

# *Journal of Optometric Phototherapy*

*April 2021*



**The Mechanics of Vision, the Works of Brooks Simpkins, Focal Syntonics, and Cranial Strains**

**Green—Governing Velocity of the Body**

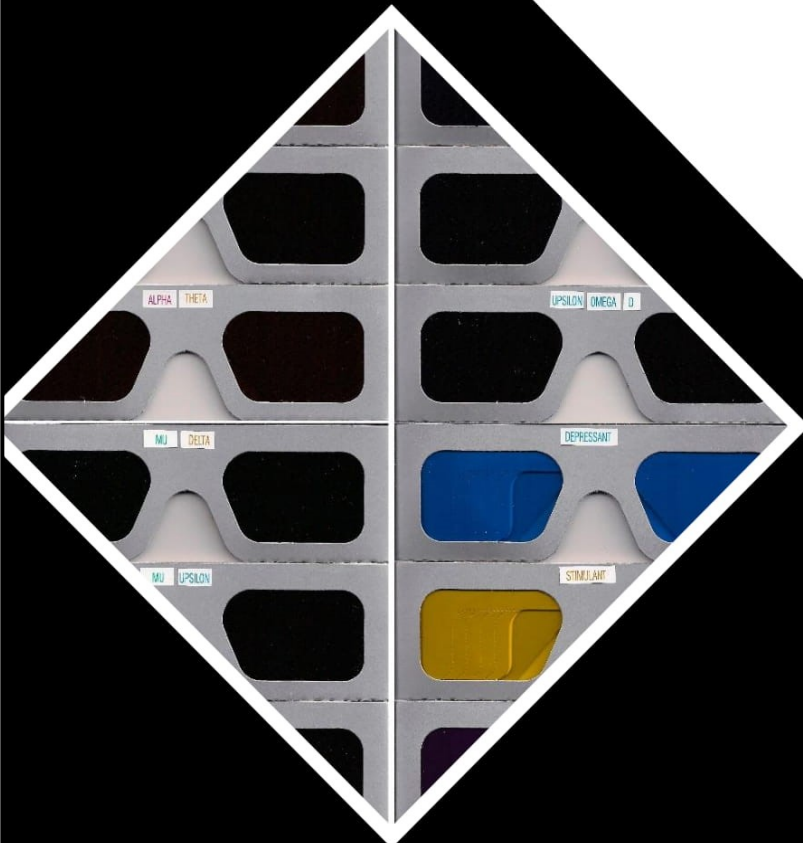
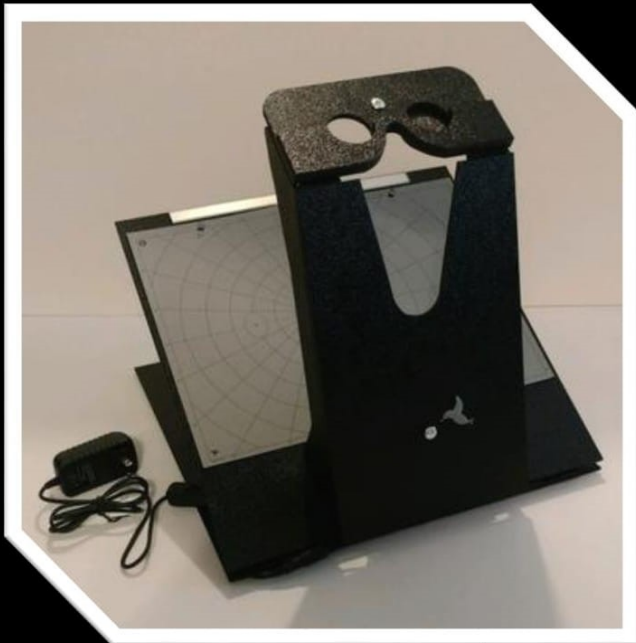
**Impact of wearing binasal anaglyphic lenses on body flexibility—A personal case study**

# HUMMINGBIRD HUES, LLC



Offering  
Syntonic  
Equipment  
& Vision Therapy  
Products:

Portable Light Units,  
Optometers<sup>®</sup> Goggles,  
Visual Field Chart and Supplies,  
Vision Equipment for Kids,  
and more...



[www.hummingbirdhues.com](http://www.hummingbirdhues.com)



# College of Syntonic Optometry

A NONPROFIT ORGANIZATION DEDICATED TO RESEARCH IN PHOTORETINOLOGY.  
THE THERAPEUTIC APPLICATION OF LIGHT TO THE VISUAL SYSTEM

## Editors

Irene Wahlmeier, MS, CPOA, COVT  
Ron Wahlmeier, MBA, (MT) ASCP  
Danielle Bianco, O.D., FCSO

## Layout and Design

Niki Summers

## College of Syntonic Optometry Board of Directors

### President

Robert Fox, O.D., FCOVD, FCSO

### Immediate Past President

Hans Lessmann, O.D., FCOVD, FCSO

### Vice President

Brenda Montecalvo, O.D., FCOVD, FCSO

### Secretary

Philip Bugaiski, O.D., FCOVD, FCSO

### Treasurer

John J. Pulaski, O.D., FCSO

### Director Of Education

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

### Dean

Raymond Gottlieb, O.D., Ph.D., FCOVD, FCSO

### Trustees

Clifford A. Fukushima, O.D., FCSO  
Geoff Heddle, O.D., FCSO  
Richard D. O'Connor, O.D., FCSO  
Alia Santoyo-Johnson, O.D., FCSO  
Cathy Stern, O.D., FNORA, FCOVD, FCSO

### International Representatives

Australian Liaison:

Simon Grbevski, B Optom, FCOVD, FCSO

Brazil Liaison:

Fernanda Leite Ribeiro, FCSO

Canadian Liaison:

Cynthia Matyas, O.D.

Mexico Liaison:

Jesus Espinosa-Galaviz, O.D., FCOVD, FCSO

## Administrative Director

Ron Wahlmeier, MBA, (MT) ASCP

## Administrative Assistants

Irene Wahlmeier, MS, CPOA, COVT  
Danielle Bianco, O.D., FCSO

*Journal of Optometric Phototherapy (JOP)* is published yearly by the College of Syntonic Optometry. All rights reserved. No part of this publication may be reproduced or utilized in any form without permission in writing to the Editor. All expressions of opinions and statements of supposed fact published in signed articles do not necessarily reflect the views or policies of the College of Syntonic Optometry, which does not endorse any specific educational program or products advertised in JOP.

Letters to the Editor may be edited for content and space availability. Acceptance of advertising or optical industry news for publication in JOP does not imply approval or endorsement of any product or service by either JOP or CSO. Editorial Office: CSO, 2052 W. Morales Dr., Pueblo West, CO, 81007, (719) 547-8177, FAX: (719) 547-3750.

**Any article, editorial, column or other item submitted to the JOP by an author for review and eventual publication indicates the author's approval for publication and assignment of copyright to JOP.**

### Submission of Manuscripts

All manuscripts should be submitted to  
Ron Wahlmeier, Administrative Director, CSO.

The preferred method is via e-mail  
([csovision2020@gmail.com](mailto:csovision2020@gmail.com)).

If e-mail is not convenient, send to:  
Ron Wahlmeier  
2052 W. Morales Dr.  
Pueblo West, CO 81007

# Table of Contents

## Journal of Optometric Phototherapy

---

### **President's Message**

Rob Fox, O.D., FCOVD, FCSO

3

### **Articles**

About The Cover

3

The Mechanics of Vision, the Works of Brooks Simpkins, Focal  
Syntonics, and Cranial Strains

Larry Wallace, O.D., Ph.D., FCSO

4

Green—Governing Velocity of the Body

Sarah Cobb

14

Impact of wearing binasal anaglyphic lenses on body flexibility—  
A personal case study

Geoff Shayler BSc FCOptom FCSO FBOAF FEASO

18

Awards and Accomplishments

22

Historical Perspective

23

Book Review

24



# The President's Message

*"The important thing is to not stop questioning."*  
-Albert Einstein

One of the great common bonds we have as syntonics optometrists is our thirst for knowledge and for more ways to better help our patients. It is what brought most of us down the road of behavioral optometry and then down the road to the use of light to help our patients. It is far easier to not take this path than it is to embark on this journey. Thankfully this road is getting more crowded as larger numbers of our colleagues are discovering the powerful healing effects of syntonics therapy. In response to this new demand, we at the College of Syntonics Optometry are continuing to provide basic and advanced educational programs. We are fortunate to have a gifted board and faculty to provide these programs.

While we continue to ask our own questions, we find that questions on the use of light therapies are now emerging outside of Syntonics Phototherapy. Photobiomodulation (PBM) is a very hot topic in many fields of healing, including conventional medicine. Also known as Low-Level Light Therapy, PBM is now being used for healing, injury recovery,

stress management, and for treating inflammation. The research being done has now shifted from IF light works to help treat conditions, to WHY light is such an effective healer.

Indeed, the world seems to be catching up to us.

Lastly, though the worst of the COVID pandemic seems to be behind us, we will not be meeting in Nashville this June. I sorely miss the interaction that takes place when we are physically together. The use of this journal and virtual courses will have to do for now. Thankfully, the College has been able to thrive and provide top notch courses as the demand for knowledge in this field grows. Please let us know if there is a course you would like to see as we are here to serve our members – and keep asking questions.

-Rob Fox, O.D., FCOVD, FCSO  
President, College of Syntonics Optometry



## About The Cover

Jocelyn Fukushima, the daughter of one of our members, wanted to make something that would illustrate the concept of wavelengths, spectrums and frequencies and yet look "pretty."

For the design she used a stock photo of a wavelength for the background, and included the filters: Alpha Omega, Mu, and Upsilon Omega. This was done by placing the filters directly over her iPhone camera and pointing it at the sun. She thought it would be cool to use "the real thing."

I think we can all agree she achieved her goal.

Thank you Jocelyn!



# The Mechanics of Vision, the Works of Brooks Simpkins, Focal Syntonics, and Cranial Strains

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

We know function can affect structure, and structure governs function in general. As vision therapy doctors we often emphasize functional approaches utilizing a neurological foundation to vision rehabilitation. This article will review biophysical aspects in diagnosis and treatment strategies. The biophysical aspects will be shown to also be altered with liminal stimulation of colored light.

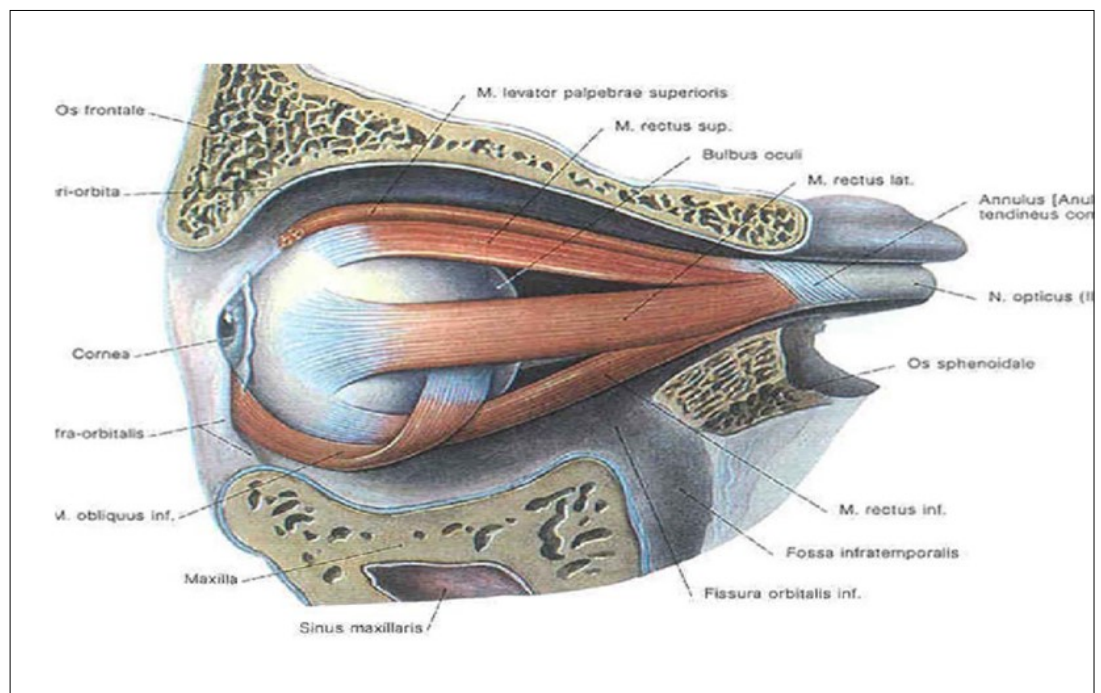
Historically, Dr Brooks Simpkins pioneered a biophysical system to treat vision disorders that has not been examined in the current optometric literature. He conducted years of exhaustive research in the role of the extraocular muscles on all refractive errors, strabismus, and pathologies like cataracts and glaucoma. He invented instruments to diagnose all facets of the ocular motor skills and to treat anomalies related to these dysfunctions. He detailed all of his research and clinical outcomes in 4 books: The first was “The Basic Mechanics of Vision” in 1939. This text detailed the geometry of the eyeball, the role of the extraocular muscles in accommodation, the ciliary muscle, refractive errors, and eye health. He details his success in treating these facets of vision. His next book called “New Light on the Eyes” in 1958 examined treating pathology with vision therapy. This was followed by “Oculopathy” in 1963 where he incorporated the cranial nerves in his treatment protocols. His final text titled “Visible Ray Therapy for the Eyes” in 1963 explores the use of ocular phototherapy in all his treatments.

