

**Hearing is important for biopsychosocial models of dementia. Here are some facts researchers in each CCNA team should know...**  
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#	Team Topic	Fact
<b>Theme 1: Prevention</b>		
1	<b>Genetics</b>	<i>Shared regions of the genome are involved in inflammation in hearing loss and Alzheimer's disease (1).</i>
2	<b>Inflammation</b>	<i>Those with hearing loss and Alzheimer's disease have similar pathophysiological alterations (e.g., chronic inflammation) (2).</i>
3	<b>Protein Misfolding</b>	<i>Early formation of neurofibrillary tangles can be found in the auditory system of those with early Alzheimer's disease (3).</i>
4	<b>Mechanisms of Dementia</b>	<i>Shared metabolic dysfunction may underlie the association between age-related hearing loss and Alzheimer's disease (4).</i>
5	<b>Diet</b>	<i>Pro-inflammatory foods (e.g., sugar) are associated with prospective age-related hearing loss and dementia risk (5).</i>
<b>Theme 2: Treatment</b>		
6	<b>Sleep</b>	<i>Hearing loss is associated with altered sleep architecture (6).</i>
7	<b>Vascular</b>	<i>Hypertension and other cardiovascular risk factors are associated with hearing loss (7).</i>
8	<b>Lewy Body Disorders</b>	<i>People with hearing loss are at greater risk for falls, an area of concern in Lewy Body disorders and Parkinson's disease (8).</i>
9	<b>Biomarkers</b>	<i>Alterations in serum metabolic profiles are associated with hearing loss in those with Alzheimer's disease (4).</i>
10	<b>Cognitive Intervention</b>	<i>People with hearing loss may need accommodation to engage in cognitive interventions and more active lifestyles (9).</i>
11	<b>Neuropsychiatry</b>	<i>Treatment with hearing aids may reduce neurocognitive symptoms (10).</i>
12	<b>Mobility</b>	<i>Auditory and vestibular function are important for balance and mobility.</i>
13	<b>Frontotemporal Dementia</b>	<i>Frontal-lobe activity is important for listening to speech in noise.</i>
<b>Theme: Quality of Life</b>		
14	<b>Multi-Morbidity</b>	<i>Hearing loss is the modifiable risk factor with greatest potential to reduce dementia risk (11).</i>
15	<b>Rural Care</b>	<i>Many hearing services are now available on e-health to improve access to care in rural communities.</i>
16	<b>Driving</b>	<i>Driving performance can be reduced by hearing loss (12).</i>
18	<b>Indigenous</b>	<i>There are gaps in hearing health care services available in rural indigenous communities.</i>
19	<b>Health Care System</b>	<i>Hearing loss can influence quality of care, patient-clinician communication and access to health care services (13).</i>
<b>Cross-cutting Themes</b>		
<b>Sex, Gender, and Dementia</b>		<i>Hearing loss (often from noise exposure) starts earlier in men than women (possible effects of estrogen changes) (14).</i>
<b>Social Inclusion and Stigma</b>		<i>Fewer than 25% of those who need hearing aids get them, with stigma being a main barrier (15).</i>

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