

Special Edition
"Hearing Loss which Solutions?
Present and Future"

Editorial

Corresponding author

Arianna Di Stadio, MD

Department of Otorhinolaryngology
Otology Laboratory
Massachusetts Eye and Ear Infirmary
(MEEI), 243 Charles St, Boston
MA 02114, USA

E-mail: ariamadistadio@hotmail.com

Special Edition 3

Article Ref. #: 1000OTLOJSE3e001

Article History

Received: May 14th, 2016

Accepted: May 20th, 2016

Published: May 23rd, 2016

Citation

Stadio AD. Which is the future in hearing loss treatment? *Otolaryngol Open J.* 2016; SE(3): Se1-Se2. doi: [10.17140/OTLOJ-SE-3-e001](https://doi.org/10.17140/OTLOJ-SE-3-e001)

Copyright

©2016 Stadio AD. This is an open access article distributed under the Creative Commons Attribution 4.0 International License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Which is the Future in Hearing Loss Treatment?

Arianna Di Stadio, MD*

Department of Otorhinolaryngology, Otology Laboratory, Massachusetts Eye and Ear Infirmary (MEEI), Boston, MA, USA

Hearing loss will be the most common pathology among the elderly over the next 20 years.

People are constantly exposed to noise and are surely overexposed at times. City traffic and loud music are common for everybody, and other exposure categories must also be considered. Ear protection is not always used because workers find it uncomfortable, and the reduction in hearing capacity can be dangerous.

The hypothesis is that over the next 25 years, 95% of the population over 70 years old will be affected by hearing loss.

Life expectancy will increase to 90 years over the next few decades, and solving the hearing loss problem will become ever more important.

Hearing aids are useful, but they do not physiologically correct hearing. The increase in volume that they provide is only palliative.

Bone-anchored prostheses could be helpful, but at this time, they are indicated only in cases of transmissive and mixed hearing loss. They cannot be used to treat sensorineural hearing loss.

Several studies address developing a genetic technique to restore lost hair cells. This technique could be used to regenerate the cells needed to treat hearing loss.¹

Studies have also been conducted to discover new protective drugs and vitamins that can fight against neuronal degeneration.

Some authors have investigated the role of diet in increasing the risk for hearing loss or the ability of some lifestyles and habits to protect hearing.²

In the future, we will likely be able to identify the best treatment for each patient by studying his DNA.

We must keep in mind not only the social importance of hearing loss, but also its influence in increasing the risk for dementia in the elderly. In the future, we risk having not only a hearing-impaired population but also an elderly population with important mental problems.³

Which way is best? To protect, to avoid damage, or to focus on regeneration techniques that rebuild what is broken?

Only research can help find the answers.

REFERENCES

1. Tang ZH, Chen JR, Zheng J, et al. Genetic Correction of Induced Pluripotent Stem Cells From a Deaf Patient With MYO7A Mutation Results in Morphologic and Functional Recovery of the Derived Hair Cell-Like Cells. *Stem Cells Transl Med.* 2016; 5(5): 561-571. doi: [10.5966/sctm.2015-0252](https://doi.org/10.5966/sctm.2015-0252)
2. Spankovich C, Le Prell CG. Associations between dietary quality, noise, and hearing: data from the National Health and Nutrition Examination Survey, 1999-2002. *Int J Audiol.* 2014; 53(11): 796-809. doi: [10.3109/14992027.2014.921340](https://doi.org/10.3109/14992027.2014.921340)
3. Deal JA, Betz J, Yaffe K, et al. Hearing Impairment and Incident Dementia and Cognitive Decline in Older Adults: The Health ABC Study. *J Gerontol A BiolSci Med Sci.* 2016; pii: glw069. doi: [10.1093/gerona/glw069](https://doi.org/10.1093/gerona/glw069)