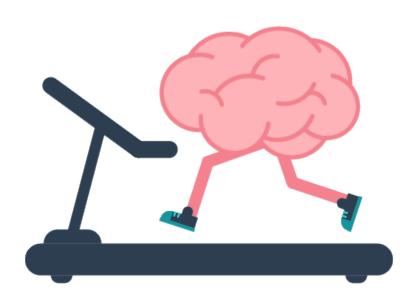


# Brain Health Program StrongerMemories



GPV Presenters

Patricia Clark & Holly Pollinger

# StrongerMemories<sup>SM</sup> Initial Meeting



April 6, 2022

Agenda

Introductions

Brain Health and Aging

**Prefrontal Cortex Activation** 

StrongerMemory<sup>SM</sup> Program

**Exercises and Outcomes** 

**Next Steps** 

**Brain Health and Nutrition** 



## Brain Health and Aging



Features of Aging: There can be subtle cognitive changes, in memory and thinking.

Independent People: Can have MCI (Mild cognitive impairment), an early stage of memory loss or other cognitive ability loss (e.g. language or visual/spatial perception).

Brain Exercises: Exercising the prefrontal cortex of the brain can help seniors stabilize and improve their cognitive functions.

StrongerMemory<sup>SM</sup> Program: by Goodwin House in Alexandria. The goal of StrongerMemory is to sustain the brain health of healthy, active adults — with or without a diagnosis of mild cognitive impairment (MCI) or dementia.



### **Activate Prefrontal Cortex**

## But what is the prefrontal cortex and how does it actually work?

The prefrontal cortex is the part of your brain right behind your forehead. It's a large section and takes up 10% of your brain.

**Executive Function:** One of the things the prefrontal cortex is most known for is Executive Function. It is the decision maker in our brain, it helps us respond, react, make decisions and plan for long-term goals.

Prefrontal Cortex: Studies have shown that the prefrontal cortex is activated in memory retrieval and is able to regulate memory retrieval in order to make decisions, problem solve and plan for daily tasks.

Ergo: By activating this part of the brain that controls memory retrieval, individuals have been able to focus better, find missing words more quickly, and stop repeating themselves as often.





The StrongerMemory program is an intervention that the George Mason Gerontology Research Team enthusiastically embraces.

#### **Program Outcomes**

**Improve:** Many StrongerMemory<sup>SM</sup> participants notice changes somewhere between four to 12 weeks after routinely following the program.

**Stabilization:** Brain health stabilization is also success, so if neither positive nor negative change is experienced, this is considered a win. Also, because this is a non-pharmacological solution for brain health, there are NO side effects!

First Participant: "Within less than 30 days, my mom's repeating was significantly reduced, her recall of conversations improved, and she was no longer getting lost in familiar places. As she continued the work, she was able to learn Mahjong, and even start teaching Bridge. It is years later, and she continues to progress well while still following the three-step program."



### Stronger Memory Exercises



Think about the StrongerMemory exercises as getting back to the basics.

The three exercises in StrongerMemory<sup>SM</sup> have been chosen because they activate the prefrontal cortex, which helps control memory retrieval.

Simple Math Reading Aloud Handwriting

Research had identified that simple math done quickly, reading out loud, and handwriting are effective.

**Trigger Activity:** The StrongerMemory<sup>SM</sup> exercises are ways which trigger greater brain activity in the prefrontal cortex and could support an improvement in brain function.

Exercise Daily: Complete each exercise at your own pace. There is no time requirement or anticipated amount of time finish. The idea is to work daily on some of each of the three types of exercises for at least 20 to 30 minutes.

Though it is best to engage in these exercises every day, four to five times per week has shown to be beneficial.





## Exercise: Reading Aloud

What to Read? Find something that you can read aloud for 10 minutes or more a day.

#### **Benefits**

Reading aloud has a variety of brain benefits, including activating the prefrontal cortex that we exercise in StrongerMemory.

Research has shown that reading aloud actually helps us remember things better. When we hear ourselves speaking the written words aloud, we are more likely to store that information as a long-term memory.

Additionally, reading aloud can also improve focus and vocabulary, and lead to greater reading comprehension.

## "Stopping by Woods on a Snowy Evening" by Robert Frost

Whose woods these are I think I know. His house is in the village though; He will not see me stopping here To watch his woods fill up with snow. My little horse must think it queer To stop without a farmhouse near Between the woods and frozen lake The darkest evening of the year. He gives his harness bells a shake To ask if there is some mistake. The only other sound's the sweep Of easy wind and downy flake. The woods are lovely, dark and deep, But I have promises to keep, And miles to go before I sleep, And miles to go before I sleep.

## Exercise: Quick & Simple Math Problems



Goal: Spend between 5-10 minutes a day doing these quick math problems.

The math is supposed to be simple,
done quickly and not cause anxiety.

Benefits: Simple math is intended to engage your mind in a task that you learned in childhood.

As you progress, to make it more challenging, you could time yourself, and set increasingly shorter completion times as a goal.

## Exercise: Writing

#### What to write about?

You can write whatever you prefer.

Follow the prompts in the workbook.

Keep a journal.

Write letters.

Write poetry.

The workbook writing prompts were created to provide a comprehensive story about you that could be shared with family and friends.



