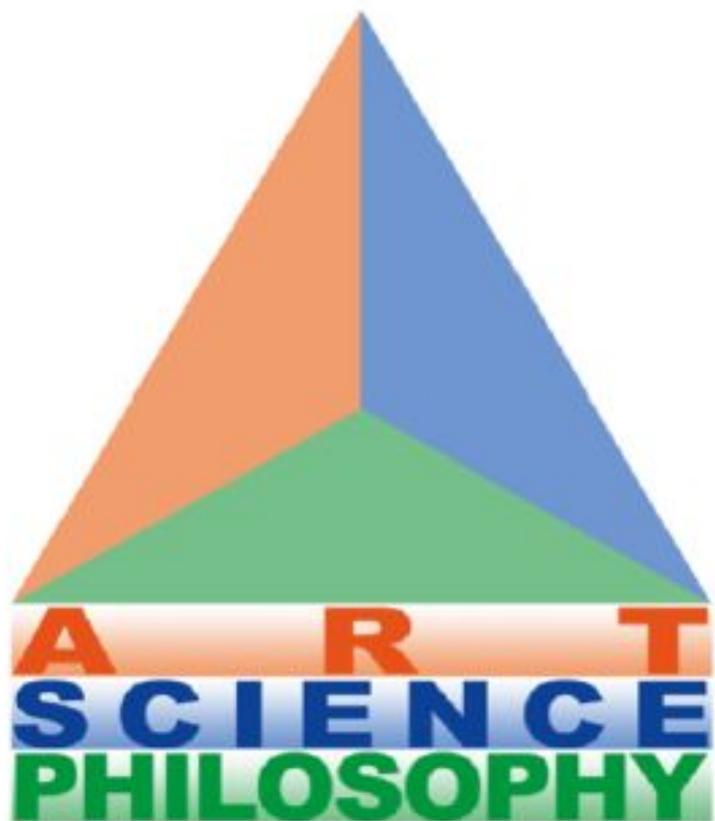




# Brain Talk

Embracing a New Paradigm in  
Chiropractic Care



# Brain Builders vs. Bone Fixers

*Neuroscience will elevate your business and all your people*



# Pain Points In Business

- PVA - low, with national average around 9
- Patients discontinue care during care plans
- Acute care management
- Business challenges - profitability, adding products/services that increase revenue

Chiropr Man Therap. 2017; 25: 35.

Published online 2017 Nov 22. doi: [10.1186/s12998-017-0165-8](https://doi.org/10.1186/s12998-017-0165-8)

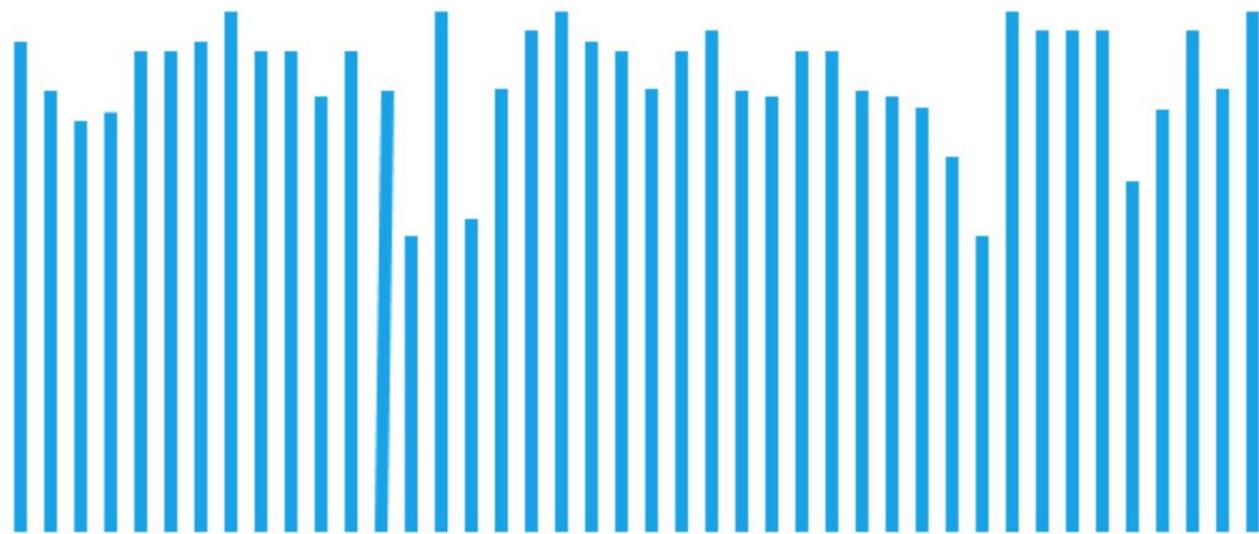
## Results

The literature search retrieved 14,149 articles; 328 studies (reported in 337 articles) were relevant and reported on chiropractic utilization (245 studies), reason for attending chiropractic care (85 studies), patient demographics (130 studies), and assessment and treatment provided (34 studies). Globally, the median 12-month utilization of chiropractic services was 9.1% (interquartile range (IQR): 6.7%-13.1%) and remained stable between 1980 and 2015. Most patients consulting chiropractors were female (57.0%, IQR: 50.0%-60.0%) with a median age of 43.4 years (IQR: 39.6-48.0), and were employed (median: 77.3%, IQR: 70.3%-85.0%). The most common reported reasons for people attending chiropractic care were (median) low back pain (49.7%, IQR: 43.0%-60.2%), neck pain (22.5%, IQR: 16.3%-24.5%), and extremity problems (10.0%, IQR: 4.3%-22.0%). The most common treatment provided by chiropractors included (median) spinal manipulation (79.3%, IQR: 55.4%-91.3%), soft-tissue therapy (35.1%, IQR: 16.5%-52.0%), and formal patient education (31.3%, IQR: 22.6%-65.0%).

# 60% Discontinue Care YOU Outlined

60% of patients do not finish a treatment plan

22+ Million Chiropractic  
Visit, Each Year.



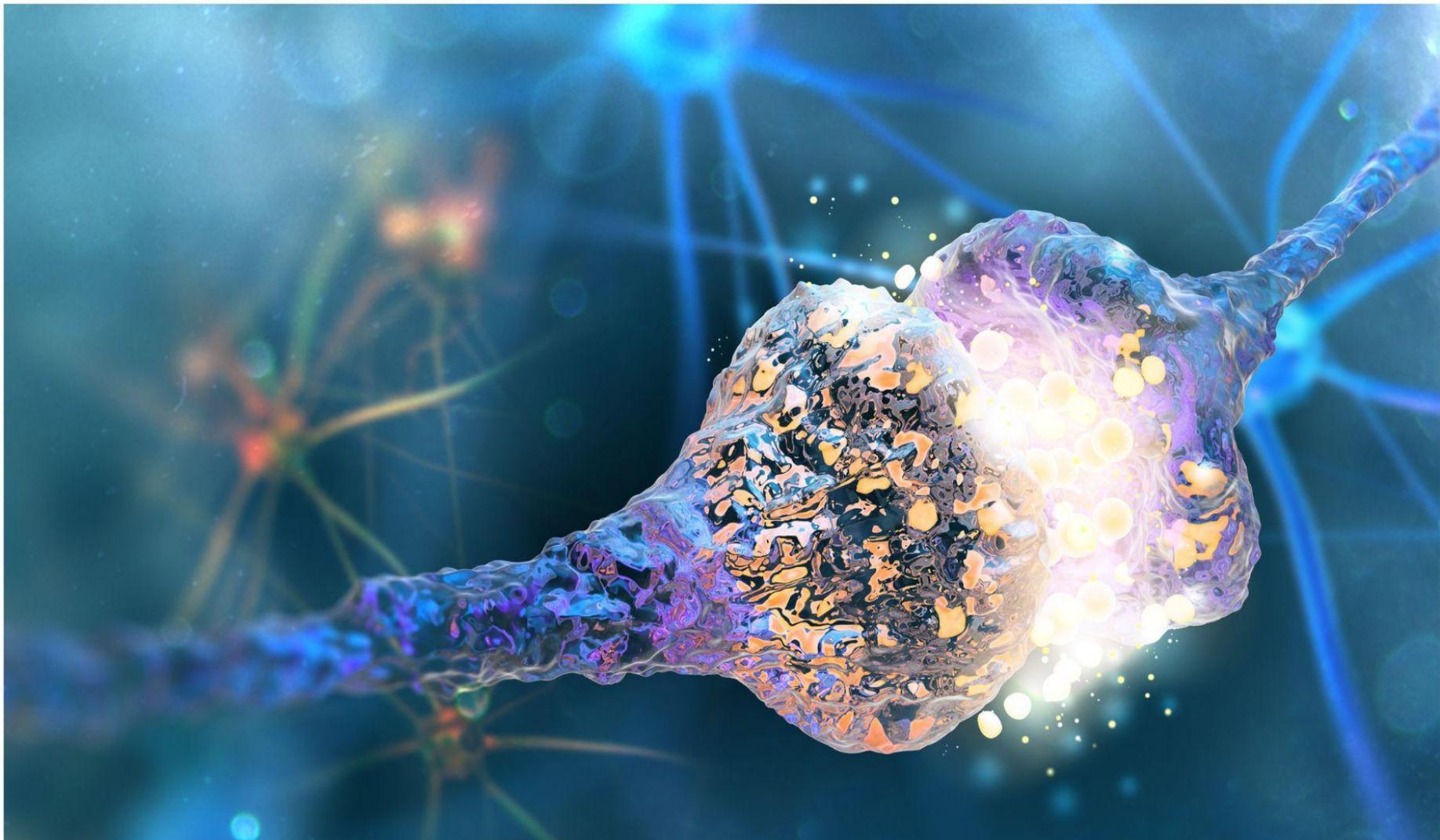


# CHALLENGE

How can changing my emphasis to brain building benefit my bottomline?







