

Brain Health and Performance: Coaching with the Brain in Mind

Shelley Carson, PhD

Academy for Brain Health and Performance

Harvard University
Department of Psychology

Goals for Today

- Introduce Brain Health, Fitness, & Performance
- Present basic pillars of Brain Health
- Look at risk and protective factors
- Examine some strategies for Brain Fitness
- Discuss importance of Brain Health for coaching



HAVE YOU NOTICED ANY OF THE FOLLOWING IN YOUR CLIENTS?

- ☐ Decreased memory or attention
- ☐ Increased stress
- ☐ Difficulty sleeping
- ☐ Altered mood
- ☐ Lack of energy
- ☐ Decreased mental clarity
- ☐ Easily distracted
- ☐ Decreased motivation or ambition
- ☐ Increased irritability or impatience

The vast majority of
people are not
functioning
at their full potential.

Do You Know When Your Brain Is Working Well?

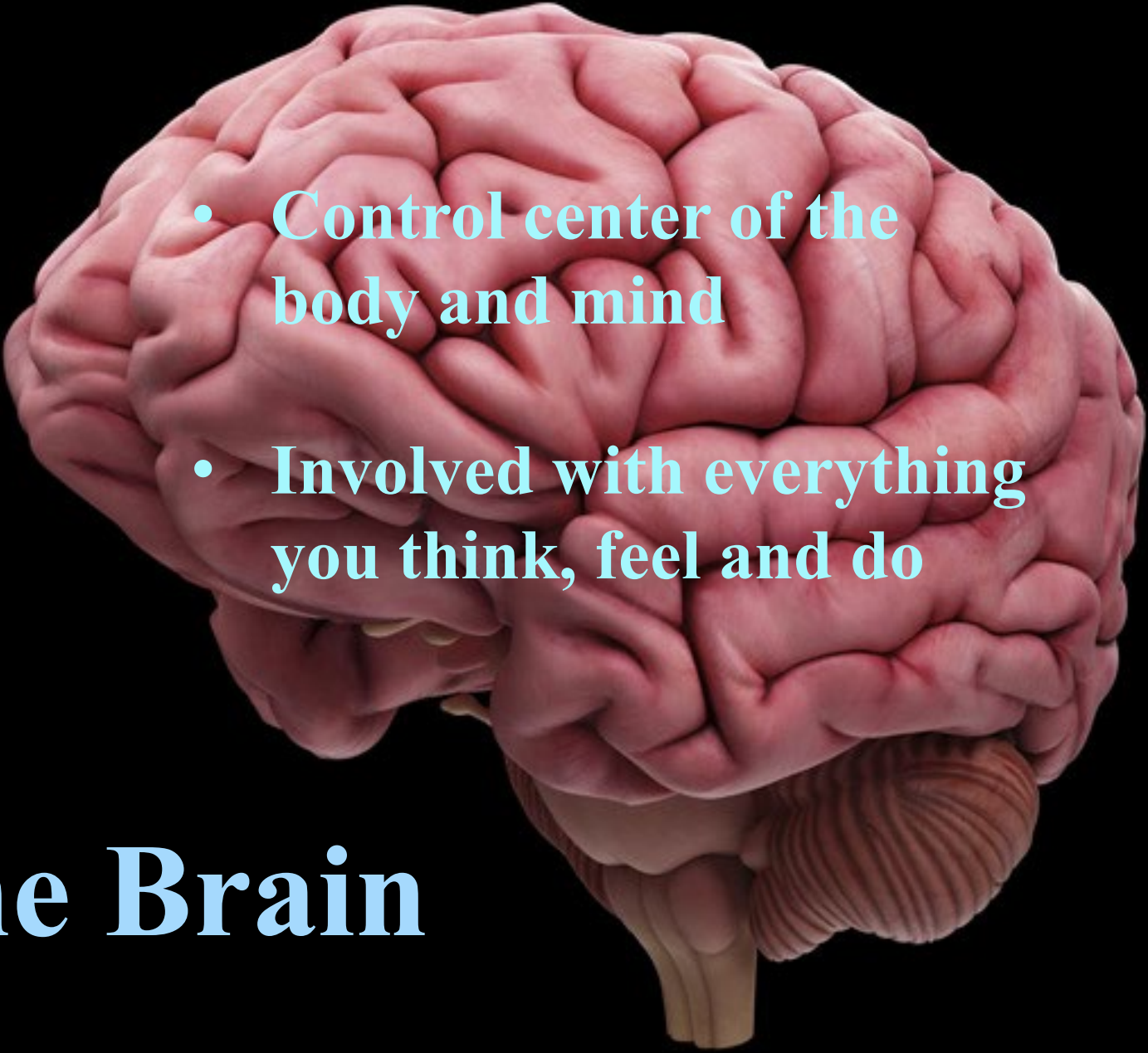


Brain Health

BRAIN HEALTH

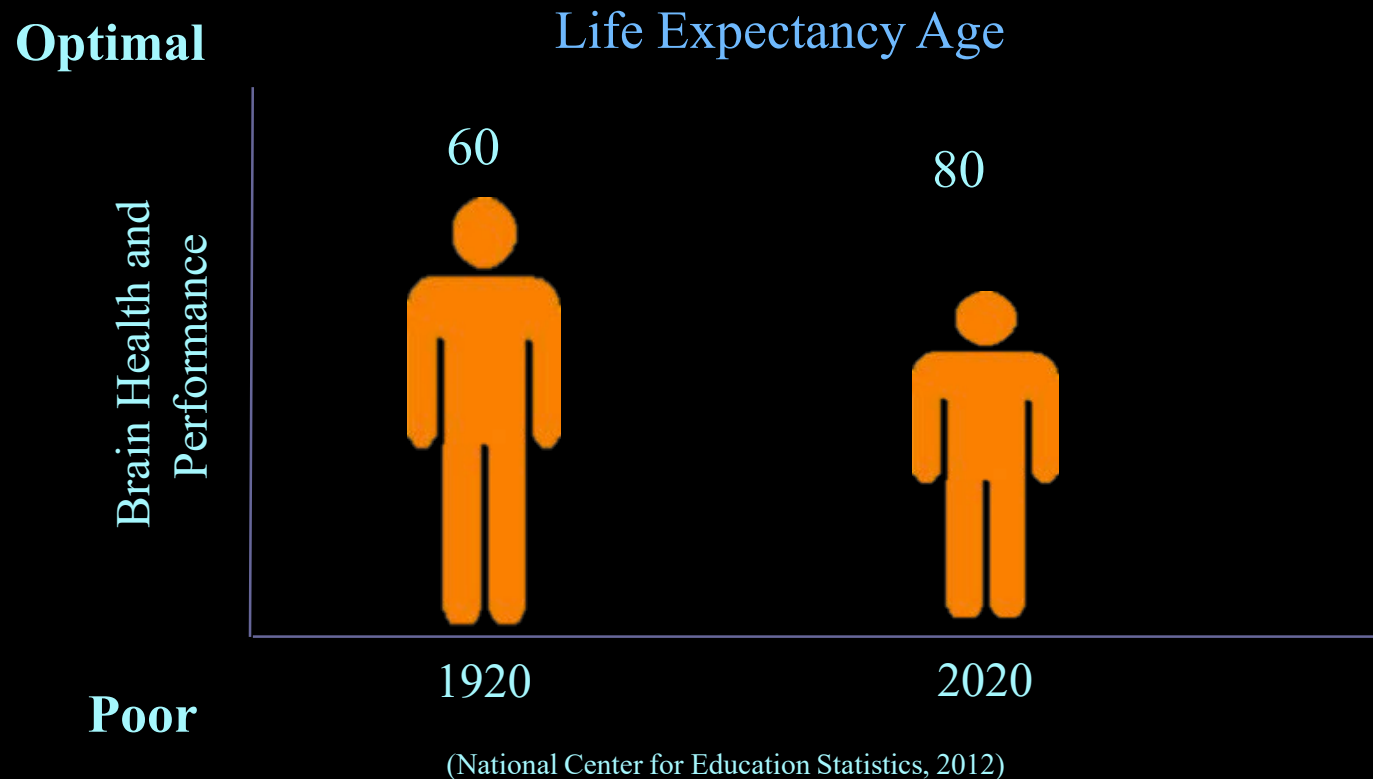
The physiological and metabolic health of the brain as an organ and the adaptive ability of the mind/brain to dynamically and functionally interact with the body and the environment.



- 
- **Control center of the body and mind**
 - **Involved with everything you think, feel and do**

The Brain

TODAY: THE AVERAGE PERSON LIVES *20 YEARS LONGER* THAN 100 YEARS AGO

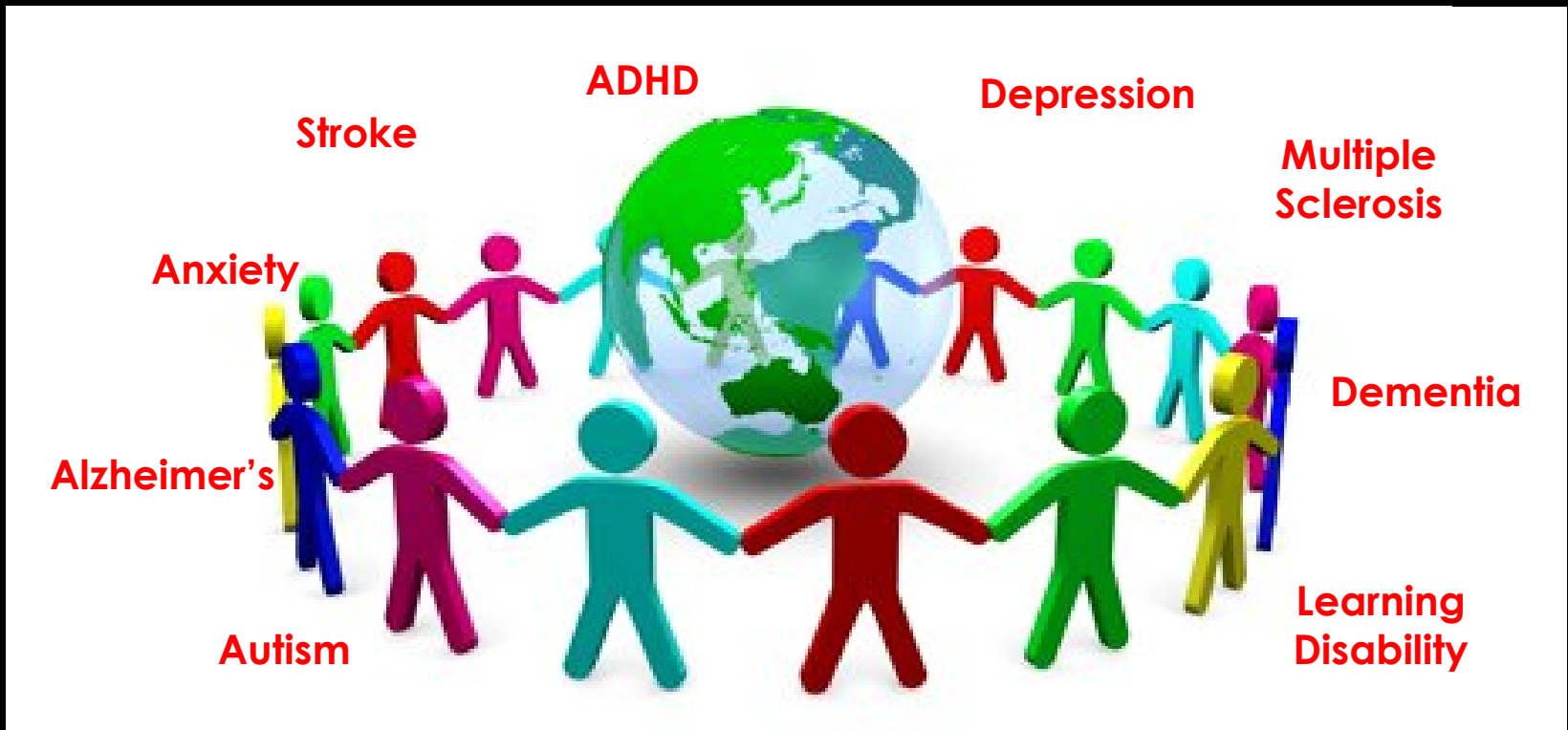


But their health is **NOT** progressing with their age

OPTIMAL BRAIN HEALTH HELPS BRIDGE THE GAP



1 in 3 People Worldwide Will Be Affected by A Neurological Disorder During Their Lifespan

