British Society of Audiology
Promoting excellence in hearing and balance

BRITISH ACADEMY
OF AUDIOLOGY

BSHAA
The British Society of Hearing Aid Audiologists



British Society of Audiology, British Academy of Audiology and The British Society of Hearing Aid Audiologists Joint Document

Position Statement and Practice Guidance

The link between adult-onset hearing loss and dementia

Date: October 2026

Review date: Open review

General foreword

This document presents a joint position statement by the British Society of Audiology (BSA), British Academy of Audiology (BAA) and British Society of Hearing Aid Audiologists (BSHAA). To the best knowledge of BSA, BAA and BSHAA, the position statement represents the evidence-base for the association between adult-onset hearing loss and dementia.

Although care has been taken in preparing this information, the BSA, BAA and BSHAA do not and cannot guarantee the interpretation and application of it. The BSA cannot be held responsible for any errors or omissions, and the BSA accepts no liability whatsoever for any loss or damage howsoever arising. This document stands until superseded or withdrawn by the BSA.

Comments on this document are welcomed and should be sent to:

British Society of Audiology
Blackburn House,
Redhouse Road,
Seafield,
Bathgate,
EH47 7AQ.
Tel: +44 (0)118 9660622

bsa@thebsa.org.uk
www.thebsa.org.uk

Published by the British Society of Audiology

© British Society of Audiology, 2026

All rights reserved. This document may be freely reproduced for educational and not-for-profit purposes. No other reproduction is allowed without the written permission of the British Society of Audiology.

Authors & Acknowledgments

Produced by: BSA Professional Guidance Group

Key Authors:

Name	Organisation
Kevin J Munro	University of Manchester; Manchester NHS Foundation Trust, England.
Claire Benton	President, British Academy of Audiology; Audiologists, Skipton, England.
Jan Blustein	New York University, New York, NY, USA
Piers Dawes	University of Queensland, Australia.
Helen Henshaw	Chair, Cognition in Hearing Special Interest Group, British Society of Audiology, NIHR Nottingham Biomedical Research Centre; University of Nottingham, England.
Shahad Howe	Chair Adult Rehabilitation Interest Group, British Society of Audiology; North East Hearing and Balance, Darlington, England; Consumer Engagement Manager, Advanced Bionics, UK.
Linor Jones	Co-Chair, Professional Guidance Group, British Society of Audiology; Betsi Cadwaladr University Health Board, Wales.
Ted Leverton	Service users and volunteer for RNID; Bere Alston, Devon, England.
Laura Turton	Board Director, British Academy of Audiology; NHS Tayside, Scotland.
Aparna Mordekar	Sheffield Health and Social Care NHS Foundation Trust, England.
Michael Marchant	Vice President, British Society of Hearing Aid Audiologists.
Richard Windle	Chair, British Society of Audiology
Tracy Pinkerton	Northern Health and Social Care Trust, Northern Ireland.

The authors represent professionals in in the field of hearing loss (including the UK Devolved Administrations) and old age psychiatry, service users and BSA, BAA and BSHAA.

Declarations of interests
SH is employed as a Consumer Engagement Manager with Advanced Bionics, UK. HH reports speaker honoraria and travel expenses from GN Hearing A/S paid to the University of Nottingham. KJM is director of the NIHR Research for Patient Benefit programme. RW is employed as a Clinical Manager with Diatec Diagnostics.

Citation

Please cite this document in the following format:

British Society of Audiology, British Academy of Audiology, The British Society of Hearing Aid Audiologists (2026), The link between adult-onset hearing loss and dementia. [Online]. Available from: *insert web link*. [Accessed *date*]

Contents

1. Introduction and Aims 4

2. Summary of evidence 5

3. Guidance on statements 8

4. Frequently asked questions 8

5. Relevant Terminology 10

6. References 12

1. Introduction and Aims

While some areas of cognition improve with age (e.g. knowledge), other aspects of cognition demonstrate age-related declines throughout adulthood. Areas of decline include aspects of short-term memory, our speed of processing and our ability to process one set of information over another (i.e., inhibition). These changes will affect an individual's ability to understand speech in challenging environments, e.g. speech in noise, and this is a normal part of ageing. Just because someone experiences age-related cognitive change, and associated auditory deficits, does not mean that they will go on to develop dementia.

