Advancements in Photomedicine 2022

Larry B.Wallace, O.D., Ph.D.

Cerebral Spinal Fluid System

Larry B.Wallace, O.D., Ph.D, CSO 2022

Liquid Light

Primary Respiratory Mechanism William Garner Sutherland, D.O., 1939

Fluctuation of cerebral fluid

Inherent motility of brain and spinal cord

Mobility of intracranial, intraspinal membranes, and cranial bones

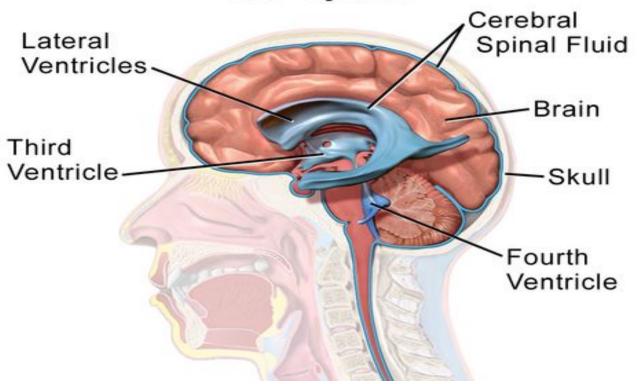
Involuntary mobility of the sacrum between the ilia

Respiration is the exchange of gases and fluids that are chemically and electrically charged causing a dynamic interchange with every cell with rhythmic pulsations of electromagnetic waves

Integration through the fluid system of total body physiology by the cerebral spinal fluid via hydrodynamics. Responsible for the organization of the organism via the nervous system

CSF is "The Breath of Life"

CSF System



Cranial Sacral Fluid and The Eye

- The eye, which is a fluid organ, sends and receives impulses from the environment. It is
- embedded in a cavity, whose form is decisive for the form and function of the eye.
- All structures which make up the soft bed of the eye are fluid, which is well-supplied with blood and water
 - all suspensory and supportive structures of meninges and fascias, all these structures depend on the activating force of the primary respiration mechanism.

Cerebral Stasis and Clinical Significance

Optic nerve compression with enlarged blind spots and reduced nerve flow

Cardiovascular, respiratory, and vasomotor influences, Ph, lymphatics, electrolytes, vertebral subluxations, chord and dural tension, and increases sympathetic nerve tone, and cerebral blood flow.

Stasis is mainly treated by palpation restore mobility or correct cranial bone position that allow for a reorganization of the CSF flow

Palpation can also increase the force and potency of the tides to increase reorganization that can also be self applied

Syntonic phototherapy restores balance in the ANS and neuroendocrines secreted into the CSF in the diencephalon (third ventricle), allowing restoration of autoregulation, and activation of the vagus nerve with blue light to restore cerebral venous resistance and mediates intracranial pressure changes to the brain stem

Biophotomulation provides energy for cellular regeneration and restoration

Audio-Visual Entrainment to reset bioelectric tone and rhythm by entraining brave wave patterns

Photobiomodulation

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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

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".

Mechanisms of PBM

Photoneuromodulation of cytochrome oxidase by Photoacceptors and key enzymes for cellular bioenergetics for brain and retina

Photoactive porphyrins increase ATP. redox states, and nitric oxide to regulate vascular dilation

Modulation of transcription factors to increase cellular proliferation of cytokines, inflammatory mediators, tissue oxygenation and increases cell metabolism

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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

Ocular Conditions Treated by Photobiomodulation

Chronic open angle glaucoma including restoration of retail 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

VieLight and TBI

Helmut 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 to stimulate dopamine production for Parkinson's' disease.

Backed by 30 years of research initial results very promising



Book Reports: Reflection on Light and Vision, Larry Wallace.

Electromagnetism and the Sacred, Lawerence Fag.
The Theory of Multidimentional Reality, Douglas
Voft. The Field, Lynn McTaggart

Conclusions for Reflections on Light and Vision

Holistic approach to vision and vision therapy

Network Physiology and autonomic nervous system: cybernetics by frequency

Vision and light are essential to our consciousness

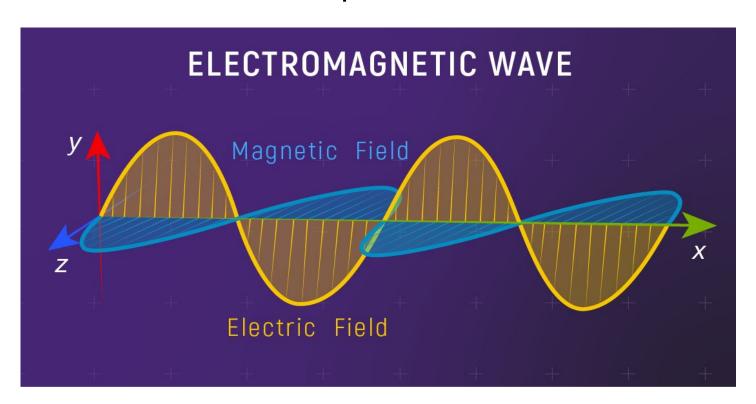
All disorders are related or a loss of rhythm and tone

Biophysics underlies all biochemistry through the liquid crystal matrix (biophotons) and electromagnetic interactions

Eye is fluid organ, cerebral spinal fluid, and cerebral blood flow all interrelated to water and light

Light and water are the foundation of all life for energy and information

Dual Aspects of the EM Field



Electromagnetism and the Sacred

James Clerk Maxwell, electricity and magnetism are a single force at the speed of light.

All life electromagnetic interactions: energy and information

Quantum Electro Dynamics (QED): how photons interact with matter and with EM particles

QED: reconciles quantum mechanics and theory of relativity, em force is transmitted by photons then replaced virtually. The eye has nanoantennas to transduce the EM energy

Squid technology: superconducting quantum interference device for magnetic field measurements (eye's magnetic field): explosion of research of the brain and heart

Biomagnetic fields pass freely through biological tissues ie, BMF of the brain pass freely through the CSF, across connective tissue through the skull bones to the scalp to give more details than electrical measurements: EEG vs Magnetoencephalogram

The Theory of Multidimensional Reality

What drives the universe is information, not energy, by scalar waves and more Source is the "Diehold" with 8 dimensions

Light arranges matter so that light can actually be regarded as "volume which holds the universe together" (Plato)

The Field by Lynne McTaggart

Resonating universe and the Zero Point Field (the vacuum)

Water is the medium of energy and information with coherence, memory, and super radiance

"Vacuum Physics concerns the fundamental pre-physical level of potentiality from which matter and fields arise and which contains the information for their dynamic structuring process. The field of biophysics should be concerned with the investigation of the role of the physical vacuum and the mediating role of potentials and nonelectromagnetic fields between the vacuum and the force fields and solid matter, and be called vacuum biophysics".

Marco Bischof, "Introduction to Integrative Biophysics", 2002