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# Let's Chat About Thinking:

## Changing Your Mind

A review of neuroplasticity

Jennifer Pauldurai, MD, MS  
Cognitive Behavioral Neurology



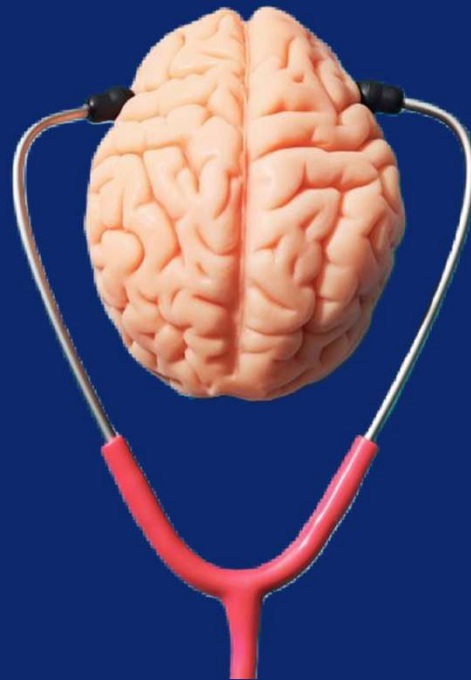
# How Do We Measure Brain Health?

*In the 60s-70s, there was the cardiovascular health and fitness revolution after the Framingham Study*

*Everybody wanted to get “heart healthy”*

*i.e., exercise, stop smoking, eat right (advent of DASH diet)*

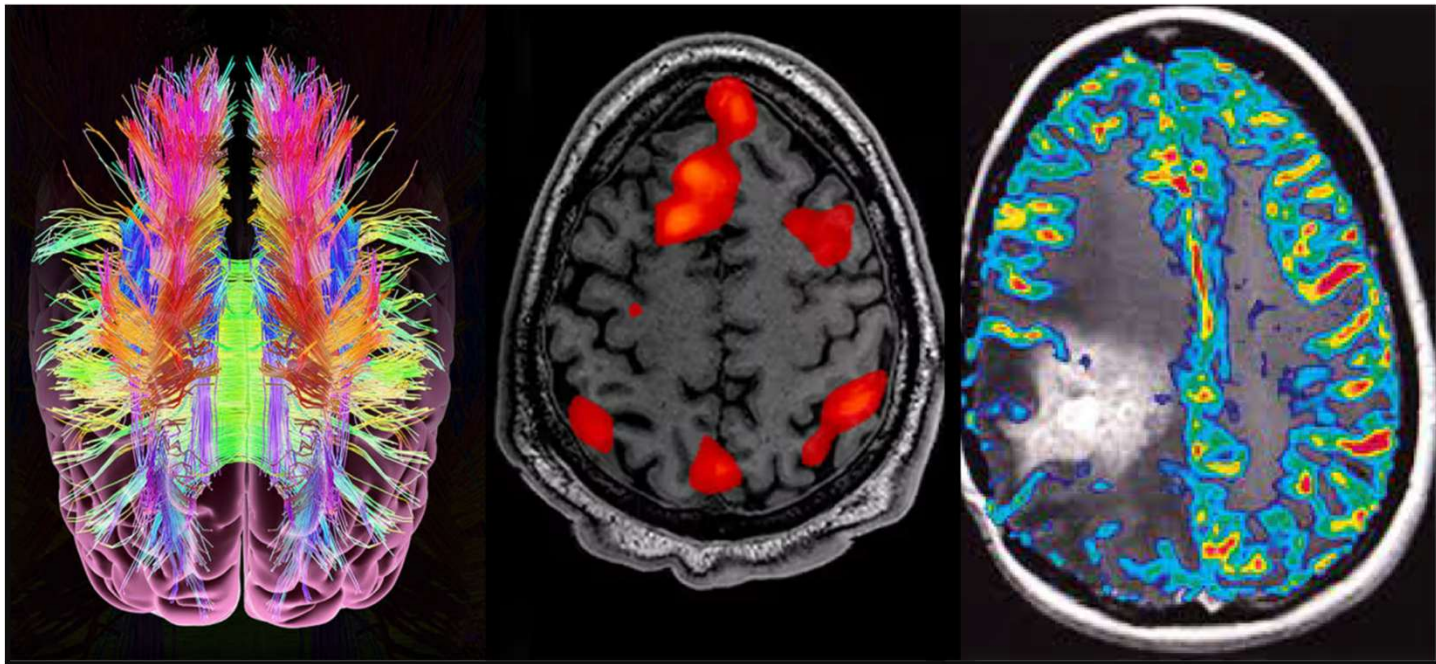
**This significantly reduced rates of heart disease, stroke, heart attack, reduced systemic medical burden of heart disease**



