

ANS Normalization by the Application of Pulsed Light to the Iris

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Abstract

A very underrated and often ignored aspect of physical and psychological healing is the requirement of the body to be in the parasympathetic aspect of the Autonomic Nervous System for deep healing to occur. Due to time constraints and a misplaced focus by most healing modalities, the true yet inconspicuous energetic pathway to health is overlooked. New research shows that the human organism is a set of interconnected communication networks based on light. Nevertheless, how do we use that information for the benefit of our clients or ourselves?

The application of pulsed and colored visible spectrum light, by means of a small diameter optic fiber to the iris/ pupillary border, and other parasympathetic embryological tissue is a fast and easy way to assist balancing the Autonomic Nervous System. Using this ten-minute treatment prior to the use of other treatments helps reconnect and nourish the physical connective tissue matrix and meridian system. It predisposes clients to a state of receptivity while amplifying the effects of additional treatment modalities. As the internal communication pathways are reestablished, the body becomes motivated to heal itself, sometimes without further intervention. The word "holistic" has found its true meaning.

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The Autonomic Nervous System Revisited

The Autonomic Nervous System and its relevance to our states of health and spirituality is very often misunderstood. The ANS is usually described as a system of nerves affecting organs which we have no conscious control over – such as digestion and heart rate. These nerves have been mapped out in minute detail. If there is energy in the nerve pathway (vagus nerve) to our internal organs

then the organs are stimulated. If there is a lack of nerve energy then the internal organs are operating at a low level of function. This is what separates the two aspects of the ANS – the Parasympathetic (energy flowing down the vagus nerve – goes to all organs except the adrenal gland) and the Sympathetic (Vagus nerve blocked and the energy rerouted away from internal organs).

The ANS system is considered to be in balance when it is healthy. However, there are two types of health. The first type protects the internal functions of the body (Parasympathetic). The second protects us from hazards outside the body (Sympathetic). For the most part our bodies do a grand job of taking care of themselves internally. However, our consciousness fails miserably at being able to offer protection from the overt and covert attacks from outside the body. This includes environmental hazards as well as social, cultural, religious and economic hazards. The second type is by far the leading cause of illness today.

The first type of health – our body's ability to heal itself, relates directly to how much energy it has to operate with, and that is directly related to the energy flowing down the vagus nerve. That energy can also be limited through lack of appropriate nutrition, and nerve compression. The second type of health – our ability to protect ourselves by reacting to danger, can actually kill us by robbing too much energy for too long from the vagus nerve and the core of our being.

The level of sympathetic ANS activity that blocks energy flow to the vagus nerve should be designated "Emergency Use Only". Most humans living in technological societies (80% tested in the US, using HRV monitors) spend most of their time in the "Emergency Use Only" zone. Although seemingly subtle to one's awareness, the implications for health dysfunctions are staggering. When we are attempting to heal, we must first acknowledge that all healing of the physical body is accomplished best by the normalization of the parasympathetic, and this is accomplished by restoring appropriate energy to the vagus nerve.

Here is a *Star Trek* analogy that can help describe the situation. If Scotty has the power supply reactors in the core of the ship working just fine, then there is sufficient energy for the ship's normal functions. Same with you – you work best with your energy in your core (enteric brain). That means your vagus nerve has plenty of energy flowing down it to your core – your guts, your digestion, your internal organs. After all, they are what make your “ship” operate. Now let's say that the Klingons attack (fear and defense). Kirk (looking out of the eyes from inside the helm of your brain) asks Spock to put a deflector shield up – this helps with the attacks, but takes a bit of energy from the core. The same with you – fear or a defensive issue takes the energy from your internal core and diverts it to your blood vessels and muscles so your ship can protect itself. Even if you lose an outer part of your ship you are not completely disabled. If the attack lasts a long time, or if the weapons hitting you are too big, then your inner Scotty has got some real troubles. He sends messages up to the Kirk in your brain that the reactors are about to shut down. It must be very frustrating for Scotty – knowing the ship can't make it very much longer. Our consciousness becomes numbed by constant bombardment, and we have no understanding of the seriousness of our situation – or how we should escape.

According to a study by the University of Texas Southwestern Medical Center at Dallas,¹ damage to the parasympathetic nervous system may account for nearly half of the typical symptoms associated with Gulf War Syndrome. These include gallbladder disease, unrefreshing sleep, depression, joint pain, chronic diarrhea, and sexual dysfunction. Using spectral analysis, researchers found that parasympathetic brain function, which usually peaks during sleep, barely changed in these veterans, although they appeared to be sleeping.