Through years of research and clinical practice Dr. Simpkins found that extra ocular and ciliary muscles could lengthen and shorten the elastic eyeball creating myopia with increased axial length and hyperopia with contracted axial length. The EOM tension could also change the corneal curvature creating astigmatism and also reposition orbit creating strabismus. He found also that tension on the EOM could elevate the intraocular pressure, and displace the lens layers allowing fluid buildup creating cataracts. He then de-

tails treatment protocols to also treat glaucoma and cataracts. He found that imbalances in EOM tensions would change the index of refraction and the accommodative facilities.

His treatments used sophisticated testing instruments he invented to monocularly evaluate the extra ocular muscles and then initially used various exercises to restore balance in their motor function. He then focused on the energy supply of the muscle by stimulation of inhibiting the cranial nerves energizing each muscle. This eventually involved using colored light on the muscle insertion points. Red was used to stimulate, blue to inhibit motor output, and green as a balancing color at the end of the treatment. Both red and blue are seen in syntonics as either a sensory stimulant or depressant. This treatment was used to treat all refractive errors, binocular dysfunctions, cataracts and glaucoma. Sarah Cobb developed a light system called ACu-Light to treat refractive errors in recent years. Her work and my exploration of Dr Simpkins books has been an inspiration for me.

In my practice we also have been utilizing this technique with the application of focal syntonics. This application of colored light on the muscles based on an analysis of Dr Simpkin’s work on the EOM. The focal light would include both sensory and motor stimulants or depressants.



The cranial nerves and extraocular muscles were analyzed and these three charts were created that indicate which nerve and muscle is to be stimulated or inhibited for a given refractive error or binocular condition. Plus signs indicate the need to stimulate a muscle or cranial nerve and a minus sign is for depression of the nerve or muscle.

## Cranial nerves and EOM

- (-)= inhibit, (+)= stimulate
- Myopia:  $-3^{rd}$ : -IO/+SO, -MR/LR, -IO/SR,  $-6^{th}$ : -IR/+SO,  $-4^{th}$ : -SO/IO, - all Recti
- Myopia/Astigmatism x 180 :  $+3^{rd}$ : +SR/-IR, +SO/IO,  $-3^{rd}$ : -IR/+SO
- Myopia axis 90 :  $-6^{th}$ : -IR/LR, +SR/IR,  $-3^{rd}$ : -IR/LR

The extraocular muscles have their origin in attachments to the sphenoid bone. The sphenoid also is always moving in reciprocation to the position of the occiput. In addition, all the bones of orbit are not fixed but move in relation to the cranium. So, the extraocular muscles are affected by various and normal cranial strains. These strains are also the origin of refractive errors, binocular

## Hyperopia

- $+3^{rd}$ : +IO/SO + 4 recti,  $-3^{rd}$ : +SO/IO,  $+6^{th}$ : +IO/+4 rectus muscles
- Axis 180:  $-6^{th}$ : +SR/IR with -SO/IO
- Axis 90:  $+6^{th}$ : =SR/IR/SO/IO,  $+3^{rd}$ : +4 rectus,  $-6^{th}$ : -IR/LR
- Weak obliques, especially SO, chronic tension in rectus muscles, weak convergence
- Astigmatism from irregular tension of recti

## Phoria's / Tropia's

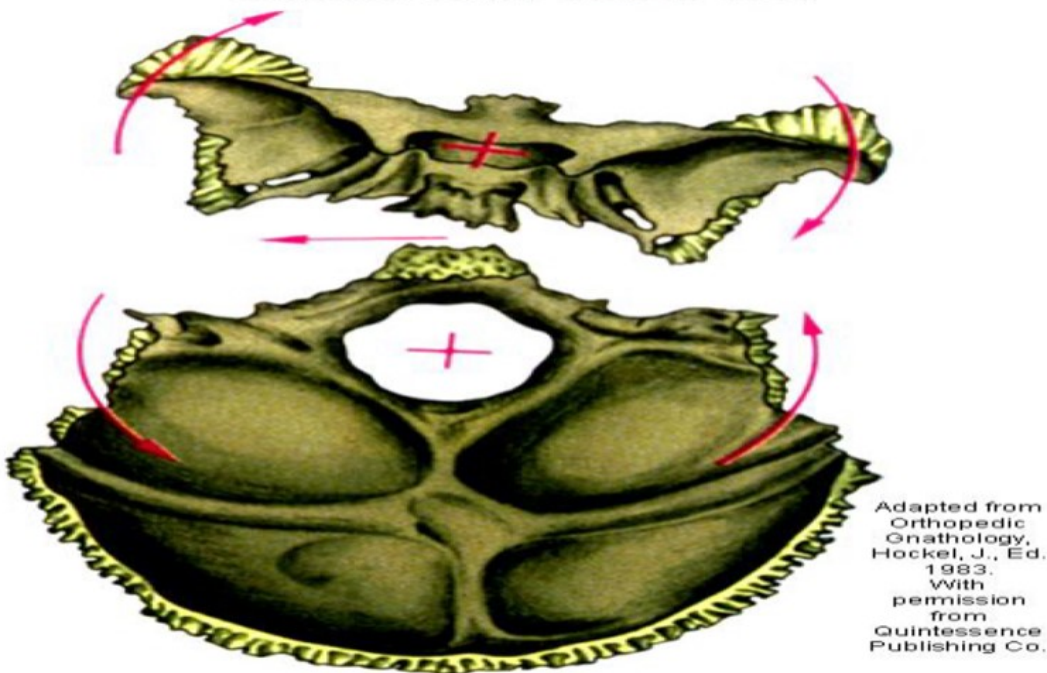
- Exo-phoria:  $+3^{rd}$ : -SO/+IO, + IR/SO/IO,  $-3^{rd}$ : +SO/LR, -IO/SO/LR,  $-4^{th}$ : -SO/IO,  $+6^{th}$ : -LR
- Eso-phoria:  $+3^{rd}$ : -SO,+LR/IR,  $-6^{th}$ :+SR/IR with -SO/IO
- Hyper-phoria:  $-3^{rd}$ : -IO/ rectus,  $-4^{th}$ : -SO

dysfunctions, and compromises to the vascular supply of the eyes. Impingements in the orbital bones can reduce blood flow and venous drainage resulting in fatigue to the extra ocular muscles. Strains can also affect the cerebrospinal fluid circulation with

increases in intraocular pressure and axial length associated with myopia. An osteopathic manipulation study by Dr Bayer in Germany found that carinal manipulation could reverse myopia by repositioning the sphenoid and improving the circulation of cerebrospinal fluid. The eye is a fluid organ and can be affected by fluid dynamics. The eyes also have suspensory and supportive structures of the meninges and fascia that depend on the activating force of the primary respiration of the cerebral spinal system. The fascia has been postulated as a critical pathway of biophotonic energy throughout the body. It is of great interest that Syntonics utilizing focalized light could also affect these systems.

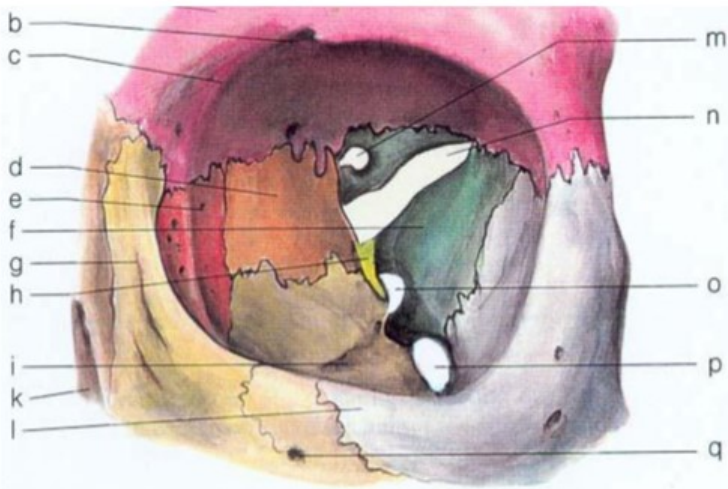
## Sphenoid-Occiput

Left Side Bend Vertex View

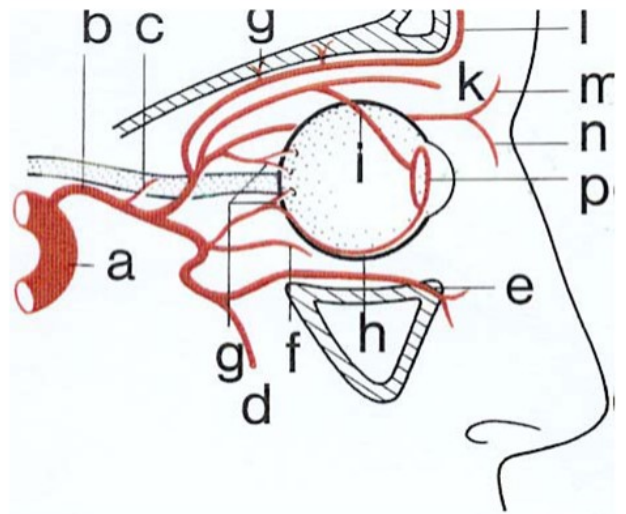




# Bones of the Orbit



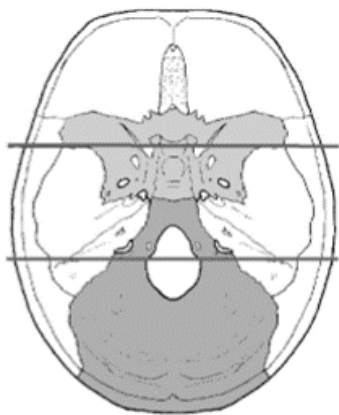
# Vascular Supply



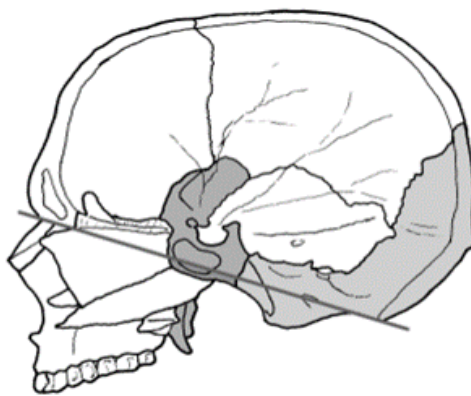
Of course, posture plays a major role in the eye structure as well. The work of Darrell Boyd Harmon found that the higher order of vision was connected to the lower order of gravitational mechanisms. The torso -head along with the vestibular system and the fovea as its center is always connected to the neck as the transducer of the actions of the trunk-head -vision complex. Excessive postural demands relating to gravity along the y axis are generating stress to the orbit from the cervical spine

( C2,C3,C4 ). Also stress to balance between the two halves of the body to center and localize visual details creates structural change that results in myopia, astigmatism, and hyperopia. In our clinical practice working with physical therapy we found syntonics could create immediate changes in posture and balance. These reflex changes would confirm the efficacy of the sytonic prescription and their part of the therapeutic regimens.

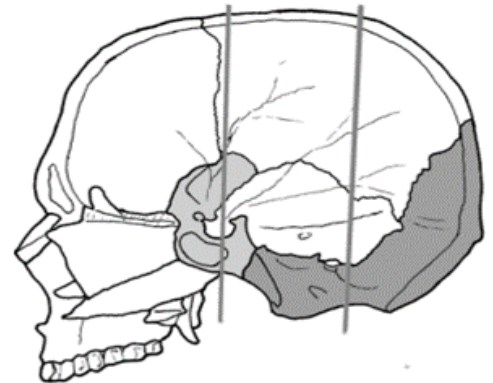
# SB Axes and Movements



SB Transverse Axes



SB A-P Axis (Inclined)



SB Vertical Axes



# SB Axes and Movements

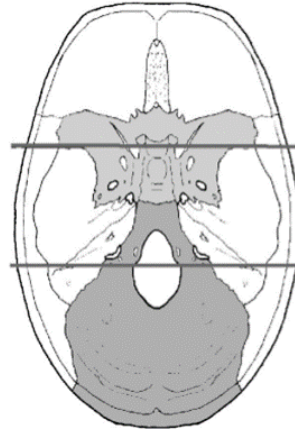
## TRANSVERSE AXES

### Flexion - Extension

- Flexion
- Extension

### Vertical Strains

- Superior Vertical Strain
- Inferior Vertical Strain



Asthenic biotypes will be more narrow in head and body along with cranial extension. This structure facilitates esophoria and with a taller and longer orbit fostering myopia. Here the fovea is shifted temporally causing tension in the oblique muscles facilitating myopia and esophoria.