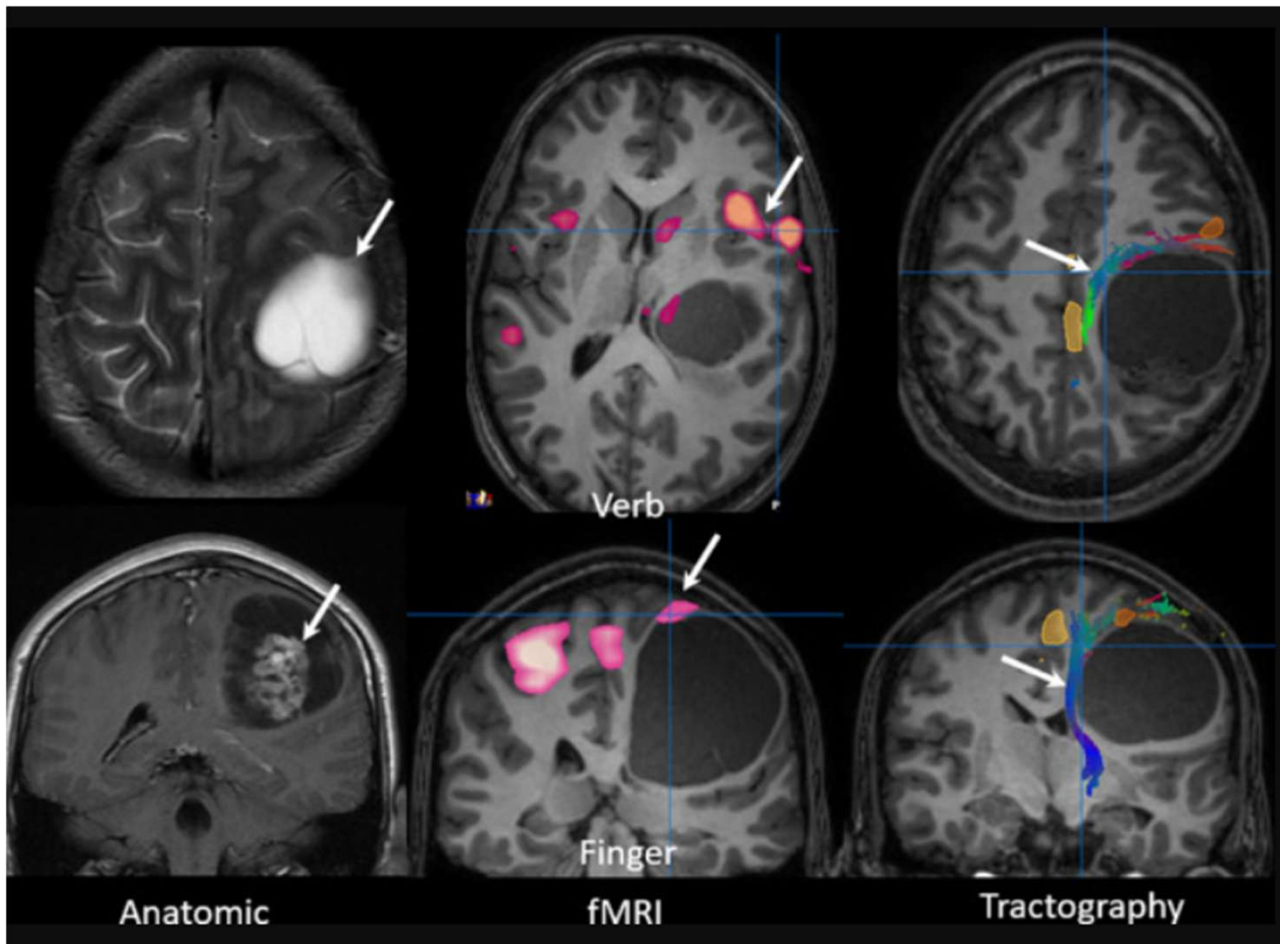
Brain Health is a similar revolution focused on getting the brain stronger prior to brain disease. **But there is no clear way of measuring the health of the brain, like we can for the heart.**