## The emerging longevity ecosystem

The longevity paradigm shift has led to the development of an interdisciplinary ecosystem that looks different from traditional health care models. It comprises a growing community of life sciences and health care and health tech companies focused on solutions that address underlying drivers of disease and aging.

### Nanotech

- Use of **nanotechnology to deliver targeted therapies and ensure efficacy of drug delivery**
- Nanobots, nano-cosmeceuticals, targeted repair and nano-surgery

### AI-based diagnostics

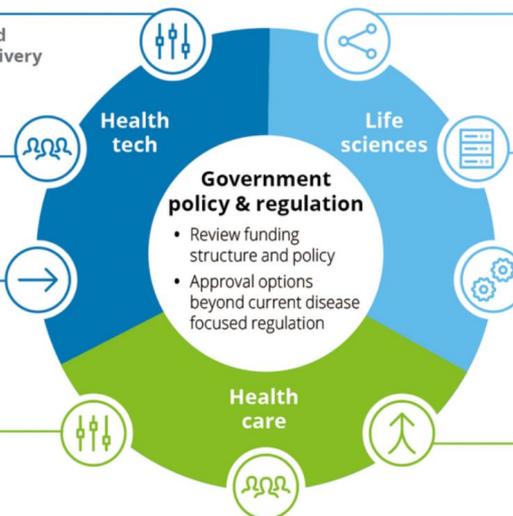
- Use of omics data to **identify preventative methods and provide diagnoses**
- At-home monitoring devices, diagnostics

### Wearables and robotics

- **Use of robotics to improve emotional, mental, and physical wellness**
- Social robots, caregiving robots

### Age-Tech

- Solutions that **support the multi-faceted needs of an aging population**
- Insurtech, medication management



### Age-reversal

- **Reversing the aging-related damage** to organs and other tissues
- Tissue regeneration, 3D organ printing, growth hormones

### Hallmarks of aging research

- Focused on addressing the **underlying biological causes of aging**
- Treatments targeting cellular senescence, mitochondrial **dysfunction, etc.**

### Aging therapeutics

- **Therapies to slow or reverse changes** arising from biological aging process
- Senolytic drugs, nutrient regulators, drugs for novel targets (e.g., IGF-1)

### Cell and gene therapy

- **Cell and gene therapies to treat aging** and age-related diseases
- Gene editing, stem cell therapy, CAR T-cell therapy

### Wellness and prevention

- **Mobility, smart home, and fall prevention** to decrease disability and hospitalization
- Mobility solutions, fall prevention, smart home technologies

# USD 37.92 Billion in 2023

The size of the Longevity/Regenerative Medicine Market - globally in 2022 at USD 28.62 Billion and projected to grow to USD 197 Billion by 2030 (Fortune Business Insights, 2023)

**\*\*majority of this category focused on tools and methodologies to counteract the degenerative brain disorders**

Write a 1 page article on the efferent benefits if chiropractic for the brain

Chiropractic care has been widely known for its ability to alleviate pain and discomfort in the musculoskeletal system. However, the benefits of chiropractic extend far beyond physical relief. Recent studies have shown that chiropractic can have a significant impact on the brain and nervous system, providing a range of efferent benefits.

One of the most significant benefits of chiropractic care for the brain is its ability to improve neurological function. This is due to the fact that the nervous system is the body's primary communication system and is responsible for transmitting information between the brain and the rest of the body. By correcting spinal misalignments, known as subluxations, chiropractors can improve the communication between the brain and the rest of the body, resulting in improved neurological function.

Another benefit of chiropractic care for the brain is its ability to reduce stress and improve overall mood. This is because the nervous system plays a critical role in regulating the body's response to stress, and subluxations can interfere with this process. By removing subluxations, chiropractic care can help to reduce the body's stress response and improve overall mood.

Chiropractic care can also improve sleep, which is essential for good brain health. Poor sleep can negatively impact mental and emotional well-being, as well as cognitive function. By removing subluxations and improving nervous system function, chiropractic care can help to improve sleep, leading to better brain health.

---

In addition to these benefits, chiropractic care can also improve cognitive function and memory. This is because the nervous system plays a critical role in brain function, and subluxations can interfere with this process. By removing subluxations, chiropractic care can improve cognitive function and memory, leading to better overall brain health.

In conclusion, chiropractic care offers a range of efferent benefits for the brain and nervous system. From improving neurological function and reducing stress, to improving sleep and cognitive function, chiropractic care can help to promote overall brain health. If you are looking for a natural, non-invasive way to improve your brain health, consider seeking chiropractic care.

## AI focus of Chiropractic + Brain Centric

## Functional Neurology

# THE ADJUSTMENT



Lightening Fast Neurological Resets!

# How could this change your business?

Prediction on....

1. Case average
2. PVA
3. Referrals
4. Entire Families Under Care

**REFLECT:** How can changing my emphasis to brain building benefit my bottomline?

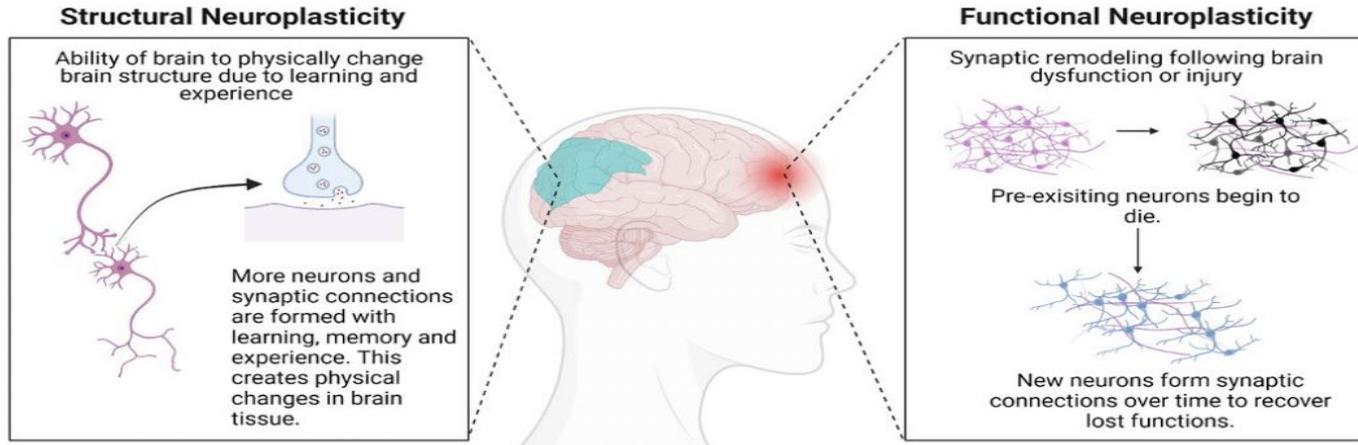
**What was surprising?**

**What did you already know but now see differently?**

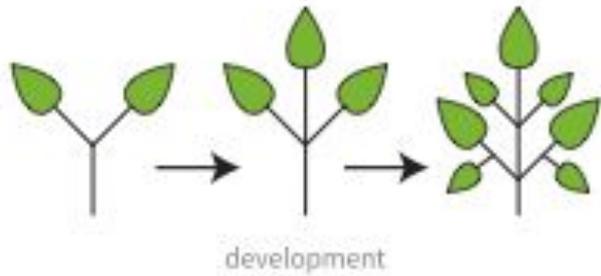
**What do you still need help with?**

**Revised Thinking?**

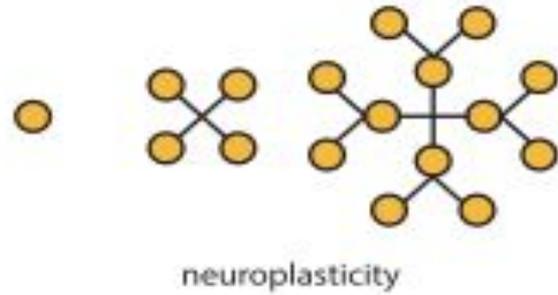
# Neuroplasticity is often categorized into two types: structural neuroplasticity and functional neuroplasticity.