Dementia is a group of symptoms that can affect memory, problem-solving, language, and behaviour making it hard for the individual to do everyday activities by themselves. Alzheimer's disease is the most common type of dementia. Dementia is a major global challenge: the incidence may be decreasing in some high-income countries (Wu et al, 2017), but the number of people living with dementia is growing because of increasing life expectancy. The topic of dementia raises considerable fear and alarm because of the potential devastating consequences for individuals, with a significant impact on families and carers as well as the health and care system.

The well-documented association between adult-onset hearing loss and cognitive decline, hearing loss and cognitive impairment, and hearing loss and dementia (shortened to hearing loss and dementia in this document for ease of reading) is sometimes interpreted as evidence that hearing loss causes dementia, and that treating hearing loss will reduce the risk of dementia. However, there is currently no good evidence to support (or refute) either of these claims. Uncertainty about causality should not detract from the importance of identifying and managing hearing loss in people living with dementia (Broome et al, 2026), or from continuing to strengthen dementia-inclusive audiology practice.

Clear communication about the hearing loss-dementia link can support realistic expectations and informed decisions (Munro and Dawes, 2025). Messages that overstate the evidence may cause unnecessary alarm or stigma and could discourage help-seeking (Blustein et al, 2023a, 2023b; Dawes and Munro, 2024).

There is a need for clear messaging, and this document provides suggestions for the busy hearing practitioner who knows that adult-onset hearing loss can be managed successfully with hearing aids and / or other support. Hearing aids, together with appropriate support, have proven benefits for improving listening abilities, communication with spoken language, participation in everyday activities, and quality of life (Ferguson et al, 2017, 2026). These established benefits may support brain health through a cognitively active, socially connected and engaged life (Holman et al, 2021, Wells et al, 2020). Therefore, managing adult-onset hearing loss facilitates an active, engaged, independent, and healthy older age (National Academies of Sciences, Engineering and medicine, 2016). These benefits are important in their own right, irrespective of whether hearing intervention is ultimately shown to modify cognitive decline or dementia risk.

> Hearing better can help you to live better; however, this does not imply there is evidence that hearing loss causes dementia, and that treating hearing loss will reduce the risk of dementia.

The aim of this position statement is to present a balanced view on the nature of the association between adult-onset hearing loss and dementia. The objectives are to provide:

1. An evidence-informed summary on what is known about the nature of the association between hearing loss and dementia as well as the benefit of hearing intervention, with an assessment of the quality of the evidence and its presentation to the public (Section 2).
2. Guidance for clinicians, including how to describe the relationship between dementia and hearing loss, including acceptable statements (Sections 3 and 4).
3. More detailed definitions of the relevant terminology (Section 5).

Those who prefer to receive their information via video, or are less familiar with the relevant terminology, may wish to supplement their reading by viewing a presentation tailored for hearing care professionals by Blustein (2024). This video explains how to communicate clearly and ethically about the link between hearing loss and dementia.

This document is specific to adult-onset hearing loss. As previously highlighted by Blustein (2023), the discussion does not apply to people who identify as being Deaf and are members of a vibrant community that uses sign language to communicate.

