

CSO Master Class

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Expand your Treatment Efficacy

Syntonics Phototherapy utilizes frequencies to alter cellular and physiological systems.

Originally 11 frequencies are available to increase therapeutic outcomes and restoration

Why limit the treatment to only basic filters?

Each filter combination offers deeper and more specific application of Syntonics for long lasting results.

“Disorder of the tone and irregularity in the rhythm are the principal causes of every illness”

Filters that combine both ends of the spectrum
tone the ocular muscles:

alpha-omega-epsilon, delta-omega-N (low recoveries)

Filters on the same side of the spectrum
restores the basic sensory-motor rhythms:

alpha-delta-theta-S, epsilon-pi-omega -D

Middle spectrum filters balance physiology : mu

Delta- Omega: Motor Balance

- Nervous and muscular asthenopia, pain in glaucoma high frontal headaches, delta-N for asthenics(N being stronger motor depressant)
- High blood pressure, ON disk edema, eases circulation
- High exophoria, chronic esophoria
- Ptergiums , retinitis , chronic sinus , ocular migraines, chronic sinus, corneal abrasions
- Essential filter for brain injury can stimulate or relax as needed and restore tone
- Transition filter to restore energy in TBI

Syntonic Syndromes



Pi-Omega ($\pi\omega$) Syndrome – Hyper-Hypo Syndrome

- Description: for an individual tending toward emotional post traumatic with head-tilt component and social exhaustion, mood swings, over stress, negative emotional affect, visual stress, frequently seen in children, males after trauma or high stress circumstances and females with hormonal complaints and irregular menstruation's. This individual may also exhibit extreme fatigue or hyper-irritability. There is always a vertical phoria component involved, it can be for far or/and near.
- Symptoms include: photophobia, transient blurred vision, asthenopia, abnormal fatigue, headache, dizziness, vertigo, motion sickness, frustration, allergies, hormonal disorders, auditory exclusion, tunnel vision, shaking.
- Diagnostic factors include: Hyper- or Hypo phoria for far and or near, often only for near, Alpha-Omega pupil response, low breaks and recoveries in ductions, can be both or specifically low in abduction or adduction, fatigue exophoria, fight esophoria, reduced oculo-motor skills, subnormal accommodation, constriction of visual functional fields. Enlarged, (would you also have displaced and tilted?) blind spots, mostly different on each side. If this is the case, consider a problem or adaptation of the cervical spine. Very high or very low NPC, poor eye-movements; pursuits, saccades (over- or undershoots). A vertical and horizontal mid-line shift on the visual spacial projection star. Often a full vision screening is not possible, due to pain and or headache.



Syntonic Syndromes



OMEGA-NEURASTHENIA (ω N) SYNDROME - FIGHT-OR-FLIGHT REACTION SYNDROME

- Description: for an individual tending toward emotional and social exhaustion, mood swings, over stress, negative emotional affect, visual stress, frequently seen in children. This individual may also exhibit extreme fatigue or hyper-irritability. Mostly children with Learning Problems, Social Problems, ADHD, Concentration Problems, Gross & Fine motor problems often caused by stress or in a stress environment.
- Symptoms include: photophobia, transient blurred vision, asthenopia, abnormal fatigue, headache, dizziness, frustration, allergies, asthma, fluid retention, voice change, aggressive behaviors characteristic of externalizing disorders, such as conduct disorder and delinquency, argumentative behavior (fight), or withdrawal behaviors, tend?? and befriend behavior, substance abuse, television/computer viewing (flight). Polyvagal reaction, Auditory exclusion, tunnel vision, acceleration of instantaneous reflexes, shaking.
- Diagnostic factors include: Alpha-Omega pupil response, low breaks and recoveries in ductions, can be both or specifically low in abduction or adduction, fatigue exophoria, fight esophoria, pelvic or sexual tension, reduced ocular motor skills, subnormal accommodation in myopia, constriction of visual fields, constriction of all the functional fields less than 10° or extremely large fields 25° due to Parvo incompetence and Magno problem. Enlarged blind spot or even not measurable. Very high or very low NPC, poor eye-movements; pursuits, saccades (over- or undershoots), poor scanning. No structure, grasping (left open) and organisation on the visual spacial projection star. Often a full vision screening is not possible. Very dark reflex with cognitive nearpoint retinoscopy.