New and repetitive exercises or reinforcement can lead to synapses repeatedly firing to help the adult brain remember the new activity.



Neurogenesis



Synaptogenesis

**Newborn**

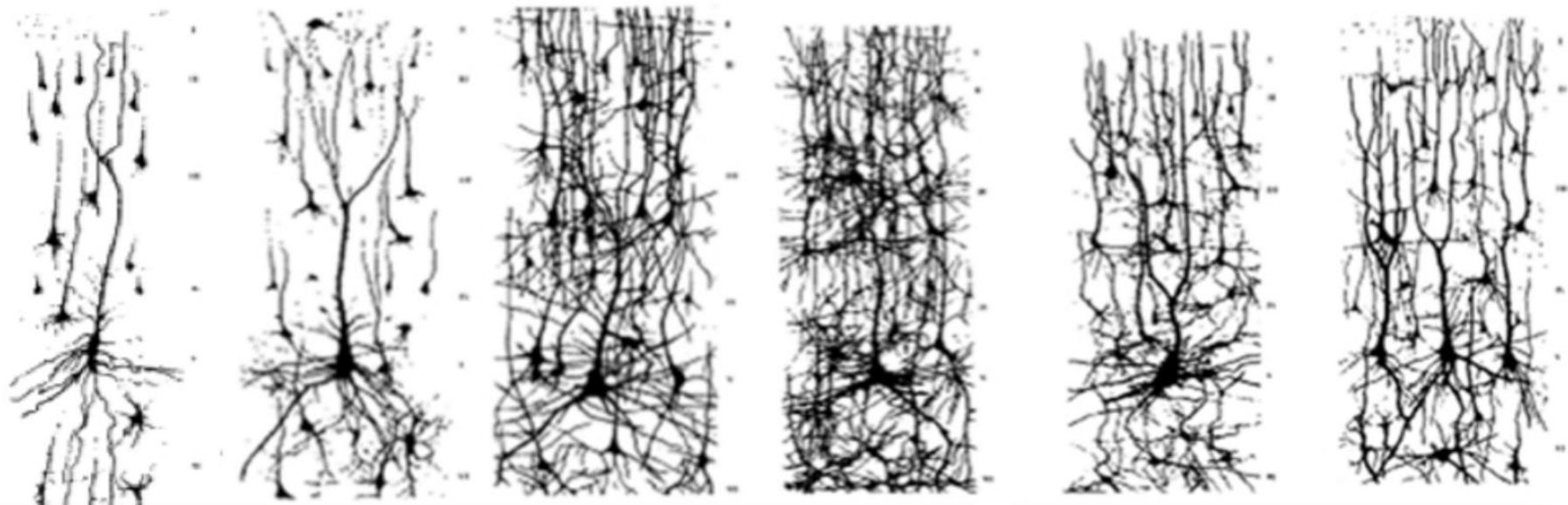
**3 months**

**6 months**

**2 years**

**4 years**

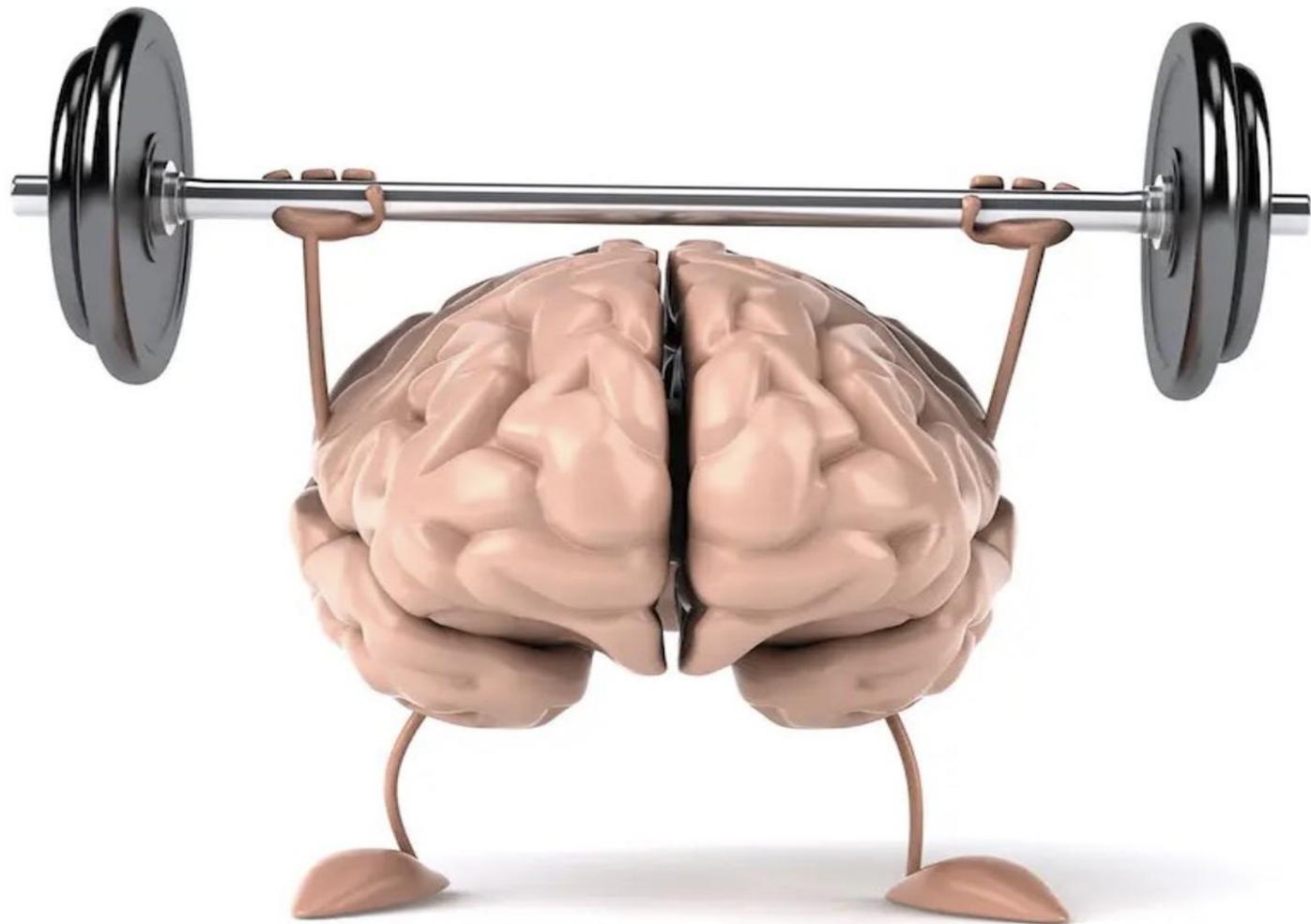
**6 years**



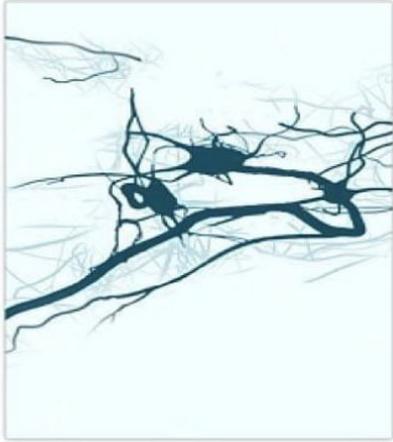
Synapse formation

Synapse pruning

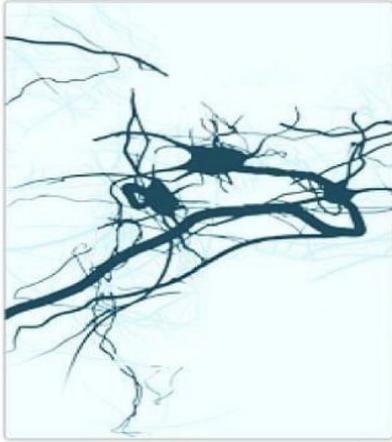




# **REPETITIVE PRACTICE PROMOTES POSITIVE PLASTICITY**



**Neural networks  
before training**



**Neural networks  
2 weeks after  
stimulation**



**Neural networks  
2 months after  
stimulation**

# CHALLENGE

**HOW** would my business benefit by speaking/engaging brain and adding brain tools or business centers?

**You will miss the brain train...**

## No Tech:

Simple Modifications,  
Inexpensive, Ready to Use,  
Affordable Tools

## Medium Tech: May Cost

More, Requires Some Training,  
Relatively Complicated  
Mechanical Devices

## Low or Light Tech:

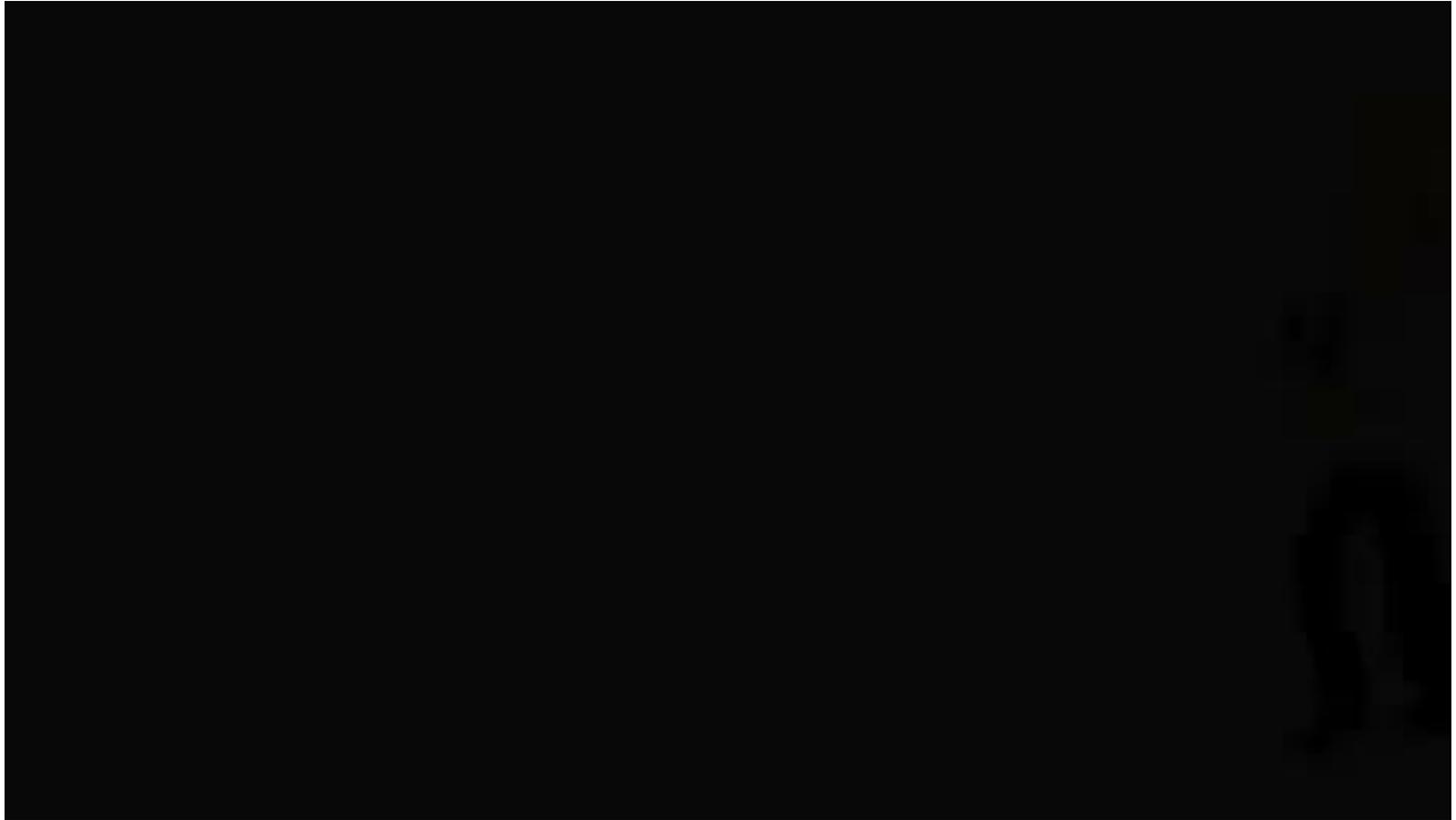
Less Sophisticated, Easy to  
Learn, Readily Available,  
Affordable Tools

## High Tech:

Very Advanced, Needs Specific Training, May  
Require On-Going Support,  
Electronic/Digital Devices,  
Expensive

# 80% Reactive Brain

How we learn, how we teach, how we interpret patient interactions and communications, how we plan our business



# 10 RULES OF NEUROPLASTICITY

## 1. USE IT OR LOSE IT

UNUSED PATHWAYS IN THE NERVOUS SYSTEM WILL GET WEAKER