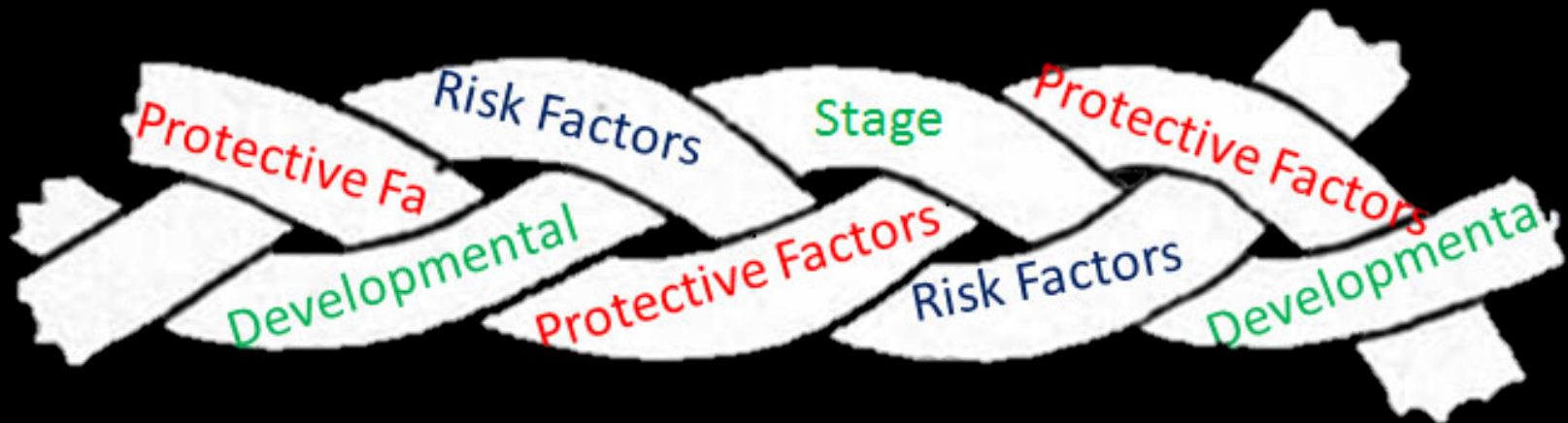


(National Institute of Mental Health, 2014)

Risk and Protective Factors

Risk and Protective Factors

- interact with each other and with developmental stage in dynamic fashion



- genes - environment – behavior – developmental stage

Brain Loses Volume with Age



YOUTHFUL BRAIN

AGING BRAIN

Risk Factors

Too many people have unhealthy lifestyles!



“By 2020, two-thirds of world disease will be caused by unhealthy lifestyle choices.”

(World Health Organization, 2010)

Protective Factors

Brain Health Is Fueled By Many Lifestyle Behaviors

Nutrition

Physical
Activity

Stress
Management

Sleep

Cognitive
Enrichment

Supplements

Social
Connections



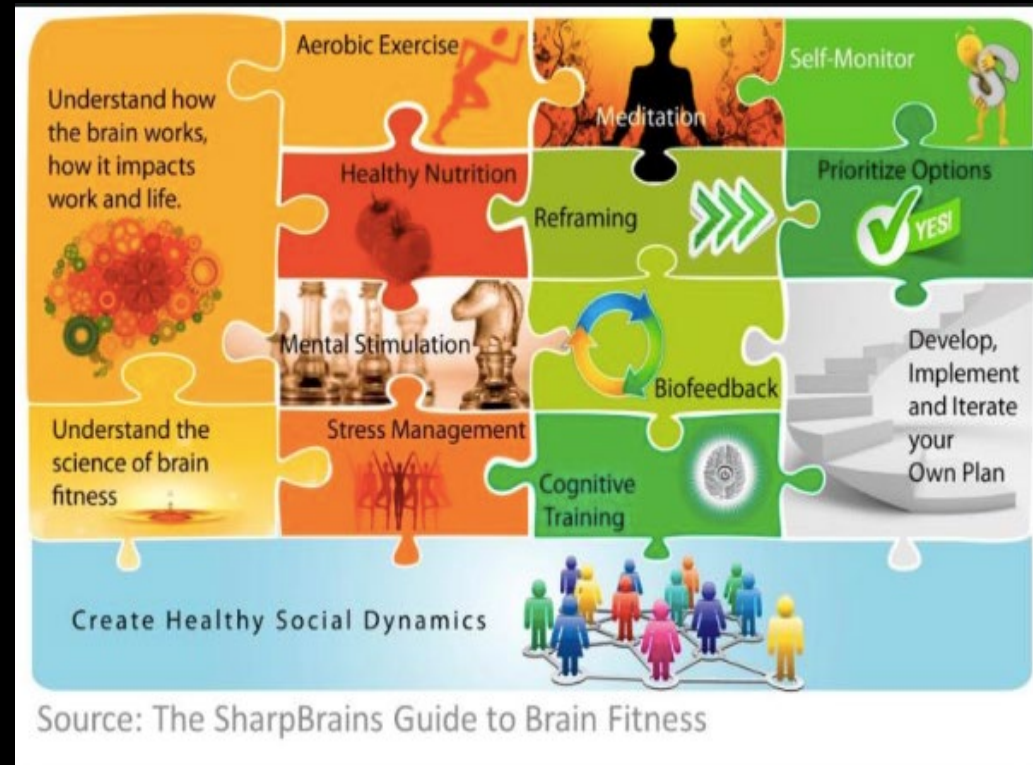
Positive Thinking

PROTECTIVE FACTORS

Contributing To Brain Health And Performance

- Genetics/epigenetics
- Physical Activity
- Nutrition
- Sleep
- Stress Resilience
- Social engagement
- Cognitive enrichment
- Mindfulness/Meditation
- Positive Emotions
- Positive Thinking
- Spirituality
- Nature
- Microbes

