



Living Better Series
Brain Health: The Impact of Daily Activities

What is Brain Health

“Brain health refers to the ability to remember, learn, plan, concentrate and maintain a clear, active mind.”

According to NeuroHealth Associates

Recap of Risk Factors

Non-Modifiable Risk Factors	Modifiable Risk Factors
Age	Head Injuries
Family History	High Blood Pressure
Genetics: (specifically Alzheimer's)	High Cholesterol
Lack of Childhood Education	Mini Stokes (TIA)
	High Homocysteine Levels
	High Blood Sugar
	Poor Nutrition
	Chronic Stress
	Depression
	Social Isolation
	Sedentary Lifestyle
	Smoking

Why Are Activities Important

Helps Control The Following Risk Factors

Head Injuries
Chronic Stress
Depression
Social Isolation
Sedentary Lifestyle

Key Terms

- Neurogenesis
 - The process by which brain cell, aka neurons, are produced
 - I call them “blank slate” cells
- Neuroplasticity
 - The ability of the brain to continue neurogenesis throughout life
- Cognitive Reserve
 - Increased amount of neurons which help your brain adapt to changes
- Hippocampus
 - The memory center of your brain. The location of neurogenesis as we age.
- Gray Matter
 - Houses key regions of your brain that control attention, memory, and spatial navigation
- White Matter
 - The tissue through which messages pass between different areas of gray matter

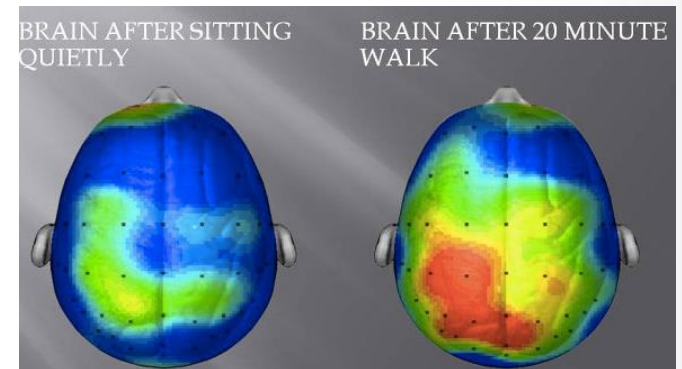
Exercise and the Brain

- **Short Term Benefits**

- Increases your feel good hormones
- Increases your ability to shift focus for up to 2 hours

- **Long Term Benefits**

- Faster processing time
- Improved reaction time
- Improves blood flow to the brain
- Increases energy level
- Increases the thickness of gray matter
- Decreases stress
- Decreases depression and anxiety
- Increases the hippocampus ability to make new cells



Types of Exercise

- **Aerobic**

- Also known as cardio because it increases your heart rate
- Increases neurogenesis in the hippocampus (improves ability to make new memories)
- Examples: walking, dancing, swimming, biking, hiking

- **Resistance (anaerobic)**

- Type of exercise used to increase strength and muscle mass/toner
- Increases balance
- Increases bone mass
- Decreases joint pain
- Increases neuroplasticity
- Examples: weights, resistance bands, squats

Tai Chi

Keep Calm and Do Tai Chi

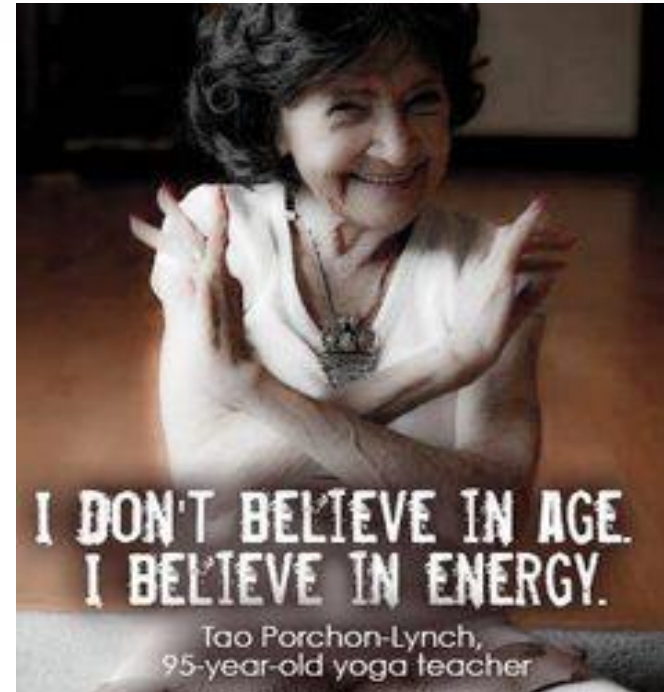


- A type of low impact, gentle form of martial arts
- Can be easily adapted to meet all levels of ability
- Improves balance, muscle strength, and flexibility
- Decreases pain
- Decreases anxiety and depression
- Improves sleep
- Increases gray matter specifically in the hippocampus
- Increases ability to process information and problem solving

Yoga

Learn to bend so you don't break

- Reduces depression and anxiety
- Improves balance and flexibility
- Decreases inflammation in the brain and body
- Improves the immune system
- Challenges the brain by requiring you to focus on poses and breathing
- Creates self regulation to control emotions and increases resilience to the stress response
- Increases the thickness of gray and white matter
- Studies have shown results in just 10-15 minutes of yoga



Meditation

A practice where an individual uses a technique to achieve a mentally clear and emotionally calm state

- Increases attention and concentration
- Decreases depression
- Decreases the level of cortisol (stress hormone)
- Creates Mindfulness
- increases thickness of white matter and gray matter
- Increases ability to make new memories



Don't think you can meditate...

