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CENTER OF HOPE

**From Stressed to Strong — The Psychology of
the Mind -Body Connection for Longevity
and Well-Being**

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Learning Objectives:

- Understand the Two-Way Connection Between Emotions and the Body.
- Explore How Mental and Physical Practices Support Each Other Over Time.
- Discuss Sustainable Strategies for Lifelong Healing.



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By the end of this session, you will be able to:

- **Understand** how your thoughts and emotions affect your physical health and how your body influences your mind.
- **Explore** how everyday habits like movement, breathing, and mindset can support each other to build lasting resilience.
- **Apply** simple, science-backed tools to feel calmer, stronger, and more energized — for life.



The Two -Way Conversation Between the Body and the Mind



- For a long time, medicine treated the mind and body as separate systems. But modern research in neuroscience, endocrinology, and psychoneuroimmunology shows something very different.
- The brain, immune system, hormonal system, and nervous system are in constant conversation.
- Because of this constant communication, it only makes sense that what is going on in the mind affects the body and what is going on in the body affects the mind.



When the Mind Talks to the Body



- Stress starts in the brain — when we feel pressure, the body releases stress hormones like cortisol.
- Over time, constant activation wears down the heart, immune system, and even our memory.
- Example: Have you ever caught a cold right after a tough week? That's the stress-immune link.
- Personal example: RA training role play



When the Body Talks to the Mind



- Our body also sends signals *back* to the brain.
- Physical states — sleep, nutrition, posture, movement, etc. — shape our emotions and focus.
- Example: Notice how your mood shifts after a walk or a good night's sleep. Or how it shifts in the other direction if you are in physical pain.
- Personal example: Right shoulder

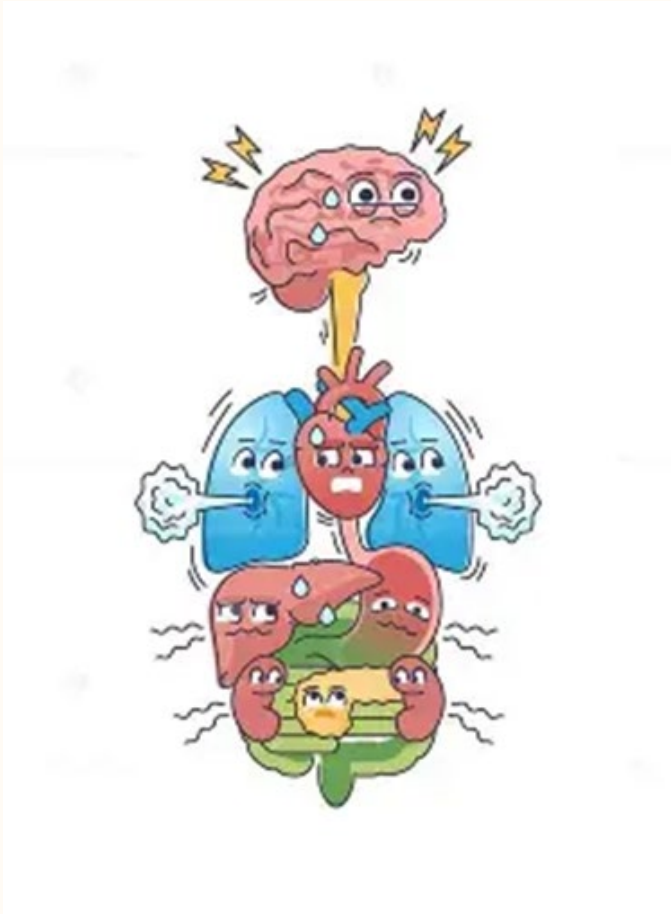


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- **There is no separation between mental and physical processes. They are coordinated through three interacting biological systems:**
- **Nervous system** – rapid communication (milliseconds), made up of two parts
 - somatic nervous system: brain to spinal cord to peripheral nerves, travels both ways (afferent and efferent)
 - autonomic nervous system: sympathetic/SNS (fight or flight/mobilize) and parasympathetic/PNS (rest and digest/restore)
- **Endocrine (hormonal) system** – hormonal messaging (minutes to hours)
 - HPA axis (hypothalamus, pituitary gland, adrenal glands and cortisol release)
 - When your brain perceives threat, it doesn't just send nerve signals — it releases chemical messengers into your bloodstream. This affects: Blood pressure, blood sugar, immune function, and sleep cycles
 - This is where stress becomes systemic.
- **Immune system** – the inflammation bridge
 - The immune system doesn't just respond to infections. It responds to psychological stress.
 - Inflammation is linked to: Depression, cardiovascular disease, metabolic syndrome, autoimmune conditions



The Lasting Impact of Stress and Trauma



- Unresolved stress or trauma can “live in the body,” affecting how we respond to new challenges.
- Good news: the brain and body are both capable of *healing and rewiring*.
- **Research simplified:** Early life stress can raise health risks later, but healthy lifestyle changes can reverse some of that impact (Danese & McEwen, 2012).



