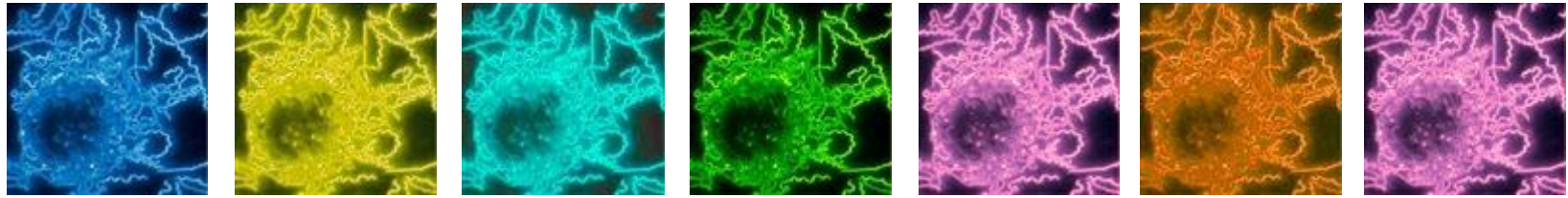
Cowden Support Program

Product summary by month

NUTRAMEDIX PRODUCTS		COMPLETE PROTOCOL	MONTH 1	MONTH 2	MONTH 3	MONTH 4	MONTH 5	MONTH 6	MONTH 7	MONTH 8	MONTH 9
ITEM #	DESCRIPTION	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY
07690	SEALANTRO	9	1	1	1	1	1	1	1	1	1
01365	BANDEROL	13	2	3	2	1	1	1	1	1	1
01675	BURBUR	9	1	1	1	1	1	1	1	1	1
02100	CUMANDA	6	0	0	2	0	1	1	0	1	1
02657	ENULA	8	0	0	0	2	1	1	2	1	1
03723	HOUTTUYNIA	8	0	0	0	2	1	1	2	1	1
05319	MAGNESIUM MALATE	9	1	1	1	1	1	1	1	1	1
05588	MORA	6	0	0	2	0	1	1	0	1	1
06420	PARSLEY	9	1	1	1	1	1	1	1	1	1
06573	PINELLA	9	1	1	1	1	1	1	1	1	1
00130	SAMENTO	22	2	3	3	2	2	3	2	2	3
07700	SERRAPEPTASE	5	1	0	1	0	1	0	1	0	1
08115	SPARGA	9	1	1	1	1	1	1	1	1	1
TOTAL QUANTITY		122	11	12	16	13	14	14	14	13	15

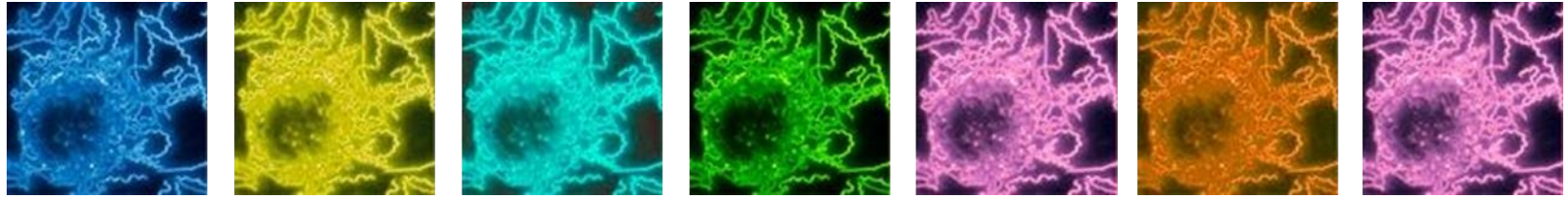
See your info pack for example of
Cowden Protocol

Also on
www.Nutramedix.ec



Cowden Adult Lyme Program

- 1) First 3 days on detox products only, Burbur, Parsley and Pinella
- 2) On 4th day add Serrapeptase – proteolytic enzyme - strips off the fibrin, which covers microbe. Fibrin coating hides microbe from immune system – looks like self
- 3) Improves oxygen transport to tissues, fibrin can also line capillaries
- 4) Also add magnesium – under stress, magnesium excretion is increased via the kidneys. Also good to use transdermally or intravenously
- 5) Start Banderol and Samento building up slowly from 1 drop
- 6) Add Sealantro to start detoxification of heavy metals



Cowden Adult Lyme Program

- 7) Day 78, been on full dose Samento/Banderol - help to eliminate the fungi built up in gut and sinuses, Samento helps modulate the immune system – not overactive
- 8) After 78th day start cycling
- 9) Mora and Cumanda for parasites and fungi
- 10) Cycle to Enula and Houttuynia, for parasites and bacteria/viruses
- 11) 14 days on and 36 hours off continual cycling – the patients stay well – allow granular forms/round body forms to transform back to spirochetal form and get killed off
- 12) After building up Samento and Banderol can swap to full dose Cumanda/Houttuynia/Enula or Mora. If client very sensitive – start 5 drops of each and increase by 5 drops per day

Bioreasonance

Asyra™

- NutraMedix test well with bioreasonance
- Pre-loaded on Asyra/ Qest4 machines
- Dr Cowden – better results if use Cowden in conjunction with bioreasonance



Image courtesy of Asyra

Condensed Cowden protocol

Persistent Lyme Borreliosis

Start with detox and bowel cleanse for 3-4 weeks

- 1) Build up Samento for first month
- 2) When you reach 20 drops, cycle 12.5 days taking it, then stop for 1.5 days
- 3) After a month substitute Banderol
- 4) Keep up rotation and after a month add others as needed Enula (parasites) Cumanda (fungus), Takuna (Viruses)
- 5) Always stop the antimicrobials for 1.5 days but continue with Burbur-Pinella

Caution: Warn for a possible Herxheimer reaction.