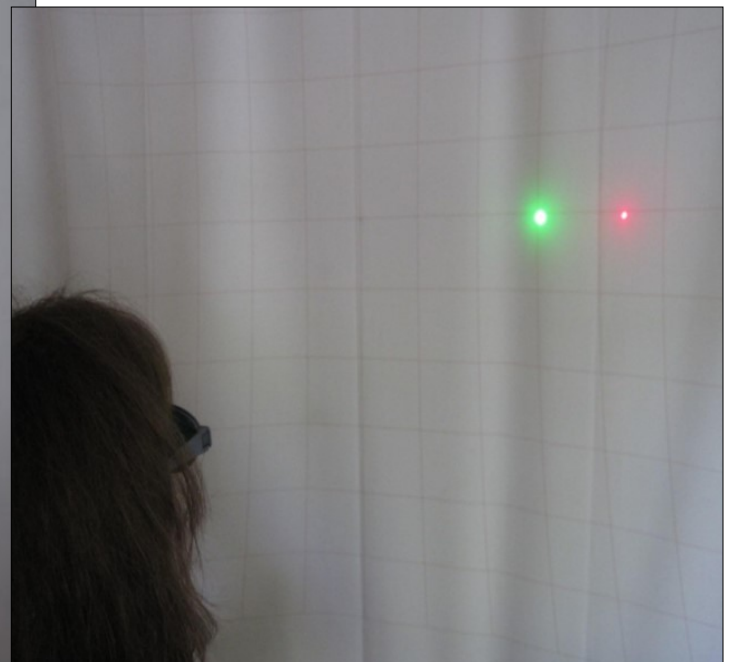
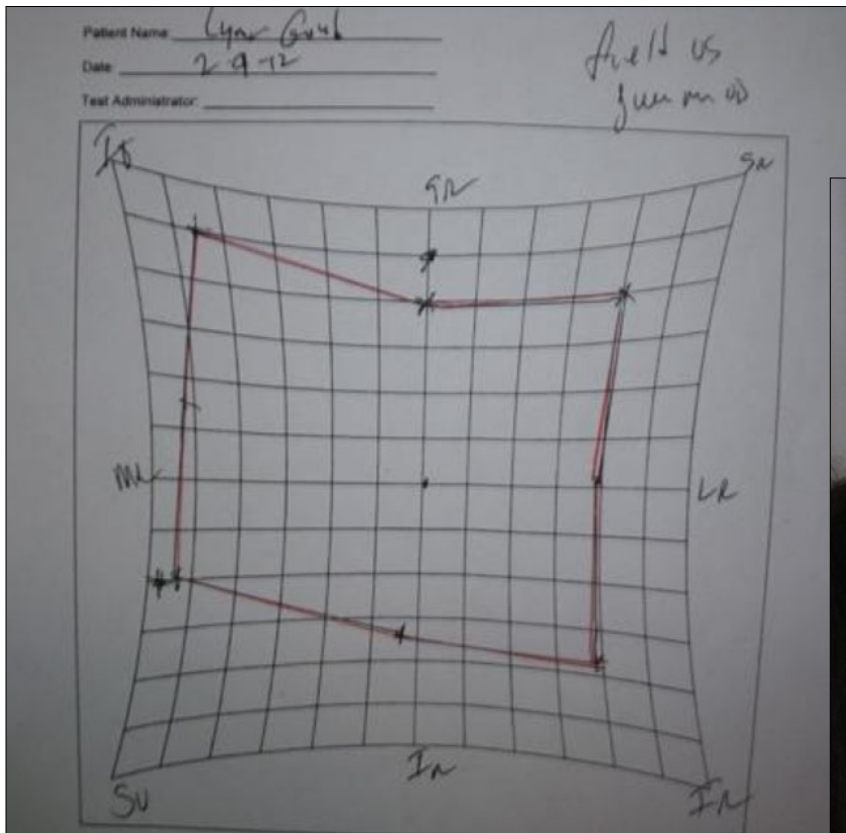
Symmetrical tension of the superior and inferior obliques and rectus muscles while assuming the exophoria or esophoria position will be dependent on the optimal and neutral position of the cervical spine. Cervical spine and sphenoid position in the sagittal plane will influence tension in specific superior, inferior oblique and rectus muscle. Therefore, working with a physical therapist cognizant of the basic

cranial strains will be very important in addressing these structural aspects in vision rehabilitation. When the maxillary bones are in strain the occiput will be affected. This also can reduce airway flow, tongue position, and impede respiration. Treatment to opening the airway might also necessitate a referral to a cranial dentist.

Besides general syntonics phototherapy, the focal application on the insertion point of each extraocular muscle often resulted in releasing the cranial bones and through the dura mater connected to the base of the spine. There's a direct pathway from the atlas to the pelvis. A positional shift in the atlas results in a reciprocal shift in the pelvis in the opposite direction. This results in postural and pelvic shifts accompanied by a change in posture. It is as though we are

### Constitutional Considerations

Pyknic biotypes being more round in the body and head structure, often have cranial flexion. This biotype often has eyes that are wider apart, with a shallower orbit which facilitates hyperphoria and exophoria. This structure moves the fovea nasal and anterior that must be checked by contracting superior and inferior recti attached to the anterior globe. Overactivity in these recti will foster under convergence and hyperopia.



tion in the main direction of action of the paretic muscle (right lateral rectus).

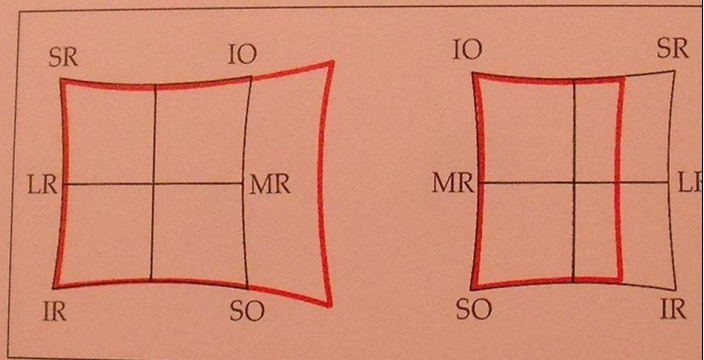
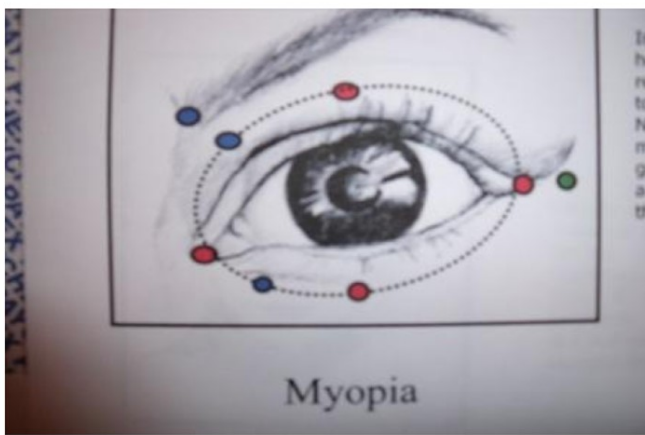


Figure 13.39 Hess chart of a recent right lateral rectus palsy (see text)

## Common Points for 30 seconds

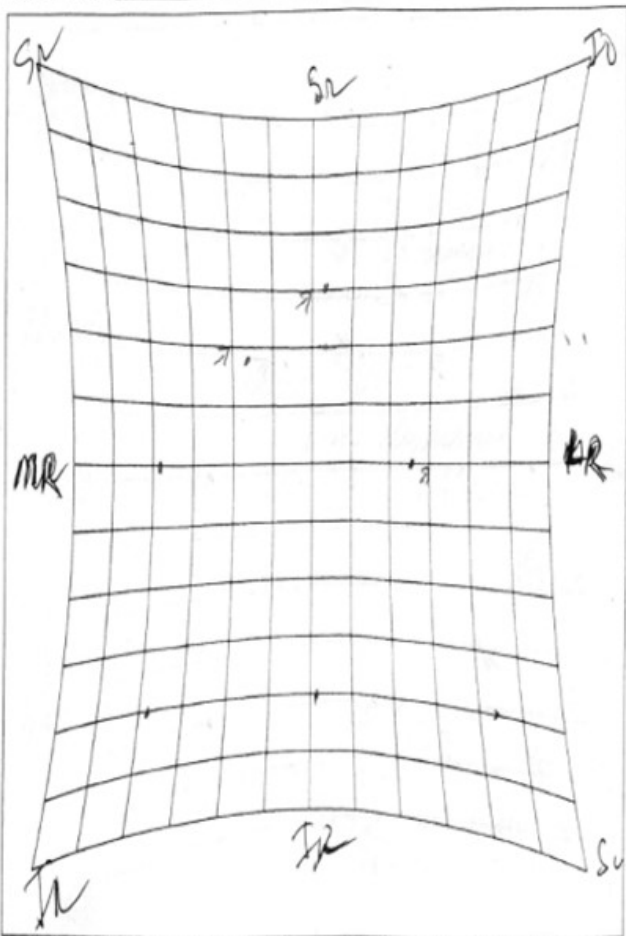


doing cranial sacral therapy through the eyes with colored light. The target of the light application is determined by using the Hess Test. This evaluation is done with red green glasses and laser pointers. It is done for each eye in 8 fields of gaze that allows the charting of

each extraocular muscle for under or over action in a specific field of gaze. This will direct whether to stimulate or inhibit the motor action. The treatment involves putting a light torch for one minute on each reciprocal muscle simultaneously to inhibit and stimulate the motor

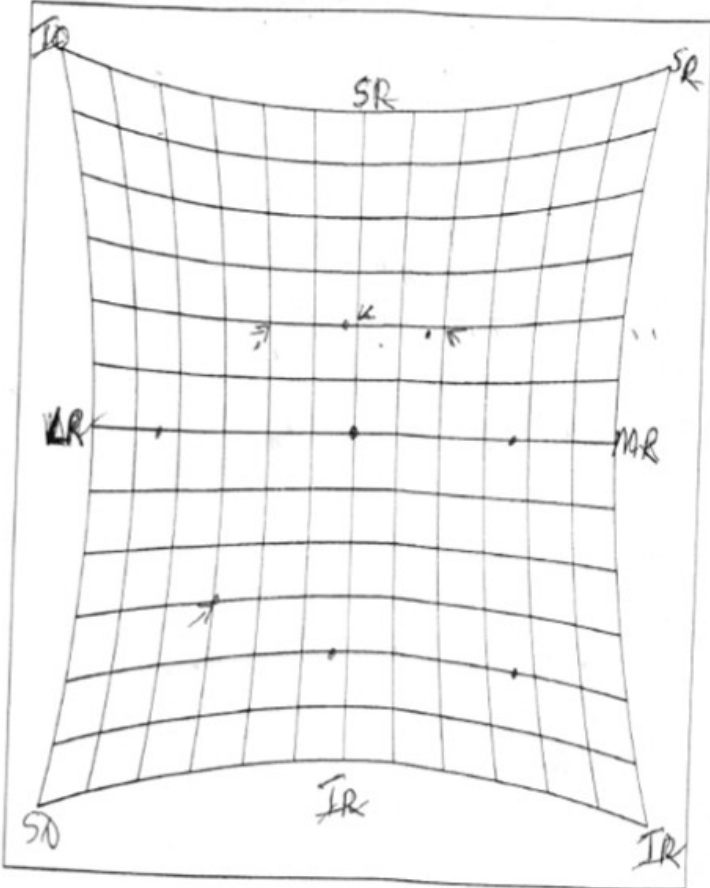
### Hess Screen Score Sheet

Patient Name: Genevieve *field of*  
 Date: 3/16/17 *(green os)*  
 Test Administrator: \_\_\_\_\_



### Hess Screen Score Sheet

Patient Name: Genevieve *Field of os*  
 Date: \_\_\_\_\_ *(green os)*  
 Test Administrator: \_\_\_\_\_



function. The light torches used were from Molimed in Switzerland or the classic syntonics filters from Syntonac International.

The results of normalizing the ranges in the Hess Fields include changes in phorias, with improved ranges of fusion. Additionally, improvements were seen in posture, and balance. Visual fields were expanded and blind spots normalized related to dural torque. Changes were also seen in the cranial bones, including the jaw and alignment of the teeth.

