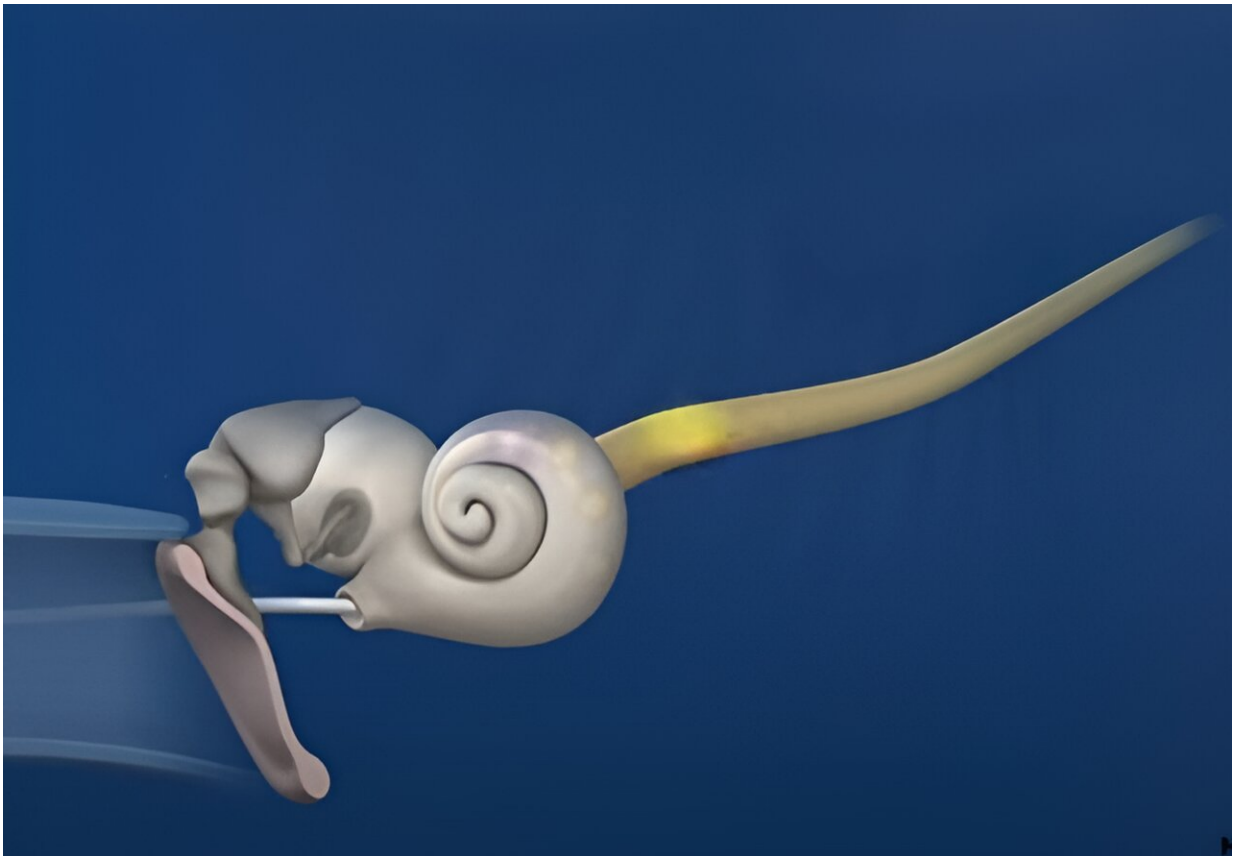


# Can cochlear implants slow dementia in older adults?

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Credit: Mayo Clinic News Network

Recent studies have shown a strong link between hearing loss and cognitive decline, with severe hearing loss increasing the risk of cognitive decline by up to fivefold. Dr. Nicholas Deep, a Mayo Clinic

ear and skull base surgeon who specializes in hearing disorders, explains the impact cochlear implants have on patients at high risk for dementia.

Imagine the effort it would take to constantly squint at a blurry chalkboard. That's similar to what the brain goes through when someone is experiencing hearing loss.

"As we work harder to hear, the brain is utilizing extra cognitive resources just to listen in and make sense of the words and sentences. And that can be fatiguing to the brain," says Dr. Deep. "Similarly, if we don't stimulate the auditory pathway, those synapses become weaker and weaker over time. They can even begin to shrink, and that can also accelerate cognitive decline."

Severe hearing loss can increase the risk of dementia five-fold. However, it's a modifiable risk. There are different solutions depending on the degree of hearing loss.

## **Cochlear implants**

"A cochlear implant is a device to restore hearing in patients with advanced hearing loss by bypassing the damaged inner ear hair cells and providing direct stimulation to the hearing nerve," says Dr. Deep.

Unlike a hearing aid, which just amplifies sound, a cochlear implant improves the speech clarity of that sound, making conversation easier.

"We know that treating [hearing loss](#), whether with hearing aids or cochlear implantation, has tremendous quality of life benefits in terms of improving independence and reducing [social isolation](#)," says Dr. Deep.

And it may even reduce the rate of cognitive decline for those at greater risk.

"A recent large, prospective trial found that in [older adults](#) at risk for cognitive decline, use of the [hearing aid](#) for three years reduced their [cognitive decline](#) by 48%. So it really underscores the importance of hearing and its ability to maintain healthy cognitive function," says Dr. Deep.

Provided by Mayo Clinic

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