Maybe you have heard all this before – especially if you are a practitioner. But what can you do for yourself or your clients? “Be calm, meditate, take time for yourself, don't be stressed....” is sometimes the only help we have to offer when it comes to addressing imbalances of the ANS. **The central core of ANS problems has to do with the larger social, cultural, religious, educational, and economic situations in which we find ourselves.** Yet we treat physical symptoms with adjustments in diet, and OTC supplements. As Dr. Ryke Geerd Hamer points out in his book *Summary of the New Medicine*,² the important decisions we make are for the same reasons animals that live in packs react. We identify with our family, their beliefs and values, our peers, we need security of place (home), security of food (money), we need to be attractive and have sex partners, etc. ... The list is a perfect match. Even our place in society is described by the social order dictated by the larger cultural institutions of the pack. And these decisions and fears affect our health in exactly the same ways.

The current health crisis however, is related to an overabundance of shock and fears associated with the overwhelming demands that modernization and technology have led us willingly to accept in our lives. Old world values and the belief that hard work is necessary to succeed, are still going strong, but are slowly eroding to a new consideration of what success is. The values that dominated the development of America – and which were forced on most other cultures, dictated that we need more to be happy – more money, a bigger house, bigger and more. Yet we did not see the health problems coming. They crept up on us as we spent more of our day in sympathetic – continually struggling, feeling like we have less than we should, fearful and insufficient. What choices did we have? We couldn't move to some primitive island and live without our tribe or pack. We surrender to the institutions and what they tell us reality is – the schools, the churches, the corporations....

Success is now, for some, more related to free time than the accumulation of money or things. **One of the real problems of existing in Sympathetic is that you cannot experience deep satisfaction or joy.** Deep peace and joy are a direct result of parasympathetic innervation of the vagus nerve, solar plexus, and the enteric brain. This is where the physical meets the spiritual. No matter how much stuff, academic degrees, social class, or money you have accumulated – it is impossible to experience the bliss of having it unless you get into parasympathetic. But that is not possible unless you can give up caring about everything you are concerned about. People with nothing are just as bad off if they are wishing and hoping and wanting things they will have to struggle to get. **It is our concern, caring, our relationship to things, and attachment to our situations that give the Autonomic Nervous System the power to react with fear.** I have heard many people say that they should be a lot happier than they are because they have achieved so much or have so many things. Some types of fear are generally not felt unless a part of what we are attached to is lost. We feel we have lost part of our self. We have surrendered the full control of our self and handed it to our beliefs, values, and our stuff. I agree that some things are worth getting sick over, but it is always better if the choices are clear and the consequences apparent.

This is the real picture of contemporary ANS problems. A balanced ANS is a result of balanced choices. People don't know they are making choices about their health when they simply do what everyone else is doing – but in fact they are. The true path to parasympathetic normalcy is to let go, truly let go of the control of anything that would have an influence on us – at the deepest levels – and trust. However, this is usually beyond our conscious ability. When there are spontaneous remissions from chronic illnesses – the mediating factor is usually the kind of complete surrender and letting go that I am

speaking of. Whether the source is a deity, religion, or complete hopelessness and trusting in something bigger than ourselves – like a child in its mother’s arms – the effect is the same. There is a return of energy to the vagus nerve / parasympathetic and the healing begins.

Acknowledging that most people are not going to make choices that require, moving away from their culture or letting go of beliefs, values and attachments, we must find non-invasive ways to help energy return to the vagus nerve. True healing is often achieved simply by returning energy to the vagus pathway enabling the body to heal itself. Energy returning to the organs can restore normal function, and normal function is the body healing itself. It is our sympathetic blockages that inhibit and rob the energy from the organs that are required for healing. If we go to sleep in sympathetic, our organs do not do what they should be doing – such as recoating our intestines with mucosa, replenishing liver enzymes, or re-alkalinizing our blood, etc. When a lizard is attacked it can lose its tail as part of its life-saving ability. This is a sympathetic response. When we are attacked or shocked we can lose parts of our self as a protective aspect of the sympathetic nervous system. Small areas – along our connective tissue matrix or meridians become sequestered, blocked off, and inhibit proper and normal energy flow. This happens without our conscious knowing, but affects the health of the organism. We are less than we could be, but at least we’re not dead.