Alpha- Upsilon: Sensory Balancer

- Balance hormonal system in females, especially for low reserves: blur ,break and recoveries; sensory and emotional balance
- Arterial stimulant as response to vasoconstriction
- Renal energizer, builds hemoglobin for anemia
- Increase tone to smooth muscles and blood vessels
- Headaches associated with PMS
- For Pyknic biotypes, can use with mu-epsilon

Omega: Anti-spasm

- Lessens all motor functions about the eye.
- Tends to relax intra- and extra-ocular muscles
- To relieve pain, Slows irritable heart due to ocular reflexes
- Eases local circulation by making blood vessels passive
- Try for tic or lid twitch due to ocular reflexes
- Try for nystagmus, esophoria and esotropia
- Try for spasm of accommodation -tonic or clonic

NEURASTHENIA (N)

- Motor depressant similar to Omega
- Headaches (with migraine, small fields, sinus & nervous system)
- Riding (motion) headaches with nausea
- Omega-N (ωN) *when pain is in back and top of the head.*
- Asthenopia with pain in nervous exhaustion in asthenics

Delta/Theta

Delta for Asthenics, Theta for Pyknics

Increases motor tone/increase sensory reactions

TX EOM paralysis, hyperphoria under 4D, low adduction

Scotoma Tx and prevention

Headaches in center of forehead

Stimulate elimination and detox for liver, gallbladder

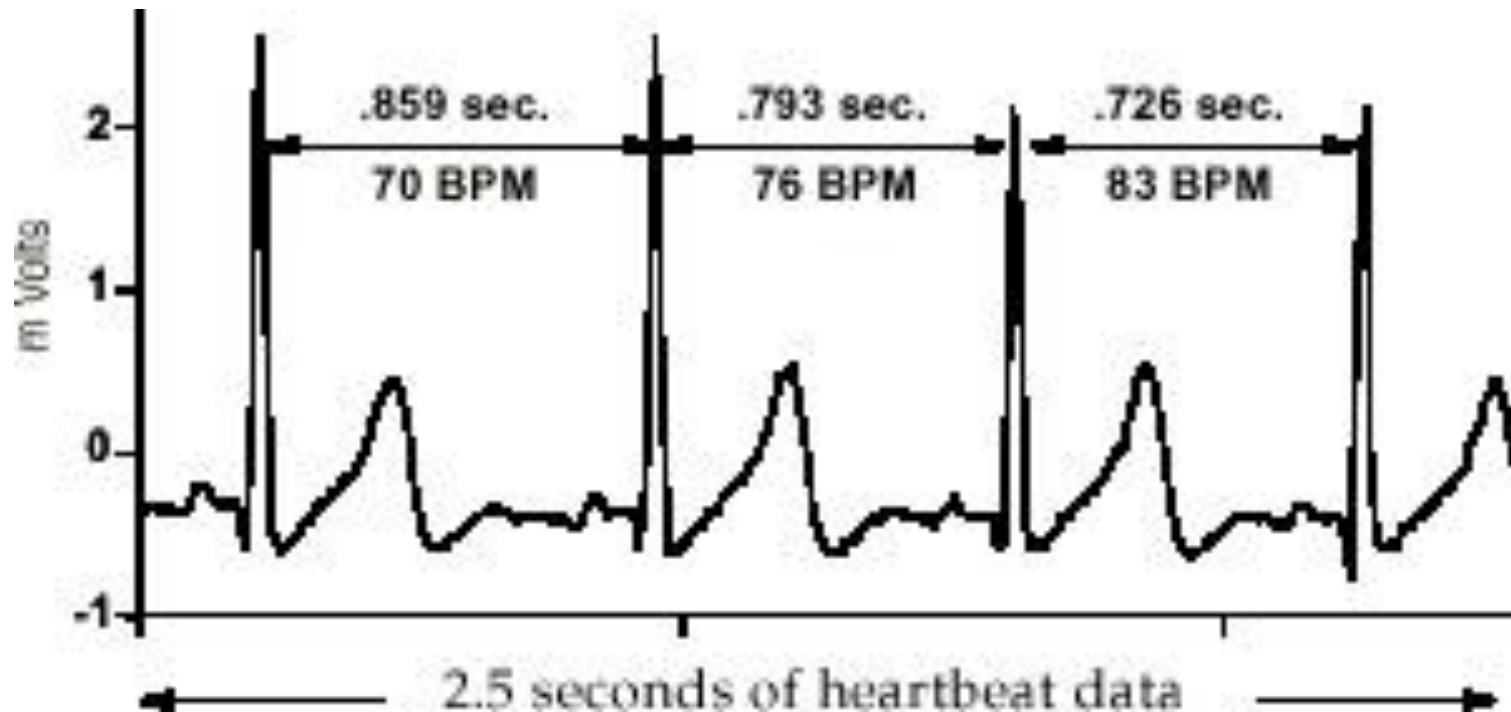
Take Home

Analyse case : history, biotype, symptoms,
chronic or acute, or for transition to energize
Know your filter actions, Expand your therapy
Decide if need for stimulation, depression, or
just balance to restore tone and rhythm
Expose patient to initial filter choices and
prescribe what patient feels or responds best
physically and emotionally to restore harmony
as a starting point.

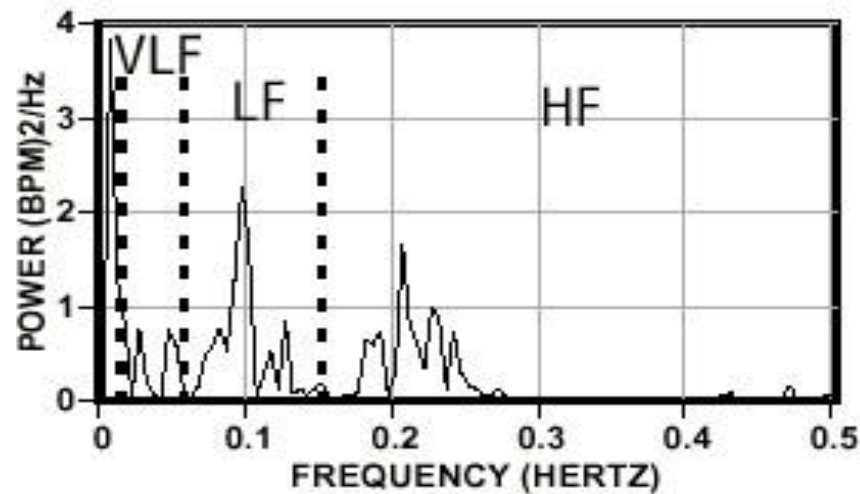
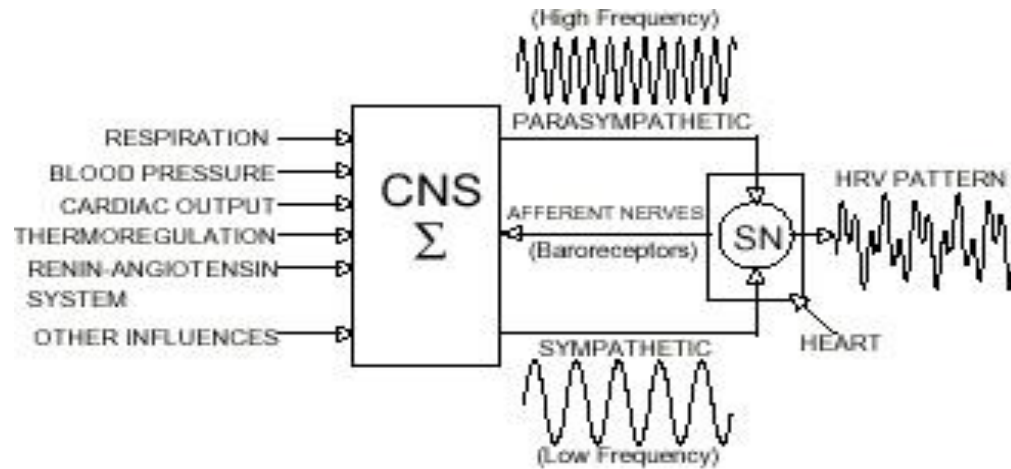
Science of The Heart

- Heart Rate Variability
- Entrainment, Coherence, Autonomic Balance
- Head-Heart Interactions
- Emotional Balance and Health