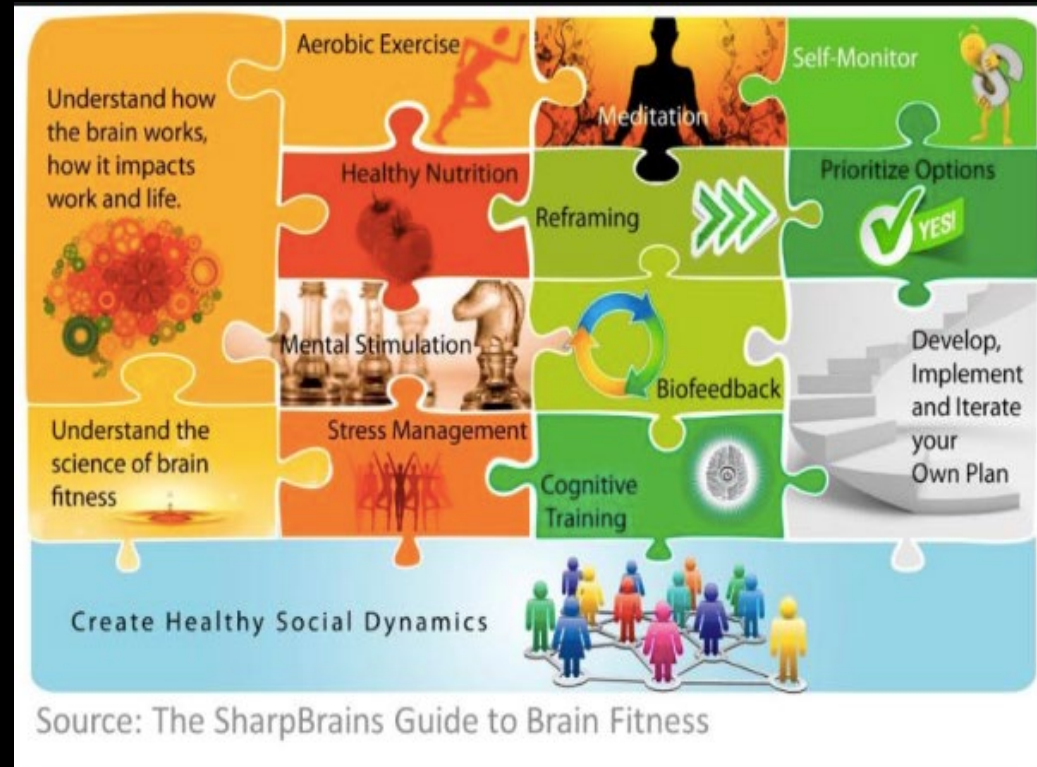
Supplements



PROTECTIVE FACTORS

Contributing To Brain Health And Performance

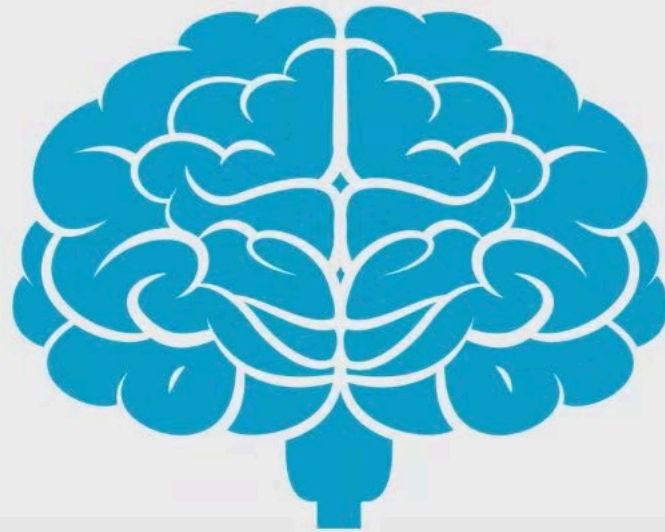
- Genetics/epigenetics
- **Physical Activity**
- **Nutrition**
- **Sleep**
- **Stress Resilience**
- **Social engagement**
- **Cognitive enrichment**
- Mindfulness/Meditation
- Positive Emotions
- Positive Thinking
- Spirituality
- Nature
- Microbes



We shape our brain's health,
for better or worse, every
moment by what we
THINK, FEEL and DO
as we interact with our
ENVIRONMENT.

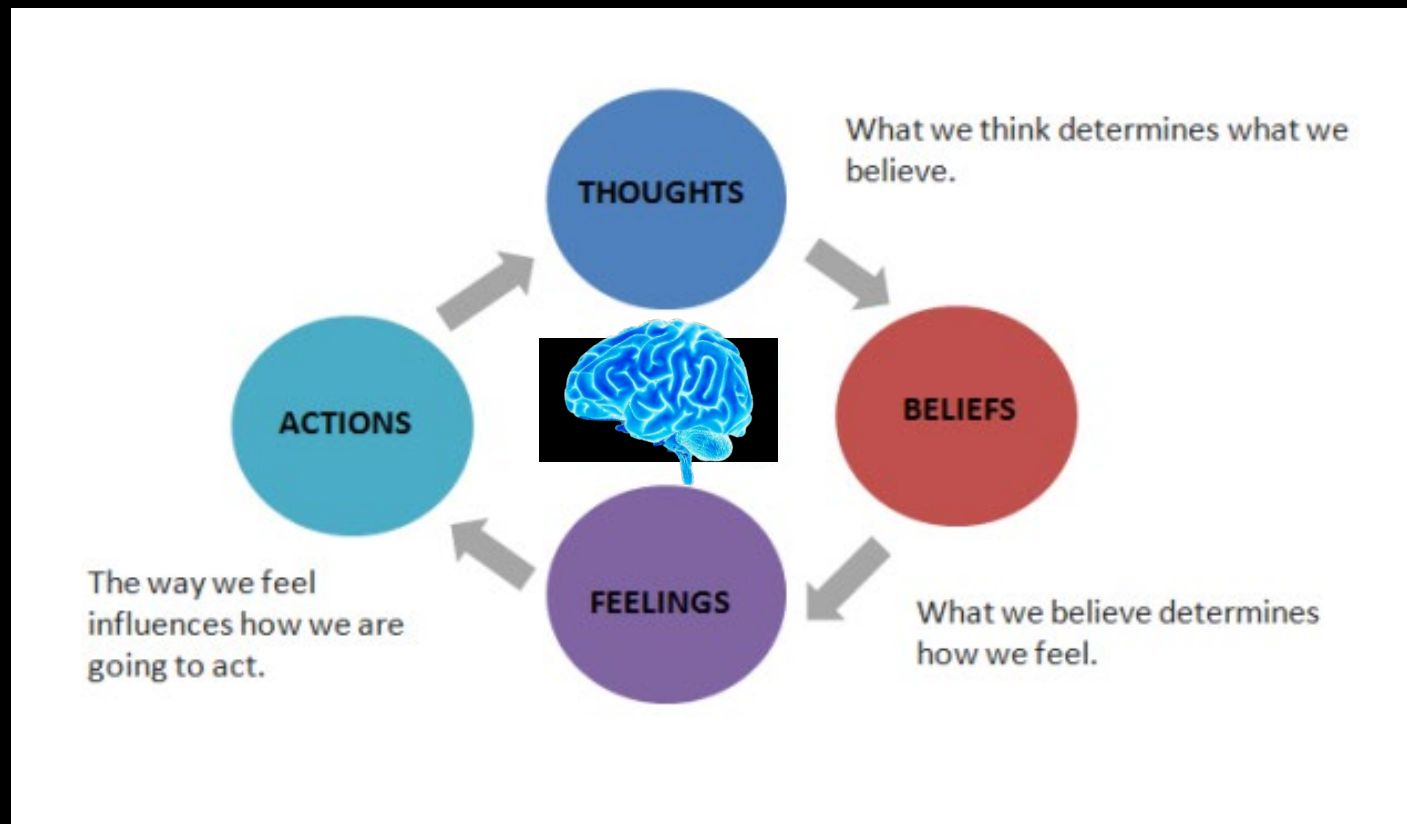
*Neuroplasticity,
Neurogenesis,
and Cognitive Reserve*