Condensed Cowden with Epigenar support

Supplement	Dose
Samento	15 drops twice a day on an empty stomach
Banderol	15 drops twice a day on an empty stomach
Burbur-Pinella	10 drops 4 times a day on an empty stomach
Bilethin	1 capsule three times a day with meals
Glutathione-HPU	2 capsules per day with meals
Blackcurrant seed extract	4 twice a day with meals
Homocysteine Control	1 capsule a day with meals
Serrapeptase	1 capsule twice a day on an empty stomach
Vitamin D3 & K2	5 drops per day with meals
Green Magma Barley Grass	1 teaspoon twice a day
Magnesium Malate	2 capsules twice a day with food

Other useful additions

- Phosphatidylcholine, phosphatidylserine
- Vitamin E (all 8 parts) support cell membrane
- Detox support, minimize exposure to toxins/mould
- Homeopathics
- Dry skin brushing/chi machine/massage
- Laughter, love and family support
- Sunlight on the skin for about 20 mins per day
- Deal with emotional issues
- Drink enough fresh, filtered water - very important
- Photon light therapy
- Oxygen therapies (Ozone/Hyperbaric)
- Ionic footbath (heavy metal mobilization)
- Far infrared saunas
- PEMF – for pain

Preventing relapse

Once you have finished the protocol, complete a 6 week course of the following:

Product	Dosage
Epigenar Green Clay	1 level teaspoon twice a day
Epigenar Vitamin C Powder	1 teaspoon in juice ½ hour after taking the green clay
Epigenar Cistus Incanus	20 drops in water twice a day

Dr Fred Kuipers

Herxheimer reaction

- Mistake to try and detox on a cellular level too quickly
- Bowels, liver and lymphatics must be working prior to toxin removal
- Toxins end up being redistributed back into cells
- Saunas work at a cellular level - low temp, and short amount of time and build up slowly
- Enough reaction to know its working - but not feel terrible

Detoxification Pathways



Image courtesy of Google image library

Herxheimer reaction

Two different types – General peripheral Herx and CNS Herx.

1) Peripheral Herx

Symptoms: muscle aches, joint aches, nausea, vomiting

- Add 64 drops of NutraMedix Parsley to 500ml of water, drink about 4 tablespoons every 10-15 minutes until Herx subsides
- Otherwise just take 8-10 drops every 10-15 minutes in a little water



1) CNS Herx

Symptoms: brain fog, headaches, confusion forgetfulness, loss of co-ordination, clumsiness

- Take 8-10 drops of Mapalo or Pinella together with 10 drops Parsley or Burbur and take every 10-15 minutes until symptoms subside



Herxheimer reaction

Pinella usually used in combination with Burbur or Parsley. Safe for children, work out dose from weight of child. Generally should NOT stop the antimicrobials unless very severe, however, may need to reduce dose

If patient becomes sensitive to Burbur, use Parsley
If patient becomes sensitive to Pinella use Mapalo

Very safe at very high levels

Tinctures have been quantum physically imprinted with frequencies which enhance their effects

Herxheimer reaction

- Increase binders, Epigenar Green clay + vitamin C, Pectasol (better if constipated), Lava Vitae, Toxaprevent, or Activated Charcoal – must be taken at least 30 minutes after Cowden tinctures, or 4 hours before
- Check saliva pH (6.7) and urine pH (6.2) – consider tri-salts or sodium bicarbonate
- Liposomal glutathione
- Colonic hydrotherapy/enemas, far infrared sauna
- Lymphatic drainage massage
- i.v. Vitamin C (37.5-50grams) + alpha lipoic acid (75mg) + glutathione (1200mg)

(www.klinghardtinstitute.com)

Hypercoagulability

- Genetic abnormalities – 20% population have ‘stickier’ blood
- Especially in response to stress, infections, toxins
- Inflammation turns on hypercoagulability
- Dr David Berg – expert
- Symptoms – insomnia with or without restless legs, stiffness on wakening, brain fog, pains and needles, sharp stabbing pains, limbs ‘fall asleep’ easily, mottled skin, pale swollen tongue with scalloped edges



Berg D, Berg LH, Couvaras J, Harrison H. Chronic fatigue syndrome &/or fibromyalgia as a variation of antiphospholipid antibody syndrome (APS): An explanatory model and approach to laboratory diagnosis. *Blood Coagulation and Fibrinolysis* 1999; 10: 435-438.

Images courtesy of Google Image library

Hypercoagulability

Consequences

- Decreased oxygen diffusion across endothelial membrane
 - tissue hypoxia
- Nutrients/hormones/tissue factors can't exit
- Metabolic wastes/toxins can't exit
- Loss of vasodilation creates rigid vessel walls

How to resolve?

- Enzymes on an empty stomach
 - Serrapeptase/Boluoke
- Natural blood thinners, cayenne peppers, turmeric, ginger, garlic, bromelain, Vitamin E, hydration



Images courtesy of Google Image library

Environmental Toxins

- Set the stage for disease
- 82,000 man-made toxic compounds
- Glyphosates – key role in chronic illness
- Acts as a ‘door opener’ for aluminium
- Toxins weaken the immune system – allow Lyme to flourish