Heart Rate Variability



Heart Rate Variability



Entrainment and Coherence

- Clarity of thought and emotional balance
The quality of being orderly, consistent, and intelligible (e.g. a coherent argument)
- Synchronization between multiple systems
A constructive waveform produced by two or more waves that are phase or frequency-locked (e.g., lasers)
- Ordered patterning within one system

Physiological Coherence

- A state characterized by:
- High heart rhythm coherence (sine wave-like rhythmic pattern)
- Increased parasympathetic activity (Vagal Tone)
- Increased entrainment and synchronization between physiological systems
- Efficient and harmonious functioning of the cardiovascular, nervous, hormonal and immune systems

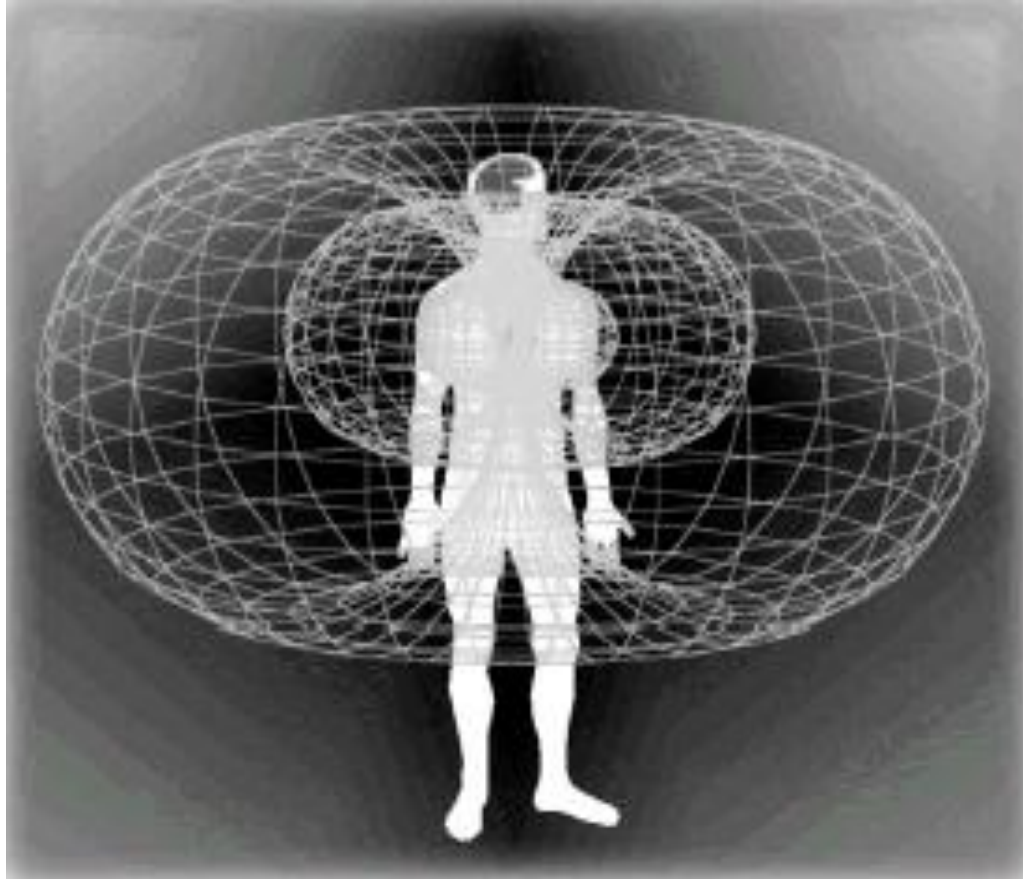
Psycho-Physical Coherence

- Sustained positive emotion
- High degree of mental and emotional stability
- Constructive integration of the cognitive and emotional systems
- Increased synchronization and harmony between the cognitive, emotional and physiological systems

Head Heart Interactions

- Neurological communication (nervous system)
- Biophysical communication (pulse wave)
- Biochemical communication (hormones)
- Energetic communication (electromagnetic fields)

