



York and Scarborough  
Teaching Hospitals  
NHS Foundation Trust

# Managing Tinnitus

Information for patients, relatives and carers

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# What is tinnitus?

Tinnitus: from the Latin word Tinnire meaning 'to ring'.

People with tinnitus can report hearing a variety of sounds such as low to high pitched ringing, hissing, buzzing or even music. There may be a single sound or there could be two or more elements to it. It can even beat in time with your heart. Tinnitus can be continuous or intermittent as well as fluctuate in volume and intensity. Generally people are more aware of it in the absence of any other sound around them.

Tinnitus is reportedly one of the most common symptoms to affect humanity: around 10% of the adult population are aware of it and for some people it can be something they find very difficult to cope with.

# What causes tinnitus?

Although there is no definitive answer to why people perceive tinnitus there are currently a number of ongoing research projects which are investigating causes, influencing factors, generation theories and management techniques.

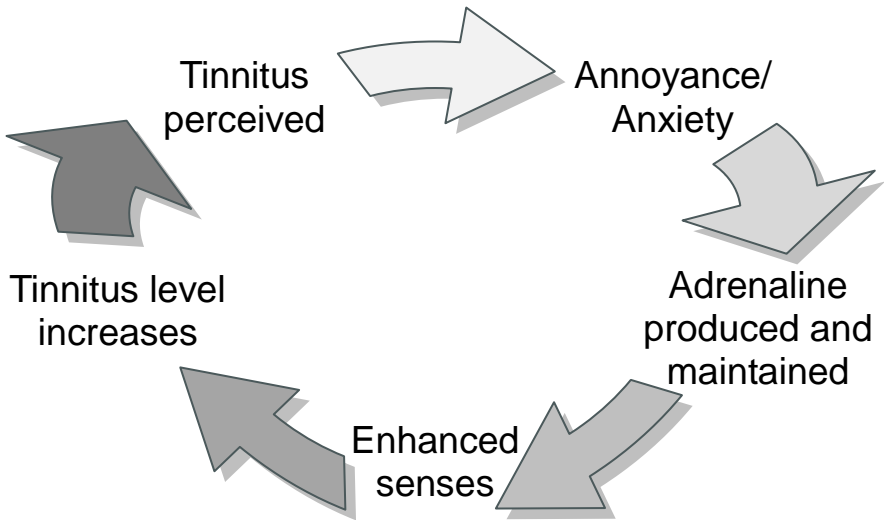
Tinnitus is not a disease nor is it an illness in itself but it could be a symptom of other problems. If your tinnitus begins suddenly, appears to be on only one side of your head or pulses with your heartbeat you should mention it to your GP because it might require further investigation. However, it must be stressed that for most people tinnitus is **not** caused by anything which is medically worrying.

Much like the low level hum that you get from a fridge tinnitus is something we generally ignore but is perceptible if we concentrate on it. Past studies have shown (Heller and Bergman, 1953) that in a quiet environment the majority of normally hearing people, who never previously reported any tinnitus, can perceive some sound. These internal sounds are likely to have always been there but everyday ambient noise is normally enough to mask them out and, if they are not seen to be threatening, we do not pay them any attention.

Changes in the awareness of tinnitus can occur due to physical or emotional factors including a change in hearing, exposure to loud sound, stress (including anxiety), illness or head injuries. These factors could cause some over activity in the auditory cortex (the part of the brain that creates sound) and the brain could perceive this extra activity as a sound.

Usually, the brain naturally filters out unimportant sounds which we don't need to concentrate on, however, once detected it can stimulate a negative physical response.

Tinnitus can be interpreted as “danger alert”, for example like suddenly hearing an ambulance siren amongst the normal traffic noise. This stimulates an automatic ‘fight or flight’ reflex, which is a set of behavioural patterns that we share with other animals. These responses have evolved to help us deal with potentially dangerous events. They are there to help us defend ourselves “fight” or run from it “flight”.



When we feel frightened, anxious, annoyed, excited or happy our body secretes adrenaline into our blood stream. Adrenaline is a hormone which affects our body in many ways. It will increase our heart rate and will make it pump more strongly. It will also enhance our senses particularly sight, hearing and touch.