NEUROPLASTICITY



Neuroplasticity

The Mind/Brain and Neuroplasticity



NEUROGENESIS



<https://youtu.be/GRKmc1AfsbY>

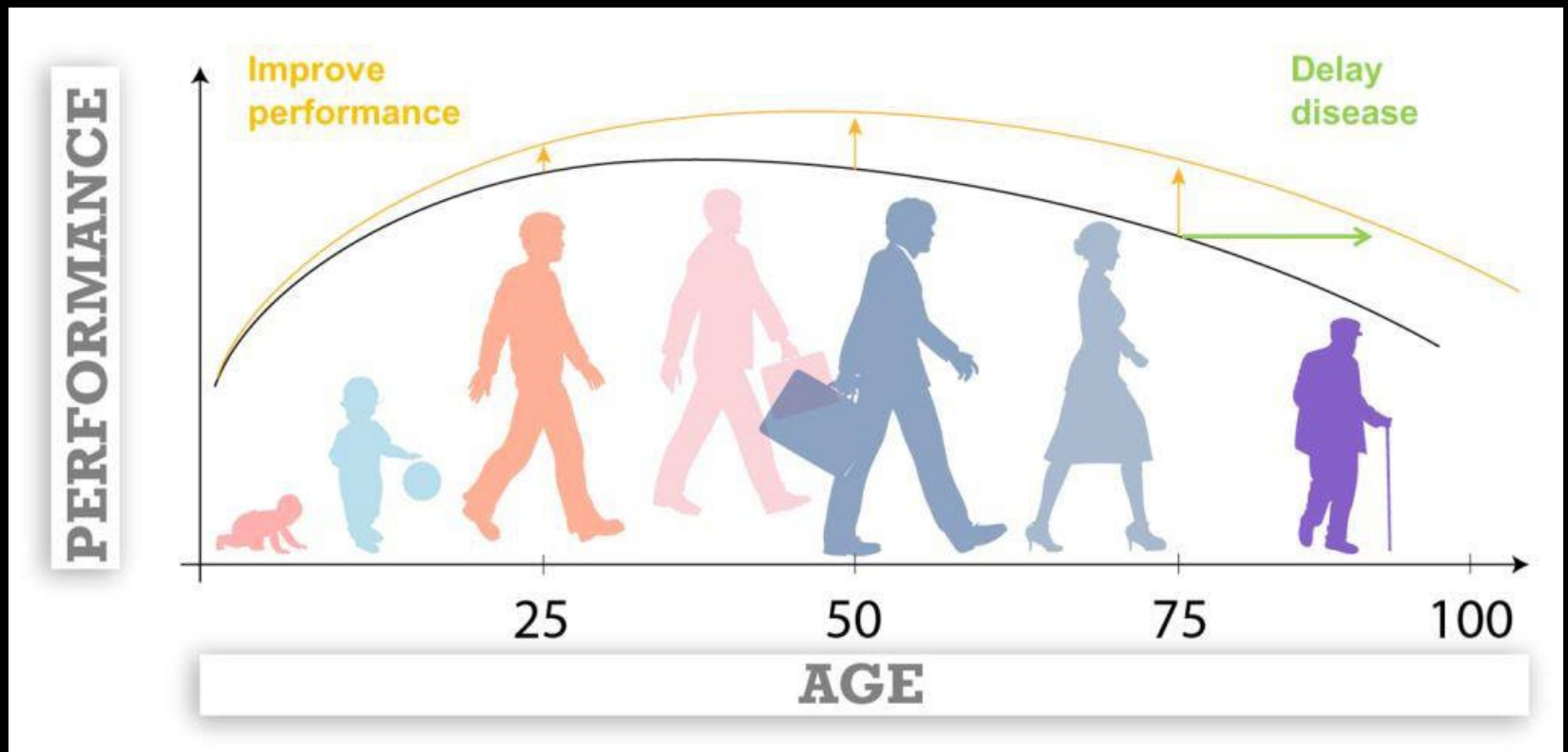
- **Technology Allows Us To See The Health Of The Brain**



Cognitive Reserve



Cognitive Decline Is A Natural Process

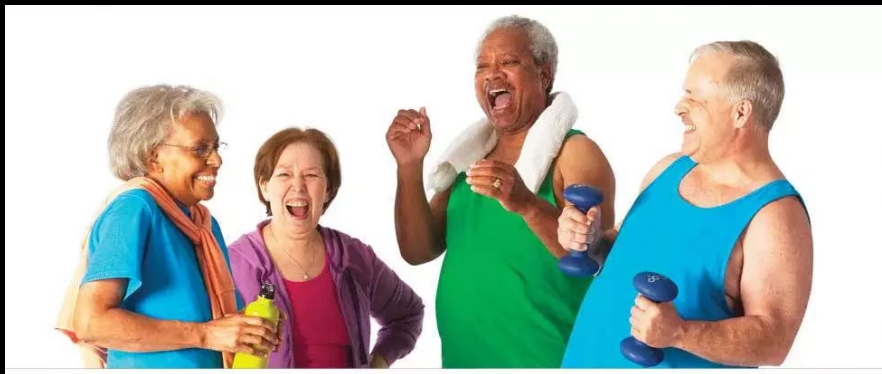


(Harada, Natelson Love, Triebel, K. 2013)