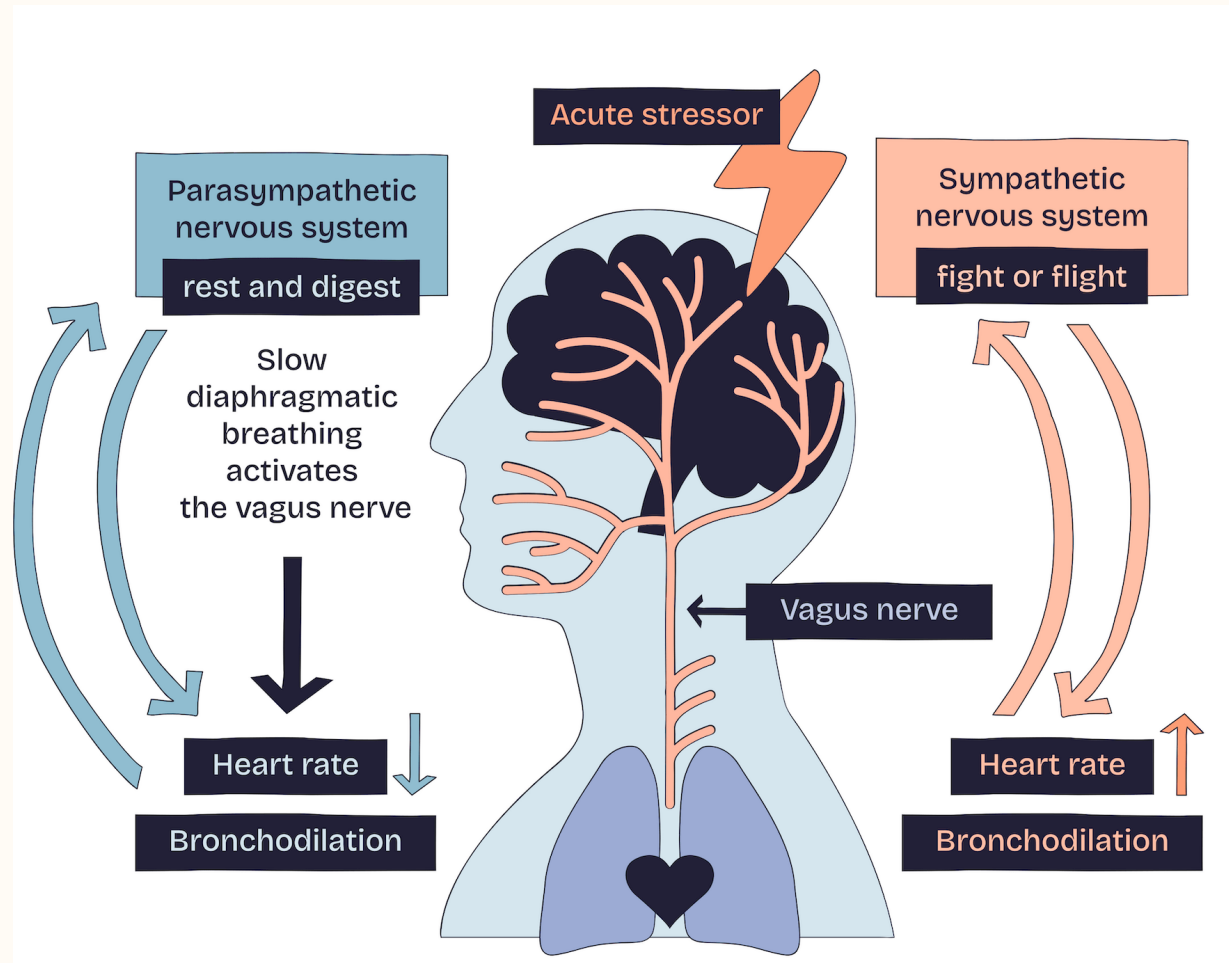
Let's discuss some examples



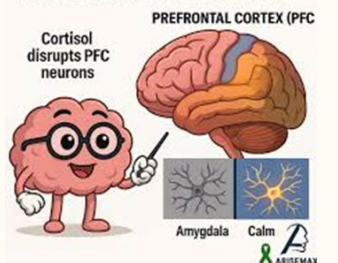
How does the body regulate the brain?