Images courtesy of TheTruth About Cancer

Mould

Don't forget mould – see Ritchie Shoemaker MD
www.survivingmold.com

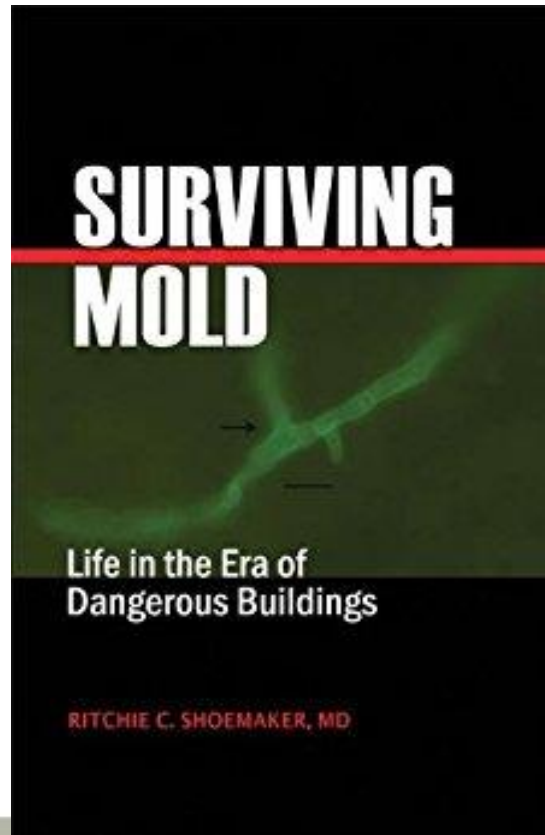


Image courtesy of Amazon books

Mould

- Starve the mould out – exclude sugar, alcohol, wheat, peanuts, rye, barley, hard cheese, corn etc
- ‘Magic’ four mould removers – garlic, ginger, cayenne, goldenseal
- Can also add artichoke leaf extract, glutathione, omega-3, vitamin D
- Get an air purification system

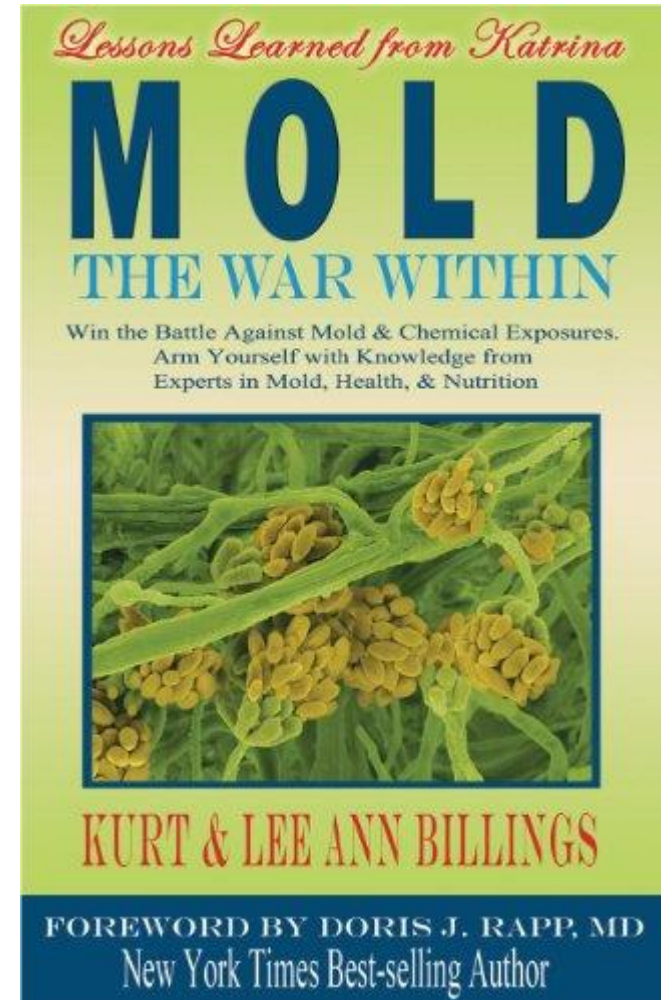


Image courtesy of Amazon books

Mercury removal

Chronic Fatigue, ME and Fibromyalgia The Natural Recovery Plan Dr Alison Adams

- Pre-amalgam removal
 - Vitamin c – 1 gm with each meal
 - Fish oils 2-3 caps with each meal
 - Selenium – 1 twice a day
 - Vitamin E 1 with each meal
 - Milk thistle 1 with each meal
 - Chlorella pyrenoidosa – 3 caps with each meal
 - Samento – 10 drops twice a day



Mercury Toxicity and Systemic Elimination Agents

Dietrich Klinghardt, M.D., Ph.D. and Joseph Mercola, D.O.,
Journal of Nutritional & Environmental Medicine (2001) 11, 53-62

Image courtesy of Google image library

Mercury removal

- Only use a biological dentist
- Symptoms may only appear 9 months after poor removal

Post amalgam removal

- As before but add alpha lipoic acid and cilantro tincture
- May need to continue for 1-2 years, or for life



Image courtesy of Google image library

Aluminium

[Histol Histopathol.](#) 2012 Aug;27(8):1055-66.

Regular consumption of a silicic acid-rich water prevents aluminium-induced alterations of nitrergic neurons in mouse brain: histochemical and immunohistochemical studies.

[Foglio E](#)¹, [Buffoli B](#), [Exley C](#), [Rezzani R](#), [Rodella LF](#).

[Author information](#)

Abstract

The results of a number of studies suggest that dietary silicon supplementation might have a **protective effect both for limiting aluminium absorption across the gut and for the removal of systemic aluminium via the urine, hence, preventing potential accumulation of aluminium in the brain.**



Excitotoxins –what are they?

- Chemical substances overstimulate certain types of cells in brain, nervous system so that they die
- Most common - glutamate
- 2 sources – overproduction in our bodies as a result of injury or disorder
- Too much in our diet
- Combination of MSG and aspartame - increase glutamate 4000%
- Age faster – risk chronic disease
- More susceptible early years and after 50

Dr Blaylock's Prescriptions for Natural Health

Excitotoxicity

- Glutamate receptors are most abundant receptors in the human brain
- Regulate 50% of all neurons
- Play major role in brain development
- Too much glutamate – highly toxic
- Induces inflammation in the brain
- Excitotoxins cause free radicals, damage the DNA, the lipid membrane, the proteins in the cell
- Causes loss of glutathione, build up of iron (free radicals) in the brain, increase in intracellular calcium



<https://www.youtube.com/watch?v=HYV8laCbNSE>
Excitotoxins: The taste that kills – Dr Russell Blaylock