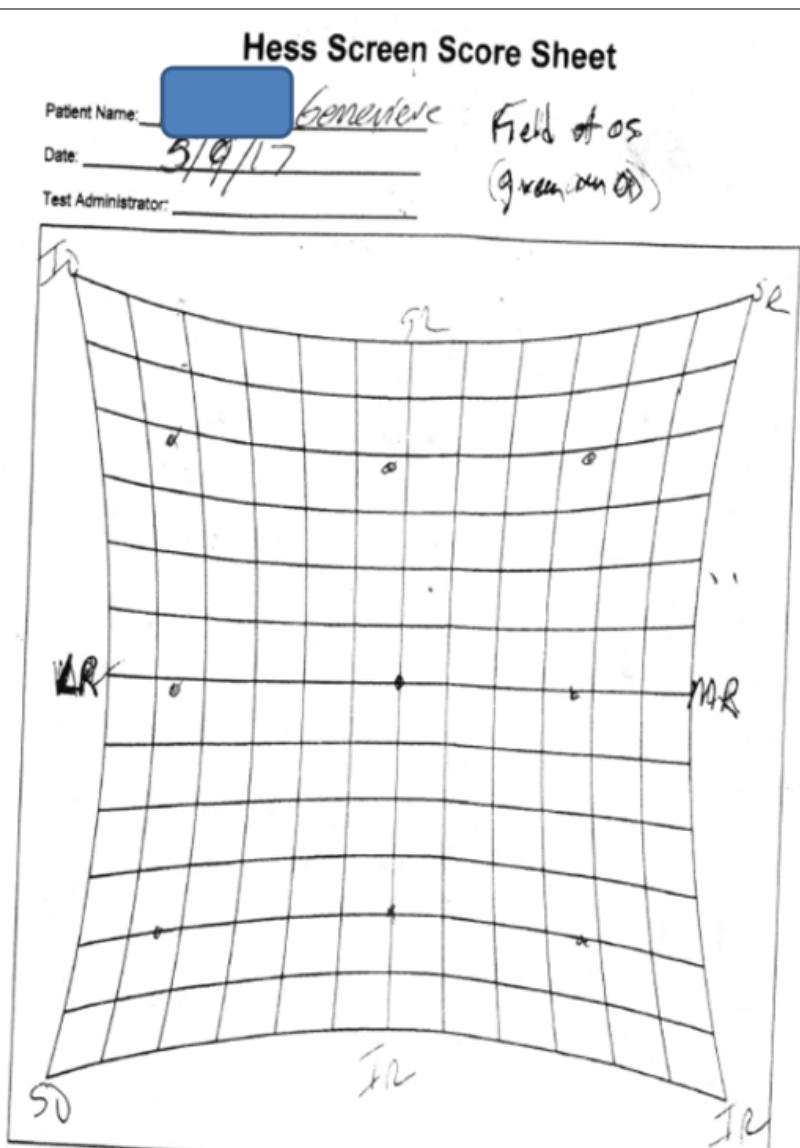
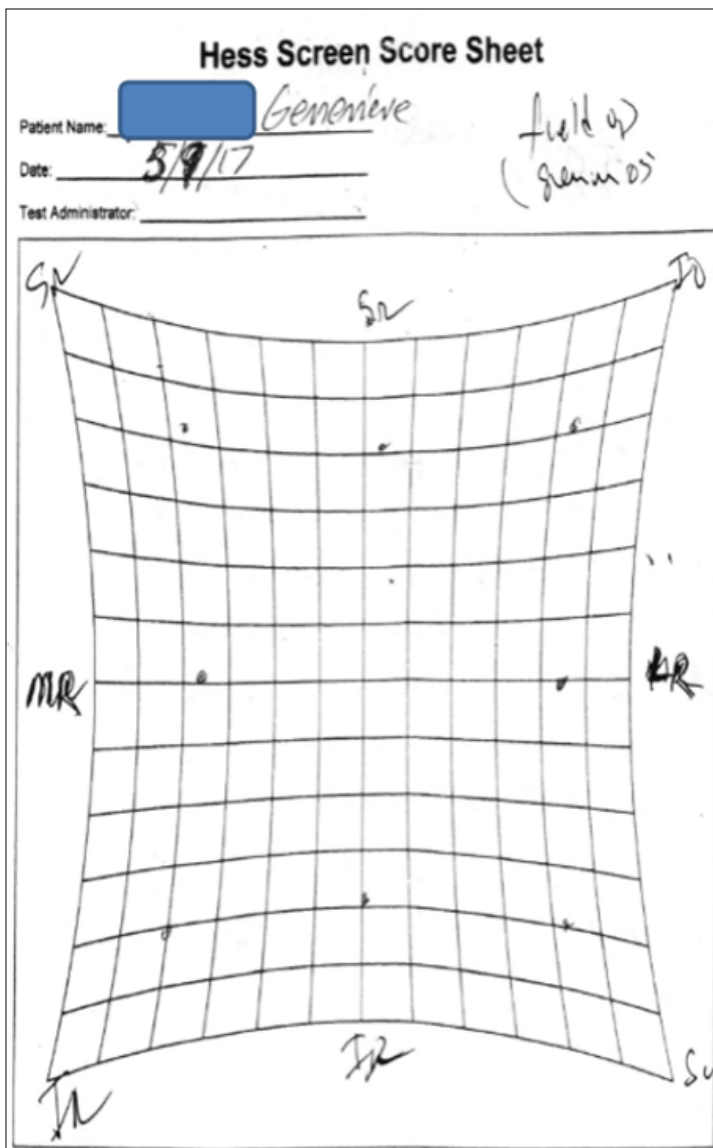
### Case presentation

This case illustrates significant improvement with 6 applications of focal syntonics. This form of ocular phototherapy can be used as an adjunct to traditional sytonic phototherapy and for treating refractive conditions as well. Another focal application is the use of blue or indigo light on the upper lids for trigeminal nerve overactivity associated with symptoms such as dry eye, convergence insufficiency and intraocular headaches.

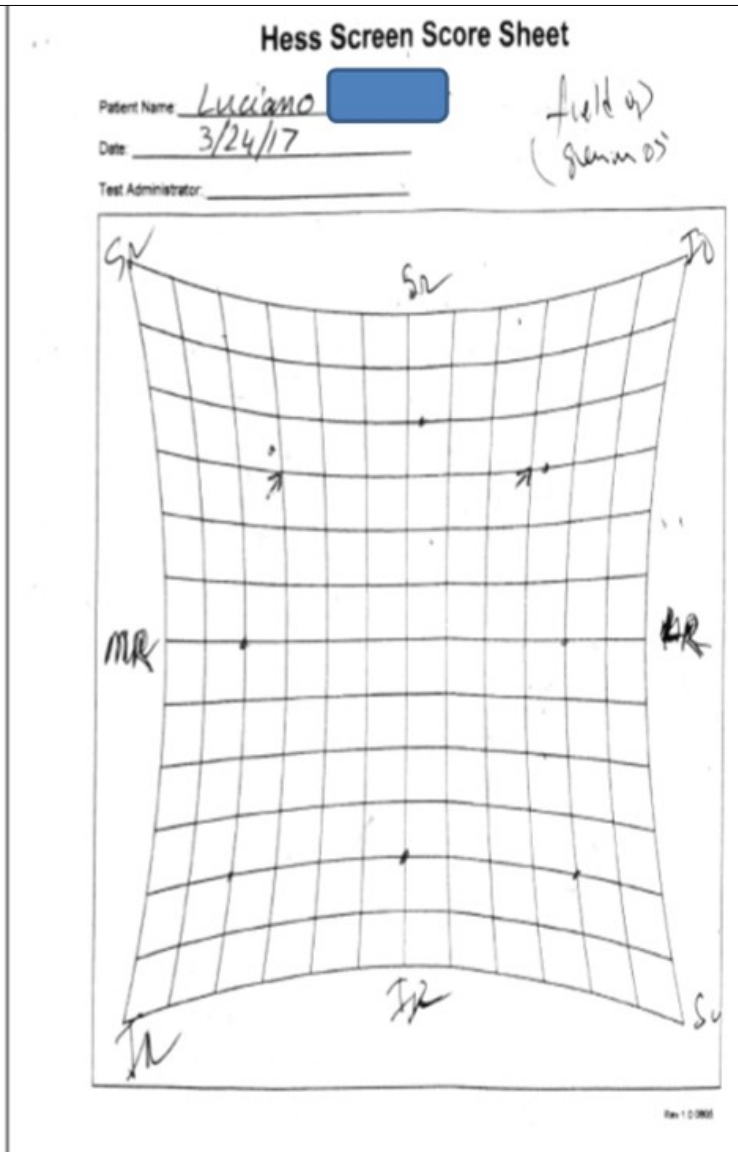
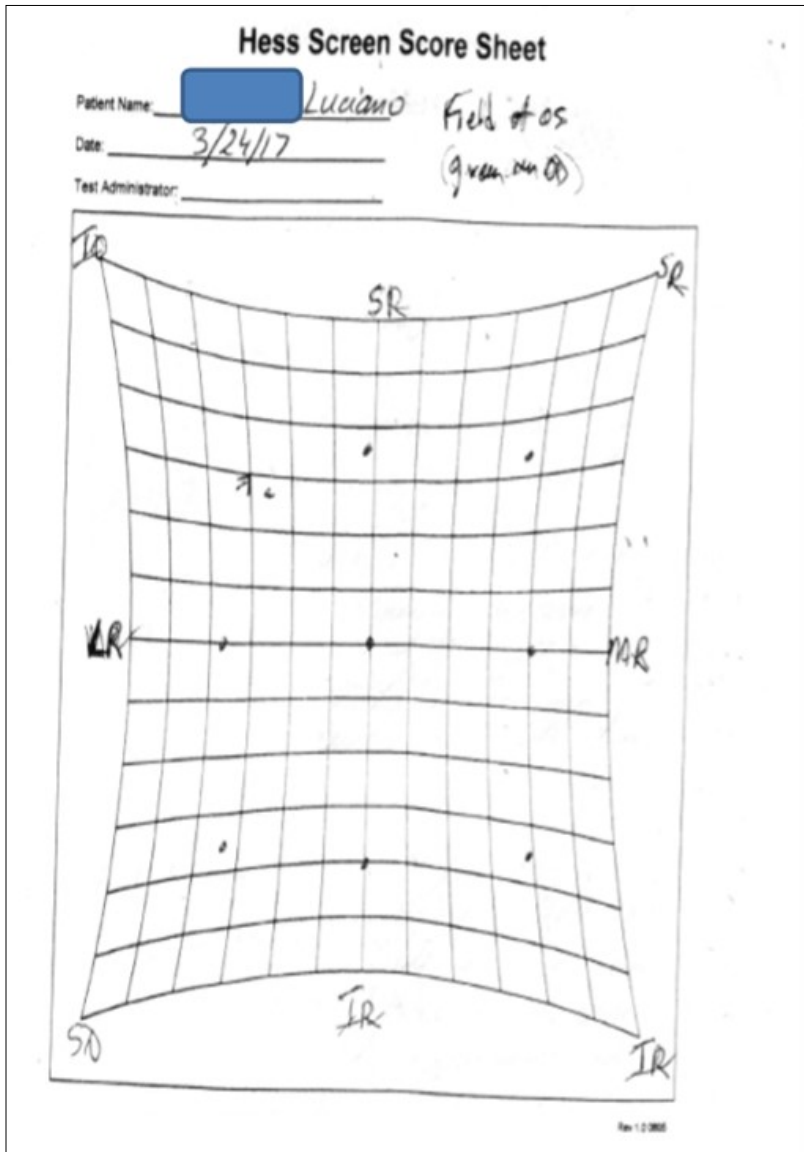
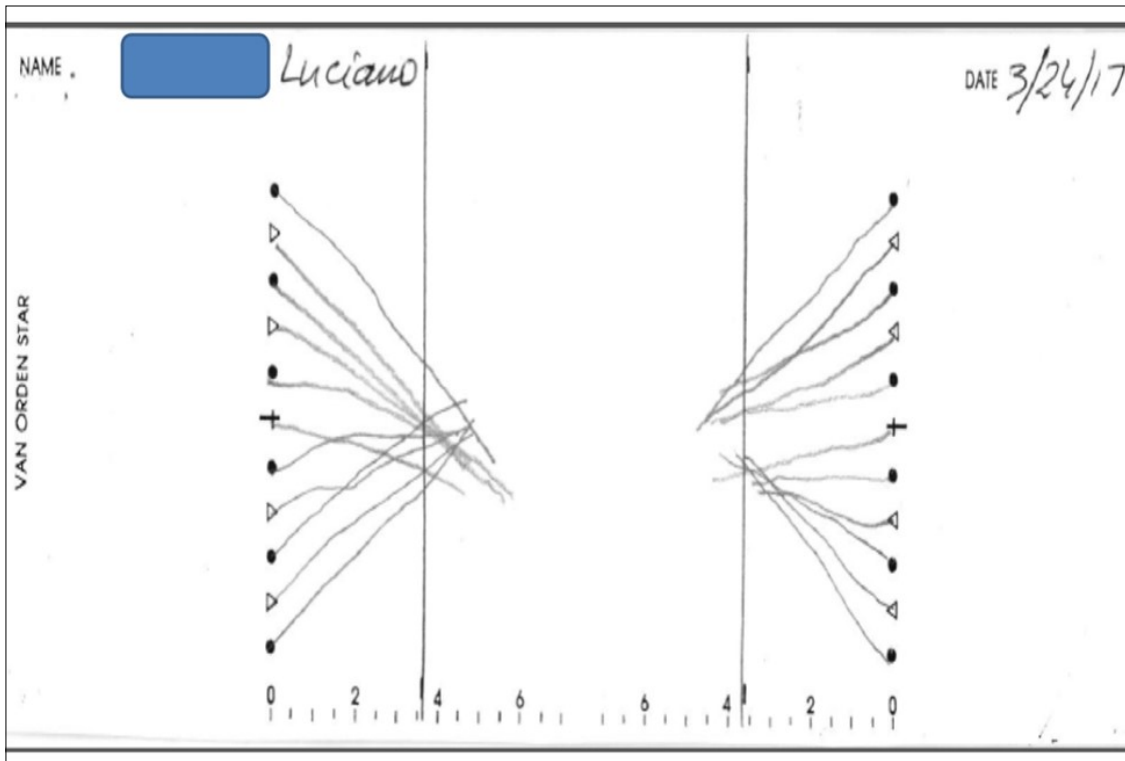
## Luciano

- Hx of 4 concussions during football games/practices
- 6 visits with Rx including Dynamic VT and Focal Tx
- Difficulties with reading and reading comprehension
- H/A with photophobia
- Blurred vision at near with alpha-omega 3
- Findings: esophoria at near with significant accommodative dysfunction.
- Contracted visual fields with large blind spots

