

TINNITUS

WHAT IS TINNITUS?

Tinnitus is any sound, not present externally, which is heard in one or both ears or in the head.

It can be heard as a ringing, buzzing, hissing, whistling, throbbing, booming, clicking, roaring or cicada-like noise.

Tinnitus can be a single sound or a number of different sounds. It can develop gradually or suddenly.

Tinnitus is invisible, and the noises do not cause pain. It is a symptom, not a disease.

HOW COMMON IS TINNITUS?

Most people experience tinnitus at some time, especially in very quiet surroundings. Tinnitus is not a disease, nor is it life-threatening. It is quite common and can occur at any age

Eighteen percent of the Australian population experience tinnitus at some point in their lives. (Australian Tinnitus Association, (NSW) Ltd.)

For about 2% of the population tinnitus is severe, and it significantly disrupts the quality of life of between 0,5%-1.0% of the population (Tinnitus Association of Victoria).

With appropriate information and the right support however, people are able to manage tinnitus quite successfully.

WHAT CAUSES TINNITUS?

Tinnitus is not a disease. It is usually a symptom of some problem within the auditory system.

These may include:

- Hearing loss. Tinnitus does not cause a hearing loss, although it is often present with a hearing loss. There are, however, many people with normal hearing who also have tinnitus.
- Noise damage (the most common cause of tinnitus)

- Middle and inner ear conditions (eg. Meniere's disease, Otosclerosis, ear infections)
- Changes to the ear as a result of ear surgery
- Injury to the ear or head
- Viral infections
- Some medications
- Reduced blood flow to the ear
- Acoustic neuroma (a benign tumour of the acoustic nerve)
- Spinal/neck injuries
- In some cases, following anaesthesia
- Temporomandibular joint Dysfunction Disorder (Symptoms include pain in front of the ear(s), inability to open mouth fully, clicking of the jaw, teeth grinding)
- High blood pressure
- Arthritis in the neck or spine
- Elevated stress levels

The above mentioned conditions can also aggravate pre-existing tinnitus.

POTENTIAL AGGRAVATING FACTORS

- Loud noise
- Some medications (Check with your doctor that any medication being used does not list tinnitus as a side-effect but **please do not make any changes** without medical consultation)
- Stress and fatigue will often increase the awareness of tinnitus as well as making it much more difficult to manage
- Caffeine, which is found in coffee, strong tea, cola drinks or chocolate (for some people)
- Alcohol, particularly champagne and red wine (Sensitivity will vary)
- Smoking - tobacco and particularly marijuana

An Ear, Nose and Throat (ENT) specialist will try to determine whether there is an underlying medical pathology associated with the tinnitus, and treat it accordingly. Tests, which may be carried out, include a hearing assessment, CT scan and MRI. Tinnitus is rarely linked to any serious problem, but

it is important to rule out the possibility of any medical condition.

TINNITUS MANAGEMENT

The aim of tinnitus management is to achieve habituation, whereby the tinnitus may still be heard, but causes no associated distress or effect on lifestyle. People with tinnitus will move from *suffering* to *experiencing and managing* tinnitus.

Stages towards habituation

Richard Hallam ("Tinnitus - Living With The Ringing In Your Ears", 1989, HarperCollins Publishers Ltd.) has proposed how this process occurs in a series of stages: -

Stage 1

- Persistent awareness of the noise(s) except during sleep and when masked by louder noises.
- Concentration on mental tasks difficult to sustain for more than a few minutes.
- Absorbing activities provide only slight distraction.
- Frequent worrying and depressing thoughts about tinnitus.
- Insomnia severe (if present). Cumulative sleep loss in some cases requiring medication.

Stage 2

- Intermittent awareness of tinnitus developing - especially during absorbing activities.
- Improvement in concentration.
- Beginning of emotional acceptance - the implications of the noises no longer seem catastrophic.
- Gradual return to normal sleep pattern (if disturbed).

Stage 3

- Awareness mainly limited to periods of tiredness, stress or quietness.
- Noises intrude mainly when listening and mental concentration is important.
- Noises annoying rather than emotionally distressing.

Stage 4

- Attention rarely given to the noises.
- Attention limited to periods when they are louder than normal or you are reminded of them.

- Noises do not intrude into normal activities.
- Emotional acceptance achieved - noises are neither pleasant nor unpleasant.

Moving through these stages towards habituation is a **dynamic process**, with people sometimes moving backwards (in response to illness, lifestyle changes and stress) as well as forwards.

It can take a long time to move through this process but tinnitus management strategies can assist the rate and the degree of progress.

Research shows the persistence of distress is due to factors which inhibit habituation.

The process of habituation may require an understanding of, and perhaps challenging of, one's own pattern of coping with setbacks and trauma generally. It may involve a lifestyle examination to see if external sources of stress can be minimised.

Many people undergo a sense of loss, (loss of silence) or feel grief due to the effect of tinnitus on their lives.

It is advisable to consult with a professional who understands tinnitus and who will be able to support you in managing your response to tinnitus.

MANAGEMENT STRATEGIES

Identify fears relating to tinnitus

People experiencing tinnitus-related distress may harbour fears or concerns about their tinnitus.

Common fears are that they will not be able to cope now or in the future; that their tinnitus may get worse; or that they have an unidentified illness.

Identifying and seeking answers to these fears is an important first step towards tinnitus management.

Management of hearing loss

When a hearing loss is present along with tinnitus, appropriate use of hearing aids will often greatly reduce awareness of the tinnitus.

Hearing aids amplify external sounds, which help divert attention away from the tinnitus. Advances in hearing aid technology mean that most hearing losses can be successfully fitted.