These blockages may be addressed in two ways. One way is via the consciousness by using a therapy such as Emotional Freedom Techniques.³ The second way is by the application of an external stimulus to physical pathways – as with the use of an acupuncture needle, electronic or electric stimuli, or visible spectrum light. The rest of this discussion will focus on the application of natural light to specific body pathways that I have found to consistently move a client into the parasympathetic. Once in parasympathetic, it is up to the body to do the healing. This process helps to remove sympathetic blockages, and reestablish energy to the vagus nerve. It does not address the healing of diseases directly. It is important to note that there are different degrees to which to body moves into the parasympathetic. It is not an all-or-nothing response. However it is our foundational beliefs and values that keep it from moving into parasympathetic completely. Genetic influences also play a part in how much fear or resistance affects the ANS. Additionally, healing can also cause pain. This is a very overlooked fact when we are attempting to diagnose.

The application of pulsed and colored visible spectrum light, by means of a small diameter optic fiber – to the iris and pupillary border of the eye, and to master acupoints on the ear have consistently demonstrated movement away from the sympathetic and toward the parasympathetic.

The application of light to the eye to affect the autonomic nervous system is not new. In the 17th century, a French psychologist, Pierre Janet used flickering lights to reduce hysteria in hospital patients. In 1876 Augustus Pleasanton used blue light to stimulate the glandular system. In the same year, Seth Pancoast used red light to stimulate the nervous system. In 1941 Dr. Harry Riley Spitler formulated “The Syntonix Principle” which states that light by way of the eyes balances the ANS. In 1980 Dr. Thomas Budzynski used phototherapy to accelerate learning, and in 1991 Dr. Harrah Conforth applied color and light to help synchronize the brain. In the same year Dr. Robert Cosgrove used colored light for sedation during and immediately following surgery.⁴

For most people, the application of visible light for health benefits still sounds ridiculous – in light of the fact that contemporary remedies are either ingested or require surgery. The use of light sounds naive and simple. However those who have conducted research or have been helped by the application of light, have no doubts. Phototherapy research in the past was usually focused on specific diseases that affected large groups of people such as psoriasis – not as a means to normalize the Autonomic Nervous System. Niels Finzen, the father of modern phototherapy and Nobel Prize winner in 1903, discovered that natural sunlight and UV light from a carbon arc lamp were beneficial for cutaneous tuberculosis.⁵ Contemporary institutions from around the world such as The International Institute of Biophysics, the Applied Molecular Photomedicine Laboratory, the Wellman Center for Photomedicine, and the Forsythe Institute have provided sound scientific evidence for the reasons behind the effectiveness of light as a healing modality. In fact, the information they have unraveled is light years ahead of the popular scientific models presented in medical textbooks today.

We take the sun for granted. We shouldn’t – it is the source of life. Without the sun and the turning of the earth, everything would be baked or frozen. The symbol for chi – ☯ – represents the earth turning, night and day, and the sun and the moon. The basis of meridians is the flow of electrons from the sun to the earth during the day, and the flow of these electrons out into space of those particles at night. This “in and out” electron flow is the source of all life. Living organisms have developed elegant systems to store the daylight photons. Water storage and food storage systems are coupled with photon storage systems to insure the ability of the organism to move about and survive in harsh environments.⁶

A new model of living systems and how they heal has evolved from the last ten years of research as a result of newly developed equipment which is able to sense very tiny electromagnetic emissions – even as small as a single photon. We can compare these new models to government, commerce, entertainment, travel, and even health and insurance systems that depend on light signals traveling through optic fiber. Just as these organizations

are dependent upon light communication so is the internal health of your body. The speed of the information exchange appropriately explains the gaps in prior chemical or mechanical healing theories.

All organisms emit light and light is recycled within the organism from light entering the traditional acupuncture meridians and the eyes.⁷ It was also discovered that the crystalline connective tissue and bone structures emit light, similar to the lighting mechanism on a gas stove – the result of compressing a crystal. Our bodies create light every time we move and stretch. The process of continuous discovery led to the understanding that we are liquid crystals,⁸ and these crystals have the ability to open or close themselves to particular packets of light information. This is called “cellular vision”. We know that healing is done by the body, and specifically the cells. We now know where the specific directions come from that tell cells where to go, what to change into and what specific enzymes to produce etc. ... The directions are encoded in the interference patterns of light. Even going further, our DNA can be considered as a liquid crystal gel-like state that acts on incoming light.⁹ Although new understandings and models are emerging, present medical models and the huge economic systems that keep them in place are highly resistant to change.

