

**If you have tinnitus you should be able to obtain a worthwhile degree of relief with the approaches suggested in this booklet. This self-treatment can be done either before or after seeking professional advice. However, we recommend that you visit an otologist or audiologist in order to reassure you that there is no underlying health condition causing the tinnitus for you to worry about.**

**By following the advice in these notes, you can start to self-manage your tinnitus and reduce its emotional impact.**

## **What is Tinnitus?**

Tinnitus is the experience of hearing a sound originating from within one or both your ears, or your head. It is often described as a ringing, buzzing or whistling sound. It is usually due to a minor disorder of your hearing system and is often associated with inner ear (cochlea) “wear and tear” or exposure to loud noises. It is a symptom not a disease.

Although tinnitus can sometimes be very distressing it is not usually associated with any dangerous medical conditions, and therefore, the quality of your life can be recovered. You may not be able to get rid of your tinnitus noise completely, but you can gradually reduce or eliminate the way that tinnitus affects you, so that you hardly notice it. The majority of individuals who are upset by their tinnitus learn to manage it through doing things for themselves to improve their tinnitus. However, it may take several months – this is quite normal, so do not feel disheartened.

## **Your Hearing System**

External sounds travel in waves in the air and are converted by your inner ear (cochlea) into nerve signals that are like tiny electrical currents. These signals pass up your hearing nerve to the base of your brain. The brain then sorts out and prioritises what is immediately important. It usually ignores meaningless external sounds and, consequently, it can learn to do the same with internal sounds like tinnitus.

We have the ability to distinguish particular sounds of interest in the great hubbub of other sounds. For example, most people can probably pick out their name uttered by someone in a room of chattering people or detect a single musical instrument of interest in a full orchestra. The hearing system uses this filtering ability to naturally home in on noise that is new and unfamiliar. When tinnitus is first perceived by an individual the auditory system serves to select and potentially enhance the signal as it is both new and unfamiliar.

## **Selectivity and Attention**

As you have already discovered your hearing system has an automatic property of selectivity. This meaning that parts of the hearing system within your brain increase the degree to which they select out certain new, important, strange or worrying sounds (including tinnitus) for special attention, and filter out the hearing of other external sounds. Also, as we get older, our ability to hear external sounds reduces. This can result in a lack of contrasting sounds which can serve to make an individual more aware of internal noises like tinnitus. Any other forms of hearing disorder or damage, such as from the repeated exposure to loud noise (for example very loud music, noise at work or gunshots) can exacerbate the natural hearing loss process and make tinnitus even more noticeable.

## Habituation

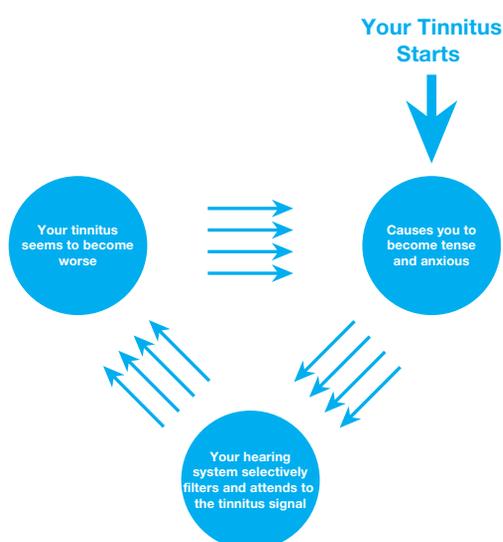
Imagine that you have a new clock. At first you cannot help but hear it is ticking, but after a while you find that you are no longer aware of it. Other people hearing your new clock for the first time remark on how loud it is, but you have habituated to it – you are no longer conscious of it, your brain has decided to stop monitoring its' ticking as it is constant, meaningless and non-threatening. This is a natural process, called habituation, that your brain uses to stop over loading itself with the need to monitor all sorts of harmless information. The hearing system of the brain can also habituate to internal signals like tinnitus.

Tinnitus naturally subsides over time. It is not a progressive condition that gets worse the longer you have it or the older and harder of hearing you become – it is quite the opposite! However, you can do things to speed up this habituation process, and to alleviate some of the effects tinnitus causes until it does subside.

## Anxiety, Tension, and Learning How to Relax

It is very common to worry about tinnitus and for this to cause tension, so learning how to relax is part of the relief process. Tinnitus often creates a vicious cycle of tension and worry that keeps the tinnitus worse than it could be.

However, you can break this cycle. If you break it, the chain of events will reverse.



As a first step, read these notes again to make sure you understand how worrying about your tinnitus and constantly listening to it will feed this vicious cycle. Monitoring your tinnitus and worrying about it will only make it worse.

## Relaxation Exercises

To help relieve the tension in your body, you can use simple relaxation exercises that involve training your body to relax. You can read about such exercises in books, listen to them on CDs, or learn how to do them at relaxation exercise classes, whichever you prefer.

