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## **Dementia and central hearing impairment**

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The recent Lancet commission on prevention and management of dementia [1] reviews the mounting evidence that hearing loss is a major risk factor for cognitive decline. We still lack critical information about the nature of this linkage and what factors might modify the cognitive impact of peripheral hearing loss. In particular, the potential relevance of central hearing impairment should not be under-estimated. As Livingston and colleagues acknowledge, on pathophysiological and neuroanatomical grounds, central auditory processing is likely to be vulnerable early in the course of Alzheimer's disease and other dementias [2,3,4]. However, at present we lack adequate tools to assess central auditory deficits reliably, particularly in the setting of peripheral hearing loss: the role of central auditory impairment as a predictor and mediator of more generalised cognitive decline is likely to have been underestimated. Central auditory impairment associated with peripheral deafness is also likely to reduce the efficacy of conventional hearing aids. Indeed, central auditory involvement might represent the 'double hit' that determines which among the many older people with presbycusis are at greatest risk of developing dementia. It will be important to consider this factor when interpreting the results of epidemiological studies and in the rational design and targeting of effective hearing interventions in people with incipient dementia.

## References

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