

Cognitive-Community Integration Lab "Active Brain, Healthy Brain"

<u>Understanding Hearing</u> Loss & Its Impact on You

Causes & Prevalence of Hearing Loss

Hearing loss can be defined in a variety of ways, including when and how it occurs:

- When: Hearing loss can be congenital (present at birth) or acquired (can occur at any age).
- **How:** Hearing loss can occur from internal (such as hereditary and non-hereditary factors, disease, infection, or aging) or external (such as injuries to the head and ear or excessive exposure to loud noise) factors.



Approximately 30 million individuals in the United States, aged 12+ years have hearing loss in both ears, and approximately 37.5 million Americans aged 18+ years report trouble hearing.

Hearing Loss & Cognition

Can hearing loss affect cognition? Yes

- Individuals with hearing loss may experience cognitive decline at younger ages.
- Hearing loss can impact parts of the brain that are responsible for auditory functions (such as listening), which can lead to difficulty understanding others.
- Individuals with hearing loss are more likely to report problems with their memory compared to individuals with normal hearing.

Can you prevent early cognitive decline related to hearing loss? Yes

- Discuss the possibility of hearing aids with your audiologist.
- If you already have hearing aids, get annual audiology check-ups to be sure that they are working correctly.
- Participate in cognitive exercises.
- Decrease communication breakdowns (see next section).



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Common Communication Breakdowns & Solutions

Communication breakdowns occur when a speaker's message is not understood by the listener(s). Both the speaker AND listener need to create an environment that promotes successful communication. Here are some common communication breakdowns and possible solutions:

- **Breakdown**: Loud, dark, and busy environments can make it difficult for a person to see, hear, and/or focus on their conversational partner.
 - **Solution**: When sitting in a restaurant or cafe, ask to be seated in a quiet, well-lite area with as few distractions as possible.
- **Breakdown**: New and/or uncommon situations can be challenging when a person does not understand the appropriate procedure(s) (such as ordering coffee in a new cafe or visiting a new doctor).
 - **Solution**: Before entering a new situation, anticipate questions that may be asked and practice a variety of responses. Ask the speaker to restate, or rephrase, their question or comment if they are unclear the first time.
- **Breakdown**: When a speaker is not in direct view of their conversational partner, it may become more difficult for them to be heard and/or understood (for example, when the speaker is in one room and the listener is in another).
 - Solution: As the listener, tell your communication partner if you are having trouble hearing/understanding them; both the listener and speaker should make changes so communication is successful (such as go to the same room to talk).

Resources:

Jonathan Peelle, Vanessa Troiani, Murray Grossman and Arthur Wingfield (2011) Society for Neuroscience: Hearing Loss in Older Adults Affects Neural Systems Supporting Speech <u>Comprehension</u>

<u>Temma Ehrenfeld (2020) Healthy Hearing: Hearing loss and cognitive decline: What's the</u> <u>connection?</u>

<u>Quick Statistics About Hearing (2020)</u> <u>https://www.nidcd.nih.gov/health/statistics/quick-statistics-hearing</u>

For more information, please contact Dr. Therese O'Neil-Pirozzi, Lab Director t.oneil-pirozzi@northeastern.edu Developed by Samantha Mills and Amanda Wynn January 2021