Cognitive Reserve



Optimal Performance Is Possible For Everyone



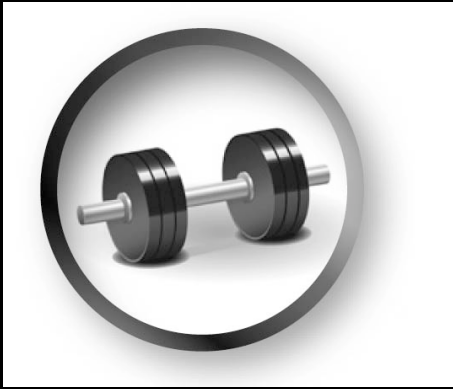
Brain Fitness

BRAIN FITNESS



The state of cognitive, psychological, and behavioral optimization through healthy lifestyle habits, training, and interventions which enables optimal brain performance.

Categories of Brain Fitness



strength



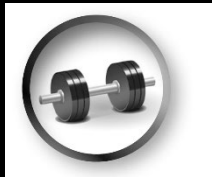
flexibility



endurance

OPTIMAL BRAIN FITNESS

Produces an upward spiral due to three key areas that build cognitive reserve:



Strength training



Flexibility training



Endurance training

STRENGTH TRAINING



- ❖ Strong brain maximizes performance
- ❖ Builds strength of cells
- ❖ Recruits more neurons
- ❖ Improves strength of connections

STRENGTH TRAINING

Aerobic exercise
(Roig et al., 2013)

Meditation
(MacLean et al., 2010;
Taren et al., 2017)

Memory exercises
(Carpenter, 2012)

Attention and memory games
(Klingberg, 2010)



STRENGTH TRAINING

Aerobic exercise
(Roig et al., 2013)

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(Klingberg, 2010)



FLEXIBILITY TRAINING



- ❖ Mindful vs. Mindless mindset
- ❖ Flexible brain allows you to focus your mental energy

FLEXIBILITY TRAINING

Yoga

(Gard et al., 2014)

Mindfulness meditation

(Taren et al., 2017)

Empathy/Compassion
training exercises

(Klimecki et al., 2013)

Divergent thinking
exercises (Scott et al., 2004)

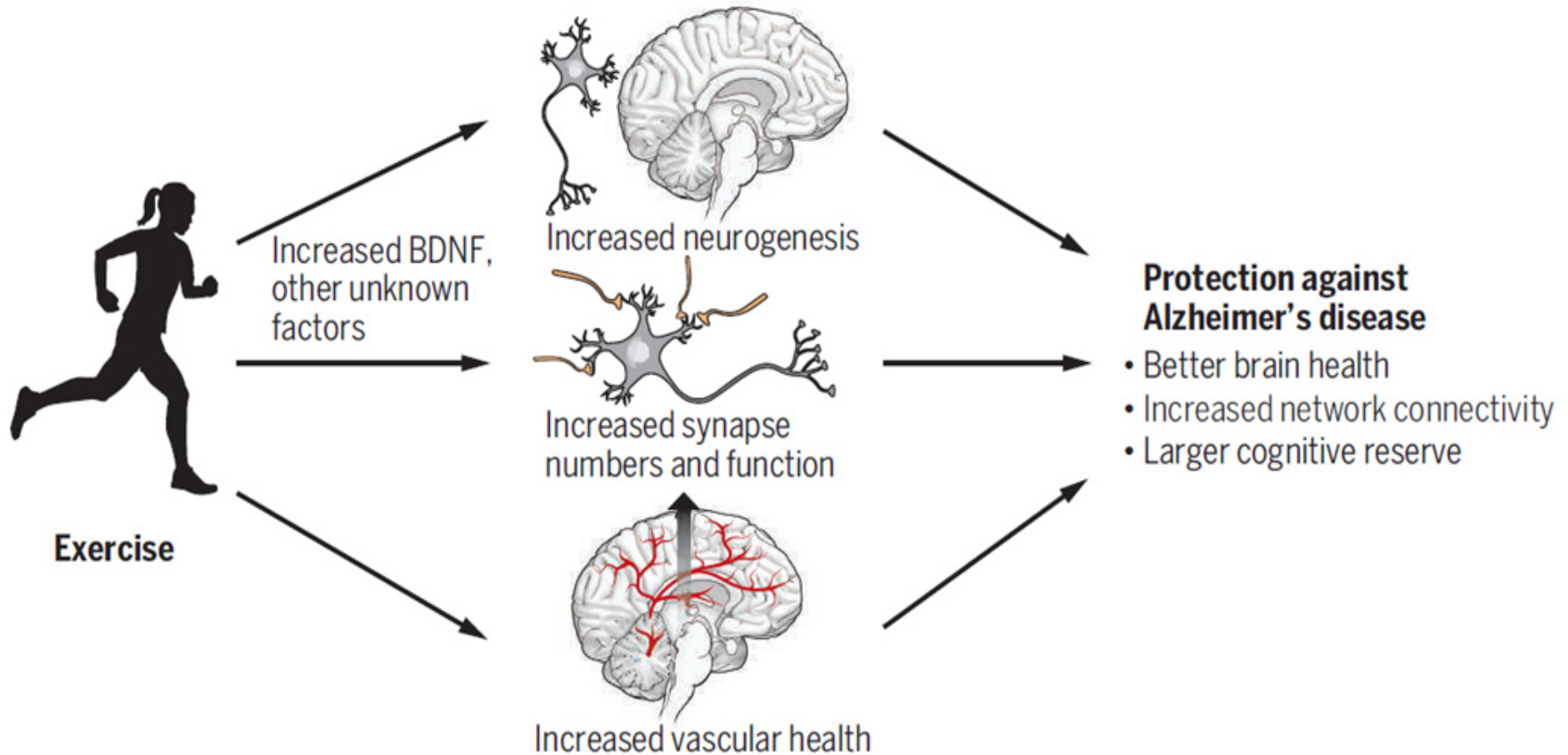


ENDURANCE TRAINING



- ❖ *Sustainable* brain health
- ❖ A resilient brain allows you to enjoy healthy, active aging and increased quality of life across the three life domains of relationships, work and play