*There is no TTE, HR, BP, or EKG  
IQ is not good enough. Is it EEG, MRI, or  
neuropsychology testing?*

**Function of the brain is DYNAMIC.** Function can be measured in different ways: neuropsychological testing (memory testing), fMRI, nuclear medicine tracers, structural imaging...



**These tests vary depending on when and how the scan is done (tired, dehydrated, awake, etc). This means the function of the brain changes!**

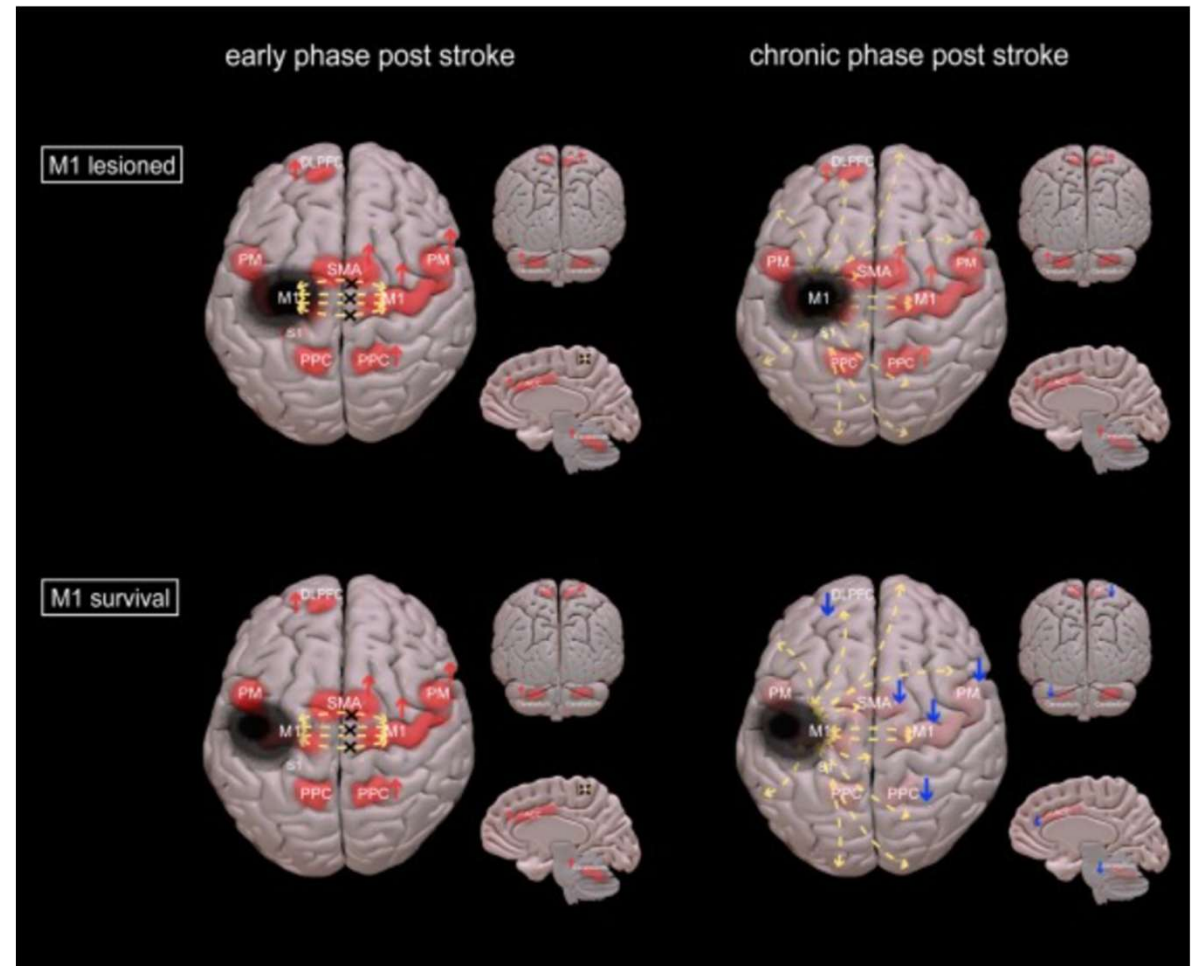


**Children can re-train and regrow neural pathways after a brain insult, even after a large brain structural change.**

This happens only with intensive neurorehabilitation, and prompt removal of the offending agent.

**While this neurotraining is harder to do in adult brains, it is not impossible.**

**Stroke recovery imaging reinforces how neuro-rehab can change the pathways in the brain to **REGAIN PARALYZED** function.**





As we talk about all the ways to keep our brain healthy, we are talking about actual chemical, physiological ways of **CHANGING YOUR MIND.**

**But changing brain habits can be hard! I thought staying on a routine was more important to reducing stress?**

## 6 Healthy Brain Habits

- 1 Be Social**  


Keep in touch with friends and family don't let yourself get self-isolated.
