

# Sound therapy and tinnitus

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**How using sound during the day and at night can help you to manage your tinnitus. From white noise generators to wearable devices, we look at the different methods available.**

## Introduction

The use of sound to help manage tinnitus is very popular. It is called **sound therapy** or **sound enrichment**. Most people with tinnitus use sound in some way to ease their condition, either on its own or with other therapies.

The aim of sound therapy is to help alter your perception of your tinnitus or your reaction to it. Sound can either help distract you from the intrusiveness of your tinnitus or help your brain to become more used to it, and eventually able to ignore it. This is called **habituation**.

Sound therapy can be free or inexpensive and is safe to use. There are lots of different things to try, to find what works for you.

## What is sound therapy?

People who have tinnitus often notice that it is more noticeable and bothersome in a quiet environment, for example at night. Listening to other sounds can help to make it less intrusive or distressing. The deliberate use of sound in this way is called sound therapy, or sound enrichment.

As early as 1903, a physician called Spaulding used a piano to match the frequency of tinnitus in his patients. He increased the volume of the note until their tinnitus became inaudible to the patient.

In 1993, Jastreboff and McKinney introduced the theory of 'habituation of the disordered auditory system' and used low-level sounds to help improve a person's tinnitus.

Using sound continues to be a standard part of the 'toolbag' of tinnitus management strategies, alongside



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helping people understand more about tinnitus and managing the emotional reaction and stress associated with it.

## How does sound therapy work?

Some people believe that sound therapy causes functional changes in sensitivity in the hearing parts of the brain. Other people think that it acts as a psychological distraction or an aid to relaxation. It may be a combination of these things.

Sound therapy can be used as a self-help technique or as one element of a broader tinnitus management programme delivered with the support of a hospital or clinic.

Research has found that sound therapy plays a less important part than counselling in bringing about improvements in people's tinnitus. It is perhaps best to think of it as one tool amongst several you might use, rather than the only thing to try. This idea is backed up by the committee who produced the NICE tinnitus guidelines.

However, using sound therapy is one of the easiest practical things you can do for yourself.

## Types of sound therapy

Sound therapy can be provided by the environment around you (for example by having a window open) or played through:

- a CD or MP3 download or the radio
- a smartphone app
- bedside / table-top sound generators
- a wearable sound generator.

These can all provide natural sounds, 'white noise' or gentle music.

There are also hearing aids with sound generators which are available on the NHS in some areas.

The type of sound therapy suitable for you depends on your personal circumstances and your preferences. Most people get on best with a sound that doesn't demand too much attention and is pleasant to listen to.

## Environmental sound

Many people find that some background sounds, for example, distant traffic, the hubbub of a busy office, wind in the trees, or waves breaking on the seashore make their tinnitus less noticeable. At times, just opening a window may provide all the sound enrichment you need. Other alternatives could be a fan in the bedroom or a ticking clock.



## CDs and downloads

CDs of relaxing music and nature sounds are widely available. Many local libraries have them available for loan, so you can try them out.

A wide range of nature sounds can also be downloaded from websites to be played on MP3 players, mobile phones and other portable devices. Relaxing podcasts and online videos are also available. Many of these are free.

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If you have a smartphone, there are many apps which offer relaxing, natural or nature sounds. Many of these are also free.

Try out different sounds to find what works for you. If the sound of gentle rain or waves on a beach doesn't appeal, what about wind or a springtime dawn chorus? Listening to the sound of nature can have other benefits to your wellbeing too.

### **Bedside/table top sound generators**

These portable machines provide a choice of soothing sounds at the touch of a button. You can adjust the volume to suit your hearing. There is also a timer on them to switch off once you are asleep. Most can be run from either the mains or battery power.

#### **At night**

Having a pleasant, relaxing sound to listen to at night can help if you are having difficulty getting to sleep. If left on at a low volume, sound enrichment also provides a soothing distraction from tinnitus if you wake up in the early hours or if your tinnitus is noticeable first thing in the morning.

Some sound generators and most CD and MP3 players can be plugged into a pillow speaker or sound pillow, making the sound less audible to partners. Many people without tinnitus also enjoy listening to soothing sounds at night so this might not be an issue!

### **Wearable sound generators**

Wearable sound generators are sometimes also known as in-ear white noise generators. They used to be known as maskers. They look like small hearing aids and come in two types, either worn in the ear, or behind the ear.