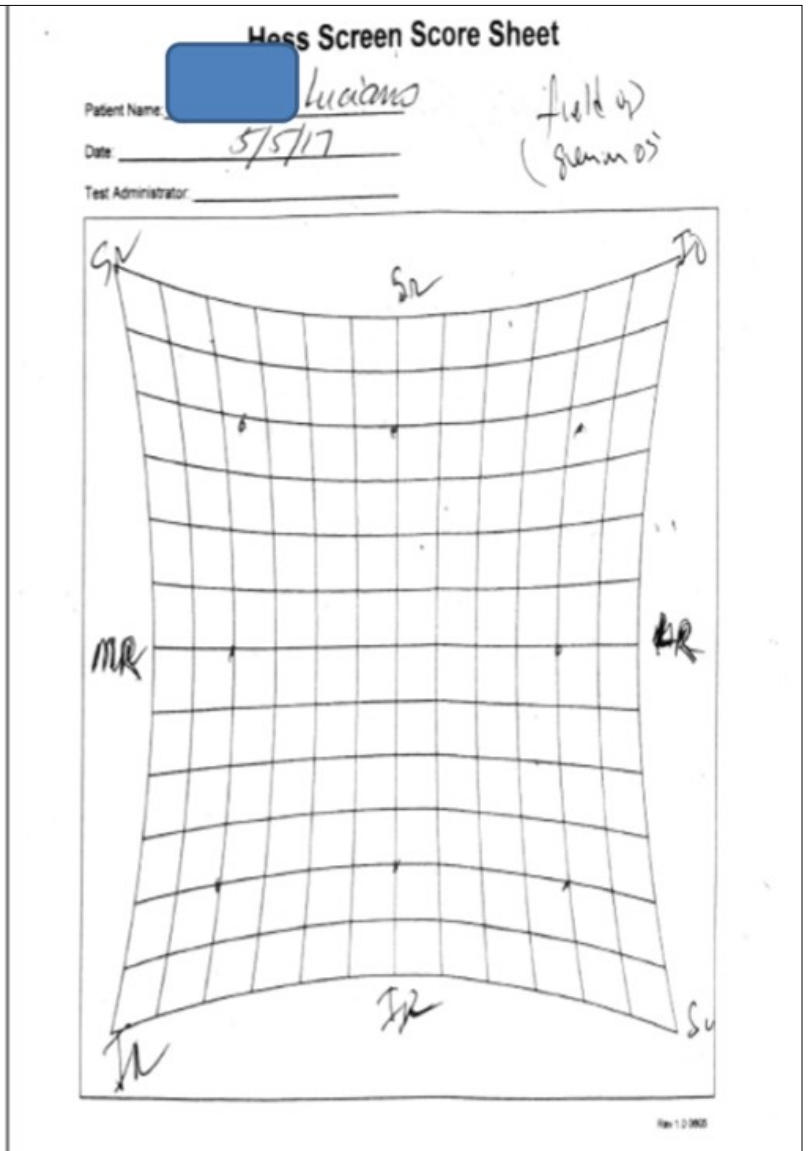
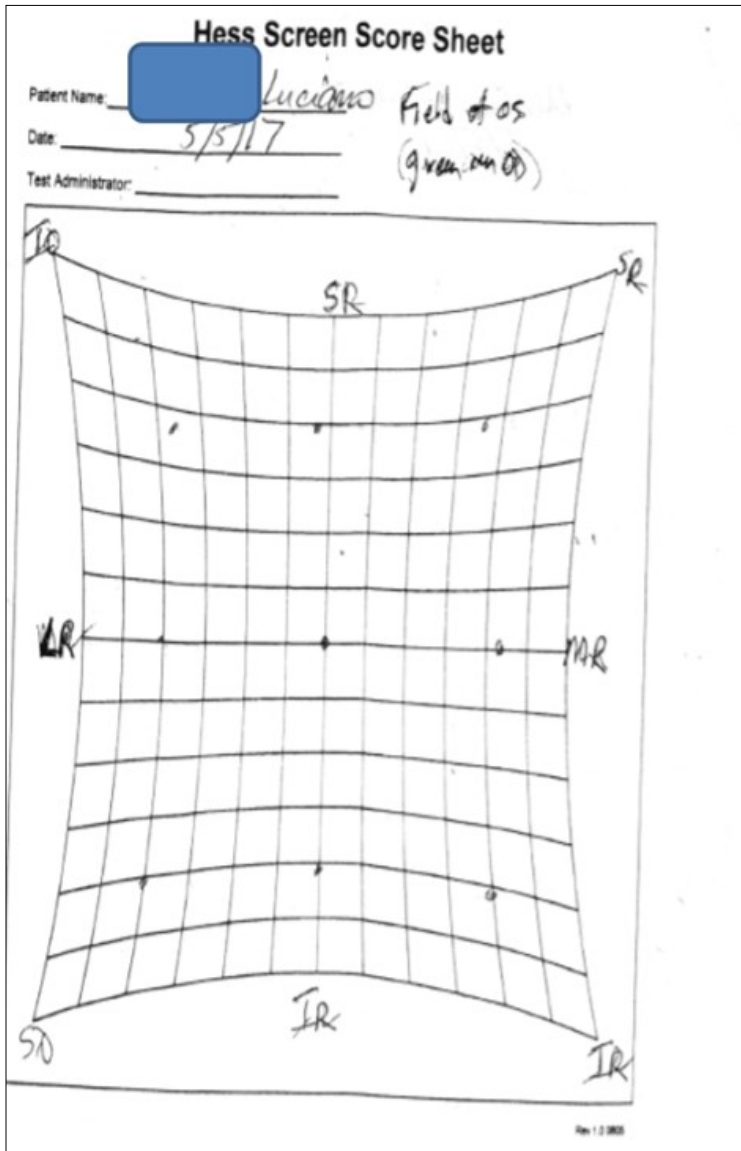
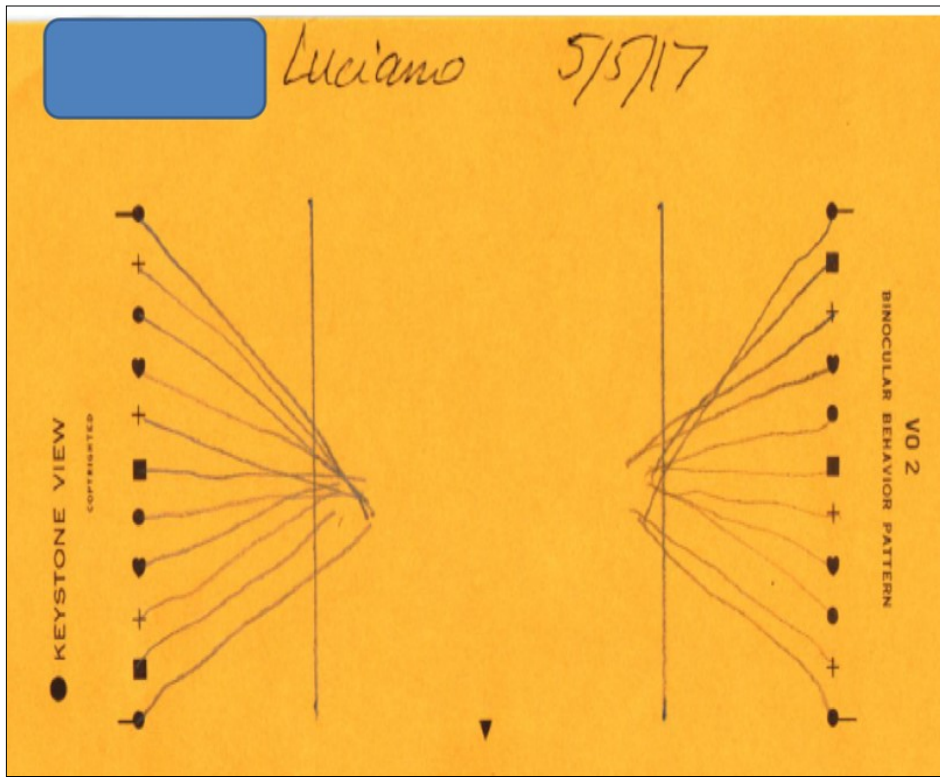
Simpkins uses red, blue, and green light only. The treatment can be further refined by using sytonic filters for motor-sensory stimulation of relaxation, Consideration of the biotype can then be included as well. Motor stimulation is applied with delta for pyknic biotypes and theta for asthenic types. Sensory points of the depressants would be pi for pyknic and upsilon for asthenics. Motor depressants would be omega for either single filters or





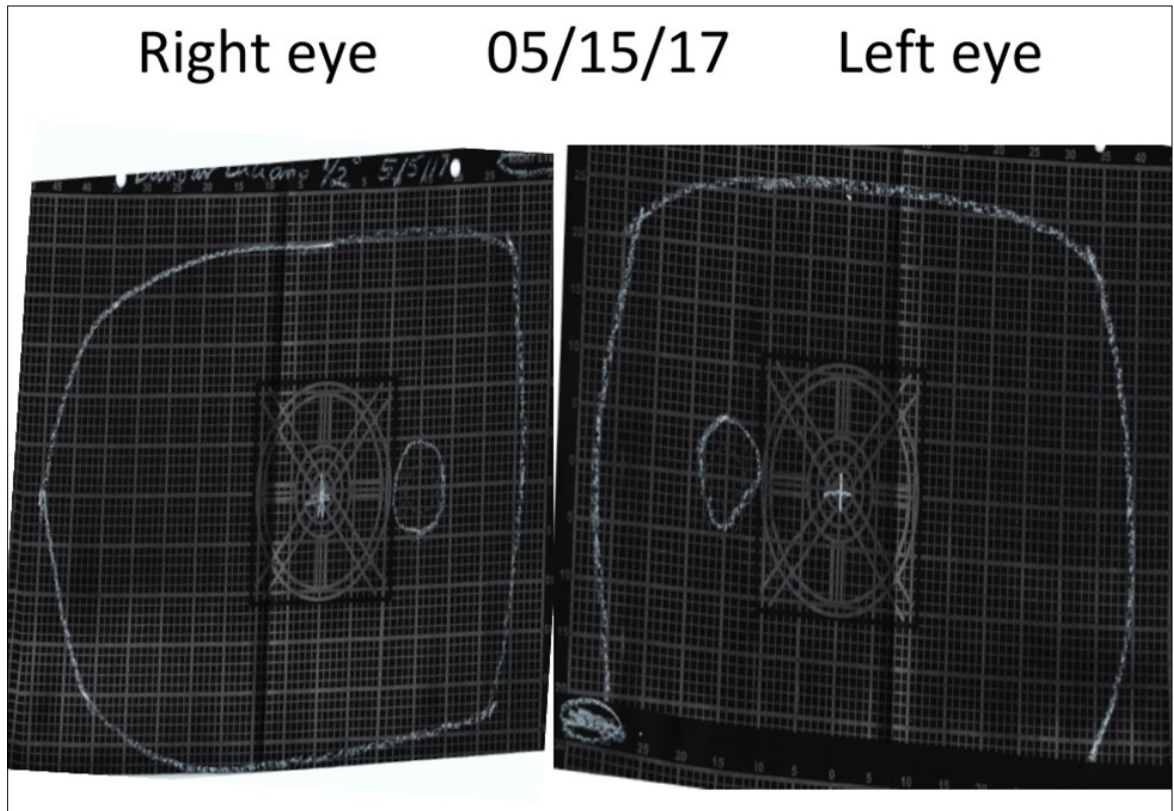








tivity by cybernetic feedback loops, driven by inherent regeneration, to create new neural pathways. Light stimulation may alter networks and change many systems in timing of the signals that are absorbed. These pathways allow changes in the extraocular muscles, cranium, sacrum, posture, and balance. The light stimulation can trigger change, but cannot direct it. Connectivity can change with many stimuli and perceptions. The inherent intelligence that drives life forces will foster balance in our physiology. That is one of the miracles of vision which emerges from an infinite amount of information every moment.



**References:**

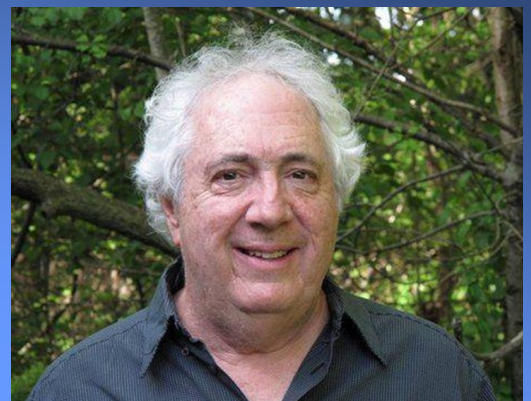
Examination of Refraction in Myopia, An Osteopathic Treatment, C. Bayer, 2006.  
 Excerpts from Focusing on Accommodation-Convergence, Points and Colors, S. Cobb, 2012.  
 EyeBody, Peter Grunwald, 2008.  
 Mechanics of Human Vision, Simpkins, 1939.  
 New Light on The Eyes, R.B. Simpkins, 1958.  
 Oculopathy, R.B. Simpkins, 1963.  
 Restrained Performance, Darell B. Harmon.  
 Visible Ray Therapy of the Eyes, R.B. Simpkins, 1963.

**Luciano**

- Decreased H/A to min
- Able to see and read road signs
- Improved reading comprehension with school work
- Binocular coordination and fusion are normal for far and near
- Accomodative function restored to normal

**About the Author:**

Larry B. Wallace, O.D., Ph. D., is a Doctor of Optometry and has a Ph.D. in Ocular Phototherapy. He has practiced for over 40 years in Ithaca, N.Y. He was founding member and served as President of the International Light Association. He has served as President for 14 years for the College of Syntonic Optometry, an organization dedicated to education and research in the field of light and color therapy. He has been the Director of Education for The College of Syntonic optometry creating the curriculum and arranging the speakers for the Annual Conference on Light and Vision for over 20 years. He has invented and patented the first micro-current device to treat eye disease in the Unites States. He participated in clinical trials and helped design protocols for treating macular degeneration and retinitis pigmentosa. He has published numerous articles and research on phototherapy. He has conducted and published number of studies involving neurology and light therapies. Dr Wallace has lectured and taught countless workshops around the world in the field of phototherapy and rehabilitative optometry. He is also a certified low vision specialist in New York, and offers alternative care for eye disease. He has worked extensively in the field of optometric neuro-rehabilitation, postural restoration, and treatment of head trauma and brain injury. He currently practices in an integrative clinic working closely with physical therapists and neuro-rehabilitative optometric therapy.



# Green

## Governing Velocity of the Body

Sarah Cobb

Since the onset of modern chromotherapy the green ray has been the mainstay of treatment. But it was the forgotten light pioneer, Ernest Stevens, who embraced new possibilities for its effectiveness in treating a wide range of vision problems. But first, let's review the use of green light from a historical perspective.