When people experience tinnitus and are distressed, or at least annoyed by it, our body will produce adrenaline in response to the annoyance rather than it being a direct response to the noise itself. Amongst the other effects of adrenaline are that it will make you more sensitive to sound than usual.

This often has the effect of increasing the level of your tinnitus which will almost certainly increase the previous levels of annoyance and distress that the tinnitus caused. The result being that our body does not stop producing excessive adrenaline because it is being permanently stimulated by the distress.

This cycle has to be broken for us to make tinnitus manageable. By breaking the cycle, we reduce the amount of adrenaline that our body makes and this will have the effect of reducing the range of our senses from “heightened” to a more “normal” level. This, in turn, will bring the tinnitus down to a more manageable level, even though it may never go away.

## **How you can manage tinnitus**

There is currently no cure for tinnitus but there are various things which can help how you cope with it which include: hearing aids and sound generators (if determined appropriate by your Audiologist), sound therapy, relaxation and counselling.

# Sleep

A good night's sleep is important because it will make you better able to cope physically and mentally with tinnitus. There are no set amounts of time which we have to sleep in order to function normally. Some people perform well on very little sleep while others need a much longer sleep in order to feel rested.

As we get older our natural sleep pattern changes to include less periods of deep sleep and more frequent awakenings. Of course, with tinnitus once you're awake it is easy to assume that the tinnitus woke you, rather than it just being part of a normal sleep pattern.

Research into stress has shown 90% of people who experience insomnia believe a busy mind plays more of an important role in their sleep problems than their physical condition. This is also thought to be true with people with tinnitus. In addition, if you spend a couple of hours a night worrying about not sleeping or going over the stresses of the day in your mind then it is a lot more likely that you will stay awake.

There are certain things that can help with your sleep pattern:

- Keep active during the day; if you feel physically tired you might sleep easier
- Try to unwind before bed. Writing down any worries or things which need remembering will mean you can forget them for the night and rest knowing they can be dealt with the next day



- Avoid using excessive alcohol or over the counter sleeping medications, these will work in the short term but they can affect your natural sleep pattern. In addition, limit the amount of sugar, caffeine and nicotine, all of which are stimulants, before bed
- Make sure the bedroom is not too hot or cold
- For some people, low level sound e.g. having the window open; playing calming music or environmental sounds like rain, waves or white noise (like a radio tuned between stations) can help. Pillow speakers or “SleepPhones” can also be used to listen to sounds discretely, that way you don’t have to worry about disturbing your partner’s sleep
- Go to bed when you’re sleepy and turn off the light
- If you’re awake during the night for more than 20 minutes it is sometimes better to get up, have a warm drink (not containing caffeine), and relax until you feel sleepy again before returning to bed. This way, your body is still resting even though you are not sleeping
- And perhaps most importantly, stick to a routine. Get up at the same time every day, even on weekends, and try not to sleep during the day in an effort to make up for lost sleep

# **Relaxation**

Being able to relax is important in managing the stress often associated with tinnitus. As people usually lead very busy lives it can be difficult to take time out to concentrate on relaxation but it does help to get any physical anxiety response to tinnitus, which you may be experiencing, back under control.

Often attending yoga or a Pilate's class can be useful to learn and practice relaxation. There are various techniques which can be taught including controlled breathing and muscle relaxing exercises. These exercises are useful in the short term, but understanding the root cause of your stress, and then finding ways to prevent stressful events in the first place is the only way to achieving a fully relaxed state.

# **Sound therapy**

Tinnitus is more noticeable in the absence of sound therefore it makes sense not to dwell in quiet areas. At home the TV or radio can be useful at low levels but if this is too distracting then sounds from nature could be used which may be more relaxing to listen to e.g. rain, waves or general outdoor noises.

If you have a hearing loss as well as tinnitus then the initial step would be to try hearing aids. These should not only provide more clarity with speech but also easier access to everyday sounds which can naturally mask out tinnitus.

There is also the option of sound generators which can be fitted, if the Audiologist feels they would be suitable. The aim of sound therapy **is not to drown out the tinnitus** but to provide a constant external alternative sound for the brain to focus on which can in turn reduce the amount of attention paid to the tinnitus.