- 2 Engage Your Brain**  


Find ways to stimulate your thinking and explore new interests and hobbies.
- 3 Manage Stress**  


Practice relaxation, and maintain a daily schedule.
- 4 Ongoing Exercise**  


Move throughout the day aim to reach 2 and a half hours of moderate physical activity a week.
- 5 Restorative Sleep**  


Get 7 to 8 hours of restful sleep every day.
- 6 Eat Right**  


Choose a nutritious heart healthy diet including fish veggies fruits.

For information on resources in your area, contact your local Area Agency on Aging or the Alzheimer's Association.

 To find your Area Agency on Aging, call 1-800-552-3402  
Alzheimer's Association 24/7 Helpline: 1-800-272-3900 

The information on this tipsheet is taken from *Virginia Dementia Road Map: A Guide for People Impacted by Dementia*.  
Download your copy of the Road Map by scanning the QR code or visit: [vda.virginia.gov/DementiaCapableVA.htm](http://vda.virginia.gov/DementiaCapableVA.htm)

**VDH** VIRGINIA DEPARTMENT OF HEALTH  
HealthyBrainVA.com

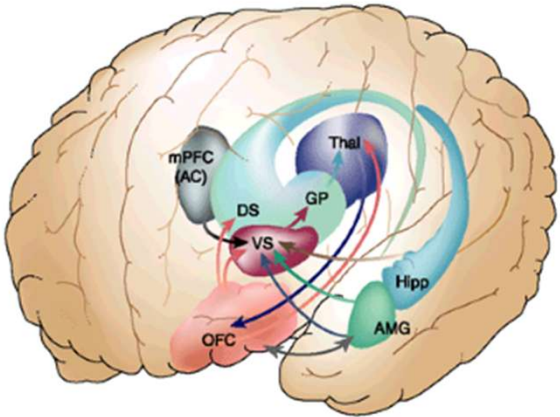
## NEUROPLASTICITY

**The brain has the ability to create new pathways to function. We have a tendency to get stuck in ways that are familiar, they are comfortable.**