2. Summary of evidence

Hearing loss is the most prevalent sensory deficit (Mathers, 2000) and the third leading cause of disability in the world (World Health Organization, 2021). Untreated adult-onset hearing loss can result in communication difficulties for spoken language that can lead to social isolation and withdrawal, depression and reduced quality of life (Davis, 2007). Hearing aids with appropriate support are the primary intervention for adults with hearing loss. Hearing aids are effective at improving hearing-specific health-related quality of life, general health-related quality of life and listening ability in adults with acquired hearing loss who communicate by speech (Ferguson et al, 2017, 2026). The Lancet standing commission on dementia prevention, intervention, and care was published by Livingston *et al* in 2017 and updated in 2020 and again in 2024. Since prevention is better than cure, the updated report highlights 14 modifiable, and ***potentially*** modifiable, risk factors throughout the life course (up from nine in 2017 and 12 in 2020). Hearing loss in mid-life has been identified as a ***potentially*** modifiable risk factor for dementia. The updated report also highlights advances in preventative interventions and treatments. The report represents an enormous amount of work and has received widespread attention. However, identifying hearing loss as a **potentially** modifiable mid-life risk factor has resulted in misunderstandings and misinterpretations on the relationship between hearing loss and dementia. In order to address this confusion, Munro and Dawes (2024) published a commentary on the Lancet commissions specific to the topic of hearing loss. Dawes and Munro (2024) provided a general review of the evidence on the association between hearing loss and dementia, and the benefit of hearing interventions (see Dawes and Munro, 2024). These two articles form the basis of the original 2024 position statement. The current update includes relevant articles published since 2024.

Association between hearing loss and dementia

There is consistent evidence of an association between hearing loss and cognitive decline in adults with acquired hearing loss, dating back almost 150 years (Galton, 1883). Around 30 years ago, Lindenberger and Bates (1994, 1997) reported that age-related declines in hearing (and vision) closely followed declines

in cognition. Interest in the connection between sensory function and cognition was given a further boost when Lin *et al* (2011) reported that baseline levels of hearing loss were associated with incident dementia i.e., new cases of dementia.

Observational studies have shown that people with greater adult-onset hearing loss are likely to have greater cognitive decline. However, **association is not causation**. For example, the sales of ice cream and sunglasses show a positive correlation (i.e., as the sales of ice cream increase, so do the sales of sunglasses) but this is likely due to a common cause (i.e., the arrival of summer weather). We do not leap to the conclusion that buying sunglasses causes you to eat ice cream. This is not to deny the possibility that adult-onset hearing loss may cause dementia. This could occur due to reduced auditory input or lack of social stimulation (direct or indirect causes, respectively), but this has not been proven. Even if adult-onset hearing loss precedes measurable cognitive decline, this does not rule out a common cause. For example, hearing loss could be a marker of dementia because they both share the same underlying cause e.g., vascular disease. Also, hearing loss may be an early manifestation of dementia rather than hearing loss accelerating dementia (Abidin et al, 2021). The relationship between hearing loss and dementia is complex, and several potentially interacting explanations have been proposed. The relative contribution of these mechanisms may differ across individuals and across the life course. Hearing loss and dementia are both complex and progressive conditions and it is unclear if a single mechanism can explain their association in all individuals. Indeed, current evidence does not establish a single causal pathway, and important uncertainty remains regarding the mechanisms linking them (see, for example, Broome et al., 2026; Merten et al, 2026).

Association is not causation. It is a mistake to think that if two things co-occur, one must have caused the other.

Do hearing interventions reduce dementia risk?

The possibility of reducing cognitive decline and mitigating dementia risk has been examined in several observational studies, which compared cognitive outcomes for hearing aid users and non-users. Dawes and Völter (2023) reviewed the evidence for both cochlear implants (CI) and acoustic hearing aids. The CI studies report positive outcomes for cognitive improvements, although design limitations of the CI studies make it impossible to attribute these positive outcomes to CIs (rather than to practice effects with repeated cognitive testing, for example). For acoustic hearing aids, the balance of evidence is equivocal: eight studies report positive benefits of using hearing aids and eight did not. More recently, two large-scale observational studies have been published. One showed no association between hearing aid use and cognitive impairment (Grenier *et al,* 2024). The other, by Jiang *et al* (2023), was retracted when an error in the analysis was discovered (Retraction Watch, 2024; The Lancet Public Health Editors, 2024): the codes for hearing aid users and nonusers was reversed suggesting risk of dementia was higher (not lower, as originally reported) in hearing aid users compared to nonusers.

