

NEURO-OPTOMETRIC **REHABILITATION ASSOCIATION**

mindeye.com



THANK YOU to

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- shift the paradigm from 20th Century eye care to 21st Century brain function, so patients can be assessed from a different viewpoint.
- realize that the retina is comprised of brain tissue and is part of the central nervous system which affects thinking and movement.
- learn how lenses, prisms and filters affect the relationship between conscious attention and subconscious awareness.
- use the case studies presented to provide an avenue for addressing unexpected responses in complex patients.











The World is Filled with Sensory Bombardment



Typical eye testing may not thoroughly assess sensory overload













































































Photoreceptors Bipolar cells Ganglion cells Amacrine Horizontal

How stimulation affects patients after a brain injury – how we can affect their processing



















Various Nervous Systems

- Enteric
- Central
- Somatomotor (Somatic Motor) (Voluntary) Cranial Nerves III, IV, VI and XII signals from gland & muscle cells
- Parasympathetic (Rest and Digest) (Feed and Breed)
- Peripheral
- Autonomic (Visceral Motor) (Involuntary) Cranial Nerves III, VII, IX, X signals from glands, cardiac muscle, and smooth muscle in organs
- Sympathetic (Fight, Flight or Freeze)







Hour 6 – Medication & Brain Function Lenses and Filters Primarily Affect the ANS Prisms Primarily Affect the CNS The Vagus Nerve Links the ANS to the CNS



Retinal Circuitry – an overlooked part of the CNS





















History: Who Is Your Patient?

- Review of 12 systems
- Review of their medications
 - Make sure we aren't negating something
- BODY
 - Which system is their weakest?
 - Helpful to know when prescribing
 - How fragile are their systems?
 - What will push them out of their comfort zone?

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History: Who Is Your Patient?

- MIND
 - What interests them?
 - How do they use their eyes?
 - What amount of space are they comfortable in?
 - Do they think in terms of concepts or details?
 - Are they inclined to be emotional or logical?
 - Do they prefer to observe or participate?

History: How Does the Patient Respond?

- What is their body position?
 - Paper holding test
 - Look for tilt, head position, working distance, foot position
- Do they talk to themselves?
- What do they see or hear in their mind while reading?
 - If they hear talking: who?
 - If they see something: what?
- How do they process maps?















Chemicals change depending on Environment

For Example: Body chemistry depends on causes. A blood pressure measurement is not sufficient to analyze a patient. There is no brain structure specific for controlling blood pressure. Blood pressure varies depending on factors in the **BODY**, **MIND AND ENVIRONMENT**.



BODY: Running for fun



MIND: Running late to class



ENVIRONMENT: Running from danger





















Make the Connection

WHAT? 20/20 system of eye examinations needs updating

WHY? Designed in 19th century using stationary black and white targets, no reaction time involved

WHO is affected? Everyone who uses technology which uses peripheral eyesight (not fully assessed in a refraction)

HOW can we help? Become a 21st century optometric practice

WHEN? Now!



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Thanks for sharing your time! *"Ask Z Doctor"* Email: info@mindeye.com