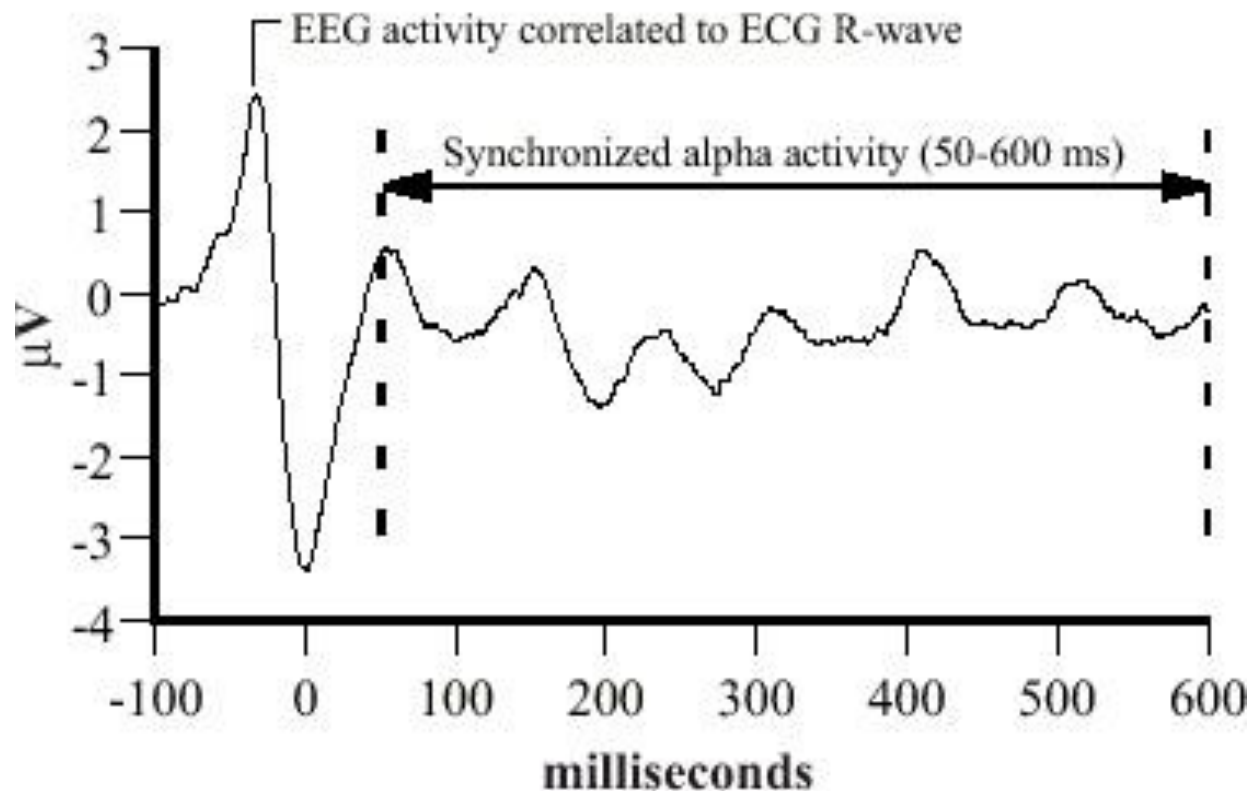
EM Field of Heart



Brain Heart Signals

The Brain's Response to the Heart's Signals

Alpha Rhythm–ECG Synchronization



Regulation of Stress

- Reduce Cortisol
- Increase DHEA
- Freeze Frame: DHEA and cortisol values before and after subjects were trained in and practiced the Cut-Thru technique for one month. There was a 100% average increase in DHEA and a 23% decrease in cortisol.

Heart Rate Variability

- HRV and Syntonics, Larry Wallace ,O.D.,
Journal of Optometric Phototherapy, March,
2003
- Heart math used to measure brain-heart
regulation via pulse feedback to analyze the
balance of the ANS by beat frequencies
- Entrainment of HRV coherence= wellness

HRV and Syntonics

- Heart Math shows which branch of ANS predominates
- Test subjects for dominance, prescribe ruby-yellow green for parasympathetic dominant, and indigo-blue/green for sympathetic dominant
- All subjects shifted dominance toward balance but not always with predicted colors of traditional model.

HRV and Case Management

- Case: AS, age 8, chronic LD.
- Hx: near blur, diplopia headaches, high anxiety, stomach disorders, ear infections
- Dx: AW pupil, eso f/n, reduced accommodation , enlarged blind spots, reduced visagraph findings
- Tx: indigo(10), blue-green 10)
- First PE, increased eso, worse symptoms

Case AS

- Rx changed to ruby/ yellow green
- No improvement forthcoming
- Measured HRV: found high peaks in deep symp and parasympathetics. No coherent beat frequencies present
- Prescribed Indigo-N(neurasthenic filter)
- Vastly improves in reading, binocular and accommodation, comfort , fields, HRV visagraph, no headaches stomach upset.