Frequent, regular use of hearing aids will also reduce the effort of concentrating and straining to hear. This will help relieve the tiredness, anxiety

and stress associated with communication difficulties.

Medication

Medication may be prescribed for sudden onset hearing loss and associated tinnitus and/or balance problems.

Medication may also be prescribed to help with severe sleep disruption, as well as to control a severe emotional reaction to tinnitus.

There is, as yet, no drug available to cure tinnitus.

Cognitive Therapy

Cognitive therapy is a psychological approach, which examines the effect of a person's thoughts and beliefs on their emotional reaction to life's stresses.

It helps people develop effective self-control techniques, which can be used to manage depression, anxiety, chronic pain and tinnitus.

It is an intensive, individualised method, which has been shown to produce a significant reduction in tinnitus distress and improvement in psychological well being.

Tinnitus Retraining Therapy (TRT)

Our hearing systems have evolved to selectively attend and react to significant sounds while ignoring sounds that are of no significance.

The auditory cortex in our brain has a large number of connections with the limbic system, a part of our brain which is concerned with emotion and learning. We attach an "emotional label" to each sound that we hear and learn the meaning of, which may change according to how we feel and the context we hear them in.

Some sounds can be identified as warning signals e.g. a traffic horn, while others can evoke a feeling of security or pleasure e.g. music.

This system is, in effect, a survival-style reflex, which ensures that we automatically react to sounds that we have learned are threatening. In the subconscious part of the brain concerned with hearing, before the conscious perception of sound takes place, networks of nerve cells are programmed to pick up signals on a "need to hear" basis.

The Jastreboff neurophysiological model of tinnitus stresses that these networks selectively pick up internal sounds because they have been identified as a threat, either to life, or life quality. TRT

involves reprogramming or resetting these networks.

According to TRT, we need to learn that the sounds of tinnitus are natural sounds (usually filtered out), which we have become aware of and which are wrongly identified as threats.

The presence of any continuous stimulus usually results in habituation, where the person responds less and less to the stimulus as long as it does not have any negative meaning.

A program of TRT concentrates on demystifying tinnitus through information and counselling. Reprogramming is achieved by presenting continuous sound from low level white noise generators or, if a hearing loss is present, using hearing aids.

This approach claims, after time, a high rate of success in reducing awareness of tinnitus.

Use of appropriate distraction techniques

When people focus on their tinnitus in a quiet environment, it can appear to get louder as they become more and more distressed by it. ***Doing this is to be avoided.***

The challenge for people with tinnitus is to create and utilise any appropriate distraction from their tinnitus. This can be in the form of activity, use of sound, imagery, stress management and relaxation techniques.

Sound distraction is a deliberate refocussing of attention to an external sound away from the tinnitus. This is done whenever you find yourself listening to your tinnitus. After focussing your attention on the external sound, you then resume whatever you were doing. This is a learned skill, which may take some practice. The choice of external sound is within your control. This may help overcome the feeling of helplessness often experienced.

It is not necessary to mask the tinnitus for this strategy to be successful. If high volume levels are used to mask the tinnitus, be careful that this does not aggravate it. In fact, according to TRT principles, the tinnitus needs to be heard ***along with*** the external sound for habituation to occur.

Any sound could be used in this way, including environmental sounds, television, radio, music, and white noise generators (formerly known as 'maskers'). The degree of stimulation from the sound used will need to fit in with whatever other activity is being carried out.

Environmental sounds, available on CD, are often useful for sleep management or when trying to concentrate. They are unstimulating, and have relaxing associations

Low noise generators (formerly known as 'maskers') are worn like a hearing aid either in or behind the ear. They produce a noise which can be used as a wearable sound distraction source as well as a long term TRT strategy, if used at least six hours a day.

According to TRT, white noise at a very low volume, so that the tinnitus can still be heard, very gently stimulates all the nerve cells in the subconscious networks, allowing them to be more easily reprogrammed.

Stress management and relaxation

Because stress can make tinnitus appear louder, stress management is an important part of tinnitus management. This may involve identifying and, if possible, reducing external sources of stress.

Individual relaxation, meditation and group activities such as yoga, tai chi and stress management courses may be helpful. Please refer to our 'Relax...Relax...Relax' fact sheet for more information.

Relaxation techniques are available on CD.

Sleep management

People with tinnitus may experience a disrupted sleeping pattern.

Setting up a CD player or radio by the bedside, so that sound distraction is easily accessible, can help to reduce anxiety associated with bedtime. Environmental sounds, gentle music or relaxation CD's would be appropriate to use in this way.

Tinnitus management may involve using established sleep management programs.

Complimentary approaches to tinnitus management may include acupuncture, hypnosis, chiropractic treatment, physiotherapy, neck massage, jaw joint therapy and naturopathy.

It is important to accept that all these management strategies are designed to help the process of habituation and are not likely to provide a cure, unless an identified cause of the tinnitus is being treated.

SUPPORT SERVICES

The Vicdeaf Rehabilitation and Information Team offer individual Tinnitus therapy sessions. This

involves developing a tinnitus management plan, using strategies appropriate for each individual.

For information, appointments and your nearest tinnitus management clinic please contact us on Ph: 1300 30 20 31.

Other services

- The Tinnitus Association of Victoria
Ph (03) 9510 1577 for a free tinnitus information package.
 - Australian Tinnitus Association (NSW) Ltd.
www.tinnitus.asn.au
 - www.tinnitus.org
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Vicdeaf regularly updates our fact sheets. To ensure that your information is current, or for further information about Vicdeaf and the services offered, please visit our website or contact us:

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