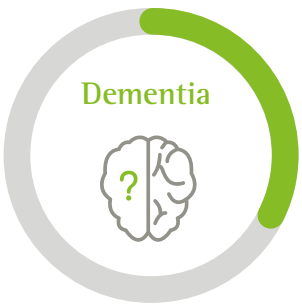
The effect of hearing aid use on cognition in older adults[1]

Managing hearing loss and enabling social engagement are strongly recommended in working towards the prevention of cognitive decline.

2/3
genetic [2]



1/3
potentially modifiable risk factors [2]

Hearing loss
associated with cognitive decline and dementia[3]

Study at the University of Melbourne, Australia

Objective:

Investigate whether treatment of hearing loss with hearing aids could delay cognitive decline in older adults

99 participants:

- 60-84 years old
- Hearing loss
- No cognitive impairment

- Study is ongoing
- Follow-up planned for 36 months
- A control group is being recruited

Methodology:

Baseline

Assessment

Hearing | Cognition | Control factors

- Health history
- Quality of life
- Lifestyle
- Social isolation
- Loneliness
- Mood

Hearing aid fitting

18 months

Assessment

Hearing | Hearing aid use | Cognition

- Psychomotor function
- Memory
- Visual learning
- Attention
- Executive function

Results:

Executive function...

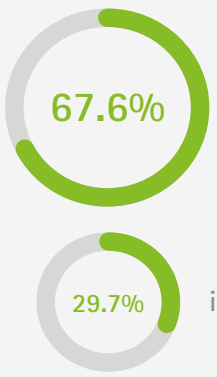
at baseline

-14% for every additional 10 years of age*

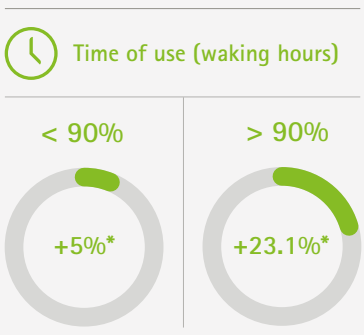
-7.4% for every additional 10 dB hearing loss*

+19% for additional postgraduate education*

at 18 months follow-up



Impact of hearing aids on executive function:



*These results are relative to baseline group mean.

Greater hearing loss, greater age and less education → **Poorer cognition more likely**

Older adults with hearing loss treated with hearing aids → **Stable or even significantly improved cognitive function**

More frequent hearing aid use → **Greater improvement in cognitive function**

For more information, please visit our Audiology Blog.

[1] Sarant, J., Harris, D., Busby, P., et al. (2020). The effect of hearing aid use on cognition in older adults: Can we delay decline or even improve cognitive function? *Journal of Clinical Medicine*, 9(1), 254. https://doi.org/10.3390/jcm9010254

[2] Livingston, G., Sommerlad, A., Orgeta, V., et al. (2017). Dementia prevention, intervention, and care. *The Lancet*, 6736(17), 1–62. https://doi.org/10.1016/S0140-6736(17)31363-6

[3] Loughrey, D. G., Kelly, M. E., Kelley, G. A., Brennan, S., & Lawlor, B. A. (2018). Association of Age-Related Hearing Loss With Cognitive Function, Cognitive Impairment, and Dementia. *JAMA Otolaryngology–Head & Neck Surgery*, 144(2), 115–126. https://doi.org/10.1001/jamaoto.2017.2513

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