

## The Presbyterian Board of Governors Cochlear Implant Center of Excellence at GBMC

6535 North Charles Street, Suite 250 Baltimore, Maryland 21204 (443) 849-8400

# **Brain Health Meets Hearing Health**

# **Connection Between Hearing Loss and Cognition**

- Having hearing loss can lead to increased listening effort and the utilization of more brain resources
- When individuals with hearing loss receive a distorted signal, it can cause increased difficulties for the brain to then decode that signal. (Although we think we hear with our ears, the real decoding process happens our the brain!)
- Having hearing loss can impact overall brain function.
- Studies have shown that individuals with hearing loss begin to use other areas of the brain responsible for processing and memory tasks when they are not receiving appropriate information due to their hearing loss. This adds a lot of additional work for the non-hearing regions of the brain, taxing the system and causing fatigue
- Hearing loss is associated with an increased risk of dementia, especially in patients aged 45 to 64 years old
- Individuals with untreated hearing loss or adequate management of their hearing, have an increased risk of dementia

## With this information, what can/should be done?

Research shows us that our brain health is necessary for tasks such as memory, processing speech, decision making, time management, organization, and planning.

Our goal is to provide a comprehensive approach to your care. We screen all patients 45 years of age and older to ensure that we are able to provide appropriate recommendations and customize your care to meet your needs.

Early identification is key! Early identification and/or treatment can result in better outcomes for overall cognitive health in the future, and optimize your performance with your cochlear implant.



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#### How do the results of the screening affect my future treatment?

The results of the screening do not dictate whether you are or are not a cochlear implant candidate. Rather it gives us information to know how to better treat you so we can:

- Provide appropriate referrals to your PCP, as needed
- Engage the patient's caregivers, family, or friends throughout the cochlear implant process, as needed
- Change how instructions and information is provided. This can be supplemented with written information to take home.
- Decide what extra cochlear implant accessories would be most beneficial for your individual needs
- Provide additional ongoing cognitive monitoring as needed.

#### How can I strengthen my Brain Health now?

- Eat less sugar.
- Cut down on refined carbohydrates such as cake, cookies, white rice, and white bread.
- Drink less alcohol.
- Maintain a healthy weight.
- Meditation increases gray matter in the brain.
- Get plenty of sleep.
- Practice mindfulness (mental state) focus on the present situation maintaining awareness of your surroundings. Research suggests that this improves concentration and memory.)
- Check your vitamin D levels.
- Get more exercise.
- Eat foods high in antioxidants such as berries, fruit, vegetables, and tea.
- Download apps/games on your phone or tablet to keep your mind sharp! (word search, sudoku, cross words, etc.) https://www.healthline.com/nutrition/ways-to-improve-memory