



Tinnitus

General Measures

- **Avoid excessive amounts of Aspirin and other anti-inflammatory (NSAID) medicines** (link to list in medicine section), such as Motrin (ibuprofen), Naprosyn or Aleve
These medications may result in a temporary increase of noise. Low-dose aspirin should not be a problem. When possible, substitute Tylenol (*acetaminophen*). These medicines might be unavoidable for patients with arthritis.
- **Reduce Caffeine Intake**
Caffeine is found in coffee, tea, soda, and chocolate. Try to eliminate it in all its forms for one month to judge whether or not the caffeine affects your tinnitus.
- **Avoid excess alcohol**
This drug and other recreational drugs have a direct adverse effect on the inner ear.
- **Quit smoking**
Nicotine adversely affects the blood flow to the inner ear.
- **Protect your ears from loud noises**
Long periods of lower level noise from a lawnmower, power tool, walkman, or vacuum cleaner can be just as harmful as the high level noise of firearms or jet engines. Avoidance of loud noises is best, but, when exposed, wear high quality ear protection (custom ear plugs are available in our office.)

Using your brain's natural resources: Tinnitus Retraining Therapy

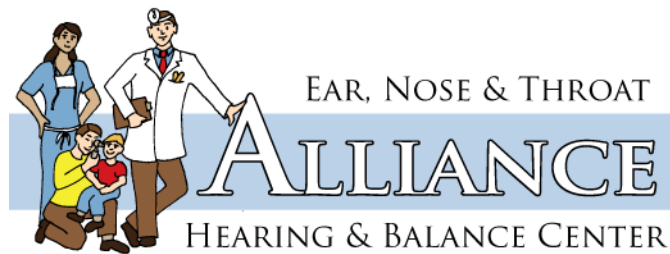
The nerves of the inner ear are always sending an electrical signal to the brain. Normally people do not hear this activity, but, if there is a malfunction of the hearing system, this underlying nerve activity becomes audible.

Moreover, if tinnitus becomes associated with feelings of fear, anger and frustration, it may cause headaches, an upset stomach, a panic attack, agitation or a short temper.

At the connection of each nerve is a filter. The *subconscious* part of the brain has the ability to adjust these filters. Tolerance training takes advantage of our brain's natural ability to disregard some of the information that it is usually receiving. You must try to encourage, not resist, this phenomenon to occur.

Try the following principles

- **Decide to reduce the importance of your tinnitus to a minor annoyance**
You can make the conscious decision to pay less attention to the sound. Don't "check on it" during the day. If you do hear it, pay it no more attention than you would the wind blowing.
- **Avoid quiet places**
When you listen to voices and other sounds, your tinnitus usually is less loud. This effect is called "masking". This effect may even last after the sound has been discontinued. In your bedroom when you are trying to sleep, make it a routine to have a fan, a radio, a TV, a white-noise machine or a noise generator (it produces the sounds of waves crashing or a



thunderstorm— available at Brookstone or a SoundSpaClock at Howmedics or other sources). Consider the specialized FDA-cleared masking sounds on 6 CD's (about \$140) 1-818-716-6166 or www.tinnitushelp.com **Soothing music** available at Alliance ENT office or download at www.melatonin.com

If these sounds disturb your bedmate, use an earplug (customized ear plugs are available in our office) or purchase a pillow with a built-in speaker. Sound Pillow (about \$50) 1-877-846-6488 or SleepSonic (www.sleepsonic.com) photo.

There are also other masking products: Microtek 800-446-7646 and other noise generators built into a hearing aid. During the day, many patients with a hearing loss find benefit when wearing their hearing aids because they “drowns out” the tinnitus with increased ambient noise.

Success: Most individuals find that these two simple strategies result in major reduction in the effect of tinnitus on their lives. The tinnitus is still there, but, more often than not, they must think about it to be reminded that it is present.

o **Stress reduction**

There is a certain amount of coping that is necessary with tinnitus. Some tinnitus sufferers obtain relief through relaxation techniques such as medication and biofeedback.