Image courtesy of Google Image library

Factors causing increased Excitotoxicity

- Sugars, refined carbs, excessive omega-6
- Lead, mercury, aluminium, pesticides, herbicides
– cause inflammation in the brain – damage mitochondria
- MSG, aspartame increases excitotoxicity (Nutra sweet)
- Chronic emotional stress – creates free radicals in the brain
- Chinese food – high in MSG



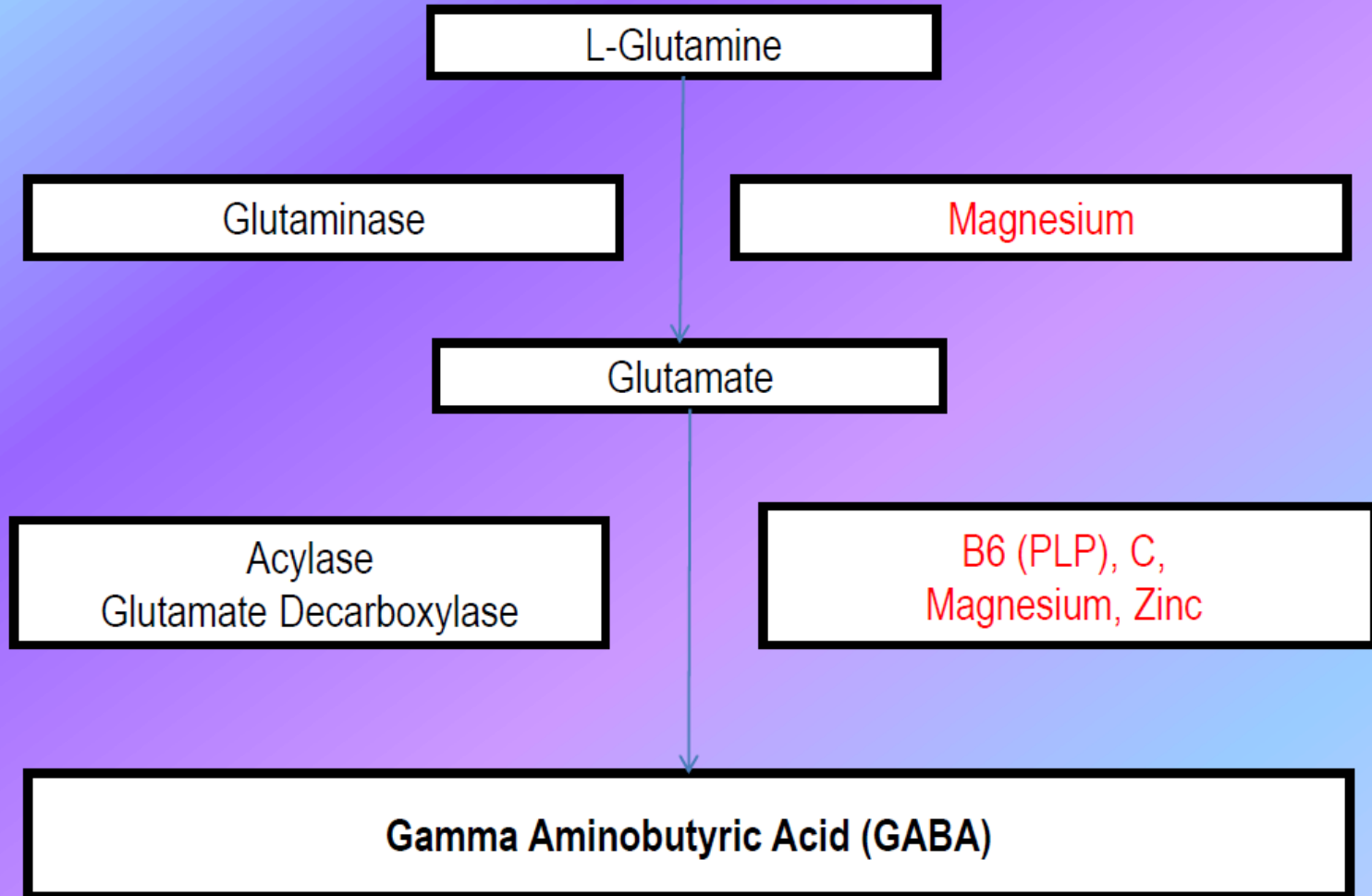
Image courtesy of Google image library

Factors causing increased Excitotoxicity

- Immaturity of the brain
- Energy deficits – mitochondrial dysfunction – magnifies the excitotoxicity
- Magnesium deficiency
- Vitamin deficiencies
- High intracellular calcium
- Brain hypoglycaemia – damage to glucose transporter by excitotoxins
- Chronic infections
- High Quinolinic acid from Tryptophan pathway
- Genetics

Image courtesy of Google Image library

GABA Production



Neuro-excito toxicity

Symptoms (can be triggered by large doses of MSG)

- Numbness
- Burning sensation
- Tingling
- Facial pressure or tightness
- Chest pain or difficulty breathing
- Headache
- Nausea
- Rapid heartbeat
- Drowsiness
- Weakness



Image courtesy of Google Image library

Neuro-excito toxicity

MSG sources to avoid

Autolyzed Yeast

Glutamate

: Monopotassium
Glutamate

Textured Protein

Yeast Nutrient

Malt extract

Calcium Caseinate

Glutamic Acid

Monosodium
Glutamate

Yeast Extract

Brewers Yeast

Soy protein isolate

Gelatin

Hydrolyzed
Protein

Sodium Caseinate

Yeast Food

Carrageenan

Soy sauce

Foods naturally high in glutamate, include all meats esp red meat, mushrooms, especially portobello, all cheese esp parmesan and gorgonzola, packaged sauces, many nuts

What to do?