It is generally agreed by nearly all light workers past and present, that green light is effective in arresting or lessening the putrefaction of accumulation waste matter in the blood and cells. It decreases the stickiness of the blood and gives the red blood cells a stronger charge, improving their quality. Its antiseptic properties prevent decay of eye tissues and is especially effective in the treatment of glaucoma. Dr. William Luftig, an ophthalmologist who used light successfully for 30 years to treat vision problems wrote that green light secures and maintains equilibrium in the globe of the eye by keeping circulation steady. He used it with a plethora of eye conditions including optic neuritis, iritis, retinal detachment, cataract, strabismus, conjunctivitis, and nystagmus.

Brooks Simpkins, the vision therapist who specialized in improving eyesight used green along with red and blue for myopia, presbyopia, astigmatism, and hyperopia. He compared the green ray to turpentine for thinning down paint that is too thick suggesting that green light acts to decongest the filtration angle of the eyes (helpful in glaucoma) and the ciliary process in general. He writes that "The pleasant chilliness of the green ray is very soothing to the eye."

Dr. Harry Riley Spitler, founder of syntonioptometry, stated that green light acts as an antiseptic, disinfectant, germicidal, a stabilizer as well as a muscle and tissue builder. He wrote that green light builds visual acuity in the event of weak striated muscles. Striated contractions are voluntary and includes blood vessels, nerve fibers, and connective tissue as well as the extra ocular muscles of the eye. He recognized that it increased the circulation between the pituitary and the thalamus. In syntonioptometry green, usually combined with blue or yellow is the last frequency used in almost all treatments for the eyes.

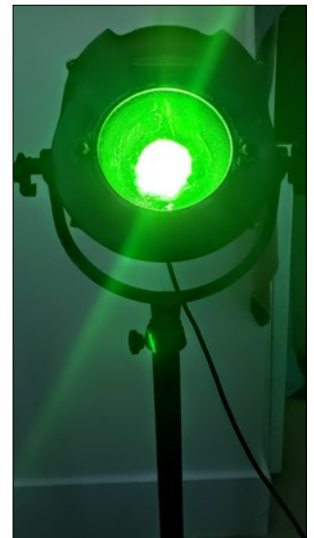
Dr. Carl Loeb, who was Spitler's teacher, taught that the first frequency introduced should be green to prepare the body for the action of the frequencies that follow. He suggested 10 minutes of green before all light treatments. Green is used in both acute and chronic conditions and that there are no contraindications for this frequency.

Dr. Ernest Stevens was inventor of the chromoray, a light therapy instrument that delivered rays of color to the body. Also, it had an aperture designed especially for the eyes. He claims to have written the first professional textbook on chromotherapy, entitled True Chromotherapy in 1938. His Tri-orays Manual, the original publication that accompanied his instrument, is a masterpiece.

In 1937 he suffered a rupture of the central artery which supplies the blood to the eye causing a clot in the back of the retina, resulting in almost total blindness.

Immediately he consulted an eye specialist who prescribed eye drops followed by warm compresses. For nearly three months he applied these compresses two hours a day without improvement. He writes that he then visited a chromo scientist who projected mild color rays into both of his eyes. The treatments consisted of green and blue lights. The green energy was given in the morning to revitalize and to nourish, whereas the blue energy, used late in the day flowed into the eyes for its healing and soothing qualities. The color treatments lasted one-half hour in the morning and one-half hour in the evening. Within a week there

was a noticeable improvement, after two weeks a marked improvement and after the third week, a restoration of nearly fifty percent.



*Dr. Ernest Stevens*





Dr. Stevens invented the chromoray and eventually treated thousands of people with frequencies of light as he lectured across the country and wrote numerous books. The most complete being Chromorays Triorays Manual which accompanied his instrument. In it he advised starting all light treatments with the green ray because as a cleanser and disinfectant, it prepared the affected organ by promoting circulation.

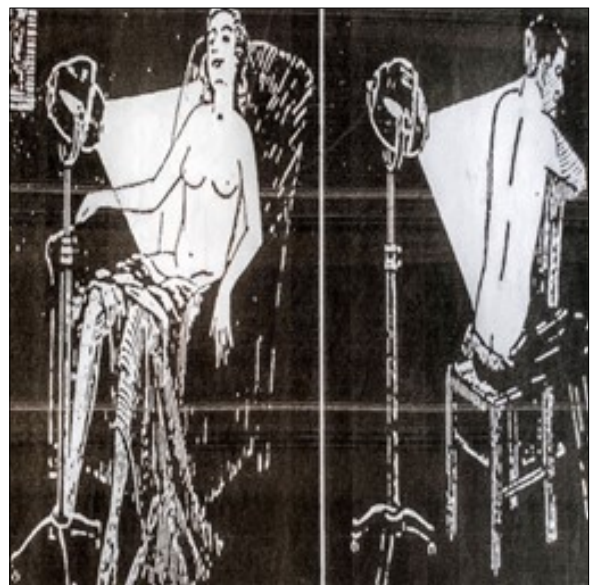
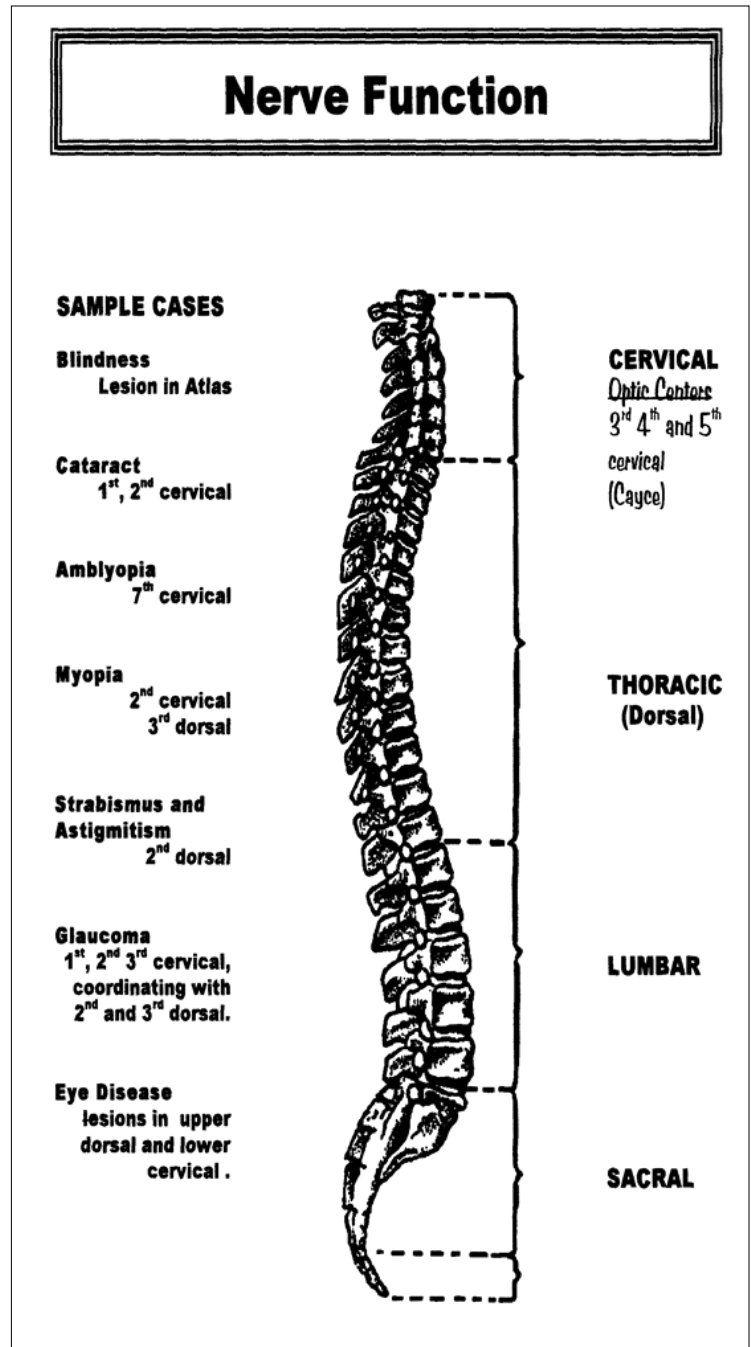
With this instrument it was common to bathe the chest, eyes and spine with light.

(Note the concentrating lens attached in the photo for treating the eyes.)

Why treat the spine? From Practice and Applied Therapeutics of Osteopathy by Charles Hazzard, D.O. we learn that lesions in the spinal column cause direct irritation to the eyes. They interfere with blood flow and nerve function, allowing the buildup of toxins in the blood and eye tissue. This can result in contracted muscles which he sites as a cause for errors of refraction. In Dr. Charles Hazzard's book, he recalls numerous vision cases, including conditions of near blindness that were corrected through spinal manipulation. Here are a few examples.

- \* Partial blindness, the patient being unable to read or to recognize a person ten feet away. The trouble was due to starvation of the optic nerve from a lesion of the upper cervical vertebrae. In four months, the patient was cured.
- \* A case of strabismus due to a lesion of the 2<sup>nd</sup> thoracic vertebra cured by the correction of the lesion. During the course of the treatment, after the eye was straightened, pressure on the 2<sup>nd</sup> thoracic vertebra would cross them again.
- \* Astigmatism in a girl of ten. Lesion was found at the 2<sup>nd</sup> thoracic. Treatment was directed to the correction of this lesion and to stimulation of the ocular blood and nerve supply.
- \* Partial blindness and strabismus associated with general paralysis, due to a forward slip of the head upon the atlas. The case was cured in two months.

The following chart sums up vision cases that are related to the spine as discussed in the early osteopathic literature.





What follows are treatments for numerous vision problems transcribed from Ernest Steven's Chromorays Triorays Manual:

## TREATMENT SUGGESTIONS

### Chromoray's General Treatments:

Front (chest from waist up) or back (see illustration on Spine Chart) 5 to 15 minutes with good results in just 5 minutes.

Always start with green.

Important pathways for color assimilation include: eyes, spine, solar plexus, soles of the feet, and the pituitary gland.

Keep eyes open if using an incandescent light source (75 watt bulb with glass filters.)

Irradiation of the chest and spine on a nude body. If not possible, use a thin white covering.

Treat every day. Suggested treatment times are: **General** front or back 15-30 minutes at a distance of 3 feet. **Local** (face only) 15 to 30 minutes at a distance of 18 inches from face, covering an area of about 12 inches in diameter. **Focal** (eyes) use with concentrating lens attached. Treat 5 to 15 minutes at a distance of 3 inches, covering an area of 1/2 inch in diameter.

Encourage relaxation for better results.

### Summary:

Green light increases the circulation between the pituitary and the thalamus.

It builds visual acuity in the event of weak striated muscles.

It is a muscle and tissue builder.

Reduces putrefaction of waste in the blood cells.

Decreases the stickiness of the blood.

Decongests the eye filtration angle, helpful in glaucoma.

The antiseptic properties prevent decay of eye tissues.

The first frequency introduced should be green to prepare the body for the action of the frequencies that follow.

Green is used in both acute and chronic conditions.

There are no contra-indications for this frequency.

### References:

E. Ruscheweyh, R.N. and E.A Ernest, Chromoray Triorays Manuel, Ernest Distributing Company, Milwaukee, Wis., 1937.

Hazzard, Charles D.O., Practice of Applied Osteopathy, 1905.

Loeb, Carl, Handbook of Specific Light Therapy, Actino Laboratories, Chicago, 1929.

Luftig, William, How to Cure Eye Disease Without Operation, The C.W. Daniel Company Ltd. London, Great Britain, 1938.

Luftig, William M.D., The Natural Treatment of Eye Diseases, Health for All Publishing Company, London Great Britain, 1947.

R. Brooks Simpkins, Visible Ray Therapy of the Eyes, Health Science Press, Sussex England, 1963.

Spitler, Harry Riley, The Syntonic Principle, College of Syntonic Optometry, 1941.

Stevens, Ernest, True Chromotherapy Volume I, The Rainbow Publishers, San Francisco Calif., 1938.

### About the Author:

**SARAH COBB** has been an optometric vision therapist for the past four decades. Her unique eye training procedures and charts are used worldwide. Sarah integrates various forms of light therapy into her technique. Lecturing and leading workshops on vision, light and eyesight recovery, she teaches in Europe and South America.

Sarah was the editor of *The Journal of Syntonic Optometry* and author of numerous published articles and books. Ten years ago she corrected her own presbyopia using AcuLight. Vision, a revolutionary method ten years in the making. In 2009, she was honored to receive the Spitler award.

"To request a scan of 'Chromorays Triorays Manual', email Sarah at: [eyeamsarah@hotmail.com](mailto:eyeamsarah@hotmail.com)."



exclusive deal available only for  
Phototherapy Journal Readers

# Hungry to build your practice?



**DIGIVISION MEDIA.** Optometry conferences, courses, and videos from international experts from CSO, COVD, NORA, and ISVA.

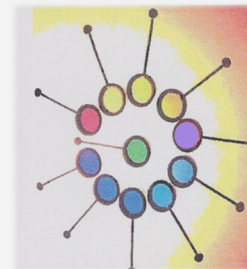
Visit [www.DigiVisionMedia.com/pj21](http://www.DigiVisionMedia.com/pj21) for a special offer!

## **C&j Instruments** 2620 Pawnee Ave. North Platte, NE 69101

C&j Instruments has more than 40 years experience manufacturing syntonics equipment with a close relationship to the College of Syntonic Optometry.

Call or email for a free brochure and price list.

