

Tinnitus

What is Tinnitus?

Tinnitus is the term used for noises or sounds which are heard in one or both ears or in the head which do not come from an external source. They are often described as a high-pitched ringing but can also be described as a buzzing, hissing, pulsing, whistling, roaring, or various other sounds. Tinnitus can be very mild in loudness and only noticeable in a quiet room or it can become extremely loud and annoying to the point where the sufferer hears nothing else. It can be present all of the time or occur intermittently.

The loudness of the tinnitus often varies in intensity depending on several factors including stress, diet, and noise exposure. Tinnitus, like chronic pain, is subjective. Two people may report similar characteristics yet be affected in a significantly different manner. The severity of the tinnitus is largely a function of the individual reaction to, or perception of, the tinnitus. Many tinnitus sufferers have difficulty sleeping and/or concentrating, and many are depressed.

As many as 360,000 Canadians suffer from annoying tinnitus. 150,000 Canadians experience a degree of tinnitus that significantly affects their quality of life*. While tinnitus does not cause hearing loss, it may accompany decreased hearing and other symptoms such as a feeling of pressure in the ear and/or unsteadiness, dizziness or vertigo. However, for many people with tinnitus it occurs alone with no other symptoms.

*Tinnitus Association of Canada

Causes Of Tinnitus

The exact mechanism underlying tinnitus, what it is and where it is, is unknown at this time but research continues around the world. Some of the causes of tinnitus are:

- Disorders in the outer ear such as excessive ear wax (cerumen), a foreign body, perforated eardrum, or a hair touching the eardrum. Often, removal of the problem (wax, hair, etc.) will relieve the tinnitus.
- Disorders in the middle ear such as an ear infection, otosclerosis, or a benign tumor.
- Disorders in the inner ear such as damage due to noise exposure, presbycusis (hearing loss from aging), Meniere's Disease which is also accompanied by episodic dizziness, nausea,

ear pressure, and fluctuating hearing loss. Noise exposure is the leading cause of tinnitus and is very preventable with the use of hearing protection.

- Trauma to the head or neck, such as concussion or whiplash, can cause long-lasting tinnitus.
- Certain medications can cause head noises. They include anti-inflammatories such as aspirin and quinine, some sedatives and antidepressants, and certain antibiotics and chemotherapeutic agents including furosemide, cisplatin, streptomycin, neomycin, and kanamycin.
- One of the most difficult causes of tinnitus to diagnose is a vestibular schwannoma (acoustic neuroma) which is a small tumor pressing on the vestibular nerve leading from the cochlea to the brain. Tinnitus may be the only initial symptom.
- Various other causes such as high or low blood pressure, diabetes, vascular disorders, temporomandibular (jaw-joint) disorders, allergies, syphilis and thyroid dysfunction.

Although the majority of people with tinnitus have an associated hearing loss, the presence of tinnitus does not mean that one has decreased hearing.

Treatments Available For Tinnitus

It is important to remember that tinnitus is a symptom, not a disease. The initial treatment should be directed toward looking for a medically treatable cause of the tinnitus, as the tinnitus may be a symptom of a more serious disorder. Anyone with tinnitus should have a complete audiological evaluation by a qualified audiologist. A referral to an otolaryngologist may be recommended if a medical evaluation is warranted. Patients with tinnitus are often told that there is no medical cure or treatment for their condition. This is not entirely true. Although there may be no cure for the tinnitus, it can often be successfully managed. There are various treatments available which may give varying degrees of relief:

Counseling - aimed at reducing the stress and distraction associated with the tinnitus. It is important to change the person's perception of the tinnitus.

Consideration of Diet - often high levels of salt and caffeine, as well as nicotine, can cause an increase in tinnitus.

Stress Management and Relaxation - there is a high correlation between stress and an increase in the loudness of one's tinnitus. Many strategies aimed at reducing stress can be very effective at controlling tinnitus.

Support Groups for Tinnitus - can offer emotional support by sharing experiences and useful strategies for dealing with tinnitus.

Auditory Habituation (TRT) - this is a type of therapy whereby a noise is presented via a "noise generator" into the effected ear(s) at a soft enough level such that the brain perceives both the noise and the tinnitus. Eventually, over a period of 18-24 months, the brain may relearn a pattern that will de-emphasize the importance of the tinnitus. **Amplification** - if a hearing loss is present along with the tinnitus hearing aids can be very effective in relieving tinnitus.

Masking - the use of an external electronic device to produce sound which can cover up or mask the tinnitus can sometimes be very effective in providing relief from tinnitus. Occasionally the tinnitus can be inhibited for short and sometimes long periods of time when the masking sound is removed (residual inhibition). There are different types of maskers:

- **Tinnitus masker** - is an electronic device somewhat like a hearing aid which produces noise to help mask the tinnitus.
- **Tinnitus instrument** - a combined hearing aid and masker for people who have both a hearing loss and tinnitus.
- **Commercial noise generators** - various types of electronic devices which produce different forms of masking sounds to provide relief from tinnitus. These are especially useful at night time when trying to get to sleep. There are many systems on the market today that are made specifically for tinnitus sufferers.

Medications - there is no single medication that works on all tinnitus patients. Certain anti-depressants and anti-anxiety medications have proven successful for a small percentage of tinnitus patients. Some patients have seen success using herbal medications such as ginkgo biloba.

Alternate approaches - some tinnitus patients have reported benefit from treatments such as hypnosis, acupuncture, chiropractic treatment, ear candling, and naturopathy. Education is important. Suffers of tinnitus are encouraged to speak about their condition to their audiologist.