## 2. USE IT, IMPROVE IT

THE MORE A PATHWAY IS STIMULATED, THE STRONGER CONNECTIONS GET

## 3. SPECIFICITY

SPECIFICITY ENHANCES THE ABILITY FOR NEUROPLASTICITY TO OCCUR

## 4. REPETITION

THE BRAIN LEARNS QUICKLY FROM REPEATED STIMULUS

## 5. INTENSITY

IF THE STIMULUS IS NOT CHALLENGING, IT WILL NOT HELP BUILD NEW NETWORKS

## 6. TIMING

DIFFERENT SKILLS MAY BE ACQUIRED DURING DIFFERENT TIMES

## 7. SALIENCE

THE SKILL WE ARE LEARNING MUST MEAN SOMETHING IMPORTANT TO US

## 8. AGE MATTERS

YOUNGER BRAINS CHANGE FASTER, BUT THE BRAIN CAN CHANGE AT ANY AGE

## 9. TRANSFERENCE

EFFICIENCY IN ONE SKILL CAN TRANSFER TO ANOTHER SKILL

## 10. INTERFERENCE

BUILDING NEW HABITS AND CONNECTIONS IN THE BRAIN CAN OVERRIDE OLD, UNWANTED CONNECTIONS

# Low Tech

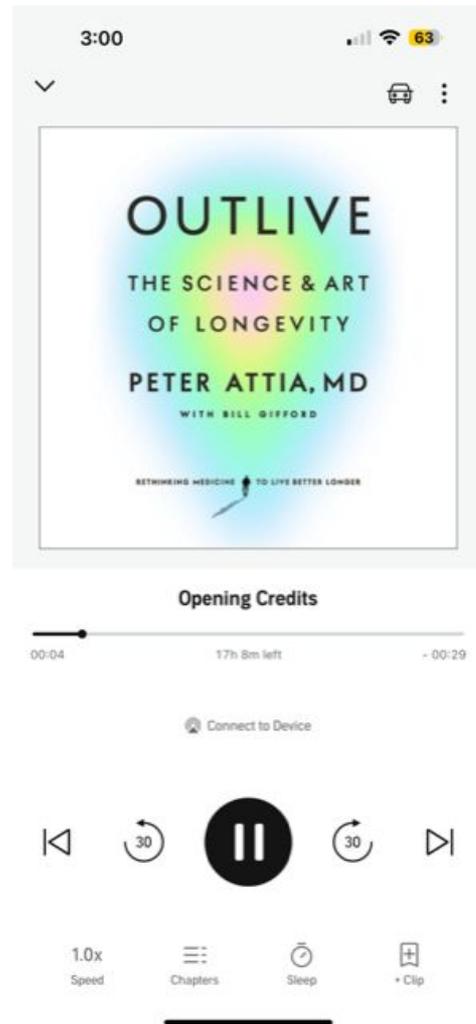
## Individually:

- Playing music: When we learn to play a new instrument, we are literally rewiring our brains to create new neural pathways
- Learning a new language: challenge your brain and promote neuroplasticity
- Brain Games, Guided Meditations, Affirmations

## Professionally:

- Personality Profile Communication - 4 quadrants
- Socratic Questioning - engaging the patient
- What is surprising to you about this?
- Collaboration - with your team, clientele, community

Change YOUR Brain = Change your relationship with the world



Senaptec



# Neuroplasticity Principles

- Specific to target pathways
- Novel and Fun
- Engagement; match the drill to the skill
- Competition for maximum focus
- Timely Feedback
- Design drills that force kids to use target pathways without 'cheating'