Reduce Excitotoxicity – address diet, remove all MSG, reduce stress, support mitochondria and other deficiencies, remove source of toxins, address infections

- *Liposomal melatonin, reduce heavy metals*
- *Good form of Curcumin*
- *Quercetin*
- *Resveratrol*
- *R-Lipoic Acid*
- *Magnesium Threonate
(and Mag Malate) 1,200mg comb.*
- *Silymarin*
- *Zinc/selenium/Vitamin C/P-5-P*
- *Epigallocatechin gallate*
- *Omega-3s esp DHA in high doses*



Image courtesy of Google image library

How can we increase energy in the brain?

- *Acetyl-L-Carnitine*
- *R-Lipoic Acid*
- *Gingko Biloba*
- *Vinpocetine*
- *B1, B2, B3, B6*
- *Pyruvic acid*
- *Vitamin K*
- *Taurine*
- *Phosphatidyl choline*



Image courtesy of Google image library

Growth in Microwave radiation

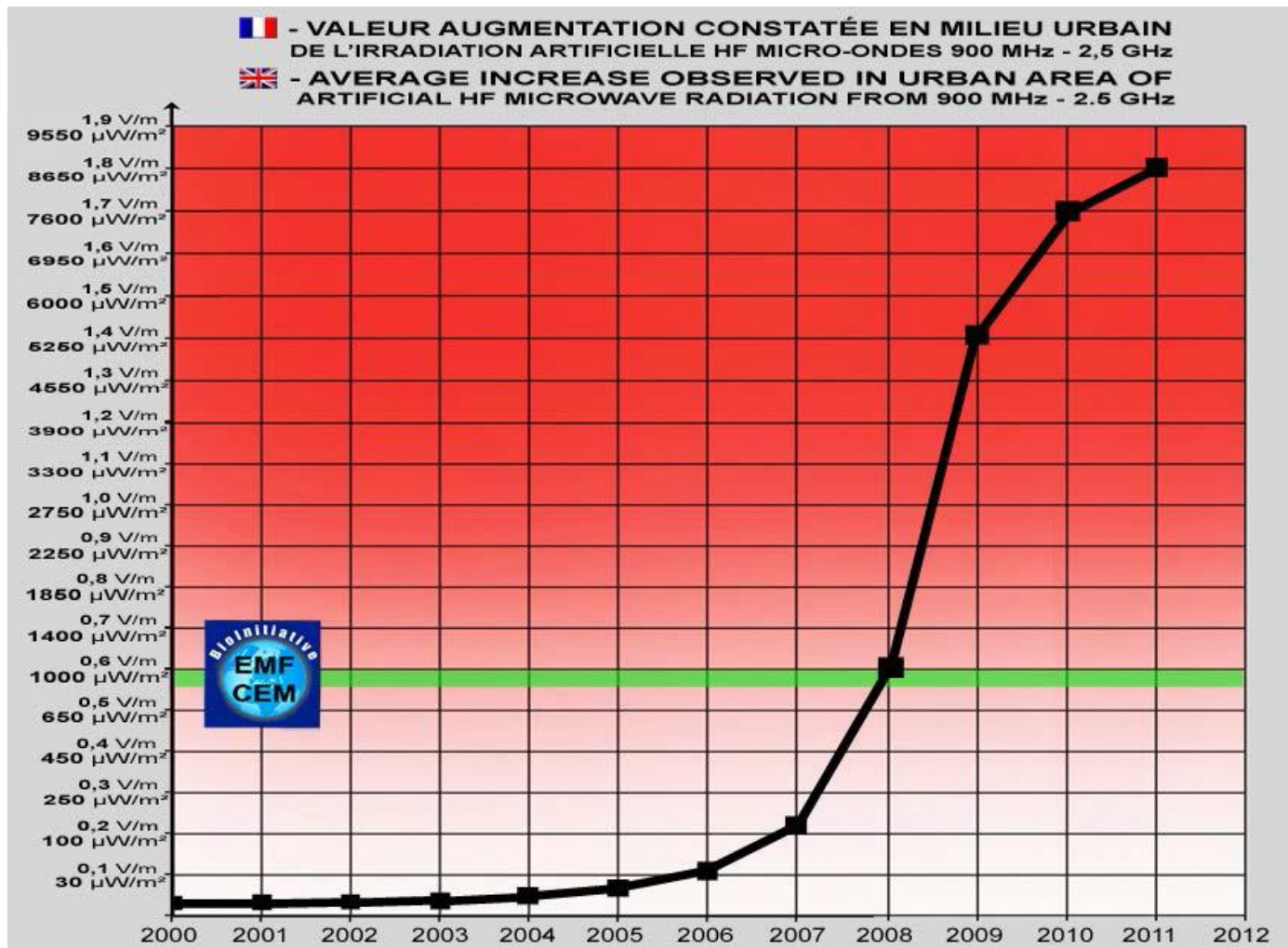


Image courtesy of Sedona Smart Meter Awareness

EMFs

- Activity of viruses increases if you are near EMFs
- Research on mice exposed to mobile phones and cordless phones showed alteration in expression of 143 proteins
- Indicative of oxidative stress in nervous system – explains headaches, sleep disturbances, fatigue, memory issues and brain tumours
- Efficiency of heavy metal detoxification dramatically increased when EMR was eliminated

1) "Brain proteome response following whole body exposure of mice to mobilephone or wireless DECT base radiation" *Electromagnetic Biology and Medicine*; Posted online on January 20, 2012. (doi:10.3109/15368378.2011.631068 (1–25) Adamantia F. Fragopoulou, Athina Samara, Marianna H. Antonelou, Anta Xanthopoulou, Aggeliki Papadopoulou, Konstantinos Vougas, Eugenia Koutsogiannopoulou, Ema Anastasiadou, Dimitrios J. Stravopodis, George Th. Tsangaris, Lukas H. Margaritis Department of Cell Biology and Biophysics, Athens University.

