

We are IntechOpen, the world's leading publisher of Open Access books Built by scientists, for scientists

5,500

Open access books available

136,000

International authors and editors

170M

Downloads

Our authors are among the

154

Countries delivered to

TOP 1%

most cited scientists

12.2%

Contributors from top 500 universities



WEB OF SCIENCE™

Selection of our books indexed in the Book Citation Index
in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?
Contact book.department@intechopen.com

Numbers displayed above are based on latest data collected.
For more information visit www.intechopen.com



Introductory Chapter: Management of Tinnitus - The Views of Various Disciplines

Tang-Chuan Wang and Yi-Chien Ho

1. Why do we need to value tinnitus?

Today, tinnitus has become more common in most modern world. In this case, we assume a huge number of people suffer from tinnitus and they desire to find solutions. Furthermore, suffering from tinnitus can be also related to psychological problem in social life. This means that when tinnitus is ringing for 24 hours a day, then people cannot have a standard quality of life, including sleeping. It also affects communication skills which indicate that tinnitus is usually associated with hearing loss, in a physiological way. However, some clinicians do not realize precisely how important the tinnitus is related with their patients' life and put their life in vicious circle.

2. What is tinnitus?

Tinnitus is a condition where individuals are conscious of a particular sound without outside stimulation. It has been shown that tinnitus is a prevalent issue and common in most societies. More than 40 million people in the United States have experienced tinnitus and are currently suffering from it [1]. Many people experience tinnitus, and it is not only related to aging or auditory pathway but also connected with some negative impacts. It can cause psychological and physical reactions which can reduce their quality of life. Today there are more and more researches suggesting that tinnitus may be connected to aging, auditory pathway, hearing loss, psychological issues, high blood pressure, and cardiovascular diseases. Furthermore, there have been a few cases where tinnitus started after being exposed to extremely loud sounds, which means that the noise exposure also has a high risk of tinnitus.

Besides, in most developed countries, tinnitus is more like a “civilized disease” due to people lifestyles being more and more stressful. Stress will affect psychological health with tinnitus becoming a symptom. This matters not only to elderly groups but also youths. Therefore, it is very important to address tinnitus so that people can understand how important the issue is, in order to reduce the impact of it and enhance the quality of life.

3. Tinnitus treatment in proper

Recently, the treatment can come in many forms, such as sound therapy, counseling, transcranial magnetic stimulation (TMS), transcranial direct current

stimulation (tDCS) [2], temporomandibular disorder (TMD) treatment [5], acupuncture, herbal medicine, or other alternative treatments. This is why more and more data have revealed to achieve the aim, getting rid of tinnitus successfully. Typically, counseling and sound therapy can provide a significant reduction to the severity of tinnitus [3]. Those wishing to seek for this kind of treatments are suggested to have an appropriate examination and audiological evaluation before therapy. On the other hand, tinnitus is associated with hearing loss [4]. It is essential to deal with the hearing loss problem while processing the sound therapy.

Moreover, counseling plays a critical role in this process. Counseling will focus on both the psychological and physical impacts; it helps the therapist to comprehend different cases better. The purposes are: Firstly, to classify tinnitus into different groups. Secondly, to design a personal program to reduce the impact of tinnitus. Thirdly, to observe the patients' change, which may include patients' sleeping quality, social life, hearing loss level, diet preference, or exercise habit. Coincidentally, tinnitus can happen in various ways, and it is important to find the main reason first and to mark the effect to make a long-term plan to manage tinnitus. Bothersome tinnitus will cause a severe problem and reduce the quality of life if therapists could not identify it. We also believe that different treatments have their potential to be applied into the different groups of tinnitus patients. In general times, it is not possible to treat all tinnitus patients by only one way.

Author details

Tang-Chuan Wang^{1*} and Yi-Chien Ho²

¹ Department of Otolaryngology-Head and Neck Surgery, China Medical University Hsinchu Hospital, Taiwan

² Department of Speech Language Pathology and Audiology, National Taipei University of Nursing and Health Sciences, Taiwan

*Address all correspondence to: tangchuan1020@gmail.com

IntechOpen

© 2019 The Author(s). Licensee IntechOpen. This chapter is distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/3.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. 

References

[1] Rauschecker JP, Leaver AM, Muhlau M. Tuning out the noise: Limbic-auditory interactions in tinnitus. *Neuron*. 2010;**66**(6):819-826

[2] Wang TC et al. Effect of transcranial direct current stimulation in patients with tinnitus: A meta-analysis and systematic review. *The Annals of Otolaryngology, Rhinology, and Laryngology*. 2018;**127**(2):79-88

[3] Jastreboff PJ, Jastreboff MM. Tinnitus retraining therapy (TRT) as a method for treatment of tinnitus and hyperacusis patients. *Journal of the American Academy of Audiology*. 2000; **11**(3):162-177

[4] Tan CM et al. Tinnitus and patterns of hearing loss. *Journal of the Association for Research in Otolaryngology*. 2013;**14**(2):275-282

[5] Lee CF, et al. Increased risk of tinnitus in patients with temporomandibular disorder: A retrospective population-based cohort study. *European Archives of Oto-Rhino-Laryngology*. 2016;**273**(1): 203-208

IntechOpen