Here are some simple examples of relaxation exercises:

1. Find a comfortable position, and breathe in slowly and clench your fist. Feel the tension in your hand and wrist. Now breathe out, and as you do so relax your hand and feel the difference. You can extend this to other parts of your body, such as your other hand, each arm, leg and foot, your back and neck, face movements, and jaw clenching.
2. Breathe slowly and deeply, hold your breath a moment, relax then let it out, wait a moment, then breathe slowly and deeply again, and so on.

Once you have learned such breathing and muscle relaxation exercises, you can do them regularly, wherever and whenever you can find the time and space. It will take a bit of practice, but you should quickly start to feel the benefits, and you will gradually learn how to relax your body without having to do the exercises. As you learn to relax your body, you will also find it easier to relax your mind.

Some people find that aromatherapy, improved posture, massage, reflexology, craniofacial therapy, yoga, and tai chi have similar relaxing benefits, as can simply resting in a relaxing environment, perhaps with special aromas, dim lights, and soft music. The key is to find what helps you relax the most and easiest, and then practice it often.

## Sound Therapy

The normal natural history of tinnitus is for it, to gradually recede into the background so that you eventually become hardly aware of it – the habituation process described earlier.

You can speed up this process by increasing the amount of background sound near you, what some audiologist call “sound therapy”. This reduces the contrast between the level of your tinnitus and the level of background sound. In turn, this reduces the intrusiveness of your tinnitus and the tension it causes, thus promoting the habituation process and interrupting the vicious cycle described above. The principles and procedures involved are similar to those used in most forms of sound therapy.

Additional background sounds can come from:

- Pleasant low-level sounds from a television, radio, or recorded music, from a fan, or from outside through an open window.
- Sound conditioners – bedside, chair side, or tabletop devices that play natural sounds (such as the sound of gentle waves, the rain, or a stream), or “white” noise (a constant “shhh”- like sound).
- A wearable noise generator – a device that looks like and is worn like a hearing aid, but which makes its own “shhh” sound.
- Wearing and using a hearing aid, even if you have only slight difficulty in hearing.

Exactly what is the best level of additional sound to use has not yet been established, but a level just below that of your tinnitus would seem sensible – not too loud so you can’t hear your tinnitus, but not very soft either. That is, in order to be able to habituate to the tinnitus, it needs to be audible.

The key is to avoid quiet, or remove it. In the quiet, your brain will try to hear any sound more clearly, and that will include the sound of your tinnitus. You should reinforce your background sound whenever the background is rather quiet, as often and for as long as you can.

If increasing background sound annoys other people around you, use a personal music player and headphones.

Most importantly, you also need sound therapy in bed, whether asleep or awake. It is particularly harmful if you lie in the quiet of the night listening to your tinnitus when you cannot get to sleep, or when you wake up during the night. Fatigue can also increase the tinnitus, as does anxiety. You could try sleeping with the window open, or have a gentle ticking clock in your room, or use an under pillow speaker or sound pillow attached to the sound source of your choice. You are less likely to disturb others this way. The radio can also act as a good sound in drowning out the tinnitus, especially when we have it between stations, where it would be a static noise, just above audible levels. Constant, uninteresting noise can be easy to ignore, once we know where the noise comes from.

## Recreation and Health

Having active interests and hobbies can enhance the quality of your life. They can put your tinnitus into a better perspective so you can still enjoy life to the full. It is never too late to learn or to get involved in adult education programmes.

Some people have seen the positive side of their tinnitus and have welcomed the push it gave them to do something new, to rekindle old interests, or to take on the challenge of working for a tinnitus support group.

How is your general health? Are you getting a good, varied diet, plenty of exercise and rest, and some enjoyable social activity? If you find that certain foods or drinks, or activities or situations aggravate your tinnitus, you could cut down a little, cut them out, or find alternatives. With just a few adjustments, you will find that tinnitus will not stop you carrying on with life the way you want to.

## Hyperacusis (pronounced hyper-a KOO-sis)

This means a condition of over sensitivity to loud sounds, even moderately loud sounds. It is experienced by many people with troublesome tinnitus and is assumed to be caused by a similar brain mechanism. Like tinnitus, hyperacusis can usually be improved by using sound therapy procedures, although for hyperacusis the level of added sound is gradually increased, systematically, over a period of weeks or months. This treatment process is called “desensitisation”.

Once again, with this condition it is important to avoid “Quiet”.

## Earplugs

If you have tinnitus, you should not wear any kind of earplugs that make it more difficult for you to hear, except when exposed to very loud noises. They will not help your tinnitus: indeed, they will probably make it seem louder while you are wearing them. Generally, it is not a good idea to wear earplugs if you have hyperacusis (unless you are using earplugs temporarily in a noise that is unbearably loud to you) as they can prevent your ears from becoming desensitised to sounds. On the other hand, you should always use ear protection when you are exposed to very loud sounds, whether you are affected by hyperacusis or not.

## Temporary Deafness and Temporary Tinnitus

If you have been exposed to a particularly loud sound, for example, a disco or fireworks, or working around loud noise, you may often experience a dullness of hearing or tinnitus, or both immediately afterwards. Provided you do not let yourself get into a state of great anxiety about it, this will usually disappear after a few minutes or hours. These temporary effects should be taken as a warning, though – there is a risk of permanent damage if you expose your ears repeatedly to such loud sounds.

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