

REVERSAL OF PUTATIVE "FAIL-SAFE" BEHAVIOR- INDUCED PRE-RETINAL MEMBRANES

Pre-Retinal Membranes Compared to Posterior Retina

Rb

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at

PRE-RETINAL MEMBRANE EXCISION AS A SURGICAL OPTION

- Surgery can result in a major improvement.
- But the (protective?) membrane quickly recurs, unless the patient knows how to prevent membrane formation.

Compare Ben Lane's 1965 RVH Study

- 1965 Eastern Retino-VaSeaboard Conf on Visual Training: Ben Lane, OD presented his study on **Retinovascular-Homeostatology** –study of goal-directed changes in retinal vascular homeostasis related to behavioral demands or exposures.
- Skeff on tour said to ODs: "Get the transcript, It's terribly important."
- Lane found that by studying :
 - (a) the Central Retinal Vein exit **displacement** from the center within the disc, and by
 - (b) observing the **nasalward** vs **temporalward** displacement of Superior and Inferior Retinal Veins (venule branches) we can predict;
 - (c) **Embeddedness** vs **Nonembeddedness**, **Chronic Esophoria** , **Exophoria**, **Hyperphoria**

Membranes are *Predictable*.

- Membranes are Predictable as to SIZE, POSITION, THICKNESS, and LOCATION, based on:
- embedded esophoria, microtropia,
- time spent outdoors with brilliant sunlight either overhead or setting, rising lpw angle, as
- compared to blue-violet light hazard from cell phones held in hand.

Recent ZEISS Cirrus photos & OCTs studies from four patients since beginning of January 2024 .
That shows how common the membranes are.

- David
- Ivelyn
- Lucia
- Richard

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16 N. Beverwyck Road Lake Hiawatha, NJ 07034

Patient: **David** Comment:

Date of birth: 4/6/1959 Gender: Male

Patient ID: 8812232



1/11/2024

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OD OS Green 1/11/2024 3:54:22	OD OS Blue 1/11/2024 3:54:22

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Patient: **David** Comment:

Date of birth: 6/9/1992 Gender: Male

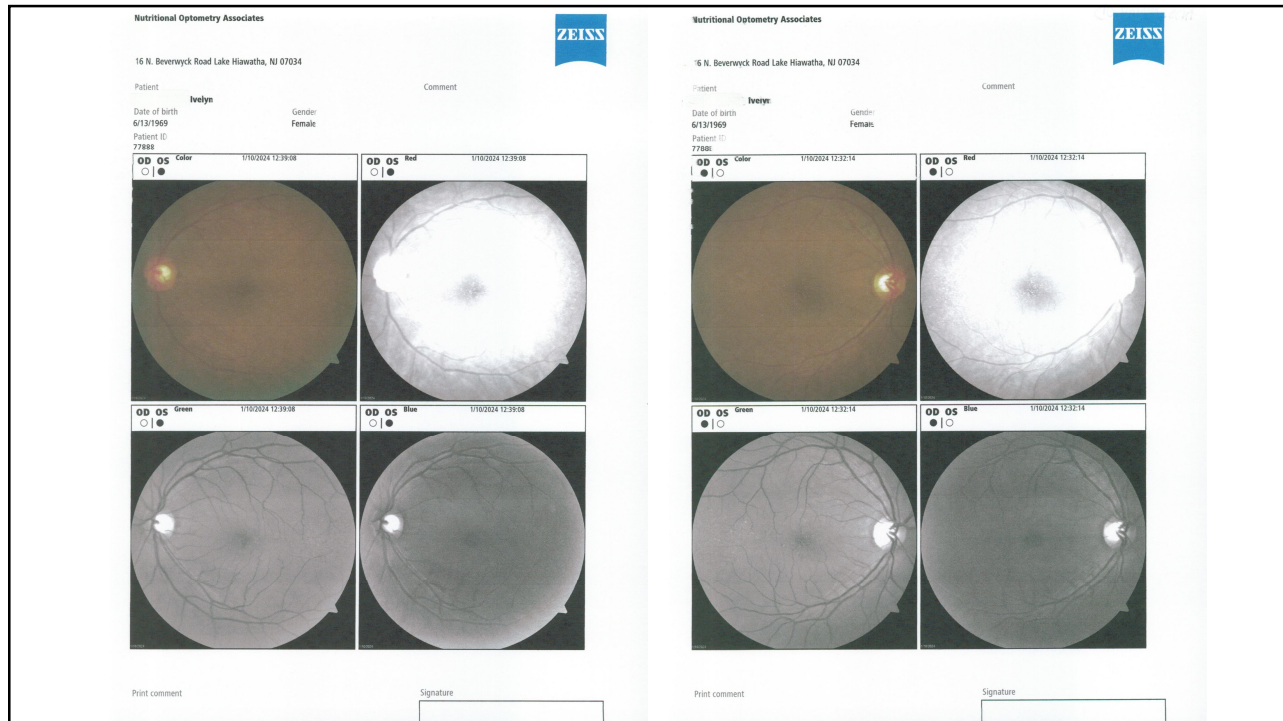
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OD OS Green 1/11/2024 3:54:18	OD OS Blue 1/11/2024 3:54:18