Tinnitus is usually less annoying when you are not anxious. Relaxation exercises are one way to reduce stress. Sit in a chair with a mirror. Practice releasing your tension by breathing in on 4 counts and breathing out on 6 counts. Look at your face and let your facial muscles relax. Or relax first your feet, then legs...progressing up your body. Or visualize a restful scene. Repeat one or more of these techniques for 10-20 minutes daily. You will learn the feeling of being relaxed.

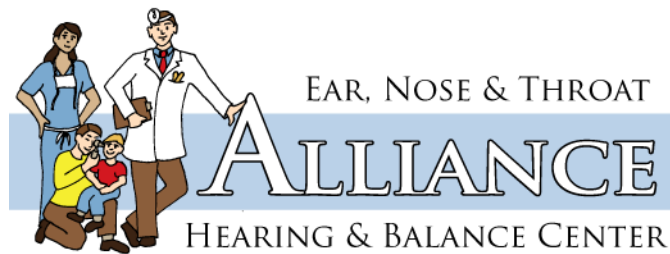
Medicines

There are no available medicines that can reliably stop tinnitus. None of these medicines can be recommended since there is limited scientific evidence of their success. Nonetheless, there are some people who report success with each of these treatments.

Sleep aids

When tinnitus interferes frequently with sleep, taking a medicine to induce sleep may be appropriate.

- o Zolpidem
- o anxiety-reducing medicines (alprazolam, clonazepam, lorazepam)
- o antidepressants (amitriptyline, fluoxetine)
- o anticonvulsants (gabapentin)
- o melatonin *Links to end of document for underlined meds (located under medicines #2 prescription meds, although it needs to be relocated under supplements)*



Transtympanic medicine

There are reports of corticosteroids and other medicines successfully applied behind the eardrum to relieve or to prevent tinnitus. (link to transtympanic delivery of medicine)

Nonprescription medicine

- o **Gingko biloba: 120-240 mg twice daily**

Look for “24% Gingko flavinoids”, “24% Gingko glycosides”, or “50:1 standardized extract”
Gingko biloba works gradually. Optimal effectiveness has been shown after 1-3 months with continuous uninterrupted use.

Action: antioxidant and vasodilator

Side effects: occasional gastrointestinal (GI) upset

excessive bleeding. Patients using heparin or coumadin need to be monitored by a doctor.

Available in combination with garlic and zinc in Tinnitus Relief Formula www.tinnitusformula.com

- o **Vitamin B12: 1000 micrograms per week**

- o **Vitamin B6 (Pyridoxine): 100 mg twice a day for 3 months**

Action: vitamin supplement. 10-20% of the population over 60 years old are deficient. About 40% of patients with tinnitus also have low levels of vitamin B 6/12.

Side effects: no toxicity

- o **Nicotinic Acid (Niacin): 25 milligrams daily half an hour before breakfast**

Increase by 25 mg daily until the tingling or flushing is unpleasant. Do not exceed 200 mg (8 tablets). Maintain a comfortable dose.

Action: vasodilator.

Side effects: flushing

Additional information regarding Niacin <http://lpi.oregonstate.edu/infocenter/vitamins/niacin/>

- o Commercial products which include different combinations of supplemental antioxidants, herbs and vitamins.

Lipoflavinoid (links to each of these products in medicine section)

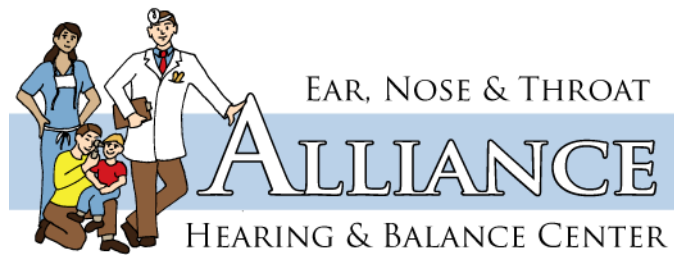
EarAid

Arches

HeadacheFree

- o **Others**—Echinacea mullein and garlic

Action: unknown



Electrical Stimulation: use of a handheld electrode for 30 minutes per ear twice weekly for 3-5 weeks
(Neuroprobe 500- PTI, Topeka, KS)

Action: unknown

Side effects: gold allergy

Alternative therapies: manual and electro acupuncture and others have not proven to be helpful.