The Age of Light

How much you accept that we are in “The Age of Light” depends on your age, employment, and interests. If you are over sixty you may still feel you are in the mechanical age. If you are over fifty, you might believe you are in the electronic age (still having trouble with the VCR programming). Younger people are the ones that understand that the important functions our world depend on light and its many aspects. You would find it hard to name something that does not use light as part of its function or production. Most manufacturing processes use light, and so does astronomy, communication, entertainment, commercial and residential lighting, medical diagnosis; there are even tooth brushes that use blue light to kill oral bacteria – better than mouthwash.¹⁰ Optical engineers are needed as much now as computer programmers were in the 1970’s. In the 1960’s some alternative people saw the “Dawning of the Age of Aquarius” as the coming age of light. But it was a separated spiritual world full of pastels and rainbows, not the hard edged world we find ourselves in today – where, in fact, the function of light rules everything.

There are logical questions that naturally arise about Iris Phototherapy that can only be answered by addressing the true nature of the therapeutic tool we are using – light. Although light dominates our world, there have been many misconceptions about how it acts in the body and confusion about the role of color. I will briefly touch upon the basic parameters of light therapy as I have found, researched and experienced them.

Biophotons

Our brain does not register all of the photons that enter the eye as vision. It takes about 600 photons arriving every second for the brain to register a signal. That is a much greater number of photons than the cells of the body require to elicit dynamic reactions. The eyes needed to adapt to a wide range of intensities whereas the rest of the body was encased in a protective covering (skin) which limited the light that entered the body, insuring photonic storage and recycling. Operating within the boundaries of the skin – miserly cellular biophotonic operations developed – utilizing from a few photons per day to several photons per second.¹¹ In fact, once photons are used for a particular reaction, they do not dissipate or decay, but are ready to be used for the next reaction process.

Photons are not like little snowballs. They have no mass and very little energy. That is why it takes so many photons to initiate the visual movies on the screen of our brain. In addition the eye is very inefficient. It loses about ninety percent of the photons that enter the pupil. Out of the 600 photons that enter only 60 actually make good contact with the receptors.¹¹ The rest are not able to be sensed by the receptors on the retina because they are absorbed, reflected, or fall between the rods. Knowing that cellular sensitivity is greater than retinal sensitivity, we can consider the possibility that vision is probably not the only function of our eyes which uses light.

The ultraweak photon emissions inside the body are called biophotons. Cells are both emitters and receivers. Biophotons operate in a slightly broader electromagnetic spectrum (260-800nm) than the visual spectrum – 480-750nm). Fritz-Albert Popp and his team of researchers found biophotons to act as activation energies that provide the stimulus for the millions of reactions per second required for physical processes and healing. They posit that biophotons may be responsible for the total regulation of the biochemistry of the body.¹² Heat photons (far infrared – 900nm) do not provide the most suitable energy for cellular communication. Li and Popp¹³ claim that “exciplexes”, excited complexes are formed by all base pairs of DNA. These complexes form strong photon traps, and it is these traps that are the source of the living communication system. It is through the recognition of this communication channel that we have a new understanding of health and disease. The basis of how living systems operate can now be surmised without encountering the roadblocks set up by the current neurological and chemical paradigms. These visible spectrum photon communication systems exist in all living organisms.

Meridians

We know that plants utilize light as nourishment directly from the sun. Plants are stable and can orient their leaves towards the sun with very little movement. However ambulatory organisms needed to have greater recycling and storage of sunlight. I believe that this is accomplished neatly by the meridian connective tissue matrix. Research

at the Institute for Clinical and Experimental Medicine In Russia, found that light scatters at the surface of the skin, but can also travel beneath the skin.⁷ The researchers found that the areas inside the body where light travelled the furthest, happen to coincide with the acupuncture meridians, leading to the conclusion that meridians are light conducting pathways, taking in light at the surface of the skin and conducting it along the meridians to nourish the organs of the body. The flow of electrons in from the sun during the day, and out to the atmosphere at night was captured by living systems in the form of meridians which then enabled the development of the internal organs. These meridians are the original nutritional supply route of light from the sun which nourishes and maintains the internal organs. The Autonomic Nervous System is the energetic regulator – taking energy from the internal organs and routing it to the outer protective shell in emergencies.

