

Aging & Brain Health

Newsletter of the Aging & Brain Health Alliance

Rutgers University – Newark

Welcome to Our New Newsletter

Welcome to the first issue of **Aging & Brain Health**. We plan to produce three issues a year to bring you news you can use to reduce your risk for Alzheimer's disease, while optimizing your brain health for aging. Each issue will have a cover story about the science behind brain-healthy habits. The second page will include activities for brain health, including recipes for a healthy diet, a brain teaser, and a practical tip from brain science for memorizing scripture (or any other new material). The third page features community brain health profiles where you can hear from members of your community including a Very Important Participant in our research studies, a key Community Partner, and one of our SuperAgers who is thriving past 80.

Exercise to Maintain a Healthy Brain

By Dr. Joshua Gills & Dr. Mark Gluck

Exercise is one of the best ways to improve your memory, mood, and brain function. If you can get at least 30 minutes a day of moderate exercise (or about three hours per week) you can improve your sleep, lower your risk for stroke, better manage your blood sugar, improve your immune function, and increase blood flow to your brain. All of these will help improve your memory and lower your risk for Alzheimer's disease.

You don't need to go to the gym: Try doing a 45-minute brisk walk several times a week. You can also get together with some friends to dance to your favorite tunes; call it your weekly *Soul Brain!* dance party. Group exercise provides social support and an extra incentive to keep at it, week after week. Research has shown that to get the most brain benefits from exercise, it should be intense enough that you can feel your heart pumping harder and faster than usual.



People who are physically fit have more brain cells, including new brain cells, in the hippocampus, a sea-horse shaped region in the middle of the brain where new memories are formed. Because Alzheimer's disease develops early in the hippocampus, having a reserve of additional brain cells there can provide you with protection against the loss of these cells that occur in Alzheimer's disease.

Recent studies done at Rutgers University-Newark have also shown that people who exercise regularly have more flexible brain connectivity in and around the hippocampus: each brain cell is better able to talk to many other brain cells. This flexible hippocampus in fit people allows them to better learn new information and new skills that can help them keep up with a dynamic changing world.

Strength training is also important. Lifting weights or doing resistance training (such as with large elastic bands) can help preserve muscle mass and make your mind sharper, while also reducing risk for falls. You don't need fancy equipment, just grab a couple of heavy soup cans from the kitchen and use them as weights to lift up and down.

Remember this: Exercise regularly to maintain a healthy brain!



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Activities for Brain Health

Brain Healthy Cooking

By Delores "Cookie" Hammonds

To keep your mind heathy, eat a diet abundant in fruits, vegetables, and whole grains. Consider these oatmeal pancakes. You will need:

- 1 1/4 cups all-purpose flour
- 1/2 cup Quaker Oats
- 2 teaspoons baking powder
- 1/4 teaspoon salt
- 1 1/4 cups fat-free milk
- 1 egg, lightly beaten
- 1 tablespoon vegetable oil

In large bowl, combine flour, oats, baking powder and salt; mix well. In separate bowl, combine milk, egg and oil, blend well. Add liquid ingredients to dry ingredients; stir just until dry ingredients are moistened (do not over mix). Lightly grease skillet and heat over medium-high. For each pancake, pour 1 cup of batter into skillet. Turn when tops are covered with bubbles and edges look cooked. Turn only once. I like to add blueberries to the batter and strawberries on top.

Brain Teaser Puzzle: Motown Music

By Zuzanna Osiecka

We have hidden the names of 11 of your favorite Motown singers and groups from the 1960s and 1970s in this word jumble. See if you can find and circle all of them (answers at right upside down).

G N K R E J S S G B T X V M E
 C U O J A M T M L I H G F I D
 J Z E A M W E O A L E K L C I
 V A Y C A U V K D L T A K H A
 O S V K R E I E Y W E V W A N
 T L T S V Q E Y S I M Z A E A
 I U M O I I W R K T P G W L R
 S J S N N U O O N H T E A J O
 R Q L F G G N B I E A F B A S
 E U B I A J D I G R T D E C S
 D K E V Y I E N H S I V L K X
 D B F E E F R S T Y O X U S T
 I Z R O B F P O Q W N G V O Y
 N A K F G V E N H K S W Y N Z
 G L I O N E L R I C H I E E F

The Neuroscience of Bible Study: Practical Tips from Brain Science for Memorizing Scripture

By Dr. Mark Gluck & Reverend Dr. Glenn Wilson, Sr.

Memorizing scripture, or any new material, is challenging, especially as we get older. However, the science of memory offers guidance on how to easily memorize new information. In each issue of this newsletter, we will bring you another tip from brain science about how to memorize scripture with topic-relevant passages from the Bible. This issue's tip is:

Tip #1. Think About Meaning

Memories in the brain are created by **associations**.