**But these don't promote growth. When we challenge our brain, we create new connections.**



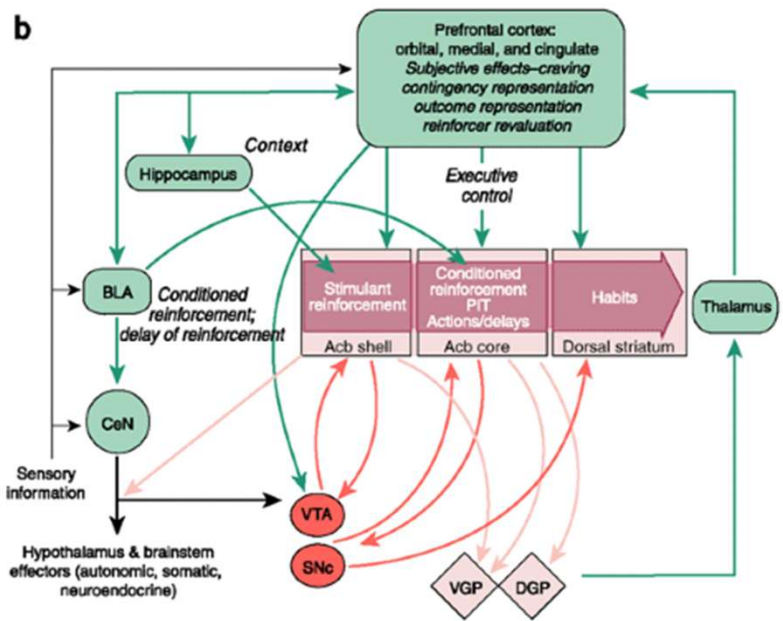
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## STEP ONE: Reinforce the pathways that are foundational to making good choices:

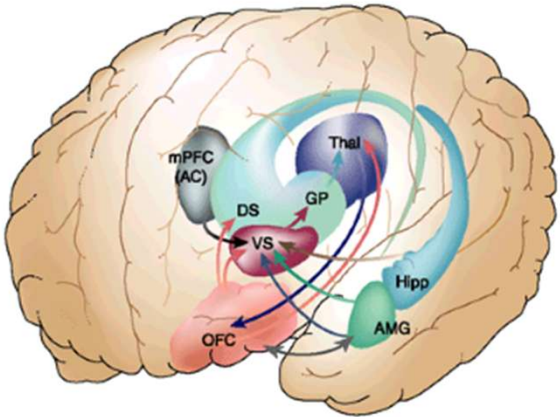
- eating well
- moving well
- socializing well
- thinking well

b



This allows the brain to set the scene, to create a system for rehabilitation. We cannot recover when we are in fight or flight/defense mode. Routine gives us purpose and algorithms.

a

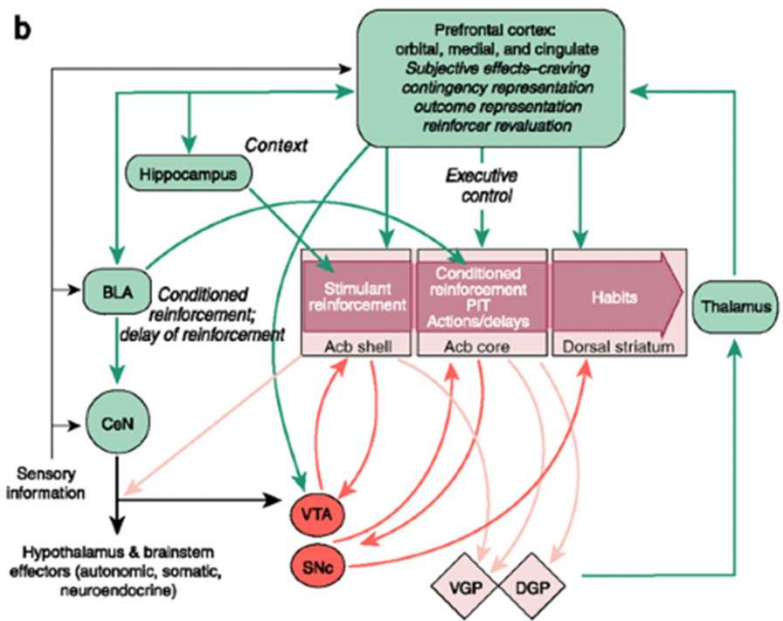


## STEP TWO: Challenge and expand these pathways to create different connections, stronger networks in the brain:

- move differently
- eat new foods
- try new things

**Examples:** Walk in a different route around your neighborhood. Try a different and unique cuisine. Join a gym class that you never thought you would try.

b



## NEUROPLASTICITY

**By creating a foundation of routine and then challenging it, we tell our brain to get out of its normal routine and to be better.**

**We are not set by the limitations of our symptoms.  
We can create behaviors around our illness to allow our brain to still function.**





What is one small change, or one small habit that can be revitalized for you?

Is there a new game, or a new road you can walk today?

It will change your brain for the better.

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