The development of low level lasers and Light Emitting Diodes (LEDs) enabled acupoints to be treated at the surface of the skin since the light sources were smaller than anything in use earlier. When I developed the Photon Stimulator in the early 1990's, it was for use on the iris of the eye. My interest in the science of Iridology while living in France led me to the research of French neurologist Dr Paul Nogier¹⁴ who was attempting to affect the ANS by shining pulsed light on the Autonomic Nerve Wreath in the iris. Upon returning to the US, I coupled a length of narrow diameter optic fiber with a strobe light quite effectively – allowing for safe and focused application. The small amount of colored light being emitted at the end of the optic fiber was well within retinal safety standards. However health benefits from iris treatment at that time were very erratic and unpredictable. I started testing it on ear and body acupoints with very impressive results. The optic fiber made application ideal. The strobe had an adjustable pulse rate and used a xenon bulb which produced white light as close to the sun's visible spectrum as possible. Xenon is ideal because it is "incoherent" unlike lasers which are "coherent". Coherency refers to the photons all travelling in the same direction. Biological systems only absorb incoherent light. When laser light hits the skin there is a "Monte Carlo Effect"⁵ which means that the organism has to break down the coherent photonic flow before it can use it. Color was introduced by the placement of color gel slides between the light and the optic fiber lens. A US patent for the Photon Stimulator was granted in 1998 (Patent #5843074).

The Development of Iris Phototherapy

I attempted treatment of the iris only after my understanding changed about what was actually being affected by the use of light, using the Vascular Autonomic Signal as a monitoring system, and developing color application principles. My continued study led me to the understanding that the meridian system is partly a parasympathetic

communication pathway, which is limited to treatment if the body is in sympathetic. This makes sense since the meridians are pathways to the organs, and neurologically the parasympathetic is the energetic pathway to the organs. Nogier found that it was important to move one into the parasympathetic before attempting meridian therapy. Nogier also understood the importance of embryologic tissue.¹⁴ Parasympathetic embryological tissue is in three places on the body: the navel, the concha of the ear, and the pupillary border. We had already been using light on the micro acupoint system in the ear with great results. By treating the master ear points Zero, and Shenmen we could change the parameters of the ANS quite easily. Simply by treating those two ear points bilaterally – using colors in the blue range, many symptoms would be relieved. We found this also to be true with treatment in the navel. Even immediately after surgery, pain was reduced by at least 50%. Now this is all anecdotal but the cases are in the thousands by individuals and practitioners throughout the world. From over ten years of involvement with light treatment, I have learned that the reestablishment of energy to the parasympathetic pathways should be foundational to the science of healing – and be utilized prior to the treatment of any disease.

I was fairly confident that by treating the pupillary border – since it was parasympathetically innervated – positive outcome might be achieved. Once again I approached the iris as a treatment pathway. Using only colors in the blue to violet range and with very short treatment times of less than thirty seconds in each eye. Better than expected results followed. I was becoming convinced that many aspects of healing could occur just by moving into the parasympathetic. The symptomatic relief was so widespread that I found it difficult to address in any other way.

Monitoring the Vascular Autonomic Signal (VAS)

In the book "*Auriculo-Somatology*" by R.J. Bourdiol,¹⁴ Nogier's techniques for monitoring the Vascular Autonomic Signal are discussed. The VAS is based on the fact that blood vessels are muscles, and those muscles are controlled by the ANS. Thus when there is a ANS reaction to a stimulus, it may be sensed at the radial artery by placing the thumb or fingers at the wrist – just as the pulse is taken to measure heart rate, but we are not counting beats per minute. We are looking for changes that we can attribute to a change in the tightness of the vessel wall. When in Sympathetic the muscles are tight, and the vessel sensation is rather distant, tight, thin, weak – all of these words fit. When it changes to Parasympathetic, the vessel muscle relaxes and becomes stronger, fuller, broader, bigger. There are a variety of reactions but we basically aim for a smooth and constant parasympathetic vessel sensation which will continue to hold after the light is removed.

I attended a lecture by Dr. Pierre Fragnay and saw that he had coupled the monitoring of the VAS while he treated the iris with light.¹⁵ This technique gives you an immediate feedback loop as to what reactions

are affecting the ANS as you move the light around the pupillary border or iris. The VAS reactions were generally consistent when we used blue – violet light. There was considerable relaxation in the vessel walls, (movement into parasympathetic) and reports of relaxation, increased digestion, sensations of a “veil” lifting, deeper breathing, etc. A variety of sensations would be felt at locations where there were prior symptoms. In the days following these simple treatments, the reports were often unbelievable – from deep internal states of peace to remission of illness. I believe individuals who did not have a parasympathetic reaction that would hold after 10 minutes of treatment may have had chronic conditions that require more sessions, and other forms of therapy.