A challenge for observational studies is the lack of randomisation to intervention and control groups, which means the results may be biased (Broome et al., 2026). For example, typical hearing aid users are better educated than non-users (Sawyer *et al*, 2019). Education is a factor which reduces the risk of cognitive decline and dementia (Livingston et al, 2024) irrespective of any potential benefit from hearing aids. This makes it difficult to rule out alternative explanations for the potential positive cognitive outcomes associated with hearing aid use. Because of such problems, randomised controlled trials (RCTs) are considered the gold standard in terms of evidence. RCTs involve randomly allocating people to

treatment (i.e. hearing aid) or a control group so they avoid any problems with pre-existing differences between users and non-users. Although dementia prevention is the primary interest, having dementia as the main outcome would require an unfeasibly large and long running trial. For practical reasons, trials tend to focus on cognitive change as the primary outcome of interest.

The Aging and Cognitive Health Evaluation in Elders (ACHIEVE) RCT investigated use of hearing aids as part of a comprehensive hearing intervention programme, on cognitive decline among a group of people with adult-onset hearing loss (Lin *et al,* 2023). The main finding of ACHIEVE was negative i.e., after three years of using hearing aids there was no slowing of cognitive decline. Rates of cognitive decline were the same in the control group of non-hearing aid users as in the intervention group. As such, there is no convincing evidence that hearing interventions reduce the risk of dementia in the general population. A prespecified secondary analysis of ACHIEVE reported a benefit of hearing aids in reducing cognitive decline among a subgroup of people characterised as 'high-risk' group. As explained by Reed and Deal (2026), it remains uncertain whether this represents a robust treatment effect or a subgroup finding that may not replicate. They note, among other considerations, that the subgroup showing benefit appeared to use hearing aids less than the lower-risk group. Further, the benefit reported for the high-risk group was small and Dawes and Munro (2024) questioned whether an effect of this magnitude would be clinically meaningful at the individual level; however, the clinical significance of the observed difference remains uncertain.

Since the position statement and practice guidance was published in November 2024, there have been one more RCT and several systematic reviews on the benefit of hearing interventions. The Chinese Hearing Solution for Improvement of Cognition in Elders (CHOICE) RCT investigated use of hearing aids on rates of conversion to dementia in adults with mild cognitive impairment (MCI) and hearing loss (Chen *et al*, 2026). The main finding of CHOICE was negative i.e., two years of using hearing aids did not reduce the rate of conversion from MCI to dementia. A prespecified secondary analysis suggested some cognitive benefits. These exploratory findings warrant cautious interpretation and further investigation (Wang *et al*, 2026).

Tang et al (2025) published an umbrella review that involved a synthesis of published review articles. They concluded that there was a lack of high-quality evidence to support the benefits of hearing aids on cognitive outcomes. The original Cochrane review (Ferguson et al, 2017) investigating the benefits and harms to adults with mild to moderate hearing loss has been updated and includes the domain of cognition (Ferguson et al, 2026). Working Memory (WM) was the prioritised cognitive outcome because of its relevance to hearing and listening abilities (and the potential for WM to be impacted by mechanisms underlying the relationship between hearing loss and cognitive decline [Griffiths et al, 2020]). The evidence was uncertain regarding the beneficial effect of hearing aids on WM. The other subdomains of cognition included in the review (e.g., processing speed) were similarly rated as showing low or very low certainty of evidence.

Recommendations on risk reduction of cognitive decline and dementia by the World Health Organization (WHO, 2019) have also been updated (WHO, 2026). The conclusion of the recommendations is that the confidence/certainty in the evidence supporting the use of hearing aids to reduce cognitive decline, and dementia is low (with the confidence in all categories of evidence rated as very low). As a result, the WHO have been unable to make a strong recommendation that hearing aids ***should*** be offered to reduce the risk of cognitive decline and dementia. However, since there may be potential benefits, and hearing aid use is associated with few harms, they have made a weak (also referred to as conditional) recommendation that hearing aids ***may*** be offered to adults with hearing loss. The WHO recommendations are explicit that they do not replace condition-specific clinical guidance. As a result, UK guidance on the link between adult-onset hearing loss and dementia remains unchanged. This message

was repeated by Windle et al (2026) on behalf of the BSA, BAA and BSHAA. It is equally relevant to hearing professionals outside the UK (e.g., Sanchez et al, 2026).