Body-based tools (like movement, breath, and posture) lower cortisol by stimulating the **PNS** (rest and digest/restore) and slows heart rate, promotes digestion and supports recovery

Vagus nerve connects the brain-heart-lungs-gut. 80% of fibers signal **FROM the body to the brain**, thus a relaxed body **INCREASES** Vagal tone which leads to lower inflammation and anxiety and better emotional regulation



FOCUS & THE BRAIN

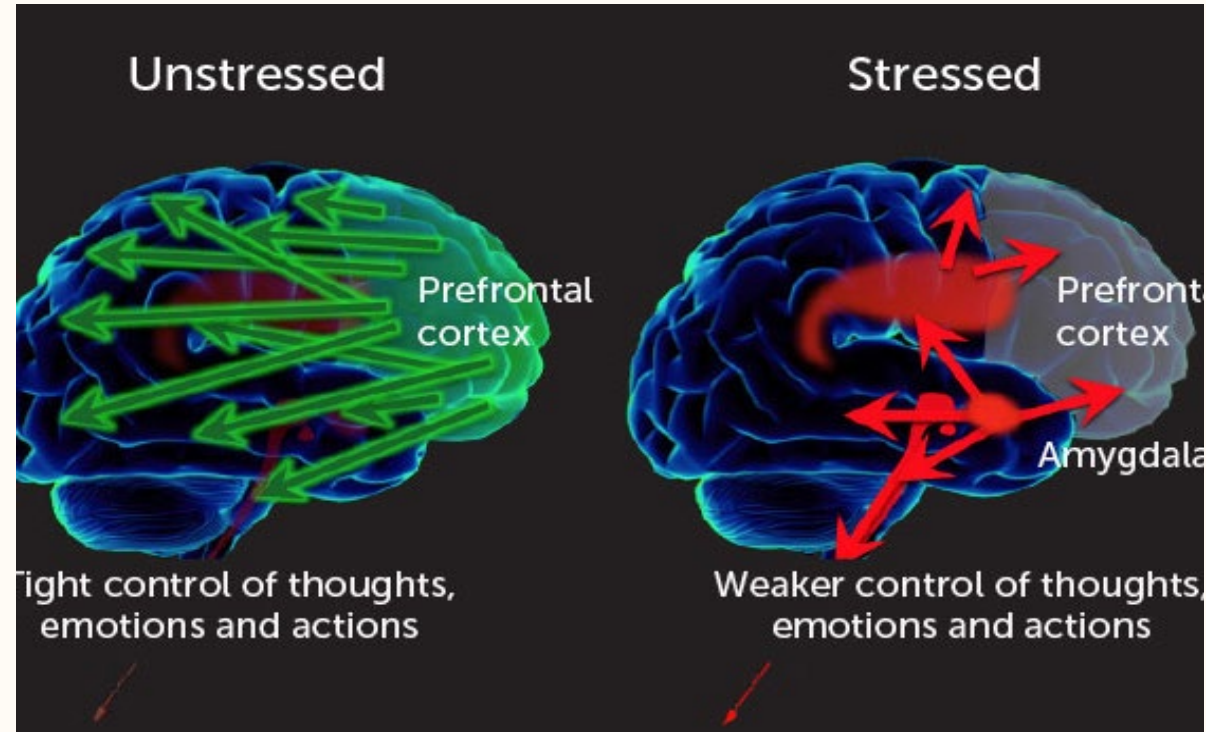


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Body-based tools change **brain chemistry**

- **Serotonin** ↑ – improves mood and emotional stability
- **Dopamine** ↑ – motivation and reward
- **Endorphins** ↑ – natural pain relief and wellbeing
- **GABA** ↑ – calming inhibitory neurotransmitter that reduces anxiety

Body-based tools reduce **amygdala activation** and **strengthen prefrontal cortex control**