They produce a constant white noise which is a gentle rushing sound similar to a radio tuned off-station (static).

Wearable sound generators should always be fitted by a tinnitus specialist as part of a tinnitus management programme. Many people prefer behind the ear sound generators, as they do not block the ear and impair the hearing. A sound generator worn around the neck is also available privately. This too generates white noise and does not block the ear. It does not need to be fitted by a tinnitus specialist.

### **Hearing aids**

If you have hearing loss, even if it is very mild, and you strain to hear, hearing aids are likely to be helpful. They provide a form of sound enrichment by giving you easier access to everyday environmental sound. Most people find they hear their tinnitus less when their hearing aids are switched on.

Hearing aids can be used together the sound therapy methods described here.

### **How to use sound to help your tinnitus**

The aim of sound therapy is to reach a point where the tinnitus is 'filtered out' most of the time by the brain, even though it may still be present. This is called habituation.

Habituation is probably best achieved if you use sound enrichment at a level that is a little quieter than your tinnitus most of the time.

Some people have used masking (playing a loud noise which drowns out the tinnitus) to give themselves a bit of relief. But this approach does nothing to encourage long-term habituation, and it can cause the tinnitus to appear louder when the masking is switched off.



## Will I need to use sound enrichment forever?

Most people find that using sound is useful whilst their tinnitus is intrusive but becomes less necessary as they habituate to their tinnitus.

People who use wearable sound generators usually use them only until they feel they can manage their tinnitus better. Bedside sound generators may no longer be necessary once a better sleeping pattern has been established.

## How do I get sound enrichment equipment?

Wearable sound generators and bedside sound generators may be provided by your Audiology or ENT Clinic as part of an individualised tinnitus programme. However, provision of equipment within the NHS varies from clinic to clinic.

Sound generators and pillows are widely available to buy from high street stores and online. Be creative in your search to find something you feel comfortable and relaxed with.

## Help and support

The Tinnitus UK Support Team can answer your questions on any tinnitus related topics:

Telephone: **0800 018 0527**

Web chat: **tinnitus.org.uk**

Email: **helpline@tinnitus.org.uk**

Text/SMS: **07537 416841**

We also offer a free tinnitus e-learning programme, Take on Tinnitus at **takeontinnitus.co.uk**

## References

The list of references consulted in the production of this leaflet is available on request.

## Alternative formats

This publication is available in large print on request.

## Feedback

We welcome feedback on all our information.

You can pass your comments to our Communications Team:

Telephone: **0114 250 9933**

Email: **communications@tinnitus.org.uk**

or by writing to us at the address on page 5.

## Tinnitus UK publications

*\*Available in Easy Read*

Our information leaflets are written by leading tinnitus professionals and provide accurate, reliable and authoritative information which is updated regularly. Please contact us if you would like to receive a copy of any of our information leaflets listed below, or they can be downloaded from our website.

### For adults:

*All about tinnitus\**  
*Complementary therapy for tinnitus: an opinion*  
*Drugs and tinnitus*  
*Ear wax removal and tinnitus*  
*Flying and the ear*  
*Food, drink and tinnitus*  
*Hearing aids and tinnitus\**  
*Hyperacusis*  
*Ideas for relaxation without sound*  
*Information for musicians*  
*Mindfulness for tinnitus*  
*Musical hallucination (musical tinnitus)*  
*Noise and the ear*  
*Otosclerosis*

*Pulsatile tinnitus*  
*Relaxation*  
*Self help for tinnitus\**  
*Sound therapy*  
*Sources of mutual support for tinnitus*  
*Supporting someone with tinnitus*  
*Taming tinnitus*  
*Tinnitus and disorders of the temporomandibular joint (TMJ) and neck*  
*Tinnitus: a parent's guide*  
*Tinnitus: a teacher's guide*  
*Tinnitus and sleep disturbance*  
*Tinnitus and stress*  
*Tinnitus services\**

### For children:

*Ellie, Leila and Jack have tinnitus (under 8s)*  
*Tinnitus (8-11 year olds)*  
*Tinnitus (11-16 year olds)*  
*Ellie, Leila and Jack have tinnitus activity book*  
*Tinnitus activity book (8-11 year olds)*  
*Tinnitus activity book (11-16 year olds)*



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