2) Wireless Radiation in the Etiology and Treatment of Autism: Clinical Observations and Mechanisms *J. Aust. Coll. Nutr. & Env. Med.* Vol. 26 No.2 (August 2007) pages 3-7 Tamara J. Mariea and George L. Carlo

EMFs



Image courtesy of emfsafetynetwork.org

EMFs – what to do

- Melatonin induces sleep. We only heal and detoxify in deep non-rem sleep. **Without melatonin no regeneration and no detoxification**
- Melatonin is the most effective and **potent neuro-protective** chemical in the CNS and prevents damage from mercury, lead, aluminum, chemicals, mycotoxins, viruses, cigarette smoke, bacterial and parasitic endo-and exotoxins (Lyme, clostridia, ascaris) outgassing of carpets and new car plastics, etc.
- Research has shown **melatonin combats DNA damage** – operative in the cell nucleus
- Prolonged use of mobile phones reduces melatonin

EMFs – what to do

- Rosemary tincture – very protective
- Propolis tincture 4-6 pipettes after dinner – protects lymphocytes against radiation
- Magnesium – acts as a calcium channel blocker - voltage gate calcium channels are upregulated by EMRs
- Sleep sanctuary – fuses off in the bed room, no mobile/cordless phones
- Liposomal melatonin
- Faraday cage - <http://shop.wireless-protection.org/dome-shaped-bed-canopy-to-rent-416-p.asp>
- Earthing sheet on the bed to balance body's voltage



Image courtesy of Wireless Protection

Genetics

23andme results can be sent to
MTHFRSupport.com for an interpretation
of the results



Image courtesy of Google image library

Exercise

- Joe Burrascano – MUST do exercise regime
- Designed to improve function of T-Cells
- NO aggressive aerobic exercise – depresses T- Cells
- Toning, strengthening and stretching with light weights every muscle in the body for 45 minutes
- Afterwards, hot shower or bath, sauna, then go to bed and sleep
- Always follow this workout with 1-2 days rest
- After 6 weeks feeling energised – as T-Cells recover

<http://www.ilads.org/media/boston/slides/burrascano/burrascano.html>

Joe Burrascano 'The Tick Factor' Conference, Amsterdam, 17/9/2016

Exercise



Image courtesy of Google image library

CO-INFECTIONS

Most common

- Babesia and Bartonella
- Ehrlichia, Coxiella and Anaplasma
- Mycoplasma
- Protomyxzoa
- Leptospira

Opportunistic infections:

- Protozoa and worms
- Fungi
- *Treponema denticola* (oral bacteria)
- Viruses (HSV-1 & 2, CMV, EBV, HHV-6, XMRV, Coxsackie etc)

CO-INFECTIONS

- Up to 26% of ticks are infected with organisms other than Borrelia
- Relapse rate higher if co-infections are present
- Symptom resolution is more difficult

Sometimes best results when treat co-infections first before Borrelia

BABESIA

Symptoms

- Fevers, chills, flushing
- Poor temp cold day and night, cold then sweats
- Underlying Lyme disease symptoms worse – jointaches, headaches, paresthesias
- Feelings of chest compression
- Shortness of breath and air hunger
- POTS, racing heart
- Nausea
- Malaise
- Dark or red urine

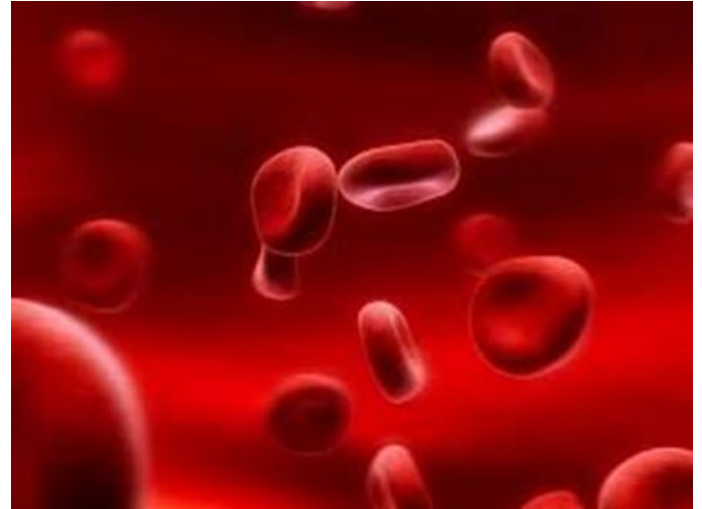


Image courtesy of Google image library

BABESIOSIS

Stephen Buhner Protocol

- *Sida acuta* (common wireweed)
– ¼ tsp t.i.d
- *Alchornea cordifolia* -
- ¼ tsp t.i.d.
- *Cryptolepis sanguinolenta*
- ¼ tsp t.i.d.

Or blend : ¼ - ½ tsp t.i.d.

Klinghardt

- Rizol 15 drops 3 times a day
- Liposomal *Artemisia annua* 10-15 drops 4 times a day

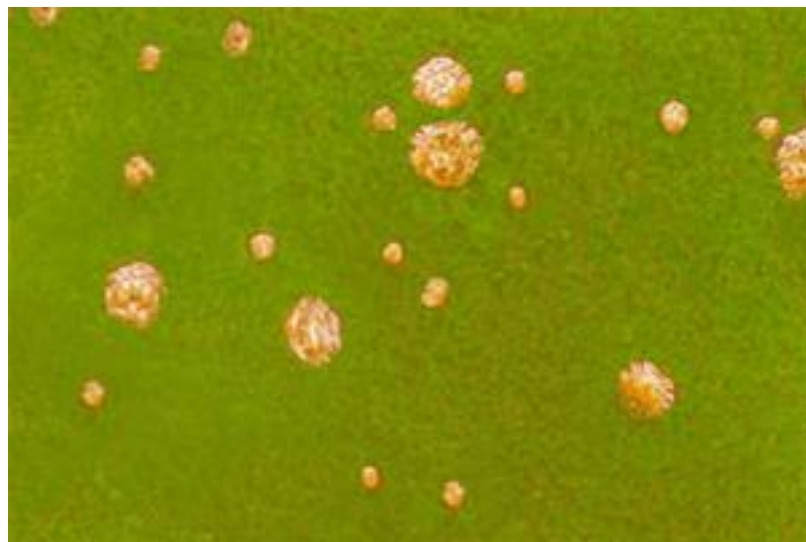
BABESIOSIS

- Epigenar BAB (Artemesia Annua and Quassia)
- Mora (Yarrow, Mulateiro and Blackberry leaf extract)
- Alternate weekly with: Quina
- Burbur (Lymph cleanser)
- Quebra Pedra (liver/gallbladder support)
- Cinnamon (blood sugar support)