Application of Light Using a Small Diameter Optic Fiber

Dr Riley Spitler, MD founder of Syntonic Optometry (1940's), found that light could affect the Autonomic Nervous System by the relaxing or stimulating the optic nerve. Treatment involved looking into a special colored lamp.¹⁶

Dr John Downing, O.D., Ph.D. developed the “Downing Technique” which involves light hitting the retina, and sending photocurrents to the cerebral cortex, the limbic system and the brain stem. He found that people with a “photocurrent deficit” have a wide range of illnesses including depression, poor coordination, learning disabilities etc. The use of pulsed and colored light as a psychotherapeutic tool was developed by Dr Steven Vazquez in the 1990's. It is called Emotional Transformation Therapy (EET).¹⁷

The client looks at flashing colors while the therapist facilitates emotional transformation. Dr Dietrich Klinghardt, M.D. popularized visual color therapies and use of the PhotonWave color device in Europe with his book *Textbook of PsychoKinesiology – a new approach in psychosomatic*.¹⁸

The color therapies above require a light device for the client to look at, or the use of colored glasses. The devices involve a client gazing at a colored circle of light about one inch in diameter, and about sixteen inches away from the eyes through a black tube which keeps out surrounding ambient light. **The use of optic fiber is a new and different tool because it does not necessarily involve the optic nerve, retina, the act of focusing, or the secondary cognitive processes relating to emotion.** The 1mm diameter optic fiber allows for a lot less light, and it can be guided easily to specific areas of the iris / pupillary border – depending on how close to the surface the optic fiber is safely held. The light that comes out of the optic fiber is incoherent, it spreads in every direction. Because of this it is difficult to keep a small amount from reaching the retina, but the retinal and optic nerve reactions are kept to a minimum.

Types of Light

When we were young we might have thought that light was simply light – it was there or if not there was darkness. We have since learned that there are different types of light and many sources of light besides the sun, stars, and fire. Light particles emitted by lasers are “coherent” they all travel like bullets out of a machine gun in the same direction. Light from all other sources is “incoherent”. The light particles are free and independent and spread out like a flock of fleeing birds in all directions – even around corners. Our bodies evolved with sunlight – incoherent light, not laser light. (Low Level Laser therapy) We should know by now that even low level laser light can damage the retina and is to be avoided. In fact when coherent laser light enters the body via the skin, the cells break it down into incoherent light.⁵ There has even been evidence that meridian acupoints shrink where laser light has been used over a period of time.¹⁹

Types of Bulbs

My work has led me to believe that if our bodies developed on a planet that has specific surface elements, sunlight, and an electromagnetic shroud – that corresponding therapies should mimic these evolutionary elements. We would want to use a light source that shines like the output of the sun, but safe. The term “full spectrum” refers to the full range of visual light frequencies – about 350 – 800 nanometers. There is no official definition of full-spectrum other than a good simulation of the type of light you would experience outside on a sunny day. Thus companies can market whatever they want to as full spectrum bulbs. But what I will refer to as full-spectrum relates to spectrographic analysis. There will be an even and equal distribution curve of all of the color frequencies. A vacuum tube filled with Xenon gas and electronically stimulated does the job the best.

Vacuum bulbs – incandescent, fluorescent, halogen etc. are filled with gas or filaments that combust when electrified. That is why bulbs all have a limited life span – whatever is combusting “burns out”. The nature of light from these different combustible sources may carry with it as it travels, the homeopathic nature of tungsten (filament bulbs) or mercury (fluorescent bulbs) which may be harmful etc. ...⁶ Xenon was 3% of the atmosphere in time past and is an inert noble gas. (if you break a fluorescent bulb – do not breathe the mercury fumes and ventilate the area).

Light Emitting Diodes (LED's) are semiconductor devices and were first developed in 1962. They produce light as a result of “electroluminescence”, and the color they emit depends on the chemical composition of the semiconducting material. LED's can have a narrow spectrographic bandwidth (occupying about 20 nanometers on the scale between 350-775 visible range bandwidth, or a broader bandwidth. Lasers have the narrowest bandwidth.

Broadband vs. Narrowband

The colors we evolved with were broad band – not narrow band. It would make sense that research provides evidence that broadband light has not just been adapted by the organism, but that the organism is dependent upon it. “*When the spectrum of biophotons is examined, it was found that the light is always in a broad band of frequencies....emitted light retains its broad spectral distribution when organisms are stimulated with monochromatic light or light of limited spectral composition*” Mae Wan Ho.²⁰ Broadband light is better to accommodate the wavelength shifts in the body. Many acupuncturists were influenced by low level laser devices, because it was believed that the physiological responses were attributable to the unique narrow band of the laser. However, Russian laser researcher Tiina Karu concluded that this was not true and that there was no research to back it up.²¹ Dr. Brian McLaren comments about the inability of the body to utilize laser light his article *Photonic Acupuncture* “It must be clearly stated that biological specimens only absorb non-coherent light and the coherence of a laser light is lost after the first millimeter of epidermis.²² In fact, the narrower the band, the less ability light has of interacting with DNA synthesis – which is an indicator of cellular stimulation by light. Tiina Karu²¹ found that DNA synthesis can be observed in a broad range of frequencies from 320nm to 820nm.

