

## Study Shows That Hearing Aids Improve Brain Function

According to a recent study by Jamie Desjardins, PhD, an assistant professor in the speech-language pathology program at [The University of Texas at El Paso](#), hearing aids improve brain function in people with hearing loss.

It is known that hearing loss, if left untreated, can lead to emotional and social consequences, reduced job performance, and diminished quality of life. Recently, research has shown that untreated hearing loss also can interfere with cognitive abilities because so much mental effort is diverted toward understanding speech.

“If you have some hearing impairment and you’re not using hearing aids, maybe you can figure out what the person has said, but that comes with a cost,” said [Desjardins](#) in a recent university announcement. “You may actually be using the majority of your cognitive resources – your brain power – in order to figure out that message.”

Desjardins explained that as people age, basic cognitive skills – working memory, the ability to pay attention to a speaker in a noisy environment, or the ability to process information quickly – begin to decline. Hearing loss affects more than 9 million Americans over the age of 65 and 10 million Americans ages 45 to 64, but only about 20% of people who actually need hearing aids wear them, Desjardins said.

To explore the effects of hearing loss on brain function further, Desjardins studied a group of individuals in their 50s and 60s with bilateral sensorineural hearing loss who had previously never used hearing aids. Study participants took cognitive tests to measure their working memory, selective attention, and processing speed abilities prior to and after using hearing aids.

After two weeks of hearing aid use, tests revealed an increase in percent scores for recalling words in working memory and selective attention tests, and the processing speed at which participants selected the correct response was faster. By the end of the study, participants had exhibited significant improvement in their cognitive function.

“Most people will experience hearing loss in their lifetime,” said Desjardins. “Think about somebody who has hearing loss and is still working and they’re not wearing hearing aids. They are spending so much of their brainpower just trying to focus on listening. They may not be able to perform their job as well. Or if they can, they’re exhausted because they are working so much harder. They are more tired at the end of the day, because it’s a lot more taxing. It affects their quality of life.”

Desjardins is currently undertaking a study that focuses on the use of hearing aids by Hispanics. Research shows that only 5% of Mexican-Americans wear hearing aids. She has developed a survey to investigate their attitudes toward hearing loss. The survey will be conducted at health fairs in the community, including one at the Mexican Consulate in El Paso, Texas. Desjardins also will begin work on another study that will look at older bilingual people and their ability to understand speech.

**Source:** [The University of Texas at El Paso \(UTEP\)](#)

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