I appreciate your business,  
Rex J. Cross, Owner



Phone: (308) 534-2537

Fax: (308) 534-5018

Email: [candjins@gmail.com](mailto:candjins@gmail.com)



# Impact of wearing binasal anaglyphic lenses on body flexibility – a personal case study

Geoff Shayler BSc FCOptom FCSO FBOAF FEASO

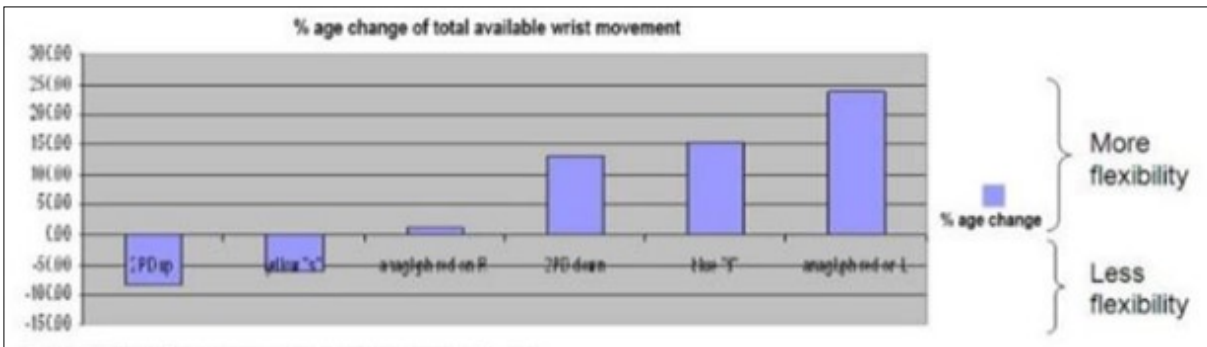
According to one of the theories of syntonics phototherapy (syntonics), different frequencies of light impact on the autonomic, where red light is thought to stimulate the sympathetic, and blue light the parasympathetic.

Experimenting with these filters, a few years ago, I identified that they changed flexibility of my arthritic wrists. Similarly, I experienced changes with low powered lenses, yoked prisms, and anaglyph lenses, the results, were presented at the CSO conference, held in Santa Fe in 2015. The initial study identified that negative lenses, base up prisms, bilateral red lenses and anaglyph lenses with red on the right, all reduced wrist movement (i.e. increased stress), and low plus, base down prism, bilateral blue lenses and anaglyph lenses red on the left all increased wrist flexibility (i.e. reduced stress).<sup>1,2</sup>

More recently, I experimented with split field lenses and later small partial anaglyph filters which were demonstrated at the BOAF conference in Bolzano in 2019.



Figure 1. The author, Geoff Shayler, wearing binasal anaglyph lenses



stress, which suggests they work by *inhibition* of the sympathetic nervous system.

The following images demonstrate the changes in different muscle groups of my body - wrists, hips, shoulders and spinal flexibility using these plano tinted lenses.

These investigations led to the development of these narrow binasal tints, which appear to *reduce* structural

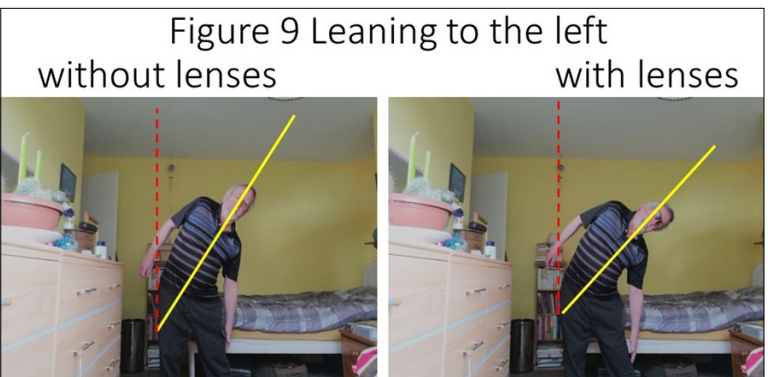
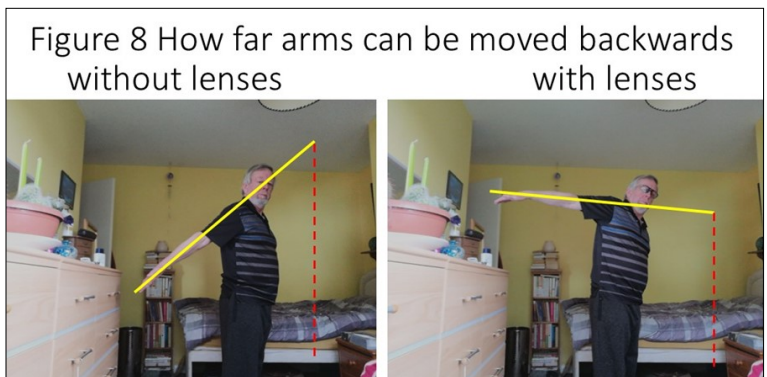
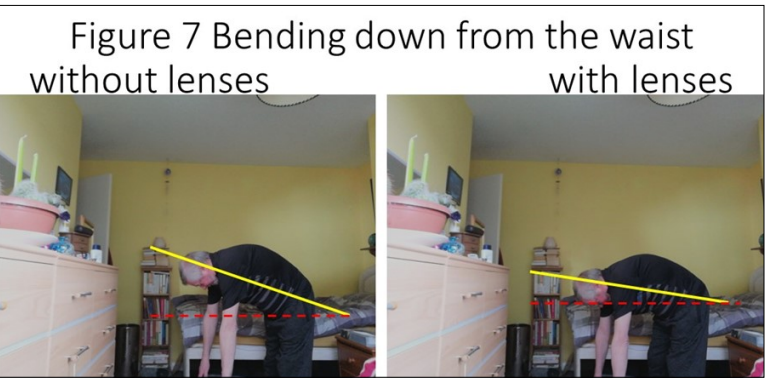
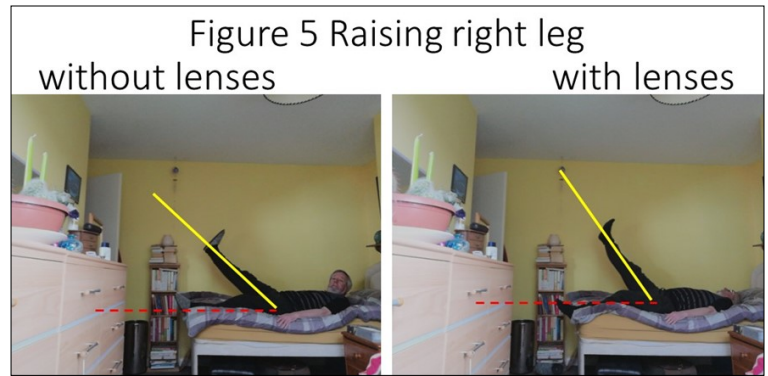
shoulders and spinal flexibility using these plano tinted lenses.



<sup>1</sup> The use of models to help our understanding of vision, Optometry and Visual Performance, Vol 3, Iss 3, Geoff Shayler.

<sup>2</sup> The association of Static (form) and motion coherence thresholds with various measures of visual and scholastic performance, Optometry and Visual Performance, Vol 4, Iss 16, 2016, Nov, Geoff Shayler.





The measures with specs were taken immediately after the first unaided image was taken and the results tabulated below:

**SUMMARY OF RESULTS OF ANGULAR CHANGES**

Body Movement		deg		deg		deg		%
wrists out	initial angle	71	angle with lens	128	increase in angle	57	percentage increase	80.28
wrists in	initial angle	60	angle with lens	81	increase in angle	21	percentage increase	35.00
raise L leg	initial angle	43	angle with lens	72	increase in angle	29	percentage increase	67.44
raise R leg	initial angle	44	angle with lens	57	increase in angle	13	percentage increase	29.55
arms raise	initial angle	74	angle with lens	90	increase in angle	16	percentage increase	21.62
bend from waist	initial angle	71	angle with lens	80	increase in angle	9	percentage increase	12.68
arms backwards	initial angle	49	angle with lens	96	increase in angle	47	percentage increase	95.92
leaning to left	initial angle	41	angle with lens	45	increase in angle	4	percentage increase	9.76
leaning to right	initial angle	39	angle with lens	46	increase in angle	7	percentage increase	17.95
* This is a “nonsense” figure but I feel is of interest							average*	41.13

## Points to ponder...

These tinted segments, according to campimetry, are beyond our ability, within the periphery, to accurately “identify” colour.

At this level of eccentricity,

- the eyes are primarily sending information from the retinal (non colour sensitive) rods.
- the eyes are primarily sending information to the brain via the magnocellular (non conscious) pathway.
- the right eye is losing red light stimulation to the temporal retina.
- the left eye is losing blue light stimulation to the temporal retina.

One intriguing part of the study, showed *no* significant change in either static (form) coherence threshold testing or global motion coherence threshold testing, which would suggest that these lenses are NOT affecting the efficiency of the magnocellular or parvocellular visual pathway streams in this “personal” case study. This area will be further investigated with individuals with reduced fields, once we are able to do more work once we get over the Covid-19 pandemic.

## Stress and the body

Stress hormones trigger your body’s “fight or flight” response. Your heart races, your breath quickens, and your muscles are prepared for action. This response was designed to protect your body in an emergency by preparing you to react quickly. But when the stress response keeps firing, day after day, it could put your health at serious risk.

Stress is a natural physical and mental reaction to life experiences. Everyone expresses stress from time to time. Anything from everyday responsibilities like work and family to serious life events such as a new diagnosis, war, or the death of a loved one can trigger stress. For immediate, short-term situations, stress can be beneficial to your health. It can help you cope with potentially serious situations. Our bodies respond to stress by releasing hormones that increase our heart and breathing rates and ready our muscles to respond.

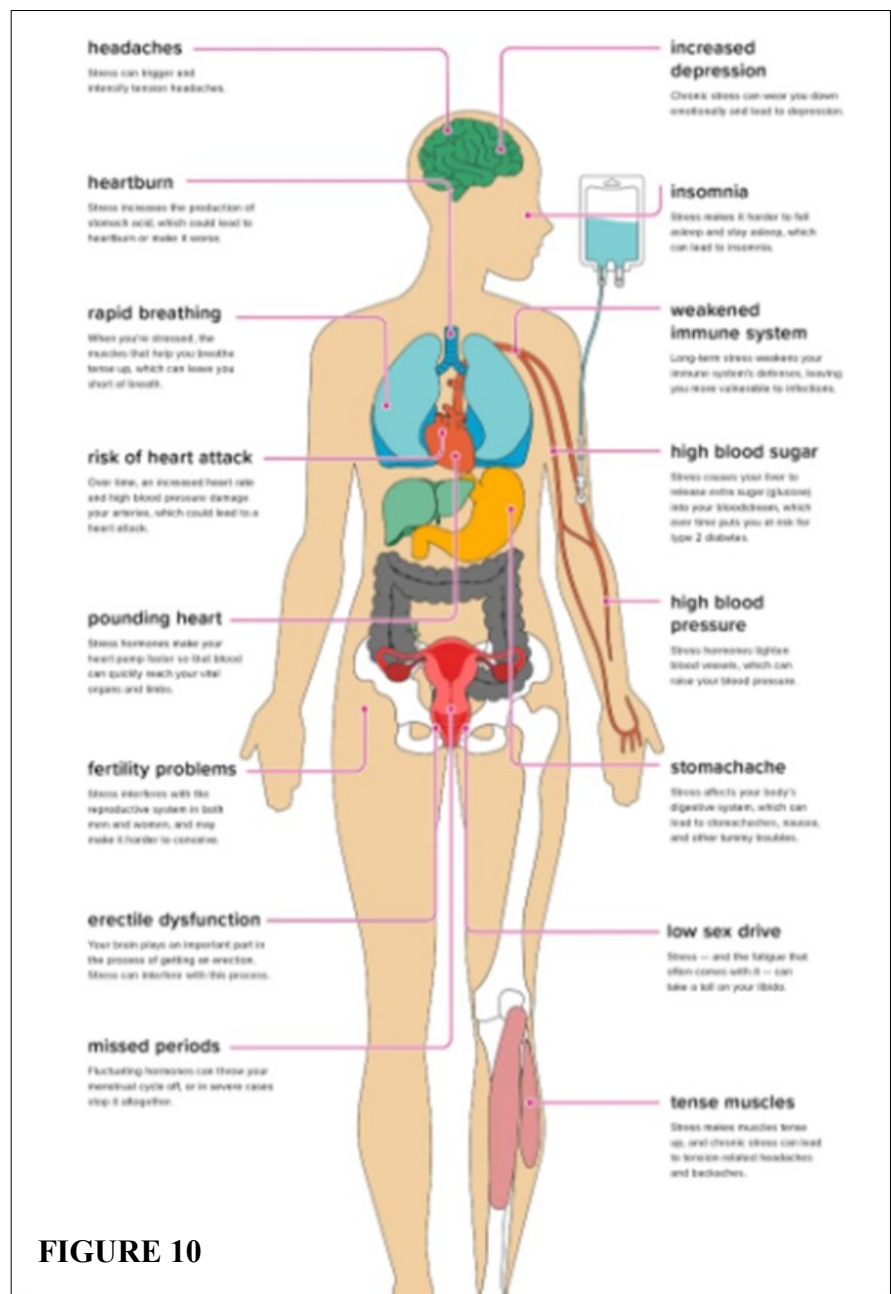


FIGURE 10

Figure 10 image copied from [www.healthline.com](http://www.healthline.com).<sup>3</sup>

Yet if our stress response doesn't stop firing, and these stress levels stay elevated far longer than is necessary for survival, it can take a toll on our health. Chronic stress can cause a variety of symptoms and affect our overall well-being. Symptoms of chronic stress include:

- irritability
- anxiety
- depression
- headaches
- insomnia
- tense muscles

<sup>3</sup> Adrenaline Rush: Everything You Should Know medically reviewed by Debra Sullivan, Ph.D., MSN, R.N., CNE, COI — Written by Jacquelyn Cafasso — [www.healthline.com](http://www.healthline.com). Updated on November 1, 2018.