Night time can also be when the tinnitus becomes more intrusive. Not only is it dark so there are no visual distractions from the tinnitus but it is normally very quiet so the tinnitus can be more prominent. Using noise generators or pillow speakers can be helpful in that situation. With advances in technology sounds to help mask out tinnitus are much more readily available. The sounds we find relaxing tend to be very individual so the same thing does not work for everyone. It is best to try out a few and see what works for you.

There are many apps available for smart devices, phones/tablets etc which offer a variety of different types of sounds and these can often be downloaded free of charge. If you have access to the internet then Amazon can be a useful place to look for this type of thing as well as App stores which are available on smart phones. Look out for some of the following:

- ❖ Relax Melodies
- ❖ Calm
- ❖ Resound Tinnitus Relief
- ❖ Sleep Sounds
- ❖ Headspace (see following section on mindfulness)

## Hearing aids

For many people, tinnitus may be related to hearing loss. Well-fitted hearing aids will not only improve your ability to hear, but they may also reduce the perception of your tinnitus while you are wearing them, as you will be hearing many other new sounds instead. Hearing aids should be worn throughout your waking hours to gain maximum benefit if they have been prescribed for you.

## Psychological therapies

Cognitive Behavioural Therapy (CBT) and Mindfulness Meditation are other things which are now suggested more often in the management of tinnitus.

CBT looks at the links between thoughts, behaviour, emotions and psychology and how they can become exaggerated forms of normal processes. Tinnitus can lead people to think negatively about things for example, that you will not be able to enjoy quiet activities any more; that life will never be the same again or that the tinnitus will drive you crazy. These are normal thoughts; most people develop negative thoughts automatically where it is easy to think the worst.

However, it is important to recognise that they are **just thoughts** and **not facts**.

It can be easy to dwell on a reason for having tinnitus in the first place, questioning what caused it? Or if there is something else which can be blamed? But no matter what the answers may be the fact remains the tinnitus is now there to be dealt with. Mindfulness focuses on dealing with the current situation rather than looking at the past or worrying about the future. Since there is no off-switch for tinnitus then perhaps being able to move towards accepting it will help reduce the stress it causes.

Sometimes trying to ignore the tinnitus and constantly push it away only leads to it being at the forefront of attention all the time. This new method of tinnitus management involves looking towards building an awareness of your own tinnitus, neither positive nor negative, but accepting it as a normal part of being. This can result in being able to relax with it rather than see it as a threat which has to be constantly battled with, which can be very tiring. Further information about this approach this can be found on the British Tinnitus Association website. These types of therapy may not be available on the NHS but your GP can advise you if you ask.

The more you understand about tinnitus the better equipped you are to cope with it. There are various websites and organisations that can help provide further information but look out for ones which are validated by up-to-date research and qualified medical professionals.

You can also go here to purchase equipment such as sound generators to aid your tinnitus management.

[www.tinnitus.org.uk](http://www.tinnitus.org.uk)

[www.actiononhearingloss.org](http://www.actiononhearingloss.org)

## **Tinnitus support groups**

Many regions now have a local tinnitus support group. These groups are usually run by their members; however some are facilitated by charities or even audiologists. They can be a great place to get support from other individuals with tinnitus, share experiences and successful tinnitus management tips. Some groups organise sessions with external speakers who may be able to offer advice on tinnitus management or relaxation techniques to keep you informed and motivated. Information on where you can find your nearest support group can be found through the BTA website: [www.tinnitus.org.uk/find-a-support-group](http://www.tinnitus.org.uk/find-a-support-group)

## **References**

[www.tinnitus.org.uk/mindfulness-for-tinnitus](http://www.tinnitus.org.uk/mindfulness-for-tinnitus)

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Living with Tinnitus and Hyperacusis; (2010) McKenna, L. Baguley, D. McFerran, D. p108

## **Tell us what you think of this leaflet**

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact:

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## **Teaching, training and research**

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

## **Patient Advice and Liaison Service (PALS)**

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email [pals@york.nhs.uk](mailto:pals@york.nhs.uk).

An answer phone is available out of hours.

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