

## **TINNITUS**

Tinnitus is noise heard in the ears or the head even though there is no external source. It is typically the result of damage somewhere within the auditory system, either in the ear or in the auditory pathways that carry sound through the brain. Damage to the auditory system causes regions of the brain to become more excitable or "disinhibited". Therefore, even though hearing loss may trigger tinnitus, the tinnitus is actually coming from the brain, not the ear.

Cures for tinnitus are being researched. Unfortunately, homeopathic and herbal remedies that are widely advertised have not been proven to help. However, scientific investigations are underway to discover, for example, whether stem cell implantation will stimulate re-growth of cells in the ear, why birds regenerate their hearing, which genes are responsible for hearing loss, how certain fish re-grow damaged tentacles that respond to fluid vibrations similar to the human ear, and which drugs might prevent hearing loss or calm the brain after hearing damage. Although there is currently no known cure for tinnitus, there are effective strategies to help manage the tinnitus.

Management of Tinnitus by an Audiologist consists of various techniques that use sound for tinnitus relief. These techniques are designed to give the tinnitus sufferer immediate control over the tinnitus. Sound can be used to: 1) reduce stress caused by tinnitus, 2) reduce the brain's focus on the tinnitus, 3) "mask" or drown out the tinnitus, and 4) effect habituation to the tinnitus much like people who live by railroad tracks ignore the trains.

Devices for Tinnitus Management that might be recommended by the Audiologist include, among others: 1) hearing aids, 2) combination instruments with hearing aids and tinnitus maskers in the same unit, 3) bedside tinnitus maskers, 4) iPod-type devices with customized sounds for tinnitus, and 5) Cell phone apps for tinnitus relief.

Classes for Self-Management of Tinnitus are offered to veterans enrolled in the Miami V.A. HealthCare System. The Initial Class teaches how to use sound for the control of tinnitus and how to replace negative thoughts and feelings about tinnitus with positive ones. Participants complete personal Worksheets, follow them for two weeks, and return for a Follow-up Class to report their success and explore more options.

### Recommendations for Tinnitus Sufferers:

Always maintain sound in the environment – never stay in total quiet.

Avoid loud noise. Practice stress relief and healthy nutrition.

Get involved – hobbies, volunteering, work, family activities, sports, etc.