3. Guidance on statements

Examples of suggested statements, and some statements to avoid, when assessing and managing hearing loss in adults, are provided in Table 1.

Table 1. Statements suggested for communicating with adults with hearing loss.

ADULT-ONSET HEARING LOSS	HEARING AIDS
Suggested statements	
✓ Reduces your ability to communicate with ease. ✓ Means your brain may need to work harder to understand what is being said. ✓ Can limit your social interactions and lead to frustration, fatigue, isolation, feelings of loneliness, anxiety and depression.	✓ Make spoken communication easier and can improve your quality of life. ✓ May reduce listening effort. ✓ Help keep you socially engaged, and this can help you live better.
Statements to avoid	
× Is known to cause dementia. × Has been shown to be the leading cause of dementia. × Means you will get dementia.	× Are known to prevent dementia. × Have been shown to reduce cognitive decline or risk of dementia.

Based on the available evidence, it is our view that:

- Clinicians should fairly represent any association between dementia and hearing loss, based on the available evidence.
- Clinicians must take care not to cause any unnecessary fear or anxiety for their service users due to concerns about hearing loss and dementia.
- Clinicians must never use any association between hearing loss and dementia to encourage or cajole patients to use or acquire hearing aids but should discuss the benefits and problems of hearing aids in a balanced manner. This should be regarded as an issue of professional ethics.
- Marketing and public-facing materials for hearing devices and hearing services must not claim that hearing loss has been shown to cause dementia and must not promote hearing technology as a prevention for dementia.
- Educators and trainers, in academia and in clinical practice, should highlight the evidence base and promote professional values to students and trainees.

4. Frequently asked questions

Suggested responses to Frequently Asked Questions (FAQs) are provided in Table 2.

Table 2. Frequently asked questions and suggested answers.

1. Does hearing loss cause dementia?
There is currently *no* good quality evidence that hearing loss causes dementia, only evidence to show that there is an association between them.
2. If there is no evidence of causality, why do people say hearing loss causes dementia?
This is most likely a misunderstanding of the evidence. There are several health conditions that are associated with increased risk of dementia including depression, high cholesterol, high blood pressure and diabetes. Further down the list is hearing loss. But this *does not* mean that hearing loss causes dementia.
3. But my chances of dementia are higher if I have a hearing loss?
It is not exceptionally high, but a few more adults with hearing loss *do* have dementia compared with those without hearing loss. To give you an example, if 10 people in every 1000 with no hearing loss are at risk of dementia, the equivalent number will be 14 people out of every 1000 who have a hearing loss. In this example, that's an extra four people in every 1000 at risk of dementia.
4. If hearing loss hasn't been proven to cause dementia, why do people say hearing loss is a risk for dementia?
When using risk to discuss health issues, it doesn't necessarily have the same meaning as everyday language. Here we use risk to mean that hearing loss is *associated* with dementia. It does ***not*** mean an adult with hearing loss will definitely get dementia, *nor* does it mean that hearing loss causes dementia. Sometimes one thing causes the other (we all know that a poor diet can cause health issues) but sometimes the association is due to something else: for example, we know that sales of sunglasses and ice cream increase in the summer, but the common cause is the warmer weather. Hearing loss could indicate a risk of dementia because hearing loss and dementia share common causes (e.g. genetic risks, age-related physiological changes).
5. But I have heard that hearing loss is the number one risk factor for dementia.
People have estimated the proportion of new cases that can be avoided if hearing loss can be completely eliminated. They have *assumed* that hearing loss causes dementia, and that hearing loss can be fully treated. These assumptions are *not* supported by the evidence.
Will wearing hearing aids reduce the chances of me getting dementia?
There are well known benefits of using hearing aids (see table above). However, there is *no* good quality evidence proving that hearing aids will reduce your chances of dementia.
7. But I heard that research has shown that hearing aids reduce the risk of dementia?
There is not much high-quality research to answer this question. The best study investigated if hearing aids could slow down cognitive decline (the sort of brain changes that occur to most of us as we get older). There was no difference between people in the general population who wore hearing aids during the study and those who were not given hearing aids. The study suggested that hearing aids *may* slow cognitive decline in people at high risk of dementia (meaning that they have other health conditions such as diabetes) but we *do not* know if this finding is reliable or if the benefit is large enough to be meaningful.