Pulsed Light Does Make a Difference

There are a number of reasons to use a light that is pulsed. Within the cellular matrix are a variety of light emitting sources. A pulsed light allows cells to differentiate between the intended therapeutic source and ambient light emissions, improves angular resolution, and improves the signal-to-noise ratio within the organism.²³ In addition, the “frequency” of the light pulse can have a reinforcing effect on the organism as a result of resonant harmonization. The most beneficial effect is from the electromagnetic pulse that we are continuously immersed in. It is the wave pattern between the surface of the earth and the ionosphere which is initiated and maintained by lightning strikes around the earth. It ranges between 4 and 40 pulses per second – the average being 7.8. It is an ELF (extremely low frequency) electromagnetic field called the Schumann Resonance. It was obvious to researchers as early as 1977 that brain-wave rhythms, and human health and well-being were intimately related to the pulsations of the earth’s electromagnetic shield. Photon Stimulators have adjustable pulse rates.

More is Not Better

It seems to be logical that if something works more of it would work better and faster. This is not the case with the application of light to the iris or the body. The light processes used by the body are active – not passive. The body does not act like a light sponge and take light in by absorption. Photons are squeezed and sucked between molecular base pairs of the DNA, like a vacuum cleaner

going after its prey. “This could also explain why biophoton emission is limited to weak intensities, since only a few photons in the field allow the perfect application of non-classical light for communication.”²⁴

Intense light can also produce bio-inhibition.²⁵ I call this the body’s “squinting” response. The cellular matrix turns off its “photon sucking” mechanisms and no further effects are experienced. Bright light is also the reason the body produces the melanin pigments to inhibit exposure to bright light over longer periods of time.

Color

Pioneers in the field of color therapy were quite handicapped without the photon sensing tools that are available today. Their theories were based on positive empirical outcomes without a true understanding of how light interacts in the body. As a result there was a lack of consistency in their color remedies. Johann von Goethe published the *Theory of Colors* (1810)²⁶ and found that colors influenced the mind and altered physical states. This is what really started scientists, medical doctors and psychologists experimenting with color. However, mixing Newton’s newly discovered physics of color with the metaphysics and psychophysics of Edwin Babbitt’s *Principles of Light and Color* (1878)²⁷ soon led to public confusion and distrust. The points of discussion became intermingled with belief and religion. At the same time information was being influenced by psychics, and ancient Indian texts. Much of it was very contradictory.

Unfortunately, those who assumed the title of “chromo-therapist” believed that color alone could cure everything. This was the case with Dinshah Ghadiali, who invented the Spectro-Chrome light tonation system in 1920.²⁸ So much of what Dinshah and earlier light researchers found was true – that light certainly can affect the body in beneficial ways. But they were not truly aware of the mechanisms involved – the meridian system, ANS systems, and that the body is a liquid crystal. Light therapists today accept color therapy as an adjunct tool that is most beneficial when used and applied appropriately along with other therapies. There is still controversy as to how to apply color to the body, but very few practitioners or color therapy systems have incorporated the new discoveries mentioned in this article. And as with most medical discoveries, we only hear about those that can be patented and have a profit potential. This is true even in the world of color therapies as demonstrated by expensive laser and infrared devices and treatments.

Some light researchers of the past developed application models based on metaphysical or philosophical theories while others chose to work with the physical science of light waves by the use of a spectrometer – a device which measures the wave length of each color. Dinshah Ghadiali used very specific color frequencies which were to be “tonated” on particular parts of the body for a period of time as explained in his *Spectro-Chrome Metry Encyclopedia*.²⁸ I agree with his conclusion that the body would respond best to the most familiar (and evolutionary) light signals. When an element

is burned it emits a particular set of spectral lines. Dinshah matched the Fraunhofer emission lines²⁹ of the elements that the body uses such as oxygen, hydrogen, calcium, magnesium etc. using combinations of five glass color filters to produce a set of 12 basic therapeutic colors. I have chosen to use these same color frequencies, but spectrally matched by the Roscolene company in a polyacrylate gel sheets – making them much lighter and easier to use than glass.