How Exercise Protects The Brain



Spires-Jones & Ritchie (7Sep2018) *Science* p.976

ENDURANCE TRAINING

Sleep

(Wickens et al., 2014)

Nutrition

(Gomez-Pinilla, F., & Tyagi, 2013)

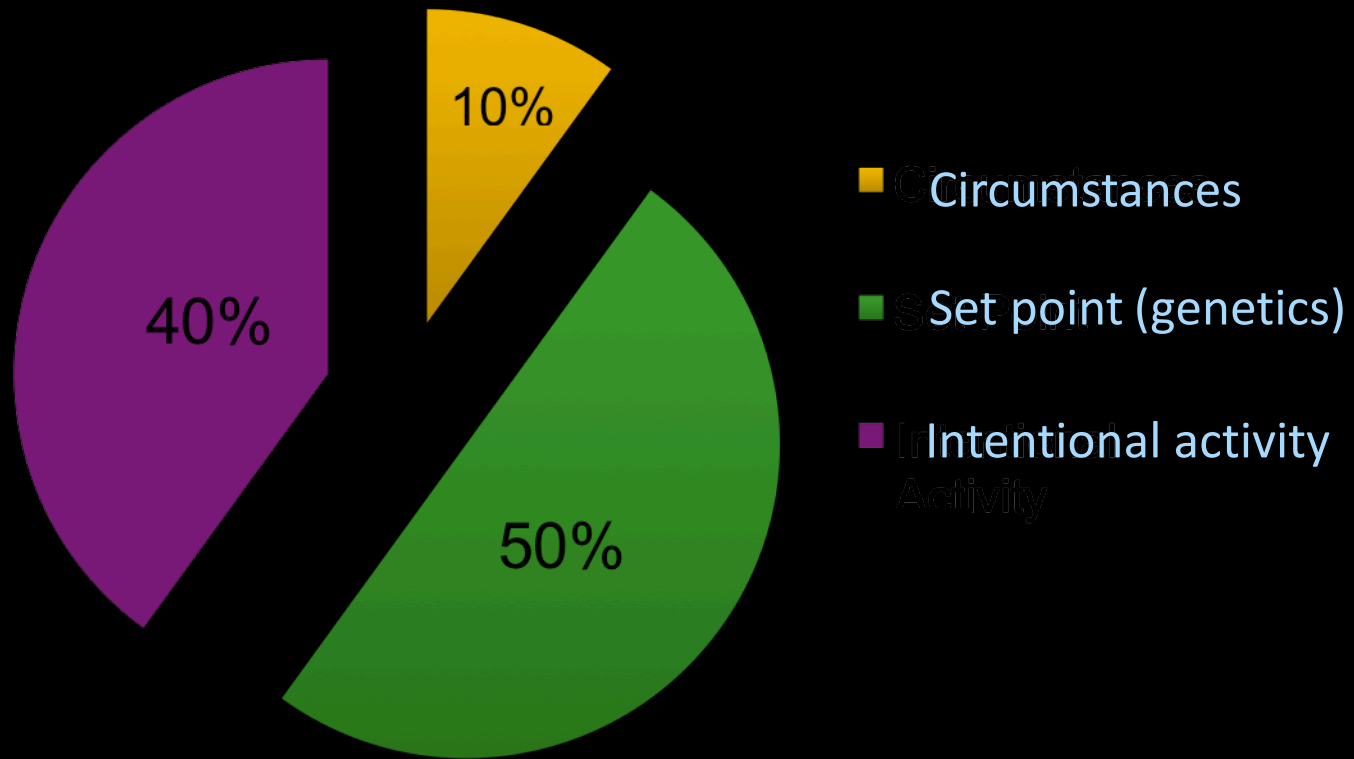
Social relationships

(Wong et al., 2016)

Meaningful pursuits



You Can Influence Outcomes!



Lyubomirsky et al., 2005)