# JP Testing and Treatment Considerations

Adjust - Chiropractic

Primitive reflex integration exercises

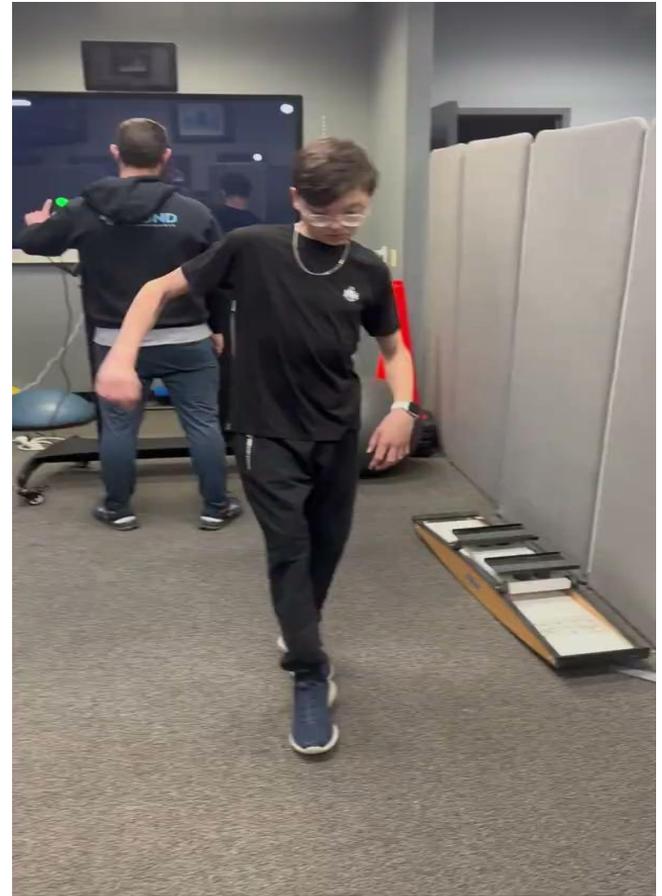
Visual Feedback- eyesteroids

Sensory reweighting-Strobes; goal was to target midline core stability/midline CB/VB pathways and to bypass the eyes somewhat

Hand/eye with half kneeling. Midline stability

Laser

Rezzimax



# Feedback

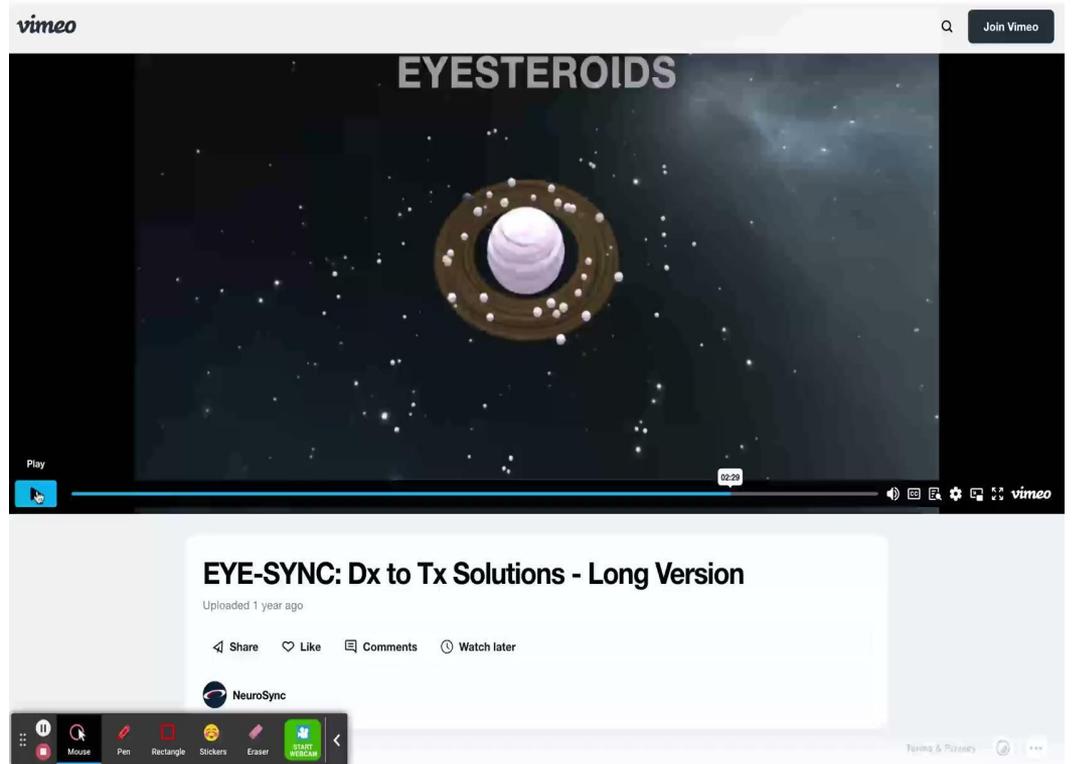
Timely

Visual/auditory

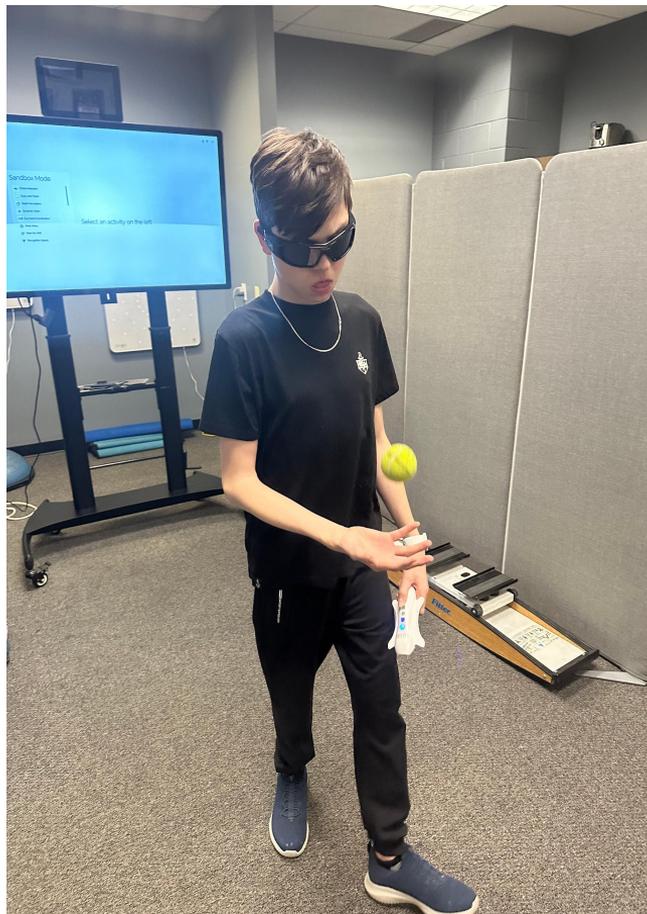
Flexible; levels of challenge;  
change target size, speed,

Sitting versus standing  
progressions

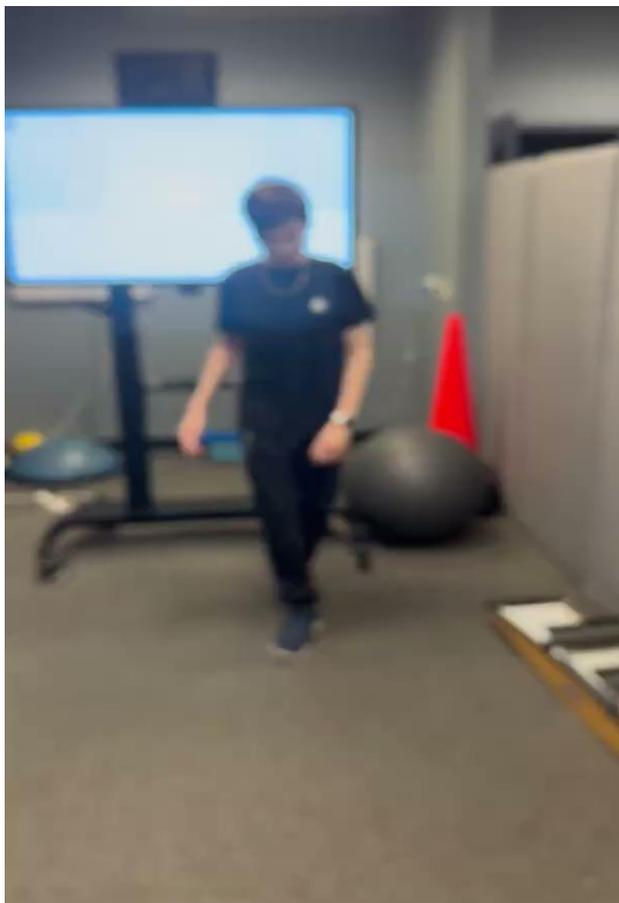
Add balance/head movements  
etc



JP 2



JP3





THURSDAY SEPT. 26		
TIME	SPEAKER	TITLE
9AM EST	Dr. Laura Hanson DC	Neuroimmune Regulation and the Wiring of Baby Human
10AM EST	Dr. Monika Buerger DC	Maternal Immune Activation and Altered Neurodevelopment: A COVID Sequela
11AM EST	Dr. Amy Spoelstra DC	Navigating Typical Development and Specific Challenges in the School-Aged Child [Hour 1]
12NOON EST	Dr. Amy Spoelstra DC	Navigating Typical Development and Specific Challenges in the School-Aged Child [Hour 2]
LUNCH		
2PM EST	Dr. Robert Melillo DC, PhD (C) DACNB,FACFN,FABCDD	New research in functional neurology and translating this into outstanding clinical outcomes
3PM EST	Dr. Robert Melillo DC, PhD (C) DACNB,FACFN,FABCDD	New research in functional neurology and translating this into outstanding clinical outcomes
4PM EST	Dr. Drew Rubin BS, DC, CCSP, DACCP	Applying Hemisphericity and Lateralization in a Chiropractic Pediatric Practice
5PM EST	Dr. Michael Hall BS, DC, DABCN, FIACN	Tummy Time, is it really necessary?



