Evolving Counseling and Sound Therapies for Tinnitus

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Since the pioneering work in the 1980s of psychologist Richard Hallam and his Tinnitus Habituation Therapy, many counseling and sound therapies have emerged. The 1995 Paul Davis book Living with Tinnitus and the more recent Tinnitus: A self-management guide for ringing in your ears (2002) by Jane Henry and Peter Wilson, have benefited thousands of tinnitus sufferers worldwide. The approaches range from intensive psychology-based counseling approaches (such as Cognitive Behavior Therapy (Andersson et al, 2005; Caffier et al., 2006)) to approaches that focus primarily on providing information (such as Tinnitus Retraining Therapy (Bartnik & Skarzynski, 2006)).

The University of Iowa Department of Otolaryngology — Head and Neck Surgery — has a long history of tinnitus treatment and research, encompassing more than two decades of work in this area. The department's treatment protocol, started in the 1980s, has evolved into Tinnitus Activities Treatment. This treatment—which depends on an individual's needs—focuses on four areas: thoughts and emotions, hearing, sleep, and concentration.

There are actually many new counseling and sound therapies. Several clinicians favor taking a global perspective, considering the broader lifestyle of the patient (e.g. Folmer et al., 2006). Mohr and Hedelund (2006), with their Patient-Centered Therapy, nurture an acceptance of the tinnitus. Hearing aids can be adjusted to maximize tinnitus relief (e.g. Searchfield, 2006), and of course many patients prefer music to listening to broadband noise. Some treatments such as the “Scary Monsters and Waterfalls” by Kentish and Croker (2006) specifically focus on children with tinnitus.

The University of Iowa approach starts with an individual assessment to understand what the needs are of each patient. As tinnitus often affects the patient's emotional wellbeing, hearing, deep and concentration abilities, we worked to develop strategies for each of these areas.

Sound Therapy

Various treatment strategies use sound to decrease the loudness or prominence of tinnitus. Sound therapies include both wearable (hearing aid-like devices) and non-wearable devices (such as table-top sound machines or even a whirring fan). Often, sound is used to completely or partially cover the tinnitus. Some people refer to this covering of sound as masking. Sound therapies should always be combined with counseling. For those patients who want to mask the sounds, they report that the presence of background noise or music is helpful.

These sounds can:

• Partially mask the tinnitus – The background sound mixes with the tinnitus, but the patient is still able to hear the tinnitus.
• Totally mask the tinnitus – The background sound completely covers up the tinnitus.

Both of these partially and total masking approaches can:

• Reduce the loudness of the tinnitus
• Distract the patient from attending to the tinnitus.

Successful Masking Sounds

Masking is generally successful because the masking sound and the tinnitus sound are vastly different in quality. Tinnitus usually produces a shrill, high-pitched, unpleasant tone. In contrast, water, masking sounds and music are typically soothing.

• Most individuals can and usually do “automatically” ignore certain external sounds.
• These sounds are ignored if they are not too loud or harsh and if they are relatively constant and monotonous.

Many patients report that it is easier to listen to broadband noise (heard as “sssshhh”) than it is to listen to their tinnitus. Similarly, soft, light background music (e.g. classical baroque or simple piano music) is a great way to partially mask the tinnitus. Sound produced particularly for relaxation or distraction (e.g., waves lapping against the shore, raindrops falling on leaves—sometimes these are combined with light music) is another form of masking.

Masking Devices

So what types of devices producing these melodic sounds do patients use? It depends on the patient’s preference. Some patients prefer wearable devices with earphones or insert earphones (e.g. portable music players), while other patients favor non-wearable devices that include radios, compact disc players or sound generators specifically produced for relaxation or tinnitus. Some of the non-wearable devices were intended for use at the bedside with timers and can include many different sound types.

Sound therapy is effective for many patients. People use sound therapy in different ways. For example, some people find that their tinnitus does not bother them except at night. Others require sound therapy during the entire day. Sound therapy does not have to be used all the time.

Some people find that they require masking less as they use it for several months. They use the noise to decrease the prominence of the tinnitus and enable them to move forward and no-longer focus on the tinnitus.

It is possible to obtain a noise generator and a hearing aid combined in one wearable device.

Additional Therapies

Hearing Aids

Some patients with tinnitus also have a hearing loss and can benefit from a hearing aid. As tinnitus may be caused by stress, hearing and better communication may reduce stress and tinnitus at the same time. Hearing aids also amplify background noise, and many tinnitus patients report that their tinnitus is better when they listen to low levels of background noise (note the sound therapy above).

Psychological Therapies

Cognitive Behavior Modification. This approach helps you to talk about tinnitus in a reasonable fashion, and to plan and carry out trials to change the way you think about tinnitus and react to it.

Relaxation Therapy. There are many relaxation techniques, for example using recorded soft music or biofeedback, which can help patients relax when they are particularly bothered by their tinnitus.
Medications

There are no medications that are widely accepted (based on replications of controlled studies) to cure tinnitus. However, several medications can be helpful in reducing stress and in getting to sleep. Several studies are underway or being planned to test new medications, new applications of existing medications and even supplements. It is likely something will be found soon, at least to help some subgroups of tinnitus patients.

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In most cases, tinnitus remains the same throughout the person's life, but in some instances it can get worse, or even improve over time.

Many studies now underway!

Previous published research has focused on Cognitive Behavioral Therapy, and several studies have shown significant treatment effects. Hearing aids have also been shown to provide benefit. Worldwide, there are now currently several other studies underway on many of the other counseling and sound therapies. To learn more about the therapies currently underway at The University of Iowa Department of Otolaryngology visit www.uihealthcare.com/depts/med/otolaryngology/clinics/tinnitus/index.html.

The Department of Otolaryngology — Head and Neck Surgery and the Department of Speech Pathology and Audiology at The University of Iowa will be hosting the 15th Annual Conference on Management of the Tinnitus Patient. The conference, for patients and professionals takes place Thursday — Saturday, September 20-22, 2007 for patients and professionals. View the most up-to-date program on our Web site: uihealthcare.com/depts/med/otolaryngology/conferences.

REFERENCES


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stood, the unpleasant psychological reactions can begin to disappear.

4) Sound enrichment — sound that does not completely mask tinnitus because one cannot habituate to a sound they cannot hear

5) Retraining Tactics — retraining reflexes to tinnitus by exercises that reduce the sound enrichment and evaluating reaction to the tinnitus

There are more than 800 professionals around the world who have attended training courses on TRT and the success rate reported is nearly 80 percent. Pawel Jastreboff and Jonathan Hazell have established the Tinnitus Retraining Therapy Association (TRTA). The association helps maintain high standards in the proper utilization of TRT and provides a list of practitioners by state.

When working with patients with tinnitus, it behooves audiology as a profession to continue to expand our thinking, knowledge, and experience in areas that often have been a mystery for so many years.

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