Energy and Information

- Learning depends on the balance of our physiology
- Attention is central to information process
- We learn and organize in energy and information domains
- Syntonics is a tremendous tool to balance our systems and to facilitate any other therapies we might employ

Inner Balance



Veda Pulse and HRV



HRV and Ayurvedic Medicine

Uses HRV to determine your innate dosha and current imbalances:

- Emotional stress level
- Respiratory dysfunction
- Adaptive reserve rate and vital energy
- Ayurvedic body constitution
- Subdoshas balance. Five elements. Body tissues (dhatus)
- A balance between Sympathetic - Parasympathetic and Central Nerve Systems
- Energy flow in 12 meridians (Traditional Chinese Medicine), the tendency to lack or excess energy in the functional systems.

Photobiomodulation

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Therapeutic Effects of Photobiomodulation

These include

- tissue healing,
- reduce pain, swelling, inflammation,
- regenerate nerve and stem cells
- protection of tissues from poisons,
- protect from retinal damage due to high-intensity light or hyperoxia,
- ameliorate symptoms of traumatic brain injury
- protect or revitalize mitochondria

When applied correctly, PBM has an almost complete lack of reported adverse effects. The remarkable range of medical benefits provided by PBM, has led some to suggest that it may be “too good to be true”.

Areas of Treatment

Deliver infrared light in the brain to increase ATP in the mitochondria, increases cerebral blood flow and nitric oxide post ischemia and anoxia

Treatments with laser or LED's for Parkinson's, Alzheimer's. and TBI increasing gamma waves

Red light pulsed at 40HZ for Parkinson's and Alzheimer's with Lumitron

Water may be powerful pathway as structured water has peak absorption in the infrared at 3000 nm, which has deep penetration

There are 50 known photoreceptors molecules in water, hemoglobin, and melanin

Delta Laser with multi radiance stimulation of infrared, magnetic field, LED colors and ultrasound

Mechanisms of Low Level Light Therapy

Photoneuromodulation of cytochrome oxidase as a photo acceptor and key enzyme for cellular bioenergetics in the retina and brain

Photoactive porphyrins increase ATP in the mitochondria, redox states, and nitric oxide which acts as signaling molecule for the ANS and vasculature

Modulation of reactive oxygen species, induction of transcription factors increasing cell proliferation levels of cytokines, inflammatory mediators, tissue oxygenation, and increased in cell metabolism

Increase nitric oxide for powerful vascular dilation

Tertiary effects of LLLT

Tertiary effects in CNS, PNS, and immune function through increases lymphatics, cell proliferation- migration and new protein synthesis

Light also activates signaling pathways to the DNA ,culminating in biological changes in the cells including increases in neuroprotection.

Activation of transcription factor leading to anti-apoptotic, antioxidant, cellular proliferation

TBI and Low Level Light Therapy

Multiple studies show effectiveness of Laser treatments for:

Stroke: embolic, atherothrombotic, ischemic, TBI, brain degeneration

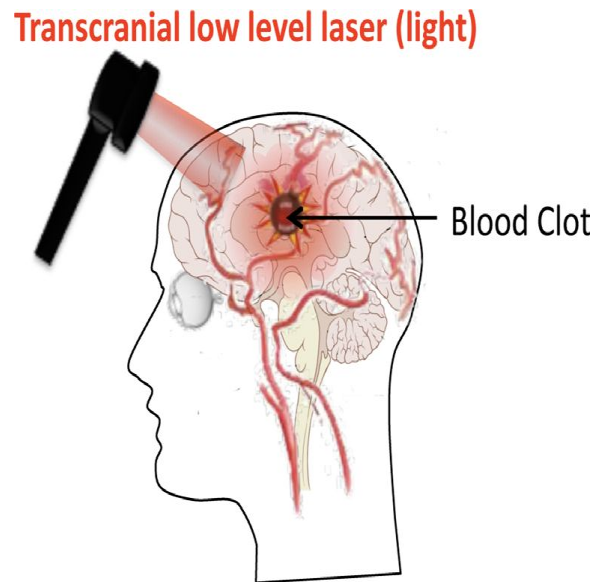
Central nervous disease: parkinson's , alzheimer's