8. So, wearing hearing aids won't help my brain?
We *do not* know if hearing aids will reduce your risk of dementia because we *do not* know if hearing loss causes dementia. But *we do* know that hearing better can help you live better. Listening and trying to communicate with others when you have a hearing loss can be a challenge. If hearing aids help you to hear more easily, this means your brain probably doesn't have to work so hard. That could free up your brain to do other things, and that could be good for people with or without dementia.

5. Relevant Terminology

Risk factor: In everyday language, risk is frequently used synonymously with cause. For example, "the heavy rain is a risk factor for flooding" is interpreted as heavy rain will cause flooding if it doesn't stop. However, in epidemiological studies, risk means an association (or probability), not necessarily a cause. This is an important distinction. Some risk factors are known to modify the chances of disease. It is not appropriate to refer to hearing loss as a "modifiable risk factor" for dementia because it has not been proven that hearing loss causes dementia.

Based on current evidence, we can say that hearing loss is associated with an increased risk of developing dementia. The additional risk is small. However, there is no good evidence that hearing loss causes dementia.

Relative risk (RR): The average risk to a given individual is the population is usually reported as a relative risk. This is the probability of someone with hearing loss developing dementia compared to someone without hearing loss. For example, a RR of 1.4 means the risk of dementia to the individual with the risk factor is 40% higher than someone without the risk factor. For example, if 10 in 1000 people are at risk of dementia, this increases to 14 in 1000 for people with the risk factor. **Hearing loss is not the leading personal risk factor for dementia.** This is an important point that has frequently been misunderstood. According to the 2024 Lancet report on dementia prevention, intervention and care, the top six personal risk factors for dementia are: depression (RR = 2.2), traumatic brain injury (RR = 1.7), diabetes (RR = 1.7), less education (RR = 1.6), social isolation (RR = 1.6) and untreated vision loss (RR = 1.5). The personal risk of dementia associated with hearing loss is similar to the risk associated with obesity, high levels of low-density lipoprotein (LDL) cholesterol (i.e., the bad cholesterol that can build up in your arteries), and smoking (RR = 1.3-1.4).

Although hearing loss is associated with increased risk of dementia at a population level, it is not a leading risk factor for dementia at an individual level.

Population attributable fraction (PAF): The maximum proportion of new cases of dementia in the population that can theoretically be avoided if the cause can be completely eliminated. PAF is highest for high LDL cholesterol and hearing loss, each 7%. The proportion is high for hearing loss because it is a common condition, despite a relatively low RR. PAF may vary over time and may be different in sub-groups within the population; minority and lower socioeconomic groups often have a higher burden of modifiable

risk factors. PAF is concerned with whole populations and is not the same as the personal risk to an individual with hearing loss developing dementia.

The estimated prevalence increased from 31.7% reported in the 2017 and 2020 Lancet commission reports to 59% in the 2024 report. The report did not provide an explanation for the increase in the prevalence estimate. Irrespective of the calculation of PAF, its use remains problematic because we do not know if hearing loss causes dementia and, in any case, all cases of hearing loss cannot be completely avoided or entirely mitigated with hearing intervention. The latter is improbable because only a subgroup of people with hearing loss use hearing interventions, even then, hearing aids or cochlear implants do not restore hearing to normal. Finally, some risk factors may co-occur, or lead to a different outcome.

Public facing documents and websites that use the Population Attributable Fraction (PAF) as the basis for claiming that hearing loss is the single greatest risk factor for dementia can be misleading. This is because the public generally assume: (i) this is the personal risk, and (ii) risk means cause.