## Our StrongerMemory<sup>SM</sup> Program Next Steps

Participants want to improve brain health

Commitment to program participation

Dedicated time each week for facilitated check-in or independent check-ins. Decide on a time for next meeting and meetings for the next 12 weeks.

Verify that GPV has contact information from the group members in order to send meeting invitations and distribute materials.

Homework: Develop goals for yourself and your memory, write those goals down by hand.



#### Brain Health and Nutrition

Studies have shown that lean fats and omega-3 fatty acids are especially good for brain health, and that foods high in cholesterol and saturated fat can have a negative effect on brain health.

Brain Health Risk Factors: Some medical conditions and other factors can contribute to MCI, such as: Diabetes, Smoking, High blood pressure, High cholesterol, Obesity, Depression, Sedentary lifestyle, Infrequent participation in mentally or socially stimulating activities

#### Best Brain Health Foods (According to Healthline)

- 1. Fatty fish: "Fatty fish is a rich source of omega-3 fatty acids, a major building block of the brain. Omega-3s play a role in sharpening memory and improving mood, as well as protecting your brain against cognitive decline."
- 2. Coffee: "Coffee can help boost alertness and mood. It may also offer some protection against Alzheimer's, thanks to its content of caffeine and antioxidants."
- 3. Blueberries: "Blueberries are packed with antioxidants that may delay brain aging and improve memory."

### **Brain Health and Nutrition**

- 4. Turmeric: "Turmeric and its active compound curcumin have strong anti-inflammatory and antioxidant benefits, which help the brain. In research, it has reduced symptoms of depression and Alzheimer's disease."
- 5. **Broccoli**: "Broccoli contains a number of compounds that have powerful antioxidant and anti-inflammatory effects, including vitamin K."
- 6. Pumpkin seeds: "Pumpkin seeds are rich in many micronutrients that are important for brain function, including copper, iron, magnesium and zinc."
- 7. Dark chocolate and raw cacao: "The flavonoids in chocolate may help protect the brain. Studies have suggested that eating chocolate, especially dark chocolate, could boost both memory and mood."
- 8. Nuts: "Nuts contain a host of brain-boosting nutrients, including vitamin E, healthy fats and plant compounds."
- 9. Oranges: "Oranges and other foods high in vitamin C can help defend your brain against damage from free radicals."
- 10. Eggs: "Eggs are a rich source of several B vitamins and choline, which are important for regulating mood and promoting proper brain function and development."
- 11. Green tea: "Green tea is an excellent beverage to support your brain. Its caffeine content boosts alertness, its antioxidants protect the brain, and L-theanine helps you relax."



## About Glover Park Village

GLOVER PARK VILLAGE (GPV) is a volunteer-managed, non-profit organization supported by you and your neighbors and friends. Glover Park Village does not charge for events or services, and welcomes neighbors to events.

Our mission is to volunteer services to anyone who needs them throughout the Greater Glover Park area with a focus on helping people stay in their homes. GPV is a member of the national Village-to-Village Network and the local Washington Area Village Exchange. If you would like to volunteer or to have services, please call 202-436-5545

Founded in 2020, GPV's mission is to improve the quality of life for people throughout the Greater Glover Park area with a focus on helping people stay in their community..

Volunteers provide services to anyone who needs them. – rides to the doctor, social work assistance, friendly visits, handyman tasks, technology lesson. Volunteers also manage the village and make calls, do data entry, update the website, host events.

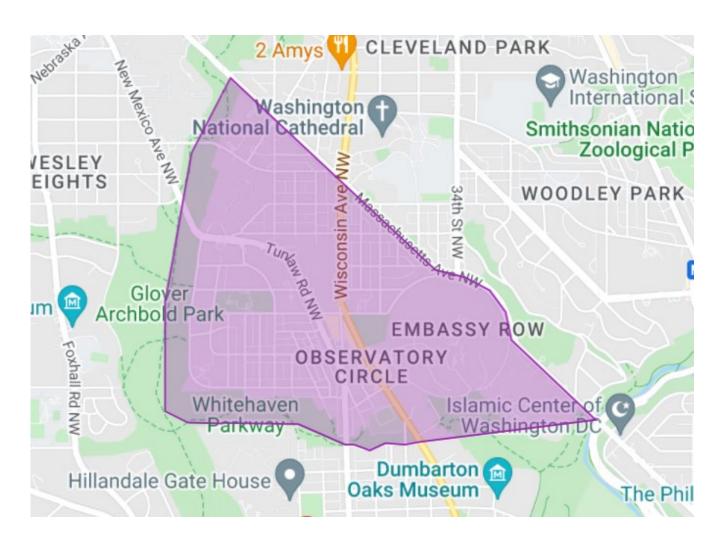
GPV is a member of the national Village-to-Village Network, the regional Washington Area Village Exchange, and the DC Village Collaborative. If you would like to volunteer or to receive services, pleases call 202-436-5545.

GPV serves the neighborhoods of Glover Park, Cathedral Heights Massachusetts Avenue Heights, the Naval Observatory, Whitehaven, Cathedral Avenue to New Mexico Avenue, the south side of Massachusetts Avenue from Glover Archibald Park to Rock Creek Park as they cross Massachusetts Avenue and some who come from other nearby areas. GPV also welcomes members and participants from other DC Villages.

GPV is a welcoming village.

GPV is a charitable non-profit with 501(c)(3) IRS status and donations are tax deductible. GloverParkVillage.org

## Glover Park Village area



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