
Information for Behavioral Health Providers in Primary Care

Tinnitus

What Is Tinnitus

- Tinnitus\ tin-night'-is or tin'-it-is (either pronunciation is correct)\ n. [L., tinnire to ring]:
The perception of ringing, hissing, or other sound in the ears or head when no external sound is present. For some people, tinnitus is just a nuisance. For others, it is a life-altering condition.

Tinnitus is classified in one of two categories:

- *Subjective tinnitus* is a condition whereby only the sufferer can hear the noise produced within their head
- *Objective tinnitus* is a condition whereby others are able to hear sounds like clicks or crackling inside the middle ear of the person afflicted and is usually due to vascular causes or muscle changes

What are the Facts?

- An estimated 12 million people in the U.S. have tinnitus to a distressing degree
- Nearly 36 million Americans suffer from tinnitus
- Tinnitus may come and go, or present as a continuous sound
 - when the ringing is constant, it can be annoying and distracting
- Tinnitus can vary in pitch from a low roar to a high squeal or whine, and may be present in one or both ears
- More than seven million people are afflicted so severely that they cannot lead desired lives (e.g., increased frustration, poor sleep, irritability, inability to sustain attention in general or comfortably while attending public functions, etc.)

What Can Cause Tinnitus?

- Abnormalities in blood vessels around the outside of the ear or by muscle spasms
- Damage to the microscopic endings of the hearing nerve in the inner ear

Tinnitus (continued)

- Advancing age is generally accompanied by a certain amount of hearing nerve impairment and tinnitus
- Exposure to loud noise that damages hearing is probably the leading cause of tinnitus in younger individuals

There are many causes for "subjective tinnitus," the noise that only the sufferer can hear:

- Some causes are not serious such as a small plug of wax in the ear canal might cause temporary tinnitus
- Tinnitus can also be a symptom of stiffening of the middle ear bones (*otosclerosis*), allergy, high or low blood pressure (blood circulation problems), a tumor, diabetes, thyroid problems, or injury to the head or neck
- Tinnitus can be a side effect of medication such as anti-inflammatory, antibiotics, sedatives, antidepressants, and aspirin (note: if you take aspirin and your ears begin to ring, talk to your doctor about the best dosage for you given your body size).

What Can Be Done About It?

In most cases, there is no specific "tried and true" treatment for ear and head noise. If the patient's *otolaryngologist* finds a specific cause of the tinnitus, s/he may be able to eliminate the noise. Determining the cause may require extensive testing including X-rays, balance tests, and laboratory work. Many causes cannot be identified. Occasionally, medicine may help the noise and medication options are varied. Alternatively, *behavioral medicine* treatments may be tried based on research that suggests that tinnitus can be induced or made worse by stress, anxiety, fatigue, frustration, etc.

The following list of Dos and Don'ts can help lessen the severity of tinnitus:

- Avoidance of exposure to loud sounds and noises
- Having blood pressure checked; if it is high, getting help to control it
- Decreased intake of salt as it impairs blood circulation
- Avoidance of stimulants such as coffee, tea, cola, and tobacco
- Daily exercise to improve circulation
- Getting adequate rest, avoiding fatigue, and reducing life stress

What Can Help Patients Cope with Tinnitus?

Concentration and relaxation exercises can help to control muscle groups and circulation throughout the body. The increased relaxation and circulation achieved by these exercises can reduce the intensity of tinnitus in some patients, particularly under the guidance of a behavioral health clinician.

Tinnitus (continued)

Masking. Tinnitus is usually more bothersome in quiet surroundings. A competing sound at a constant low level, such as a ticking clock or radio static (also known as “white noise”) may mask the tinnitus and make it less noticeable. Products that generate white noise are available through catalogs and specialty stores.

Hearing Aids. If hearing loss is experienced, a hearing aid may reduce or temporarily eliminate head noise. It is important to set the hearing aid at moderate levels, because excessively loud levels can worsen tinnitus in some cases. A thorough trial before purchasing a hearing aid is advisable if the primary purpose is the relief of tinnitus. Tinnitus maskers can be combined within hearing aids. They emit a competitive but pleasant sound that can distract the patient from the head noise. Some people find that a tinnitus masker may even suppress head noise for several hours after it is used.

Important Note

Evaluation by an *otolaryngologist* is important so that the best treatment can be determined. An essential part of treatment will be the patient’s understanding of tinnitus and its possible causes.

Terms

- *Otolaryngology* involves the study of the ear, nose, and throat (ENT)
- *Otolaryngologists* are physicians trained in the medical and surgical management and treatment of patients with diseases and disorders of the ENT, as well as related structures of the head and neck
- *Otosclerosis* is a stiffening of the middle ear bones
- *Behavioral Medicine* is a clinical subspecialty that involves the application of behavioral and cognitive therapies to medical problems and disorders; these therapies are founded on clinical research (i.e., they are “evidence-based”)

References:

Information contained within this fact sheet was adapted from the following sources:

Andersson, G., Melin, L., Hägnebo, C., Scott, B., & Lindberg, P. (1995). A review of psychological treatment approaches for patients suffering from tinnitus. *Annals of Behavioral Medicine*, 17(4), 357-366.

<http://www.entnet.org/HealthInformation/tinnitus.cfm>

<http://www.ata.org>

The American Tinnitus Association is a national nonprofit organization dedicated to advancing tinnitus research and educating patients and professionals through conferences, books, brochures, videos, and the quarterly journal, Tinnitus Today.

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