Spinal Cord injuries

Peripheral nerve damage

Neuroprotection of other brain areas

Cool Laser such as the Delta Laser



Ocular Conditions Treated by Photobiomodulation

Chronic open angle glaucoma including restoration of retinal ganglion cells

Optic nerve atrophy and optic nerve disorders including infant prematurity

Myopia reversal, acuity improvement in amblyopia

Macular degeneration , both wet and dry

Paresis of extraocular muscles, cranial nerve compromises, binocular dysfunction

Corneal diseases such Herpes and dry eyes

Multi-Radiance Application

- Medical TX Head



Treatment : coMra Therapy

- Delta laser (10W) pulsed at 5cps, 50cps, and 1000 cps
- Geometric presentation of red-yellow , violet/ blue –green LED's in clockwise rotation
- Pulsed Infrared at 905 nm.
- Pulsed Magnetic Fields to enhance light stimulation
- Ultrasound to increase enzymes

Delta Laser

- Optic neuropathy protocol 5 minutes each eye post surgical cerebral bleed
- Application on Delta 5 minutes on the tumor site at 50Hz. (no ultrasound)
- 6 Sessions: esotropia reduced from 40D to 9 at far and 14 at near with diplopia only intermittent
- 6 sessions esotropia gone vertical greatly reduced , Tx DC



Audio Visual Entrainment

Entrains frequencies for following effects: Brain wave entrainment, hypnotic induction, Autonomic nervous system calming, increased heart rate variability, increase cerebral blood flow, increased neurotransmitter activity

Especially helpful for sleep problems, ADD, ADHD, and brain injuries

Restores brain wave rhythms

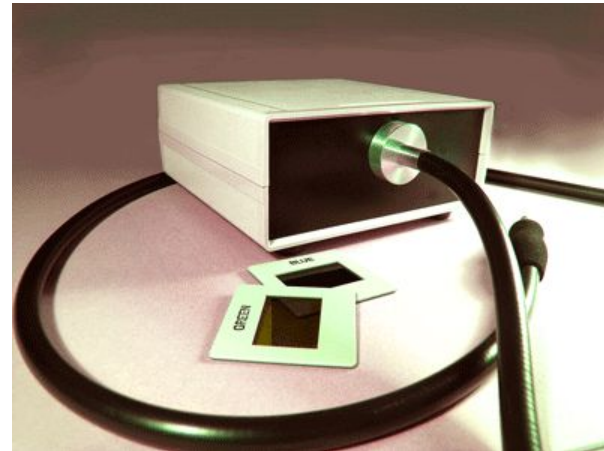
Examples : ADHD give SMR/Beta mix- increase left brain to improve attention and relax right and brain to reduce hyperactivity and distractibility-

L13.5/R18,

Beta/Theta to increase right and reduce left

Photon Stimulator

- This model is designed to allow you to apply light to acupuncture points, and micro systems.



Macular Degeneration

- Ivancic treatment protocol : red 40 seconds trans-illuminated macula from temporal conjunctiva
- Wallace found acuity immediately improved from 1 to 4 lines of acuity in 6 patients
- For example: 20/800 to 20/200, 20/100 to 20/60. These improvements have lasted up to one month when treatment has been repeated. Currently holding for 4 months.