If you can worry you can meditate. Worrying is meditating on negative thoughts

Nature

“Nature itself is the best medicine.” –Hippocrates

- Improves immune system and decreases inflammation
- Lowers blood pressure
- Reduces the stress hormone, cortisol
- Decreases depression
- Increase in energy level
- Improves sleep
- Decreases symptoms of dementia if already diagnosed



Sleep Well

Your Time to Recharge



8 Tips for Better Sleep

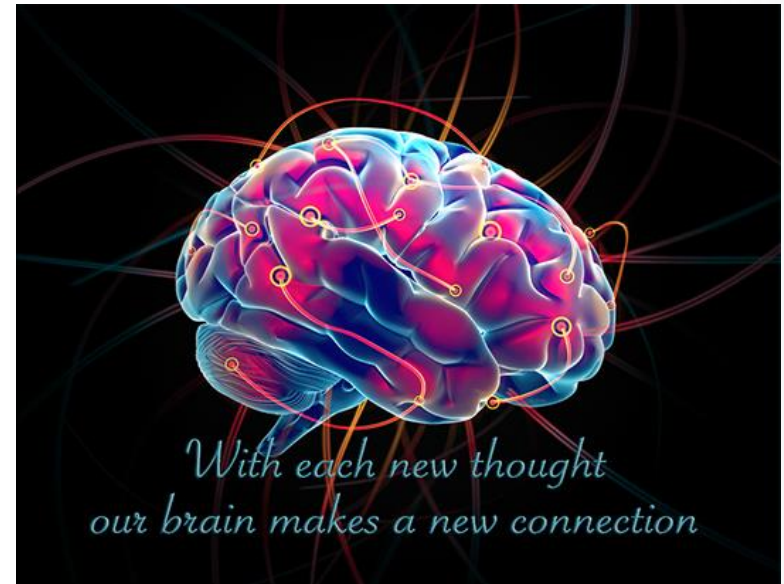
1. Go to bed and get up at the same times each day.
2. Sleep in a dark, quiet room.
3. Avoid caffeine and nicotine.
4. Don't drink alcohol before bed.
5. Do something to relax before you go to sleep.
6. Don't exercise before bed.
7. Don't take a nap after 3 p.m.
8. Don't eat a large meal before you go to sleep.

- You need 7-9 hours of sleep per night
 - Research shows chronic deprivation leads to irreversible damage from accumulation of amyloid plaques
- Removes toxins through the glymphatic system
 - AKA: our brain's waste management system
- Catalogues what you have encountered that day
- Creates memories
- Restores brain and body health
- Essential Oils can help with sleeping well

Keep Your Brain Active

Give your brain a challenge

- Learn a new skill
- Develop a new hobby
- Challenge your brain with games
- Read at a high level for you
- Enroll in classes
- Most important: do something you enjoy
- Increases cognitive reserve



Join in the Fun

Engage in social activities

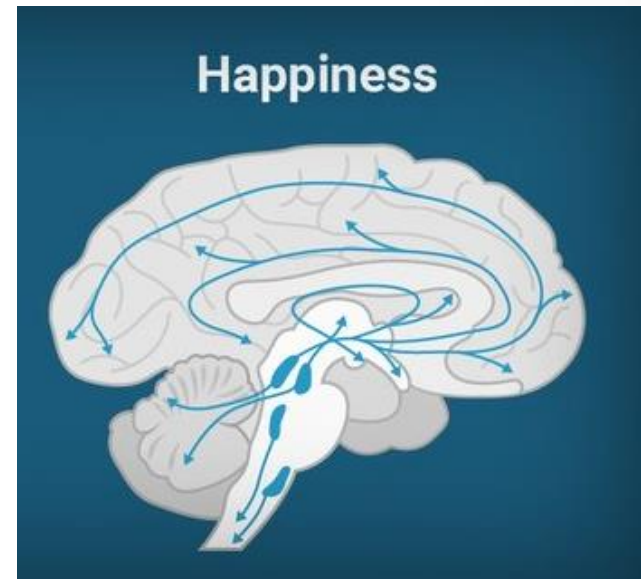


- Being around other people improves brain health, reduces stress, reduces depression
- Find ways to join social activities
- Develop connections with people
- Volunteer: be a part of something bigger than you

Choose to Be Happy

True Happiness Lies Within

- Improves immune function
- Decreases inflammation
- Enhances neuroplasticity
- **HEAL**: 4 Steps to create happiness
 - Have a positive experience
 - Enrich the experience by staying positive
 - Absorb the positive experience
 - Link the experience so positive experiences replace the negative



Reference

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