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Related Behaviors: Lucia

- SphEquiv OD: -14.50 DS; OS: -16.75 DS
- Convergence Insufficiency: (H51.11) 11.6 cm / 11.7 cm OS exo's
- Exophoria, Dist/40 cm: 3 Pr Dio Exophoria
- Best distance v.a.: 20/20+; 20/20+
- Avoids night driving on winding roads

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ZEISS

Patient: **Lucia**
Date of birth: 9/15/1957
Gender: Female
Patient ID: 71264

Comment

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OD OS Green 1/6/2024 3:45:16 PM	OD OS Green 1/6/2024 3:45:16 PM

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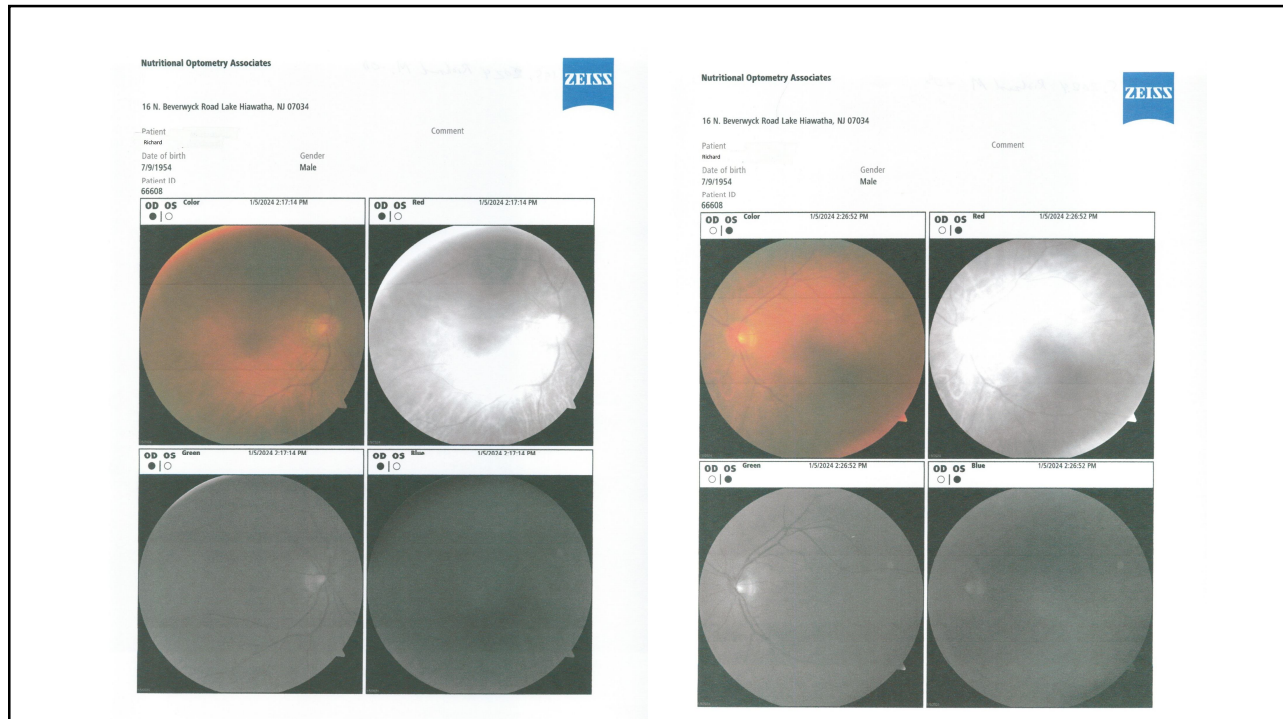
Patient: **Lucia**
Date of birth: 9/15/1957
Gender: Female
Patient ID: 71366

Comment

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OD OS Green 1/6/2024 3:16:39 PM	OD OS Blue 1/6/2024 3:16:39 PM

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Preventing Membrane Development

- Remind patients: Membrane Development is occurring in a majority of normal persons in a rarely tree-shaded environment.
- Prevent membrane development by wearing adequate sunglasses when exposed to high intensity sunlight, even when partly filtered by clouds .
- Wearing a baseball cap or sun visor is more effective protection than average sunglasses. The combination of excellent sunglasses when appropriate with visor or brimmed hat are excellent when combined with blue-violet protection.