I have “recognized” that the best conditions for improving health in general are those that mimic air, food, light, color and electromagnetic fields that were present during the evolutionary development of the human system. Those past conditions now act as strong reinforcers of health since we have now ventured quite far from those parameters. My color application choices (for ear meridians, body meridians and the surface of the skin) are taken directly from our ambient world. Blue – violet was the most dominant color that produces the strongest normalization of the ANS when it is unbalanced. Blue – Violet are the dominant colors experienced on this planet. A variety of green shades existed in parts of the planet and not at all locations. Pure greens are strong and reinforce when the ANS is already balanced. Browns, siennas and ochres make up most of the land mass colors and are not pure colors but are diluted whereas pure reds, orange and yellows exist only in the plant world and in small amounts. Most of the reds we experience are in the sky and are mixed in different degrees with blue to produce purple, violet, indigo etc. ... Of course there are mixes of blue and green such as in turquoise water, and the lemon color in fruit and some leaves. I understand color in terms of how it appears in nature, and how abundant it was in nature as we evolved. I believe this evolutionary approach explains why colors have the effects they do.

Animal studies using chickens exposed to blue or red light from birth to 35 days demonstrated that there were abnormalities in both situations.³⁰ Plant studies have also demonstrated higher yield and increased flavor by the use of colored plastic sheeting.³¹ It was also found that plant aphids could be attracted or repelled by the use of color.³² There are no longer doubts that color affects organisms in strong and potent ways but clinical effectiveness is still elusive for lack of funding and clinical trails. However using light to restore a healthy Autonomic Nervous System can be consistently demonstrated using HeartRate Variability Monitors and other energy feedback systems. Effective treatment with light does not involve the use of complex color theories, which attempt to cure diseases or health conditions with specific colors. With our new understandings, we can supply light and color to the body where it is most effective, using the most beneficial forms of light and color, and in ways that assist the body’s own healing mechanisms. Light picks up where ordinary communication of the body fails. “Empirical” research once had value in the scientific community before double-blind studies became a corporate tool of exclusion. There can be much to learn from “anecdotal” evidence.

Practical Application

ANS normalization with Iris Phototherapy is good to use alone or prior to any other treatment. It helps put the client at rest, increases a sense of trust, allows for better response to other treatments, decreases recovery time, and can often by itself facilitate the desired healing. Treatments themselves are relatively short. The client and practitioner face each other while seated, and the Vascular Autonomic Signal is taken at the wrist pulse. Then the light tip is held approximately one half inch away from the surface of either eye. The light is moved slowly around the pupillary border using only shades of blue or violet. Changes will be noticed in the VAS. The light can be moved away slightly and returned to specific parts of the pupillary border to see if the response is repeated. This should be continued around the pupillary borders of both eyes looking for the broad relaxed VAS, and working until it can hold in both eyes without the light being applied. This takes some practice to first get comfortable taking the VAS and then to be able to notice changes. Not everyone will normalize with just one treatment, but improvement is usually experienced in most. Clients will sometimes have sensations – energetic, tingling, fullness, relief etc. in different parts of their body. I have come to believe that the areas where they have sensations are areas that have been accustomed to energetic restriction, and that when energy is restored an effect is felt. The total time required for the VAS photostimulatory reactions to be experienced after treatment of both eyes could be anywhere from five minutes to fifteen minutes.

This form of light application might be experienced by the organism as “wake up” signal that stimulates the immune system. There are no special indications or requirements. It is safe and most likely beneficial to everyone – especially in the ways we currently live, eat, and don’t sleep. It can be applied alone or used as an adjunct treatment to alternative or orthodox therapies. We know that the body heals itself. Some therapies have no effect but still allow healing, some promote healing, and some inhibit healing altogether. Iris phototherapy is a safe and non-invasive holistic modality that deserves consideration – especially now. 🌸

About the Author



Tony Cocilovo, M.A., IIPA, as an educator with a master’s degree in humanities. He has been a pioneer in the practical application of light to the body since the mid 1980’s. His research has led him to obtain a US government patent on the Photon Stimulator in 1998 and holds a “patent pending” for the dual use of positive and negative ionic electrolyzed waters. His company, Lightforms Research Llc, designs and manufactures a variety of light devices and related equipment for use on the body, the iris, acupuncture meridians and chakras. Tony has been a practicing iridologist since 1978, and is a certified member of the National Iridology Practitioners Association. He also presents seminars worldwide on color and light therapy. The author may be reached via email at cocilovo@cableone.net, or his website: www.PhotonStimulator.com

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