Dry Eyes

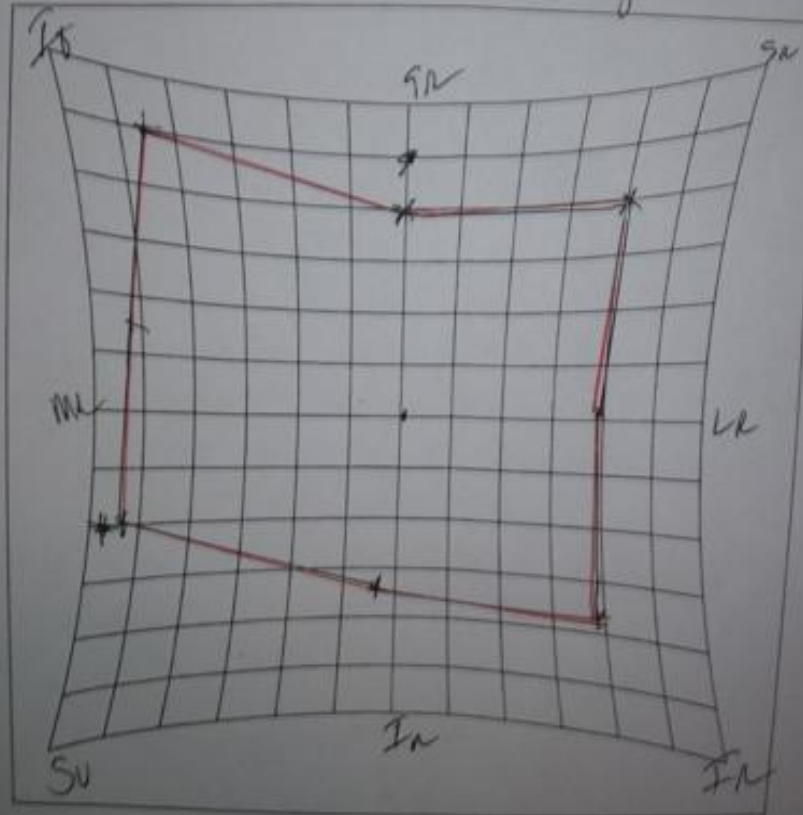
- Irradiation along lid margins for 40 seconds to reduce inflammation of MOG
- All patients report subjective improvement in comfort
- Tear breakup time increases up to 50%
- MOG expression immediately increased
- Long term relief has now been repeated now for 4 months with increasing efficacy.

Focal Syntonics

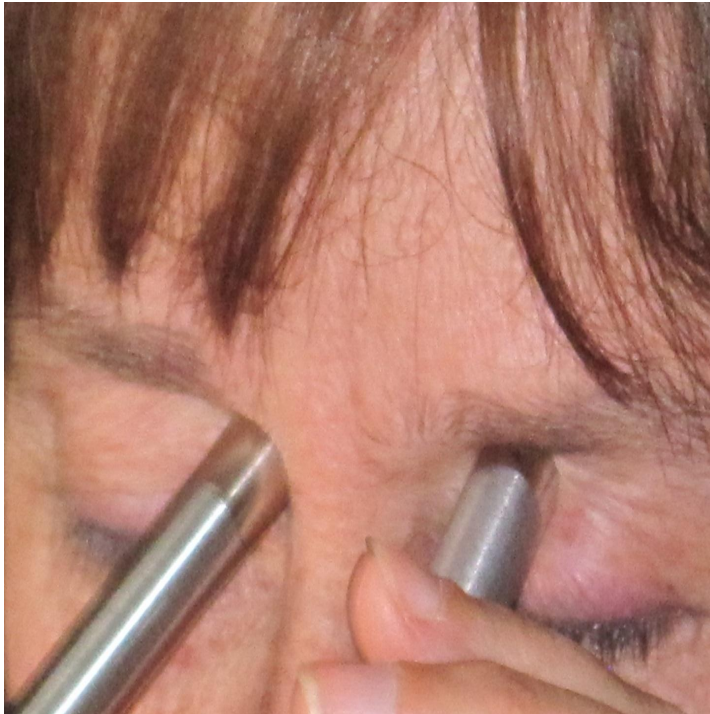
- Application of Syntonic colors at the insertion point in each extraocular muscle and to influence each cranial nerve.
- This also results in shifting the cranial bones, dura mater from the occipital bones to the base of the spine.
- Postural shifts and restoration on balance is frequently seen

Patient Name Cyan G. 46
Date 2-9-12
Test Administrator: _____

field vs
junc m. v.



Right SO and Left SR



Results

- Changes in phorias and range of movement in the EOM's
- Alteration of balance and posture
- Changes in binocular ranges of motion and fusion
- Visual Field expansions with decreased blind spots related to Dural torque
- Changes in the cranial bones including jaw and alignment of teeth

VieLight and TBI

Helmet worn device to deliver infrared light to all the brain lobes simultaneously .

Red and infrared light applied with various frequencies such as 8cps to induce alpha waves and 40 cps (gamma waves) to stimulate dopamine production for Parkinson's' disease.

Backed by 30 years of research initial results very promising