Pre-Retinal Membranes vs (Posterior) Outer-Retinal Atrophic Macular Degeneration

1984-85 Yearbook of Nutritional Medicine, Ed by Jeff Bland, PhD (Keats Publisher)—some 12 years before start of the National Eye Institute clinical trials for the new formula. Dr. Lane presented these formulas at ARVO and in 1984, four days of lectures in Moscow at the Moscow International Symposium on Metabolic Eye Disease.

Contains Dr Ben Lane's 43-page chapter on "Nutrition and Vision," which contains his three nutraceutical formulas for the Degenerations:

- (a) Atrophic or Dry,
- (b) Exudative or Wet or Choroidal Neovascular, or
- (c) Geographic Atrophy.

Dr Lane's involvement in the most successful nutraceutical in the world.

Dr Lane published his 43-page chapter on "Nutrition and Vision" in the *1984-85 Yearbook of Nutritional Medicine*, 11 years before the National Eye Institute tested the final actual nutraceutical formula. He published the nutraceutical formulas eight years before the 1992 start of the clinical trials and four years before David Rushmore published a fine clinical trial (1988) reporting the benefit of three of the four nutrients essential for the formula.

Dr Lane shared his results with Prof Rushmore and Rushmore used live human retina to prove Dr Lane's findings before the clinical trials.

Night Driving Great Help from Visored Caps

- Remind patients that brimmed hats or visor brims enable much safer driving *on winding , narrow country roads*, not a big difference on well-defined, predictable expressways.
- Otherwise, blinding high-beam headlights coming around a bend on a narrow road, **cause the membrane to be illuminated, and we see the bright membrane instead of the road.**

How comforting is "Fail-Safe"?

How comforting is "Reversible"?

- 1. A car bumper as a "fail-safe" protector, *BUT THERE ARE LIMITS!*
- 2. Blue-Violet blockers block hardly visible blue-violet without much or any restriction in seeing the usually perceived blue color.
- 3. Remember, almost invisible blue-violet is included in white light unless it has been explicitly excluded.
- 4. The average *NORMAL Preschooler is developing cupping and membranes even at 3 or 4 years of age, and they are reversible within 2 years*

Reversing Optic Disc Excessive Cupping and Pre-Retinal Membranes in Preschoolers--A

- Our Nutritional Optometry Institute (NOI) studies report that 3-year olds and other normal preschoolers with interactive digital tablet infatuation will stay with this "New Age" babysitter interactive task for four hours until eyes start to get tired. At that point and when resting, the organism response to the sustained accommodative demand is to elevate the intraocular pressure (IOP) trying to stretch the eyeball. But at preschool ages the head is too small for the eyes to expand, so the elevated IOP creates cupping within the disc.

Reversing Optic Disc Excessive Cupping and Pre-Retinal Membranes in Preschoolers--B

- Our findings are that the cupping is reversible and the membranes in the 4-year old are reversible and can be described putatively as "fail-safe."
- Lane documented this effect of cupping in adults in his 1970 SUNY thesis, published in book form in 1980 as *Elevation of IOP with Daily Sustained Reading and Closework Stimulus to Accommodation*.

Related concepts

- 1. Is the reader comfortable with our use of the title "Fail-Safe"?
- 2. In humans, the body uses the regulation of IOP to adjust the optics of the eyes, short of glaucoma. Ocular hypertension can occur without glaucoma.
- 3. In preschoolers, the cupping and the membranes are reversible within TWO YEARS when we work preventively: +1.00 DS adds with blue-violet blockers in or on the lenses for normal preschoolers in order to be allowed to use the digital tablets, but not otherwise used for preschool classes except for digital screens.
- 4. We have collected evidence in adults demonstrating the need for the body to be able to synthesize SuperOxideDismutase (SOD), which normally is the most prevalent enzyme in the human body in cells which use oxygen.
- 5. A refined diet generally lacks the minerals required for this ability. We can and do measure the ESOD concentration in RBC (Erythrocytes).
- 6. Monocular squinting in the sun shows a dramatic difference in membrane formation.