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Graduation

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## WHAT WE DO



### FUNCTIONAL VISION EVALUATIONS

*75-minute functional visual evaluation, inclusive of report. Eye tracking, teaming and visual perceptual skills will all be assessed in great detail to inform future management considerations.*

LEARN MORE



### THERAPEUTIC EYEGLASS PRESCRIPTIONS

*Lens prescriptions designed to optimize functional visual skills, performance and recovery. By incorporating strategic tints, prism, and strength adjustments to optimize function, we provide glasses prescriptions that will allow you to recover faster or perform better in day to day life.*



### VISION THERAPY (IN-OFFICE OR ONLINE)

*Personalized training programs designed to guide visual recovery following injury, improve reading skills and classroom performance, or build elite visual skills required in high-level athletics.*

## EYE TRACKING & TEAMING SKILLS

Given that the majority of us experience the world as one single image, it's easy to forget that our two eyes must intricately team together to make this occur. When objects are presented to us at near (reading, computer, etc.), our two eyes must turn inwards together in unison and effectively focus on the object to prevent visual confusion and doubling. This is also true when our eyes turn outwards and relax focus to view a distant object. An eye tracking and teaming assessment is comprised of a set of objective,



Nextgen - slopestyle/Big Air World Cup  
@alechendersonn



RT Tandem eyes  
closed normal

D1 football

Multiple mTBI in previous 3  
years

Fully cleared to play



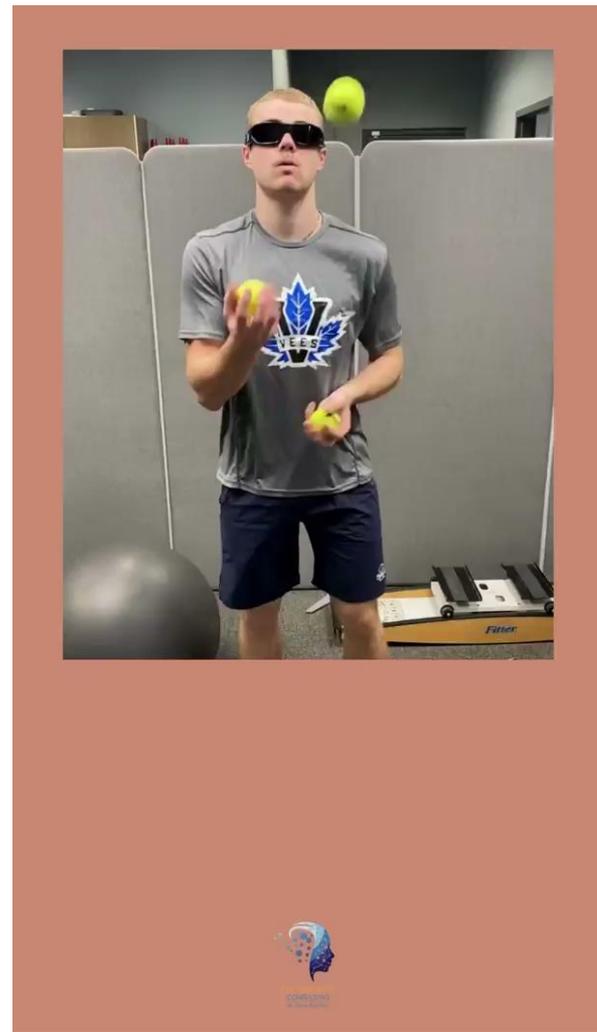
# RT Push

- Tandem gait normal vs with alphabet skip
- Word game (next word starts with last letter) = meltdown
- Reference balance decrease with cognition
- Senaptec Strobe Training



**Demonstrate the drill**





COGNITIVE  
REHABILITATION



Reel insights

on time and performance - immediate on ice results happen

eyebraifx · Original audio  
March 12 · Duration 0:08

7.7M 127K 565 6,852 7,728

**Overview** ⓘ

Accounts reached	3,516,536
Reel interactions	143,010
Profile activity	1,450

**Reach** ⓘ

**3,516,536**  
Accounts reached

0% Followers ● 100% ● Non-followers



Listen 🗣️ to how an athlete describes a basic drill with Strobes ⬆️

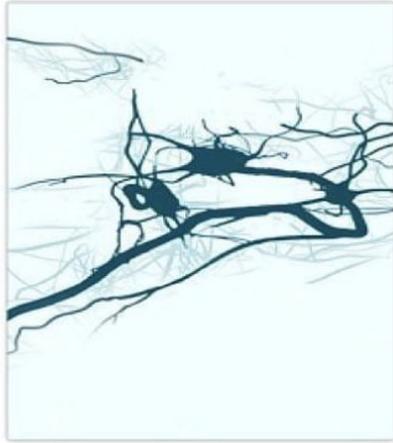
**3 WAYS**

**TO UP LEVEL YOUR GAME!**





# **REPETITIVE PRACTICE PROMOTES POSITIVE PLASTICITY**



**Neural networks  
before training**



**Neural networks  
2 weeks after  
stimulation**



**Neural networks  
2 months after  
stimulation**

# Medium Tech

Brain training

Improve cognitive function

Use games and exercises to challenge the brain and promote neuroplasticity.

Virtual reality: Virtual reality is a relatively new technology that has the potential to be used for neuroplasticity training. VR can be used to create immersive experiences that can help to challenge the brain and promote new learning.

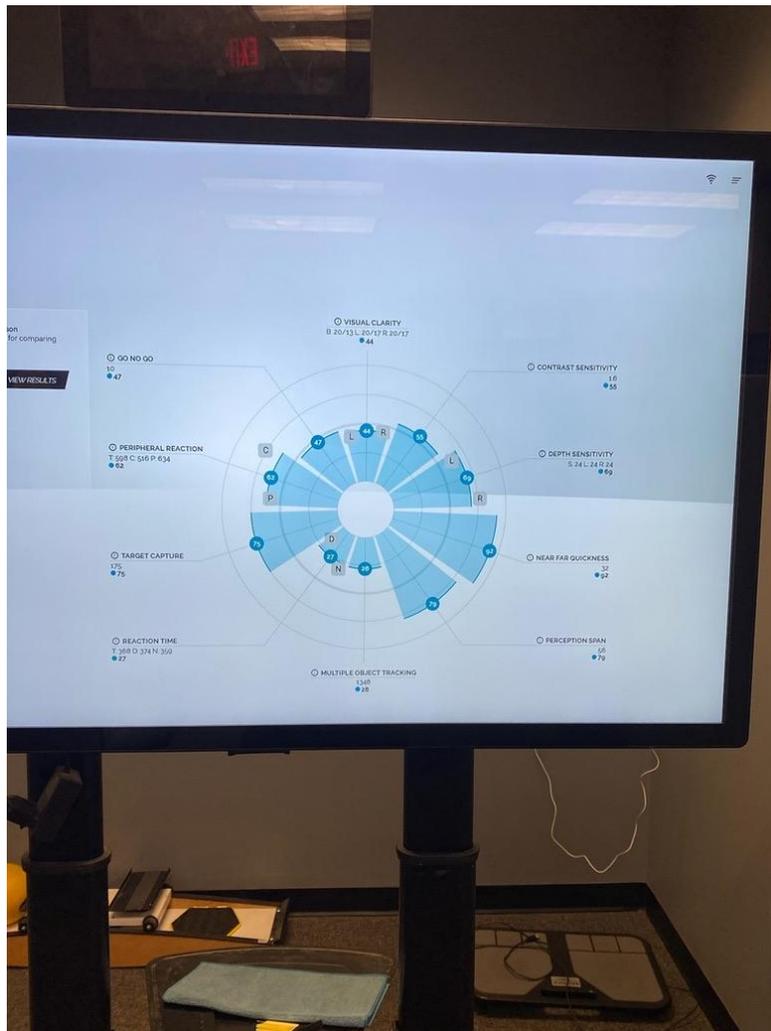
Ease of Implementation is the KEY



## BASELINE TESTING in 10 Key Visual Metrics

### Training Visual Skills

- Performance: Improve hand eye coordination and timing
- Cognition
- Pediatrics/Adolescents - Learning and Processing



Off ice training creates on  
ice results!