BARTONELLA

Symptoms

- Nerve pain, neuropathy
- Swollen lymph glands
- Low grade fever
- Malaise and fatigue
- Eye symptoms, dry/red
- Enlarged spleen
- Raised, reddish-purple nodules of the skin
- Anorexia
- Headache
- Sore joints
- Bladder irritation
- Relapsing sore throat
- Stretch marks, acne and other skin problems



Source: Pictures from Google image library

BARTONELLA

Stretch marks



The Lyme Disease Association thanks Dr. Martin Fried, Jersey Shore University Medical Center, for this picture of a Bartonella rash.

Source: Pictures from Google image library

BARTONELLA

Useful products

- Epigenar BART (Red Root and Japanese knotweed)
- Houttuynia (NutraMedix)
- Burbur (NutraMedix)
- Cinnamon (Rio Amazon)
- Clove oil, 1 drop in glass of almond milk or juice



Source: Pictures from Google image library and www.Nutramedix.ec

BARTONELLA

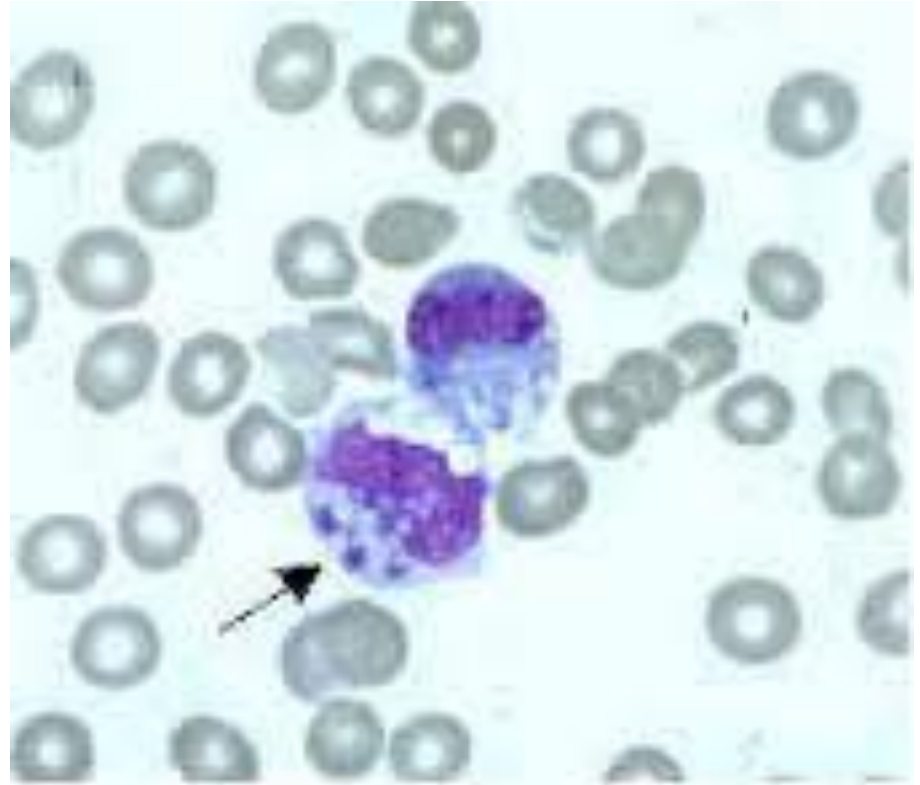
Buhner Protocol

- *Polygonum cuspidatum* (Japanese Knotweed/Resveratrol) 3-4, 4 times a day
- Boneset tea 3-4 x daily (stimulate immune response, very good for chills, fever and sweats)
- Red root tincture – 30-90 drops up to 4 x daily (clear lymph system)

EHRlichia

Symptoms

- High fever
- Severe headache
- Myalgia
- Arthralgia
- Malaise
- **Thrombocytopenia**
- **Leukopenia**
- Hyponatremia
- Nausea
- Vomiting
- **Enlarged liver and spleen**
- Mental confusion
- Skin rash



Source: Pictures from Google image library

EHRlichIA

Useful herbs

NutraMedix Banderol and Samento

Epigenar BART

Ceanothus americanus (Red root)

Polygonum cuspidatum (Japanese knotweed)

Sida acuta

**Doxycycline very effective against Ehrlichia
(even half dose)**

EHRlichia

Buhner Protocol

- Colchicum tincture: 20 drops daily for 7 days (antibacterial, potent anti-arthritic and anti-inflammatory)
- Astragalus capsules – 1000mg – 2000mg 3 x daily for 30-60 days (stimulates interferon gamma – studies found this increases macrophage bactericidal action)

VIRUSES

Within 15 minutes of tick bite can get viral infection

For 8-12 weeks:

Vitamin D3 & K2 - 5-10 drops with food

2 L-Lysine 3 times a day on an empty stomach

20 drops Takuna 4 times a day on an empty stomach

20 drops Epigenar VIR 3 times a day on an empty stomach

Vitamin C/Zinc

Avoid arginine rich foods

VIRUSES

Dr Cowden recommendation

Dosing - products can be taken together - 15+ minutes before meals

- Takuna 30 drops 4 times per day before meals and at bedtime
- Samento 20 drops twice a day before meals
- Burbur-Pinella 20 drops twice a day before meals
- Serrapeptase 2 capsules twice a day before meals

