



Patient Education Discussion Points for Bothersome Tinnitus

Definition of tinnitus. Tinnitus is sound that is created in the ears or in the head. It is a symptom and not a disease. People with chronic tinnitus usually hear it all or most of the time. For some people, tinnitus is intermittent.

Distinguishing tinnitus from transient ear noise (brief spontaneous tinnitus). “Transient ear noise” is a sudden whistling sound accompanied by the perception of hearing loss. The event is unilateral and seems to occur completely at random without anything precipitating the sudden onset of symptoms. Often the ear feels blocked during the episode. The symptoms generally dissipate within a period of about a minute. Transient ear noise, sometimes also called brief spontaneous tinnitus, is normal.

Assessment of tinnitus and associated hearing loss. Patients with tinnitus commonly attribute hearing problems to tinnitus. The clinician should determine how much of a patient’s complaint is due to a hearing problems and how much is due specifically to the tinnitus. Such assessment may require an audiologic exam and appropriate questionnaires.

Tinnitus can be temporary. Exposure to loud noise can cause temporary threshold shift as well as temporary tinnitus. Tinnitus induced in this fashion will likely resolve within a few days following the insult. Repeated episodes of noise exposure increase the likelihood that the tinnitus will become permanent.

Drugs and tinnitus. Tinnitus can be induced by a number of medications and drug interactions. Such tinnitus is usually temporary (typically lasting 1 to 2 weeks post exposure), but can be permanent—especially with the use of aminoglycoside antibiotics or the cancer chemotherapeutic drug cisplatin. Aspirin is well known to cause temporary tinnitus, although the dosage generally has to be rather high to induce tinnitus. Other medications that can cause temporary tinnitus include NSAIDs, loop diuretics, and quinine. Drugs used to treat mental health and sleep conditions also may trigger or exacerbate tinnitus.

No cure for primary tinnitus. A cure for primary tinnitus does not yet exist, and despite claims to the contrary, no method has been proven to provide long-term suppression of tinnitus. We can help patients by relieving the functional effects of tinnitus, such as sleep disturbance, difficulty concentrating, problems with hearing, and difficulty relaxing. Patients need to be informed that although tinnitus cannot be cured they can learn to manage their reactions to it, thereby improving their QOL. Health care professionals should be compassionate regarding patient’s concerns and fears about tinnitus. A brief overview of the evidence-based interventions discussed later in this guideline can be presented.

Current theory on the pathophysiology of tinnitus. Research suggests that tinnitus results from the compensatory adaptation of the central auditory system to hearing loss. Clinical observations establish the near universal association of tinnitus with hearing loss. Hearing loss associated with

tinnitus can range in severity from minimal to profound, and most people with hearing loss do not experience tinnitus. Changes in inhibitory and excitatory neurotransmitters occur throughout the auditory pathway in association with tinnitus.

Current theory on the pathophysiology of tinnitus. Research suggests that tinnitus results from the compensatory adaptation of the central auditory system to hearing loss. Clinical observations establish the near universal association of tinnitus with hearing loss. Hearing loss associated with tinnitus can range in severity from minimal to profound, and most people with hearing loss do not experience tinnitus. Changes in inhibitory and excitatory neurotransmitters occur throughout the auditory pathway in association with tinnitus.

SOURCE: Tunkel DE, Bauer CA, Sun GH, et al. Clinical Practice Guideline: Tinnitus. *Otolaryngol Head Neck Surg.* 2014;151(S2):S1-S40.

About the AAO-HNS

The American Academy of Otolaryngology—Head and Neck Surgery (www.entnet.org), one of the oldest medical associations in the nation, represents about 12,000 physicians and allied health professionals who specialize in the diagnosis and treatment of disorders of the ears, nose, throat, and related structures of the head and neck. The Academy serves its members by facilitating the advancement of the science and art of medicine related to otolaryngology and by representing the specialty in governmental and socioeconomic issues. The AAO-HNS Foundation works to advance the art, science, and ethical practice of otolaryngology-head and neck surgery through education, research, and lifelong learning. The organization's vision: "Empowering otolaryngologist-head and neck surgeons to deliver the best patient care."