#### What can you do to minimize your tinnitus?

Keep a journal for a few months, noting things that exacerbate your tinnitus and things that help in its relief. Begin to avoid things you know will make it worse and increase the things that make it better, such as:

- Avoid loud noises
- Wear hearing protection when in noisy environments
- Use relaxation techniques, control stress, and avoid fatigue
- Control diet by reducing the use of salt, caffeine, and alcohol
- Exercise and improve overall health
- Educate family, friends, and yourself about tinnitus

Additional References

Audiology Associates, Inc.

www.aaiaudiology.com/services/diagnostic/

American Tinnitus Association

www.ata.org

Neuromonics Inc.

http://www.neuromonics.com/

## For more information, schedule an appointment at the nearest office.

### www.aaiaudiology.com

7113 Ambassador Road Baltimore, MD 21244 (410) 944-3100

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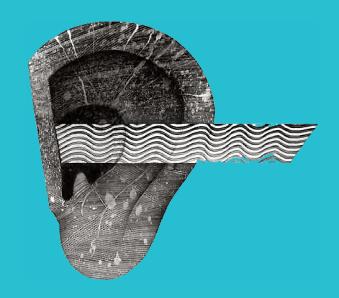
9613-I Harford Road Baltimore, MD 21234 (410) 668-5500 609 Dutchman's Lane Easton, MD 21601 (410) 820-9826

7845 Oakwood Road, Ste 303 Glen Burnie, MD 21061 (410) 760-4327 9338 Baltimore Nat'l Pike Ellicott City, MD 21042 (410) 313-9100

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# Tinnitus Diagnosis and Treatment



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#### What is tinnitus?

Tinnitus is defined as a "phantom auditory perception," or more specifically, the perception of sound when no external sound is present. Tinnitus affects approximately 50 million Americans, about one in five people. Its source can vary and it is a major area of focus in auditory research.

Treatments for tinnitus can be traced back to 2000 B.C. Tinnitus is not a disease, but rather a symptom most often associated with injury or dysfunction of the auditory system. It is considered pathological if it lasts more than five minutes and occurs at least twice a week.

Tinnitus, like pain, is usually subjective; therefore, no two individuals describe it or are affected by it in the same way. Perceptions of tinnitus vary significantly. It is often described as sounding like a high pitched hissing, roaring, ringing, buzzing, pulsing or humming. Sometimes tinnitus may fluctuate; changing in tonality, increasing or decreasing in volume. Many hear their tinnitus only when it is quiet, for generally it is masked by environmental sounds. Some hear it so loudly, however, that background noises fail to mask it. People who fall in either of these categories may report their tinnitus is very disturbing, and that it severely impacts their In fact, 12 million people are quality of life. distressed enough by tinnitus to seek medical treatment for it. It is among the top three complaints/disabilities experienced by veterans. Tinnitus may cause or be associated with a number of problems, including difficulty sleeping, trouble relaxing, difficulty concentrating, and may be accompanied by depression and irritability. Ultimately, these problems impact home and work performance, as well as relationships. Thus, tinnitus has both a physiological and psychological component. It also is not uncommon for some tinnitus sufferers to experience sensitivity to certain sounds or for loud sounds to cause pain or extreme discomfort called hyperacusis.

#### What causes tinnitus?

Tinnitus frequently is a symptom of a treatable condition; therefore, it is vital to identify the cause before deciding on a treatment plan. Diagnostic tests, including tinnitus and hearing evaluations performed by a Doctor of Audiology, are important in discovering

the cause of tinnitus. While many people who have hearing loss suffer from tinnitus, the presence of tinnitus does not cause hearing loss. One of the most common causes of tinnitus is exposure to excessive noise. Sometimes tinnitus is associated with physiological systems other than the ear, such as medications, systemic disorders including high or low blood pressure, diabetes, thyroid dysfunction, and trauma to the head or neck, including temporomandibular joint (TMJ) disorders. Issues with the auditory system may cause tinnitus as well. The most common are excessive cerumen (ear wax), vascular or muscle spasms in the middle ear, and disorders of the inner ear, which include hearing loss due to noise exposure, presbycusis (aging), inner ear infection, and Meniere's disease.

#### What should you do if you have tinnitus?

You may begin by consulting a Doctor of Audiology who is knowledgeable about tinnitus. Your audiologist will obtain a comprehensive case history, review your tinnitus questionnaire, and perform complete audiologic and tinnitus evaluations. After the examination is complete, your Doctor of Audiology will counsel you regarding your test results and the most appropriate tinnitus management program. Your test results will provide important diagnostic information that will be shared with your primary care physician also.

## What treatments are available for those who suffer from tinnitus?

There are many options available to treat tinnitus, and a variety of measures may be appropriate depending on the frequency and the intensity of the tinnitus. Noise maskers, including classical music CDs, white noise, and soothing environmental sound CDs, etc., may help control tinnitus in quiet environments. For patients who experience both hearing loss and tinnitus, hearing aids or combination hearing aid/tinnitus masking devices maybe beneficial. Individuals who are not hearing aid candidates may benefit from Tinnitus Retraining Therapy or the Neuromonics Tinnitus Treatment program. The Neuromonics treatment program utilizes a customized neural stimulus combined with specific music, delivered as an integral part of the coordinated program. The treatment is designed to interact, interrupt, and desensitize tinnitus disturbance for long-term benefit.