6. References

Abidin FNZ *et al* (2021). Hearing difficulty is linked to Alzheimer's disease by common genetic vulnerability, not shared genetic architecture. *Aging and Mechanisms of Disease* 7.1 (2021): 17.

Blustein J *et al* (2023a). Messaging clearly and effectively about hearing loss and increased dementia risk. *JAMA Otolaryngology–Head & Neck Surgery* 149.10, 862-863.

Blustein J *et al* (2023b). It is time to change our message about hearing loss and dementia. *Journal of the American Geriatrics Society* 71.8, 2676-2679.

Blustein J. (2024). Communicating clearly and ethically about the link between hearing loss and dementia. Keynote address to the American Doctors of Audiology 2024 Annual Meeting. https://www.audiologist.org/library/topics/conference-videos/item/in-tune-communicating-clearly-and-ethically-about-hearing-loss-and-cognitive-decline-dementia

Broome EE *et al* (2026). Dementia and hearing loss: from risk to mechanisms and management. Frontiers in Dementia, 5, 1736003. doi: 10.3389/frdem.2026.1736003.

Chen Y. et al (2026). Hearing intervention for older adults with mild cognitive impairment: the CHOICE randomized clinical trial. JAMA Neurology. Published online September 28, 2026. doi:10.1001/jamaneurol.2026.3395

Davis A. *et al* (2007). Acceptability, benefit and costs of early screening for hearing disability: a study of potential screening tests and models. *Health Technology Assessment*, 11, 1–294.

Dawes P, Munro KJ. (2024). Hearing Loss and Dementia: Where to From Here? *Ear and Hearing*, 529-536. doi: 10.1097/aud.0000000000001494

Dawes P, Völter C. (2023). Do hearing loss interventions prevent dementia? *Zeitschrift für Gerontologie und Geriatrie*, 1-7.

Ferguson M *et al* (2017). Hearing aids for mild to moderate hearing loss in adults. Cochrane Database Syst Rev, 9.

Ferguson M et al (2026). Hearing aids for mild to moderate hearing loss in adults (review). Cochrane Database Syst Rev, 8. doi:10.1002/14651858.CD012023.pub3
Galton F. (1883). Inquiries into Human Faculty and Its Development. London: Macmillan.

Grenier B *et al* (2024). Hearing Loss, Hearing Aids, and Cognition. *JAMA Network Open* 7.10, e2436723-e2436723. doi:10.1001/jamanetworkopen.2024.36723

Griffiths TD et al. (2020). How can hearing loss cause dementia? Neuron, 108(3), 401-412.

Holman J *et al* (2021). Hearing aids reduce daily-life fatigue and increase social activity: A longitudinal study. *Trends in Hearing*, *25*, 23312165211052786.

Jiang F et al (2023). RETRACTED: Association between hearing aid use and all-cause and cause-specific dementia: an analysis of the UK Biobank cohort. The Lancet Public Health, 8(5), e329-e338.

Lin FR *et al* (2011). Hearing loss and incident dementia. *Archives of Neurology*, 68(2), 214–220. doi: 10.1001/archneurol.2010.362.

Lin FR *et al* (2023). Hearing intervention versus health education control to reduce cognitive decline in older adults with hearing loss in the USA (ACHIEVE): a multicentre, randomised controlled trial. *The Lancet*, 402, 786-797.

Lindenberger U, Baltes PB. (1994). Sensory functioning and intelligence in old age: a strong connection. *Psychology and Aging*, 9, 339.

Lindenberger U, Baltes PB. (1997). Intellectual functioning in old and very old age: cross-sectional results from the Berlin Aging Study. *Psychology and Aging* 12.3, 410.

Livingston G *et al* (2017). The lancet international commission on dementia prevention and care." *The Lancet* 390.10113, 2673-2734.

Livingston G *et al* (2020). Dementia prevention, intervention, and care: 2020 report of the Lancet Commission. *The Lancet* 396.10248, 413-446.

Livingston G *et al* (2024). Dementia prevention, intervention, and care: 2024 report of the Lancet standing Commission. *The Lancet* 404.10452, 572-628

Mathers C *et al* (2000). Global burden of hearing loss in the year 2000. *Global Burden of Disease,* 18: 1–30.

