What is tinnitus?

Tinnitus is a sensation or awareness of sound that is not caused by a real external sound source. It can be perceived in one or both ears, inside the head or in the person's immediate environment. Although it is commonly assumed to be a ringing noise, tinnitus can take almost any form including hissing, whistling, humming and buzzing. Some people even hear musical sounds or sounds resembling indistinct speech. Some people hear a single sound whereas others hear multiple noises. For some, the sound is constant: for others it is constantly changing.

What causes tinnitus?

It is often assumed that tinnitus is caused by damage to the ears. This is true in some cases but it is perfectly possible to have tinnitus with normal ears and normal hearing. Several studies have been performed where people who do not have tinnitus were placed in soundproofed rooms and told to listen intently. In this situation almost everyone becomes aware of a sound sensation.

Many scientists think that tinnitus is generated by random electrical signals that can occur in any part of the hearing pathway. Thus tinnitus may originate in the ears, in the hearing nerve or in the brain. Such random signals are common and usually we are not aware of them happening. Occasionally something happens that causes some people to interpret these random signals as sound. Common triggers for this process are emotional shocks and loss of hearing, either gradual or sudden. However, in many people, the trigger is unknown. Once we become aware of the tinnitus signal, it draws the attention of the brain making tinnitus even more distressing. This type of tinnitus is called subjective tinnitus because it is only heard by the sufferer. A few people have tinnitus that is attributable to a real sound, generated inside the body by blood flow or muscular activity. This type of tinnitus may be detectable by other people, either just by careful listening or by using a stethoscope. This kind of tinnitus is known as objective tinnitus.

What are the symptoms?

- Tinnitus is a symptom in itself.
- It may be accompanied by hearing loss, dizziness, pain in the ears (otalgia) or dislike of loud sounds (hyperacusis).
- Many people with tinnitus also feel that their ears are blocked.

Your specialist will consider these other symptoms when making a diagnosis and developing a plan for your treatment.

How is tinnitus diagnosed?

The first thing your specialist will do to diagnose your condition is to ask some questions about your symptom. This is actually all that is necessary to reach a diagnosis and there is no special 'tinnitus test'.

Of course your specialist will want to know as much as possible about your hearing and will perform a full examination of your ears. Other areas such as the nose, jaw joints and throat may be examined. If the specialist thinks that you may have objective tinnitus he or she may listen around your ear and neck with a stethoscope. In almost all cases the specialist will arrange some tests. The most common test is a hearing test (pure tone audiogram). There are some hearing tests that try and match the persons' tinnitus but they do not influence treatment greatly. Many specialists therefore do not request these tests. For selected patients, the doctor may wish to order an MRI scan though other tests such as CT scans or ultrasound scans are sometimes utilised. Blood tests may occasionally be required but this is unusual in the diagnosis of tinnitus.

What can I do to help myself?

Tinnitus is extremely common. Approximately one in 10 of the population have some degree of tinnitus. In most people, the symptom is mild and does not interfere greatly with their lives. Many people think that tinnitus will never go away. This is incorrect and with time most tinnitus lessens or disappears. Knowledge of these simple facts can help many people to cope with it.

Most people with tinnitus find that it appears louder if they are sitting somewhere very quiet. Having a little bit of quiet background sound from a radio, CD player or television can help.

Many people notice that their tinnitus becomes more distressing if they become stressed or anxious. Learning to try and avoid stressful situations can help.

There have been anecdotal reports that certain foods and drinks can exacerbate tinnitus. People may therefore put themselves on exclusion diets. Caution should be urged in this respect: there is a little if any scientific evidence to support the theory that food causes tinnitus.

Treatment options

Although there is no simple pill or operation to cure the majority of cases of tinnitus there are several strategies that are very helpful in ameliorating the condition.

For people with mild tinnitus simple explanation and reassurance may be all that is required. For more intrusive tinnitus a form of counselling may prove helpful. This can be administered as a standalone therapy or as part of a wider treatment strategy such as Tinnitus Retraining Therapy (TRT) which is a mixture of counselling and sound therapy.

If tinnitus is associated with hearing loss then trying to correct the hearing loss is usually very helpful. Depending on the cause of the hearing impairment, medication, surgery or hearing aids may be needed.

Sound therapy can help many people with tinnitus. This can take the form of an electronic device that sits at the person's bedside and produces low level soothing sound to distract them from their tinnitus at night. During the daytime it is possible to wear a sound generator which is a small device that resembles a hearing aid and produces white noise.

Psychological techniques such as Cognitive Behavioural Therapy (CBT) and Mindfulness Meditation can be used in the management of tinnitus and Relaxation Therapy is very helpful for those who find that stress worsens their problem.

For a very small number of people, usually those with objective tinnitus, there may be a drug or surgical procedure that can cure the problem.

Monitoring and re-assessment

Tinnitus is such a variable symptom that it is extremely difficult to make any hard and fast rules regarding the long-term management. This is a very individual decision that will be made by you and your specialist.

Uncertainties

There are many questions regarding tinnitus that remain to be answered regarding both the mechanisms by which it is generated and the search for more effective treatments. Various research avenues are currently being explored including the use of certain types of drug and electromagnetic stimulation of the auditory system.

Further information

Up to date advice is available from the British Tinnitus Association at **www.tinnitus.org.uk**

If you have any problems or questions, please contact:

Please insert local department routine and emergency contact details here

Disclaimer: This publication is designed for the information of patients. Whilst every effort has been made to ensure accuracy, the information contained may not be comprehensive and patients should not act upon it without seeking professional advice.

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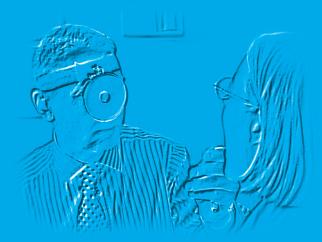


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ABOUT TINNITUS

By Don McFerran

ENT-UK is the professional Association for British Ear, Nose and Throat Surgeons and related professionals. This leaflet provides some background information about tinnitus. It may be helpful in the discussions you have with your GP or specialist when deciding on possible treatment. This information leaflet is to support and not to substitute the discussion between you and your doctor. Before you give your consent to the treatment, you should raise any concerns with your GP or specialist.



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