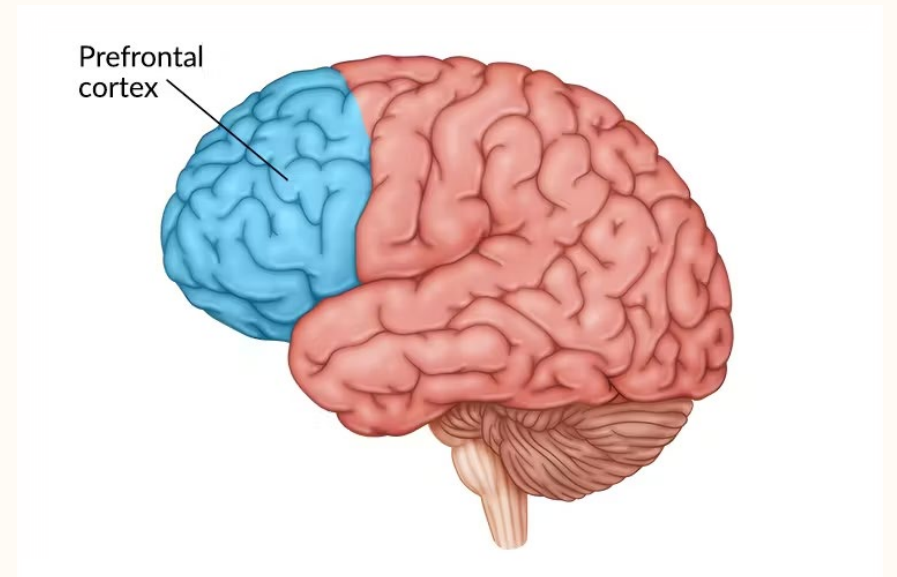
Body based tools change biology

-  Serotonin ↑ (mood, emotional stability)
-  Sunlight exposure (10–30 min, especially morning)
-  Walking outdoors (especially in nature)
-  Slow yoga / stretching
-  Slow, deep breathing (long exhales)
-  Consistent sleep schedule
-  Dopamine ↑ (motivation, reward)
-  Strength training / intense exercise
-  Cold exposure (cold showers, ice baths)
-  Completing small physical tasks (cleaning, organizing, movement goals)
-  Short bursts of effort (sprints, HIIT)



How does the brain regulate the body?

- Engaging the prefrontal cortex reduced amygdala activation and the threat signaling
- Cognitive reframing
- Positive reappraisal
- Gratitude practices



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- Breathing (DDB, Box breathing, psychological sigh)
- Muscle work and movement
- Cold exposure / weighted blankets
- Social co-regulation
- Sleep tricks
- Posture and body position



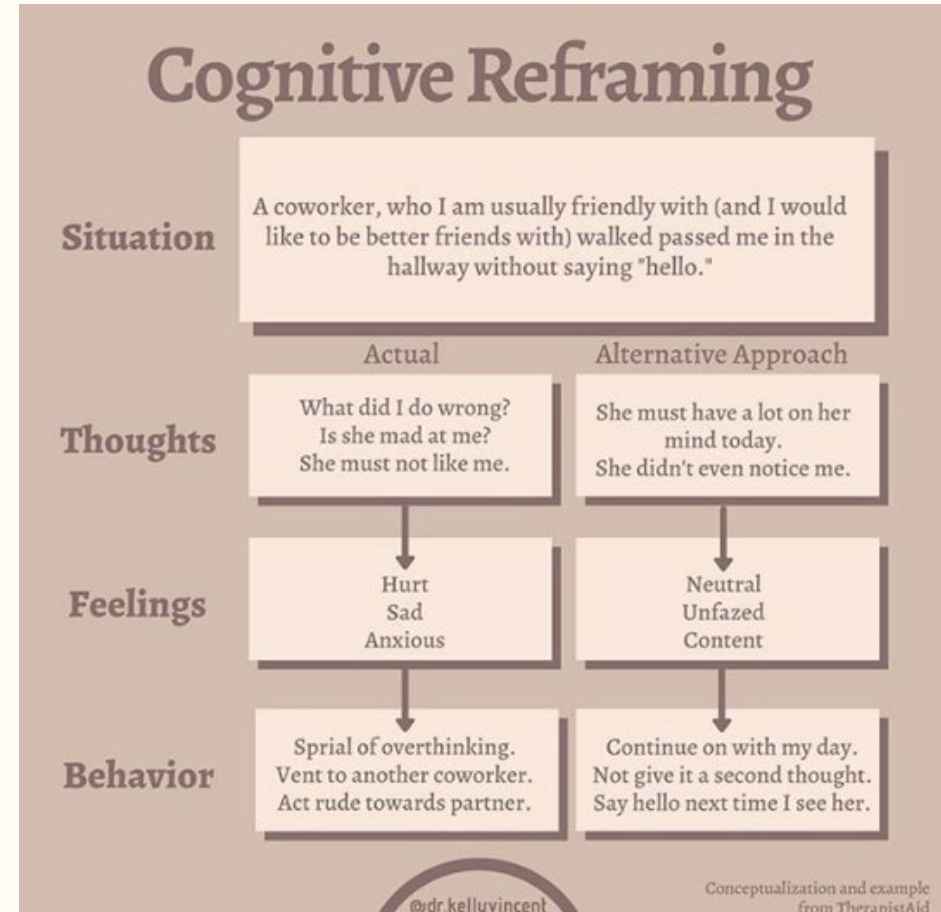
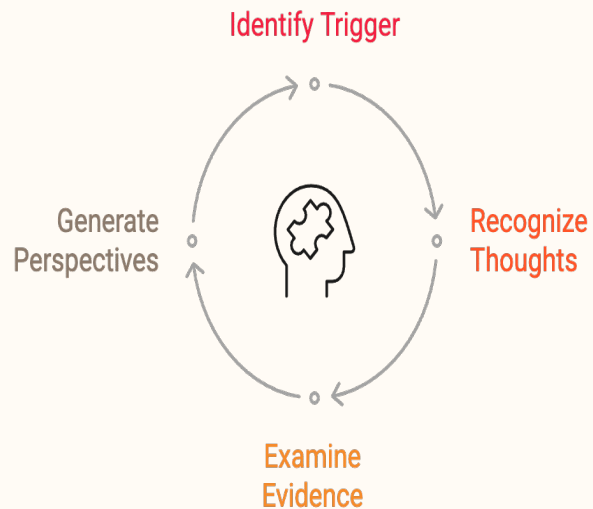
Box breathing, let's practice together