8 weeks of training  
✓ Major baseline  
improvements

# 17.5% increase in reaction time

Measuring Saccadic Latency with EyeSync Technology [developed at Stanford] in Junior A hockey players over a [12 week protocol](#) with training. Data collected on the @penticton.vees hockey team 2023/2024 season. Direct indicator of cognitive processing speed.

# 8% increase in eye speed

Measuring Saccadic Velocity with EyeSync Technology [developed at Stanford] in Junior A hockey players over a [12 week protocol](#) with training. Data collected on the @penticton.vees hockey team 2023/2024 season.

# 10% faster awareness

Measured utilizing NeuroCatch™ EEG Technology in Junior A hockey players over a [12 week protocol](#) with training. Data collected on the @penticton.vees hockey team 2023/2024 season. Important external stimuli gets to the brain processing center more quickly. **Your brain needs to distinguish/decide what to pay attention to - this happens 10% more quickly.**

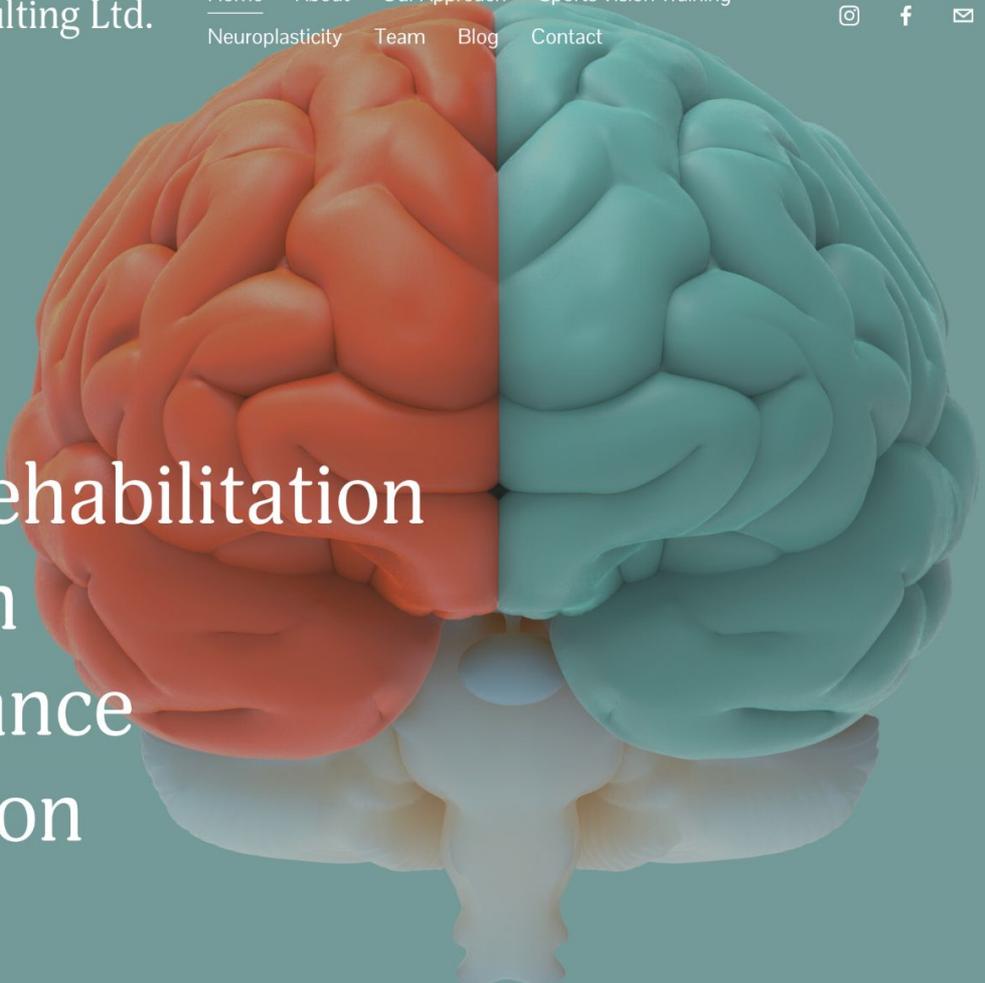


Eye Brain Fix Consulting Ltd.

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[Neuroplasticity](#) [Team](#) [Blog](#) [Contact](#)



SCHEDULE ONLINE



Neuro-Rehabilitation  
Cognition  
Performance  
Concussion

Brain based healthcare.



**With the Sensory  
Station**

**THE ATHLETES  
ARE TESTED  
MENTALLY**

# High Tech

Niche Practice adding unique technology

# SyncThink Technology.

SyncThink, is a Virtual Reality (VR) -based eye tracking platform that can assess brain health and improve performance. SyncThink's technology is supported by more than a decade of research and clinical studies, and is currently used by the U.S. military and select athletic organizations. Dr. David Boynton utilizes this technology in motor vehicle accident injuries, TBI cases, concussion prevention baselines and prevention, post concussion rehabilitation, and within athletic performance environments.

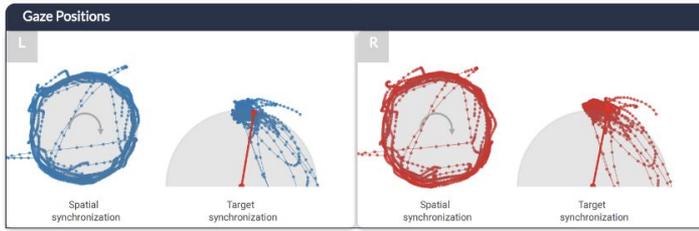
LEARN MORE



**Concussion Management**



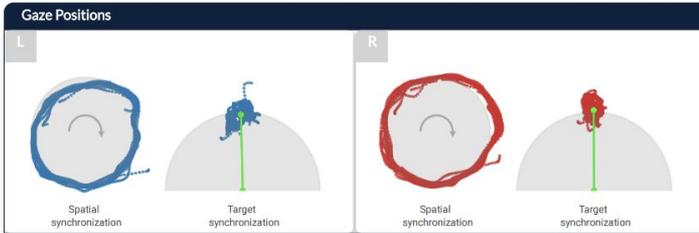




## Initial Scan

- Abnormal focus/attention indicated by the very large and spread out 'lollipop'
- Abnormal timing indicated by the forward leaning 'stick'
- Abnormal timing confirmed by predictive saccades (whiskers coming off the lollipop as the brain is guessing the position of the target)

## Post treatment Rescan



Why are we still using 'how do you feel' for a concussion baseline? Or questionnaires athletes know to expect?

## Side by side comparison



# NeuroCatch - like an EEG of your BRAIN.

*NeuroCatch® performs a 6-minute non-invasive scan that compresses a 3-hour laboratory procedure into rapid data acquisition. Its automated process creates repeatable evaluations, allowing clinicians to sensitively monitor subtle but significant changes over time.*



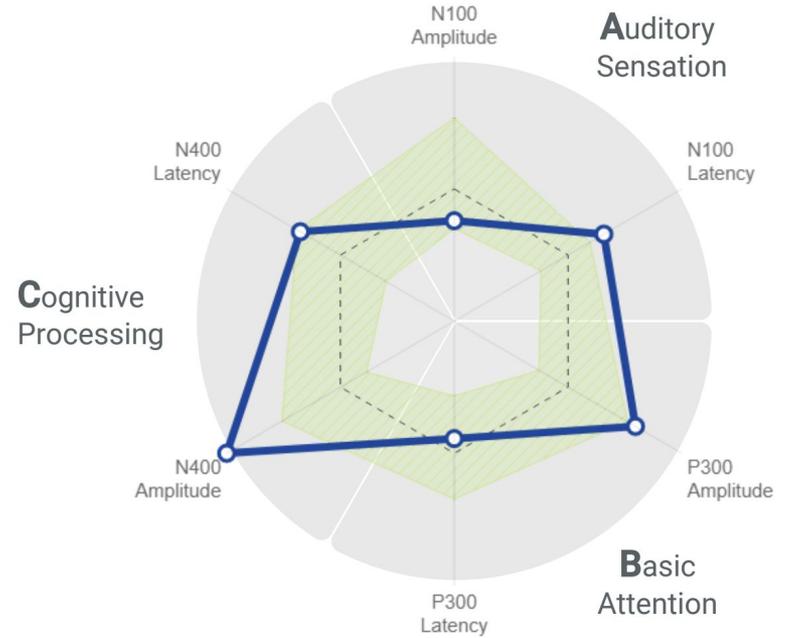
# High Tech

## Scan Results

		Result	Reference Range	In Range
Auditory Sensation	N100 Amplitude	2.43 $\mu$ V	2-8.3 $\mu$ V	✓
	N100 Latency	62.00 ms	74-118.8 ms	✗
Basic Attention	P300 Amplitude	11.09 $\mu$ V	2.2-10.3 $\mu$ V	✗
	P300 Latency	262.00 ms	188-314.4 ms	✓
Cognitive Processing	N400 Amplitude	5.59 $\mu$ V	1.3-3.9 $\mu$ V	✗
	N400 Latency	340.00 ms	327.6-596.4 ms	✓

✓ Within reference range   
 ✗ Outside reference range

## Brain Vital Signs



--- **Reference Range** The Reference Range in the NeuroCatch® Radar Plot represents the distribution of scan results from a sample of the general population of all ages and sexes. The dotted line represents the median result for each ERP.