Merten, N., Dawes, P., Munro, K. J., & Brenowitz, W. D. (2026). Hearing impairment and cognitive decline: Alternative explanations to causality. *Journal of Alzheimer's Disease*, *110*(1_suppl), S25-S29. doi: 10.1177/13872877251410502

Munro KJ, Dawes P. (2024) Commentary: dementia, hearing loss, and the danger of professional rabbit holes. *ENT & Audiology News*, 27 September. https://www.entandaudiologynews.com/features/audiology-features/post/commentary-dementia-hearing-loss-and-the-danger-of-professional-rabbit-holes (accessed 17 November 2024).

Munro, K. J., Dawes, P., & BSA, BAA and BSHAA. (2025). Explaining the link between adult-onset hearing loss and dementia to individuals with hearing loss. *International Journal of Audiology*, *64*(8), 861-862. doi.org/10.1080/14992027.2025.2451694

National Academies of Sciences, Engineering, and Medicine. (2016). Hearing Health Care for Adults: Priorities for Improving Access and Affordability.
Washington, DC: *The National Academies Press*. https://doi.org/10.17226/23446.

Reed NS, Deal J. 2026. Field Guide to Interpreting and Discussing the Public Health Landscape on Hearing Loss and Cognition. Canadian Audiologist, 13(3). https://canadianaudiologist.ca/a-field-guide-to-interpreting-and-discussing-the-public-health-landscape-on-hearing-loss-and-cognition/

Retraction Watch. (2024). 'We should have followed up': Lancet journal retracts article on hearing aids and dementia after prodding. Retrieved from https://retractionwatch.com/2024/01/04/we-should-have-followed-up-lancet-journal-retracts-article-on-hearing-aids-and-dementia-after-prodding/

Sanchez *et al* (2026). Addressing cognition and hearing: 10 recommendations for HCP. 2026.The Hearing Review 2026. https://hearingreview.com/hearing-loss/patient-care/counseling-education/addressing-cognition-and-hearing-10-recommendations-for-hcps

Sawyer C *et al* (2019). Correlates of Hearing Aid Use in UK Adults: Self-Reported Hearing Difficulties, Social Participation, Living Situation, Health, and Demographics. *Ear and Hearing* 40, 1061-1068, doi: 10.1097/aud.0000000000000695

The Lancet Public Health Editors (2024). Retraction-Association between hearing aid use and all-cause and cause-specific dementia: an analysis of the UK Biobank cohort. The Lancet Public Health, 9(1), e10. https://doi.org/10.1016/S2468-2667(22)00314-0 (Epub Dec 12, 2023).

Wang RM *et al*, (2026). Treating Hearing Loss and Improved Mild Cognitive Impairment. *JAMA Otolaryngol Head Neck Surg.* Published online September 28, 2026. doi:10.1001/jamaoto.2026.3413

Wells TS *et al* (2020). Characteristics and health outcomes associated with hearing loss and hearing aid use among older adults. *Journal of Aging and Health*, *32*(7-8), 724-734.

Windle et al (2026). Getting the message right on hearing loss and dementia: are we reaching a consensus on how hearing professionals should talk about hearing loss and dementia? ENT & Audiology News. https://www.entandaudiologynews.com/features/audiology-features/post/getting-the-message-right-on-hearing-loss-and-dementia

World Health Organization 2019. Risk reduction of cognitive decline and dementia: WHO guidelines. Geneva: World Health Organization; 2019. https://www.who.int/publications/i/item/riskreduction-of-cognitive-decline-and-dementia

World Health Organization. (2021). World report on hearing. Geneva: World Health Organization.

World Health Organization 2026. Risk reduction of cognitive decline and dementia: WHO guidelines, second edition. Geneva: World Health Organization; 2026. https://www.who.int/publications/i/item/9789240123557

Wu et al (2017). The changing prevalence and incidence of dementia over time—current evidence. *Nature Reviews Neurology* 13.6, 327-339.