- <https://youtu.be/J8WFgoeKStI>



Cognitive reframing, let's practice together

Cognitive Reframing Cycle



Science says..

- Meditation and journaling lower cortisol
- Guided imagery activates PNS
- Self-compassion reduce inflammation
- Deep breathing slows heart rate and activates the vagus nerve.
- Regular exercise increases serotonin and dopamine.
- Yoga increases GABA, which helps reduce anxiety.
- Mindfulness meditation reduces activity in the amygdala (fear center).
- Spending time in nature lowers cortisol and stress levels.
- Quality sleep restores neurotransmitter balance.
- Gratitude practices increase dopamine and positive mood.
- Stretching and body relaxation reduce muscle tension and stress signals.
- Social connection releases oxytocin, which promotes calm and trust. Rhythmic movement (walking, dancing) regulates the nervous system.



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- Habit formation and motivation
- Self-sabotage
- Neuroplasticity



Action precedes motivation

Waiting for Motivation?



Neuroscience says: Action fuels motivation.

Dopamine spikes after you start moving toward a task, not before. Waiting to “feel motivated” is neurologically backward.

Action comes before motivation.



Small actions create momentum.



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Self-sabotage happens when our behaviors or thoughts interfere with our own goals and wellbeing.

Common Examples

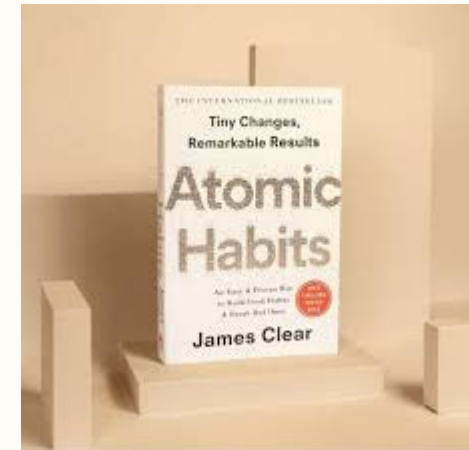
- Procrastination; Negative self-talk; Avoiding opportunities or challenges; Overworking until burnout

Why It Happens (Brain & Psychology)

- The brain is wired to **avoid discomfort and perceived threats**. The **amygdala** (fear center) may trigger avoidance behaviors. Past experiences or fear of failure can reinforce these patterns.