VIRUSES

Klinghardt protocol

- Helios EB-Homaccord - 2 drops three times a day first day, twice a day 2nd day and once a day on the third day.
- Increase Vitamin D to upper limit of norm (must be Vitamin D3 and K2)
- Add Bravo Yoghurt to stimulate macrophage activity

CO-INFECTIONS SUMMARY

Co-infections	Suggested product
Babesia	BAB, Banderol, Mora, Quina, Para epigenar, Chanca piedra, <i>Artemisia annua</i> , Cinnamon, Curcumin, Stephania Root, <i>Sida acuta</i> , <i>Alchornea cordifolia</i> , <i>Cryptolepsis sanguinolensis</i>
Bartonella	BART, Banderol, <i>Polygonum cuspidatum</i> , Samento, Tangarana, Houttuynia, Lakato, Cinnamon, Clove oil, Red root, <i>Artemisia annua</i> , <i>Cryptolepsis</i> , <i>Sida acuta</i> , <i>Alchornea cordifolia</i> , Boneset tea
Chlamydia pneumoniae	CHLA, Barberry, Tangarana, Banderol, <i>Hydrastis canadensis</i> , Resveratrol, Samento, Curcumin-oregano-quercetin, Oregano

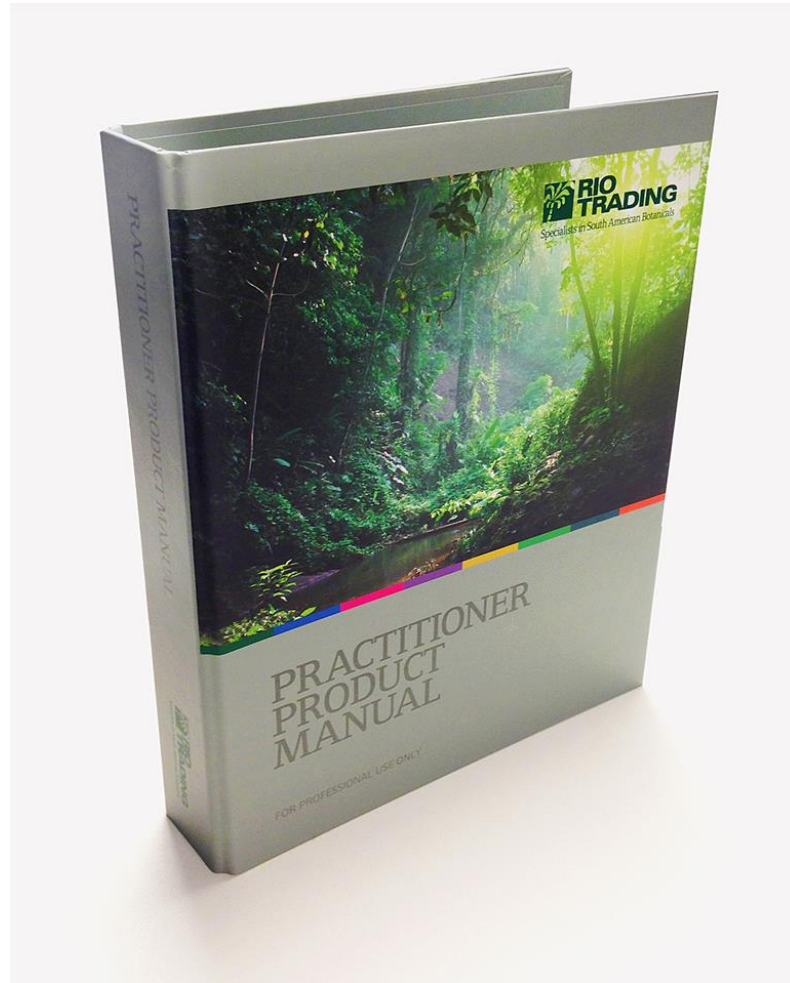
CO-INFECTIONS SUMMARY

Co-infections	Suggested product
Viruses	VIR. Barberry (Herpes), Takuna, Houttuynia (SARS), Samento, Tangarana, Epigenar oil, Vitamin D and Lysine, Colloidal silver, Curcumin-oregano-querctin, Echinacea, Garlic, Monolaurin, Olive leaf, Elderberry leaf
Mycoplasma	Banderol, Bearberry, Curcumin-Oregano-Quercetin, Neem, Cinnamon, Serrapeptase, Eucalyptus oil, Garlic
Fungi/yeasts	Cumanda, Tangarana, Samento, garlic, caprylic acid,
Rickettsia (Coxiella and Ehrlichia)	BART, Tangarana, Banderol, Samento, Red root, <i>Polygonum cuspidatum</i> , <i>Colchium</i> , Astragalus

CO-INFECTIONS

Co-infections	Suggested product
Aspergillus/mould	Banderol, Houttuynia, Japanese Knotweed, Rizol, Cumanda
Parasites (hookworm, roundworm, threadworm, whipworm)	Enula, Samento, PARA, Mora
Amoeba & Giardia	Organic, freeze-dried garlic 3 caps t.i.d after meals
Yersinia (bacteria)	Pau d'Arco, Barberry, Cistus incanus, Neem, Clove oil, Oregano oil, cinnamon, Garlic, Wormwood

Practitioner Product Manual



Kinesiology kits for muscle testing/bio-energetic testing



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Disclaimer

This information has been provided to educate and inform only and is not intended to be a nutritional regime or to replace medical advice. The supplements listed should not be used as a substitute for a varied and balanced diet. Those persons taking any prescription medications or under medical supervision should consult a doctor before taking any supplements.

It is important that attention is given to the recommended intake instructions printed on each label. Caution should be taken not to exceed the stated intake unless professionally directed. Where symptoms persist or there is a concern about a condition, stop taking the supplements and consult a doctor.



Thank you for listening!

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