The **deeper we process** new information, the harder we work to understand the meaning, the more likely we are to remember it.

Try reading the verse just prior, and the verse that follows, to see how they all fit together into a **larger narrative**.

Try rewriting a verse in your own words: Challenging yourself to boil a verse down to an **essential summary of key points**. This forces you to think about the core meaning.

Before you try to memorize a new verse, take time to dwell on what it means to you. **How does it relate to you and your life?**

Choose a verse that is relevant to what you are feeling today. If you are **sad and stressed**, pick a verse of encouragement:

God is our refuge and strength, a very present help in trouble.

Psalm 46:1

If you have recently experienced **conflict**, you could choose:

Wherefore, my beloved brethren, let every man be swift to hear, slow to speak, slow to wrath: for the wrath of man worketh not the righteousness of God.

James 1:19-20

Brain Teaser Answers: The Temptations, Smokey Robinson, Gladys Knight, Michael Jackson, Lionel Richie, Jackson Five, Stevie Wonder, Otis Redding, Bill Withers, Marvin Gaye, Diana Ross.

Community Brain Health Profiles

Michael James

*Very Important Participant
since February, 2017*



“It was a good experience. The young lady who did my test was pleasant, knowledgeable, and easy to work with. When I was in the program before, there were very few Black men, and I am sure there is still a shortage of Black men. The larger the group of people who participate, the greater the input and information derived from the research; therefore, the better prognosis for people like me to benefit from it. I’m going to inform a few friends. I have the time, so I think it will be worthwhile ultimately.

I work out one day a week now. I am trying to increase my workouts to include some more cardiovascular exercise.”

Rev. Dana P. Owens

Community Partner



“In my 17 years of serving Messiah Baptist Church and the East Orange community, spiritual wholeness, social justice and personal health and wellness have been at the forefront of my ministry. Through the years, the African American community has been underserved and ignored with regards to accessibility and adequate health care. I believe it’s important that the Black Church addresses those disparities along with encouraging those in our pews and community to be proactive about their health instead of reactive.

The Rutgers *Aging & Brain Health Alliance* has zeroed in on the impact of Alzheimer’s in the African American community and provided invaluable information to help identify its pattern and offer viable solutions for prevention. Developing partnerships like this, ensures a healthier community.”

Catherine Willis: *Exceptional African American SuperAger*



“I wake up every morning around 5:00 am and I work on a jig saw puzzle or color in my adult coloring books. I walk, and I have stairs in my home that I am constantly up and down. I do not use canned vegetables, but I cook a variety of fresh vegetables and I eat salads frequently. I am a firm believer that if you don’t use it, you lose it. So, I try my best to keep my mind active. I am constantly working with various organizations, including my church, providing assistance in the areas where I possess expertise. My advice to others is: Find something that you enjoy doing that provides a challenge to your mind, and do it on a regular basis.”

Pathways to Healthy Aging in African Americans: A University-Community Collaborative Study

What is the Purpose?

- We seek to understand why many African Americans are at elevated risk for Alzheimer's disease as compared to other Americans, while other African Americans live very long lives without any cognitive impairment.
- By studying how health, lifestyle, environment, and genetics interact in different people, we will learn why some people develop Alzheimer's disease, and others live well into their 80s and beyond with strong clear minds.
- What we learn will guide the development of novel treatments to help people stay brain-healthy and avoid Alzheimer's disease.

What is Involved?

- **First visit:** For saliva and blood collection, to measure your immune health, Covid-related antibodies, hemoglobin A1c (diabetes risk), brain health, and genetics.
- **Second visit:** Tests of memory and thinking, basic lifestyle questions, physical fitness. We train you to use a sleep monitor for home use to measure your sleep patterns.
- **Third visit.** If you are medically able, return for MRI brain imaging to show us size and activity of your different brain regions.

Return every two years to repeat.

Who is Eligible to Join?

- You identify as Black or African American (regardless of where you or your parents were born).
- Age 60 or older.
- Speak English.

What are the Benefits?

- With your permission, we can give copies of your brain imaging, sleep monitoring, and other tests to your doctor as regular free "Rutgers Brain Checkup."
- If you show signs of serious memory decline in future years, we will pay for a full clinical evaluation by local doctors.
- You become a Rutgers VIP — *Very Important Participant* — and get invitations to free exercise classes, updates on brain health news, and invitations to community brain health lectures and other events.
- You contribute to your community by helping us understand how African Americans age, and what might work to reduce the high rates of Alzheimer's disease.
- You can earn over \$200, plus transportation costs, for your time and effort.

To learn more about becoming a paid participant in research on aging and brain health, please call:

(973) 353-3673

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