New Technology

Neurocatch Baseline Scans

✓ objective clinical data

✓ cognitive evaluation

✓ concussion

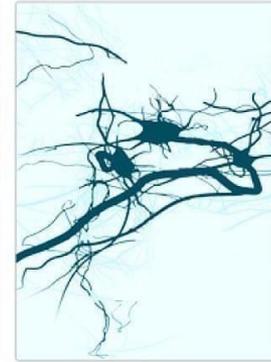
✓ performance

- Practice
- Repetition
- Cognitive Rehearsal

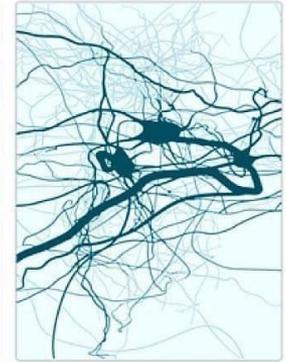
## REPETITIVE PRACTICE PROMOTES POSITIVE PLASTICITY



Neural networks  
before training



Neural networks  
2 weeks after  
stimulation



Neural networks  
2 months after  
stimulation

@DRYANCEDERMARK

HOW?

# Why Neuroplasticity In YOUR Practice?

- Neuroplasticity allows practitioners to help patients build 'better' brains - more connections, enhanced pathways
- It's just science! Engaging in specific activities and exercises promotes brain growth and rebuilding of brain networks through key growth factors and neurotransmitters
- Children with delayed neuronal growth can benefit from brain specific rehabilitation
- Athletes injured in their respective sport can be rehabilitated, not just physically, but neurologically, to be able to re-enter sport with more resilience
- Patient's experiencing neurodegenerative conditions can have their symptoms delayed or potentially reversed through positive neuroplasticity

6:39

13 hours ago

heartmindinstitute Sponsored

## REWIRING YOUR BRAIN WORLD SUMMIT

The Neuroscience of Thriving: Reshaping the Brain for Healing, Well-being & Flourishing

REGISTER NOW FOR FREE

FREE & ONLINE SUMMIT

Learn more

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952 posts 935K followers 886 following

Drs. Ayesha & Dean Sherzai, MD, PhD, MPH, MAS

thebraindocs

- Neurologists, Scientists
- Bestselling Authors
- Evidence-based information on brain health
- Hosts, Your Brain On... & Brain Health Revolution Podcast
- linktr.ee/thebraindocs
- Brain Docs Basecamp 5.1K members

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Optimize Your Brain On Recipes

Learn more Go to website

6:33

thebraindocs.com

# 30%

RECALL IMPROVED

during the initial 2-hour training period

---

# 27%

MEAN-AVERAGE RECALL INCREASED

from 9.97 to 12.63 words out of 20

---

# 30%

MEDIAN-AVERAGE RECALL INCREASED

from from 10 words to 13

## Here's What You'll Learn In This Comprehensive Training

6:32

Instagram @thebraindocs.com

THE BRAIN DOCS

A COMPREHENSIVE VIRTUAL TRAINING

# Mastering Memory

Train Your Brain to Remember Everything

With World-Renowned Brain Health Experts Drs. Ayesha and Dean Sherzai

ON-DEMAND, LIFETIME ACCESS INCLUDED IN ENROLLMENT

Start Watching

6:39

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Learn more

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choosemuse Peace of Mind is Possible

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# Join The 'Brain Train'

- What are our options to keep this simple?  
Implement it easily?
- Produce \$\$ from it?
- Allow others on our team to perform these services?

# HOW?

- Link Chiropractic confidently to the brain changes.
- 'Light up' a patients whole brain as you explain your treatment plan - fully engage them in the process.
- Simple clinical tools to utilize.
- More advanced tools and when/how you could possibly implement them in the future.
- When to refer to specific expertise?

## No Tech:

Simple Modifications,  
Inexpensive, Ready to Use,  
Affordable Tools

## Medium Tech: May Cost

More, Requires Some Training,  
Relatively Complicated  
Mechanical Devices

## Low or Light Tech:

Less Sophisticated, Easy to  
Learn, Readily Available,  
Affordable Tools

## High Tech:

Very Advanced, Needs Specific Training, May  
Require On-Going Support,  
Electronic/Digital Devices,  
Expensive

**REFLECT: HOW** would my business benefit by speaking/engaging brain and adding brain tools or business centers?

**What was surprising?**

**What did you already know but now see differently?**

**What do you still need help with?**

# Your Challenge

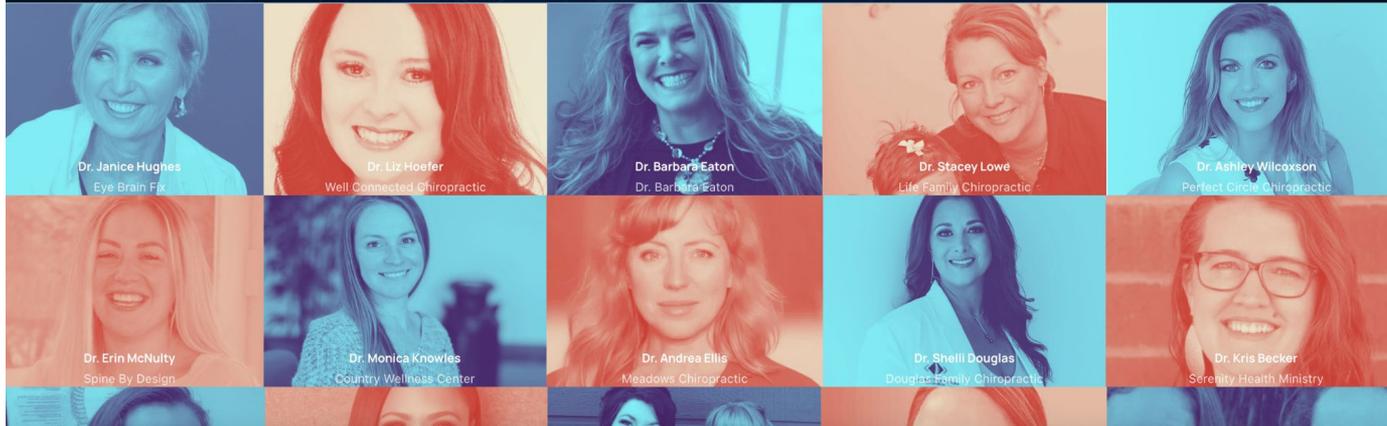
How can I best integrate the 'Brain, Not Bone Alone' philosophy into my practice to enhance the overall well-being of my patients?

# THE FOUNDING 50

The Founding 50 members of the **'Brain, Not Bone Alone'** movement are the pioneering force behind a global revolution in chiropractic and neurological wellness. These visionary leaders have not only embraced but also advanced the crucial understanding of the interconnectedness between spinal health and brain function. Hailing from diverse backgrounds in chiropractic care, neuroscience, and holistic wellness, they have collectively elevated the practice of chiropractic across continents and languages, unifying an industry towards the common goal of clearing neural pathways to enhance overall wellness.

Their innovative approaches and collaborative research have set new standards in healthcare, illustrating the powerful role of chiropractic care in achieving optimal neurological health. As the initial innovators and steadfast advocates of this integrative approach, they continue to lead the charge, transforming the perception and efficacy of chiropractic medicine on a global scale. Through their dedication, the Founding 50 have laid a robust foundation for a future where chiropractic care is integral to holistic health strategies worldwide.

Click on each image below to discover more about these trailblazers and their commitment to pioneering a healthier world.



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