How to Break the Cycle

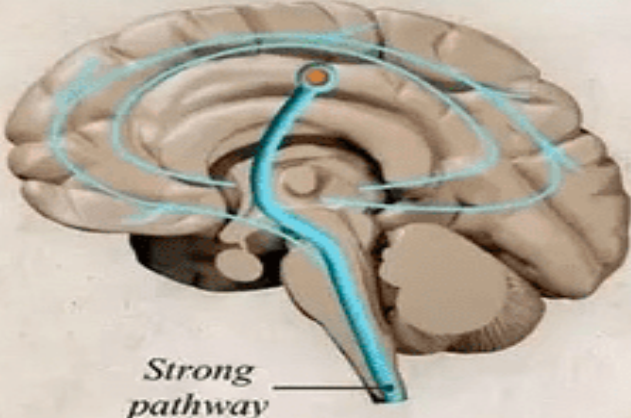
- Notice the behavior without judgment
- Identify the trigger (stress, fear, perfectionism)
- Use small, manageable actions to move forward



Neuroplasticity

Pathways


Neural pathways connect relatively distant areas of the brain or nervous system, each pathway is associated with a particular action or behavior.



Strong pathway

Every time we think, feel or do something, we strengthen this pathway. Habits are well travelled pathways – our brain finds these things easy to do.

Neuroplasticity



New thoughts and skills carve out new pathways.

Repetition and practice strengthen these pathways, forming new habits.

Old pathways get used less and weaken.

With repeated and direct attention towards a desired change, we all have the ability to rewire our brains.



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- Cortisol lowering powders for \$9.99 / sleep fixes with a magical mattress / just this one “extra” supplement



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Connect with your values..

Pick one or a few..

Principle #6



Committed Action

Carry out actions that contribute to a meaningful life when you are guided by your chosen values

12 WAYS TO KEEP YOUR BRAIN HEALTHY



Stimulation

Challenge your brain with puzzles, games and new inputs



Exercise

Consistent physical exercise will heal the brain and keeps it fit



Proper diet

Eat foods with protein, unsaturated fat, fruits and vegetables



Safety

Avoid head trauma by wearing helmets and seat belts



Sleep habits

Brains need around 7-8 hours of sleep to process & recharge



Learning

Keep your brain young by learning new things like a language



Switch routines

Change habits, it will surprise your brain & turns off auto-pilot



Be social

Interacting will trigger brain processes and lowers depression



Manage stress

Try relaxation, as stress exhausts your brain and hormones



Read books

Words and stories reduce the risk of cognitive decline



Avoid substances

Alcohol, drugs and smoking is bad for your brain health



Digital detox

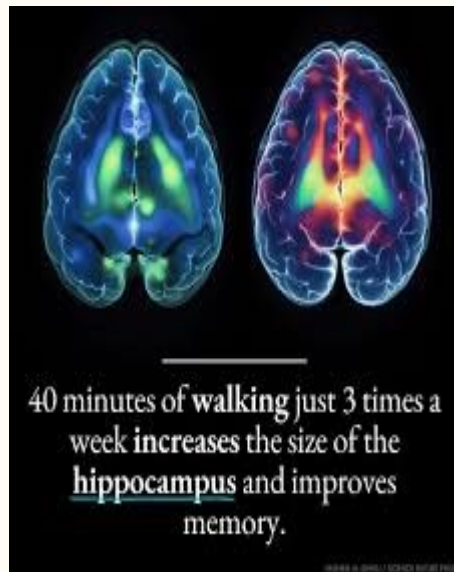
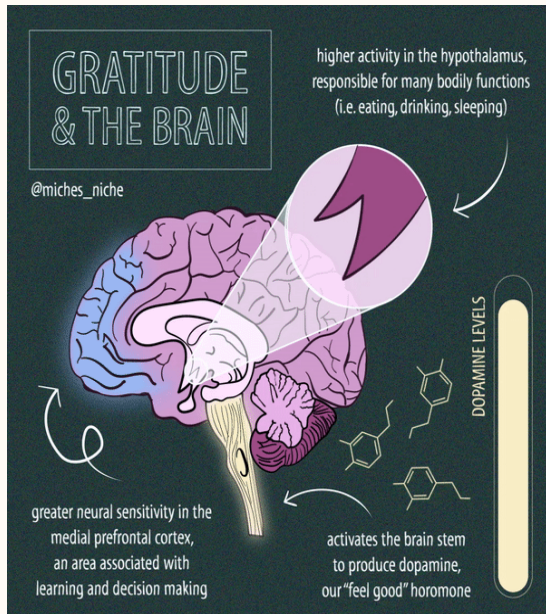
Too much screen time impacts sleep and will overwhelm the brain

@THEPRESENTPSYCHOLOGIST



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Gratitude texts and Walks



Dr. Walter

- Walking in nature engaging all senses
- Cognitive reframing, The Let Them Theory by Mel Robbins
- Quality sleep, my discovery



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