I feel that this study has shown that underlying long term stress can create a situation within the body, where negative adaptations cause (semi?) permanent effects, that the body is unable to correct. When writing this article and downloading the above paragraph, I was surprised to discover how many of those symptoms I have been experiencing.

It would appear that the impact of syntonics light therapy or the binasal anaglyphic specs used in this trial are somehow impacting on this “long term” stress, in a positive way, (by reducing the distribution of stress hormones within the body?), resulting in the ability of the body to recover more normal function.

### Objections to this study

This is a personal “case study”, so different people may react in different ways and to different colour combinations, however, individuals, that I have seen with limited muscular flexion, have apparently similar results, as demonstrated at the BOAF conference in Bolzano in 2019.

### The future

My main reason for sharing this study is encourage more people to investigate this area, to share these ideas with physical therapists such as chiropractors, osteopaths, etc. If, and I would stress “if”, these lenses work in the manner that I have experienced, then think about how useful this could be when they have a client with limited movement. This individual is likely to be in pain and discomfort, with limited flexion of some of their joints. If just a few minutes use of these lenses will relax their muscles, then this would make treatment much easier for the therapist and more comfortable and less painful for the client and potentially speed up recovery.

The author, Geoff Shayler, can be contacted by email: [kinoptom@lineone.net](mailto:kinoptom@lineone.net)

## OPTOMATTERS®

Syntonics & Vision Training Equipment

Dokter Van De Perrelei 106  
2140 Antwerp - Belgium

T +32/3 271 19 51  
F +32/3 271 05 78

[www.optomatters.com](http://www.optomatters.com)  
[info@optomatters.com](mailto:info@optomatters.com)

Sonja Vanhimbeeck, Functional Optometrist and owner of Optomatters Cvba, which has been founded in 1990.

“ALL OUR **SYNTONIC** FILTERS AND **VT** EQUIPMENT IS ALSO AVAILABLE THROUGH HUMMINGBIRD HUES LLC.”



^ Sky set & Fusion Heart set



^ Red/Bluegreen glasses (adult + children)



^ Red / Green Flipper

Red / Green Domino >





# Awards and Accomplishments

We have two **International Fellowship Recipients** this year!  
**Congratulations to**  
**Cynthia Matyas, OD, MSc, FCOVD, FCSO** from Canada  
**and**  
**Stanley Tien, O.D., FACBO, FCOVD, FCSO** from Malaysia.



## DELUXE FCFTESTER SOFTWARE PACKAGE

The Computerized Functional Color Field Tester (FCFTester) software system provides for quick, efficient, and reliable testing of the functional color visual fields. The software allows for the measurement of Form Fields (functional campimetry), the Color Fields (Red, Blue, & Green), and Blind Spot.

A key benefit to this system is the vast number of settings and customizations which allow you to create uniform test conditions for your patients, as well as the ability to store test parameters to ensure testing accuracy and consistency with patients when retesting. A built-in calibration module allows you to run the software on monitors 15" up to 24". A variety of new enhancements now are included with the new Deluxe FCFTester software package, including the ability to monitor eye position during testing. For existing FCFTester customers, you can purchase this module as an upgrade. Contact us for details.

In addition to ongoing software enhancements, the new viewing hardware for the FCFTester received significant upgrades in 2020. Now constructed of high-impact ABS, the new hardware provides a durable, professional appearance. Also, the viewer now features a trial lens well.

Save time and improve accuracy by upgrading from your manual color field testing equipment to this professional software system, which is quickly becoming the new standard in color visual field testing for both its ease of use and value in the exam room!



**Interested in upgrading your old viewer hardware?**  
 The new deluxe software packages will include the new ABS plastic viewer (shown in the picture). If you are a customer who purchased the original RFFT software with the original acrylic viewer and are interested in upgrading your viewer, then you can purchase the new deluxe viewer individually for \$299.95.



Visit us online or contact our Customer Service Team to learn more information.

4016 N. Home Street | Mishawaka, IN 46545-4308 USA | Phone: (574) 259-2070  
 Fax: (574) 259-2102 | E-mail: info@bernell.com | Website: www.bernell.com

# Historical Perspective

Vol. 4 No. 10  
College of Syntonics Optometry  
October 1937 Issue  
Copyright 1937

## EYE MOVEMENT UNDER $\delta$ AND $\omega$

(Research Work Combining Syntonics  
and Motion Picture Photography)

By Dr. Geo. A. Youngdahl, Chicago, Illinois

In my talk to you today I shall try to explain the research that I have done with Syntonics and Ophthalmography. (Motion picture recording of eye movements.) There has been considerable discussion in the part on the effect of  $\delta$  and  $\omega$  upon coordination. Not only upon coordination of the eyes, but of the body as a whole.

Last year Dr. Melvin of Omaha made some interesting experiments showing the effect that certain frequencies have upon the coordination of the handwriting. He demonstrated that the writing of the individual changed considerably after exposure to  $\omega$  for specific time. The results were that an obvious lack of coordination developed after an application of the light. In other words the writing became scrawled like, and disjointed instead of the normal swing, which was absent.

It was with this thought in mind that prompted this research to demonstrate the effect upon the eye movements with a similar type of light. However, it was difficult to show that the effect of these frequencies upon the eye movements until we sought the aid of motion picture photography. There have been previous tests which have shown the effect on pupillary reaction, but more to my knowledge on eye movements, - that is, muscular movements of the eyes.

The lights we employed were the frequencies known as  $\delta$  and  $\omega$ ,  $\delta$  being the low and  $\omega$  the high frequency light. It is a well established fact that  $\delta$  is a stimulant and  $\omega$  a depressant. We chose these two opposites to show as clearly as possible their effects upon the reading cycle.

The instruments that were employed were the A. O. Company Ophthalmograph and the syntonizer. We owe a great deal of thanks to the invention of these two instruments because without them the research would not have been possible. The ophthalmograph is a motion picture eye camera and takes a delicate record on 35 mm. standard motion picture film of eye movements during the act of reading. The closest analogy to the instrument is the electrocardiograph which takes recordings of the heart cycle and which reveals intricacies that otherwise would be impossible to detect.

The filming of the candidates for this research was not a difficult task but a painstaking one. Before exposure to one of these two lights we carefully took an eye graph of each one of them, and then after exposure for 12 minutes and a subsequent rest for 10 minutes, we filmed them again. This was done on a series of students. We first used the  $\delta$  light and compared results and then used on subsequent days the  $\omega$  light and similarly watched the results. We nascentized in all cases using Local throughout the 3 minutes.

The result of the exposures to these frequencies were much as we might have expected from knowing the results of the handwriting experiments. When the  $\delta$  light was employed we found in most cases that the reading speed had been increased. There was better coordination. The regressions, that is, back stops in eye movements while reading are considerably reduced, and likewise a lessening of the faulty eye movements. There seemed to be evidence of less strain.

In the employment of the  $\omega$  light the results were nearly opposite. The reading speed was slower; regression had increased slightly; faulty eye movements were more noticeable and there was evidence of stress and strain while reading.

The lasting effect of these lights were of peculiar interest to me. For several days the effect lasted. Many of the students said that their eyes felt so quick and snappy so to speak, after exposure to the  $\delta$  light. It was most agreeable to them. However, quite the contrast in the case of the  $\omega$  light was the result. Most of them said that their eyes felt sluggish, and that there was an actual effort to read. Much like the effort of dragging an anchor so they described it. The eyes just seemed to stick on words at times. It took several days or more for the  $\omega$  effect to even wear off so that normal reading could be resumed.

In conclusion I should say that this work on light will lead us to greater knowledge of the effect on eye movements and can be put to practical use immediately. Take for example the pitiful nystagmus cases. In such cases as these  $\omega$  or a combination of  $\nu$  and  $\omega$  is a God-send. I have a film of a case of nystagmus before and after a series of 12 syntonizations. This light reduced the major undulations and lessened the movement of the minor oscillations. Such practical application to this research is gratifying to be sure. The pure science of today is the applied science of tomorrow. This was a statement quoted from the General Electric Research Laboratory. Nevertheless I believe that we shall all want to live another 20 years if for no other reason than for curiosity's sake alone.



Due to some accident of filing or mailing we are unable to secure the ophthalmographs from Dr. Youngdahl for inclusion with this paper. We are indeed sorry that these ophthalmographs could not be included herewith. However, there is this saving thought, those of you who were at the assembly at Dayton when Dr. Youngdahl

read his paper will recall the marked changes in “graphs” before and after the use of the Syntonic frequency. Also you will recall the nystagmus ”graph”.

All of which says, YOU MISS SOMETHING IF YOU DO NOT ATTEND ASSEMBLIES.

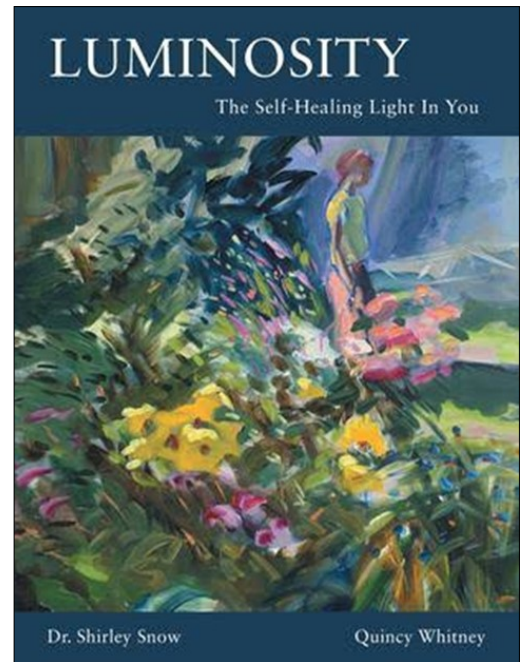
## Book Review

Shirley Snow, ND, DNB, HMD, 2017 New Hampshire Naturopathic Doctor of the Year, has been a pioneering naturopathic doctor for 50 years. A graduate of Arizona College of Naturopathic Medicine, she has gleaned the wisdom of a myriad of pioneers in natural healing methods.

Dr Snow has been a member of The College of Syntonic Optometry for more than 20 years. Her book mentions Syntonics several times throughout the book.

The aim of Luminosity is not to give you all the answers but to give you an introduction to the field of natural health therapies that all either complement or are a part of the Naturopathic profession.

When she is asked, ”Where do you practice?” Her only answer is: “I do not practice! I *know* what I am doing!”



### Spectron II Syntoniser:

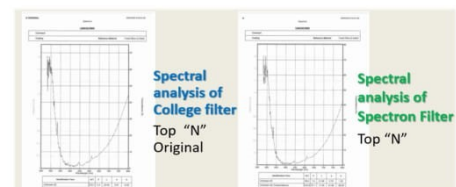
- Made from Hospital grade Silicone—
- anti bacterial, anti mould anti viral.
- Each glass filter is spectrally analysed for accuracy, consistency and reliability.
- Ideal for In Office OR Home based THERAPY.
- Zenon light source with DC power supply.
- Physiological diplopia fixation dome inside.

### Dual Viewing Options

Cheirofield Visual Field Instrument

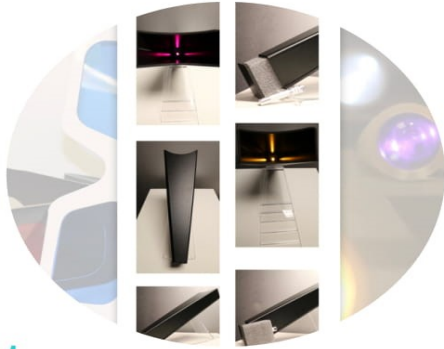


With Van Orden star attachment



More Information Visit: [Optivisionstore.com](http://Optivisionstore.com) OR email [nada@optivisionstore.com](mailto:nada@optivisionstore.com)





01 Syntonizer "EASY" Unit



02 Field Charter "SCFC" Unit



03 SYntonac Filter Penlights



04 SYntonac Filter Goggles

YOUR SYNTONAC ONLINE STORE



Experts make things simpler

Discover our new line of products for Syntonic Optometry

- Testing and Therapy

05 MUCH MORE @

SYntonac International LLC

Oswego, IL - USA

office@syntonac.com

www.syntonac.com

# College of Syntonic Optometry



A NONPROFIT CORPORATION DEDICATED TO RESEARCH IN PHOTORETINOLOGY,  
THE THERAPEUTIC APPLICATION OF LIGHT TO THE VISUAL SYSTEM

## 2021 Virtual International Conference on Light and Vision

May 22-23, 2021 Syntonic Phototherapy 101  
June 4, 2021 Syntonic Phototherapy 201  
June 5, 2021 International Conference on Light and Vision

### Guest Speakers:

James Oschman, Ph.D, Author of Energy Medicine  
Joshua Rosenthal, M.D.  
Hans Lessmann, O.D., FCOVD, FCSO  
Terry Trinka, O.D., CN  
Cathy Stern, O.D., FCOVD, FNORA, FCSO  
Larry Wallace, O.D., Ph.D., FCSO and Ray Gottlieb, O.D., FCSO

## 88<sup>th</sup> International Conference on Light & Vision

June 1-4, 2022

Nashville, Tennessee, USA

## The Australian College of Syntonics Events for 2021

**Basic Course 101:** 13<sup>th</sup> – 14<sup>th</sup> March 2021

**Annual General Conference:**

13<sup>th</sup> June 2021 (Speakers & format to be announced)

**Advanced 201:**

Day 1-19<sup>th</sup> September then Day 2-10<sup>th</sup> of October 2021



*NOTE: Times & Dates are 9am-5pm on Sydney time Australia.*