Brain Performance

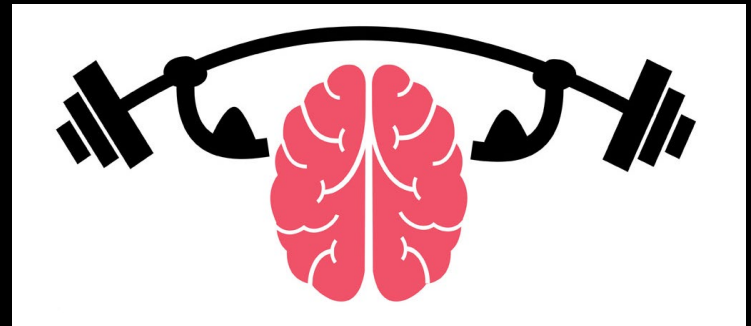
BRAIN PERFORMANCE



the measurable
outcome of brain
health and fitness

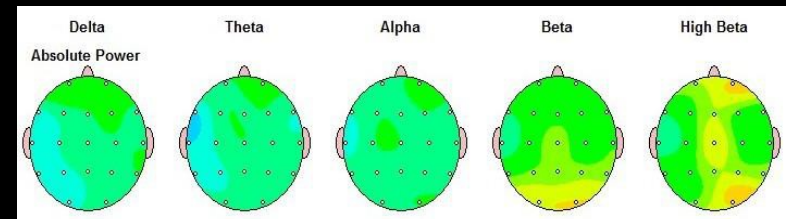
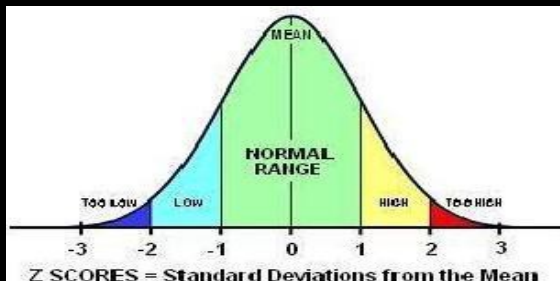
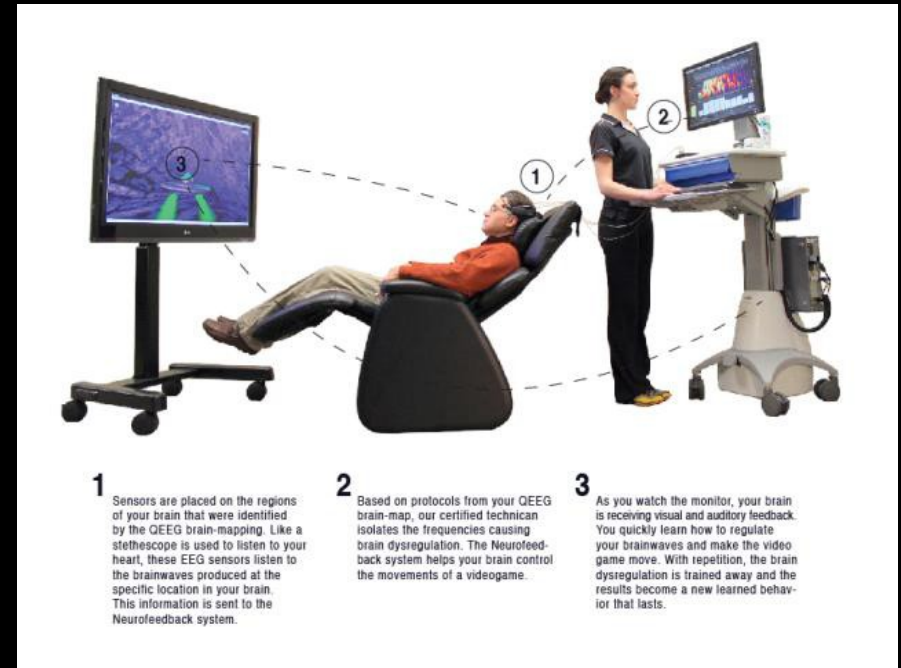
BRAIN TRAINING IMPACT ON BRAIN PERFORMANCE

- Immediate increase in levels of neurotransmitters
- Increase in mood
- Increase attention and reaction times
- Protects from neurodegenerative disease and normal cognitive decline in aging



Measuring Brain Performance

- Self-report inventories
- Neuropsych batteries
- Sleep quality
- Heart rate variability
- qEEG
- Neurofeedback
- fMRI



Brain Health, Fitness, & Performance

- **BRAIN HEALTH:** the physiological and metabolic health of the brain as an organ and the adaptive ability of the mind/brain to dynamically and functionally interact with the body and the environment.
- **BRAIN FITNESS:** the state of cognitive, psychological, and behavioral optimization through brain healthy lifestyle habits, training, and interventions which enables optimal brain performance.
- **BRAIN PERFORMANCE:** the measurable outcome of brain health and fitness

No brain is too old
too out of shape or
to become more
healthy and fit.

**Brain performance
can be improved.**

Brain Health, Fitness, and Performance Are Within Your Control



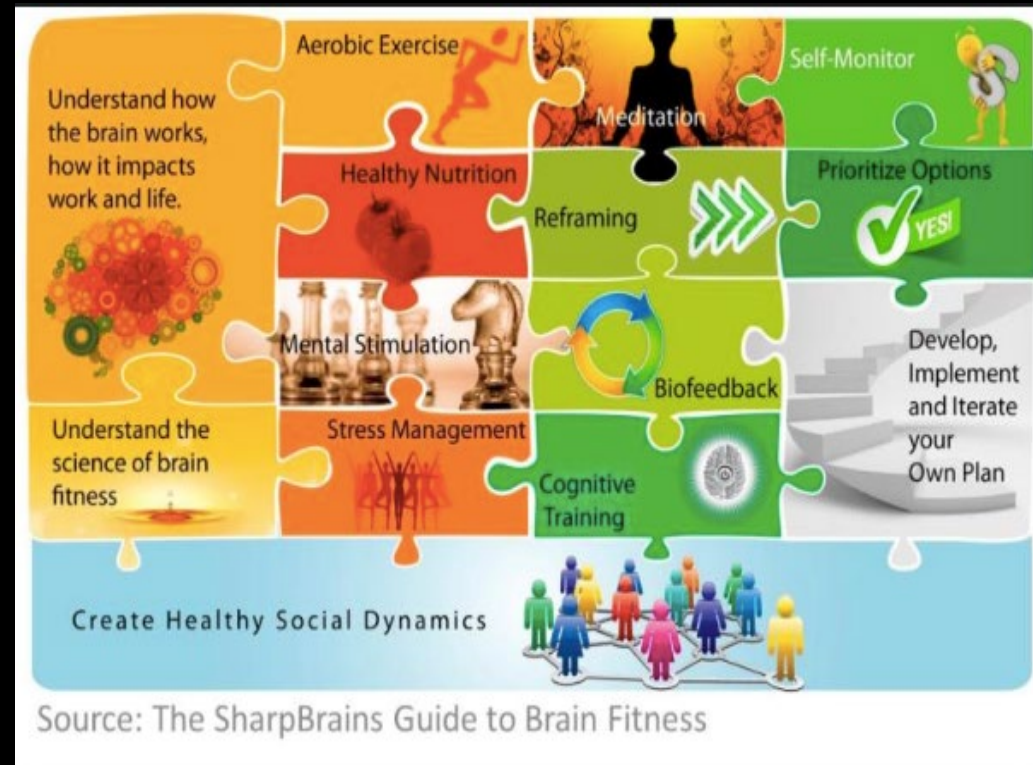
There Is a Need For Brain Health and Performance Professionals



2020

LIFESTYLE BEHAVIORS THAT CONTRIBUTE TO BRAIN HEALTH AND PERFORMANCE

- Physical Activity
- Nutrition
- Sleep
- Stress Resilience
- Social engagement
- Cognitive enrichment
- Mindfulness/Meditation
- Positive Emotions
- Positive Thinking
- Spirituality
- Nature
- Microbes
- Supplements



Brain Health & Performance Professionals



Create Customized Brain Health Plans
that include:

- ✓ Exercise
- ✓ Nutrition
- ✓ Sleep Health
- ✓ Brain Training
- ✓ Cognitive Health
- ✓ Stress Resilience
- ✓ Health Behavior Change & Support
- ✓ Positive Social Engagement

*All key ingredients in your overall
well-being and quality of life!*



www.brainhealthandperformance.com

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Shelley Carson, PhD:
shcarson@live.com

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