

## PATIENT INFORMATION

# SELF HELP FOR TINNITUS



# The Significance of Sound

(Taken from documents by Dr Jonathan Hazel, consultant ENT Surgeon and tinnitus expert.)

The significance of sound is of enormous importance. The 'auditory' or sound system is vital in animals because they are constantly in fear for their lives from attack by predators. They have the ability to develop extremely acute hearing by which they can detect even small sounds of an approaching attacker, like a twig breaking for example. This ensures the survival of the species.

The animal recognises these 'warning' sounds as threatening and it produces anxiety in the animal, ensuring that it quickly takes the appropriate action to avoid attack. Humans are the same. Some sounds are identified as warning signals, while others evoke a feeling of security or pleasure. Our normal daily experiences of this are things like a car horn which alarms us and alerts us to danger or soothing sounds such as music or the sea.

The auditory part of the brain has very large numbers of connections with another part of the brain called the limbic system. The limbic system is concerned with emotions and learning. Every sound that we hear and learn the meaning of gets an emotional 'tag' put onto it. The emotional tag may of course change if our feelings change. For example, the sound of a loud television may not have any particular emotion attached if it belongs to a loved relative, but it may be unpleasant and intrusive if it belongs to a neighbour we dislike. The limbic system is also the part of the nervous system that controls our fight or flight response. If we hear a warning signal, we need to react quickly. For example if we are about to cross the road when a car beeps we need to move out of the way quickly.

About 30% of people will experience tinnitus at some point in their lives, and around 1 in 7 adults in the UK live with persistent tinnitus (Tinnitus UK).

Not everyone who experiences tinnitus will find it intrusive, disturbing or anxiety provoking. This has nothing to do with the quality or loudness of the tinnitus. The main difference is that those who find it troublesome perceive it as a threat rather than an experience that is of little or no consequence.

## So What is Tinnitus?

Tinnitus is the medical term for any noise that is heard in one ear, two ears or the head that does not originate from our external environment. Although occasionally it may sound as if the sound is outside of the head. Tinnitus differs from person to person, but is often described as being a ringing or humming noise. Sometimes it may be like a tune or singing and sometimes it may be pulsatile (a noise beating in time with your pulse). Tinnitus UK (formally British Tinnitus Association) have a special fact sheet about this type of tinnitus.

Tinnitus is not a disease. It is not life threatening. It is very common, usually lasting for short periods of time, for example after going to a club with loud music or by listening in a quiet room. It is a naturally occurring phenomenon which affects about 90% of the population but it goes away quite quickly.

For every seven adults in the UK, one will have tinnitus. Tinnitus affects 7.6 million people in the UK – with 1.5 million of them having severe tinnitus (Tinnitus UK). Persistent tinnitus is often triggered or made worse by emotional events such as bereavement, stress or an accident. The auditory part of the brain focuses on weak signals which are part of normal ear function in most people. The brain usually chooses to ignore these noises as we do not really need to be aware of them. However, sometimes the brain's selectivity of what is an important noise and what is unimportant can be disturbed and unwanted sounds can start to dominate the brain.

This auditory part of the brain in effect has a volume control. Just like if you feel threatened, small sounds like a twig breaking or your own breathing sound very loud. They haven't got any louder than they were before, but your brain has decided to amplify rather than suppress the sound. The perception and loudness of tinnitus depends upon whether the brain amplifies or suppresses the tinnitus sound.

As we mentioned earlier, the limbic system of the brain attaches emotional messages to sounds. If we hear children laughing, it elicits a pleasant feeling. Sometimes with persistent tinnitus, the sound elicits a negative or anxious feeling. This in turn makes the limbic system active or more alert and can trigger a negative response to our own internal sounds (like that of our ears working for example). Tinnitus therapies aim to help the brain to accept the tinnitus as something that occurs naturally, and to suppress the noise rather than amplifying it.

### **So what can you do to make your tinnitus less intrusive?**

Actually there are a number of things that will help:

#### **❖ Regular exercise and Relaxation**

Many people find that regular exercise, or activities such as yoga help. Any activity that helps your muscles and your mind relax helps you to feel more relaxed and less anxious generally, and will also help you to feel less anxious about your tinnitus.

#### **❖ Try not to worry**

Try and gain a balanced feeling towards your tinnitus and try not to worry. If you are over anxious about the tinnitus this can elicit a negative reaction and cause the brain to view the sounds as threatening and thus make the brain more alert to the sounds

## ❖ **Avoid Silence**

Silence can sometimes make tinnitus seem louder. Try not to be in very quiet surroundings. When there are more external sounds, your auditory system concentrates on these more than the tinnitus sound

## ❖ **Sound Enrichment**

Using sounds to distract your brain away from the tinnitus is called Sound Enrichment. Such things as having a radio on when the room is quiet, for example at nighttime when you go to bed, can give your auditory system something else to listen to. It does not have to be loud, just enough to stop the room from being too quiet.

Tinnitus UK are partnered with Puretone, you can purchase Sound Therapy Machines and Under Pillow Speakers through Tinnitus UK (see contact details below)

You can also use your internet browser to search for other sound support, CD's, relaxation guides, YouTube videos or you can download Relaxation/ Mindfulness Apps for your Smart phone or Tablet.

Alternatively, you could ask your Smart Speaker to play you relaxing music, or a favourite soothing sound effect such as sea waves.

## ❖ **Cognitive behavioural therapy (CBT)**

How we think affects how we feel and how we behave; stressed thinking can lead to unhelpful thinking habits that can have a negative effect on how we feel and behave. This process can create a more negative reaction to tinnitus.

CBT can help to:

1. Increase understanding of how thoughts affect emotions and behaviours.
2. Identify any unhelpful thoughts, behaviours and emotions.
3. Learn how to develop more helpful thoughts, behaviours and emotions.
4. Generally reduce reactions to tinnitus and stress.

CBT does require your active involvement, time and practice and may not be right for everyone so please ask your audiologist or hearing therapist if you have any questions or would like more information.

## ❖ **Mindfulness**

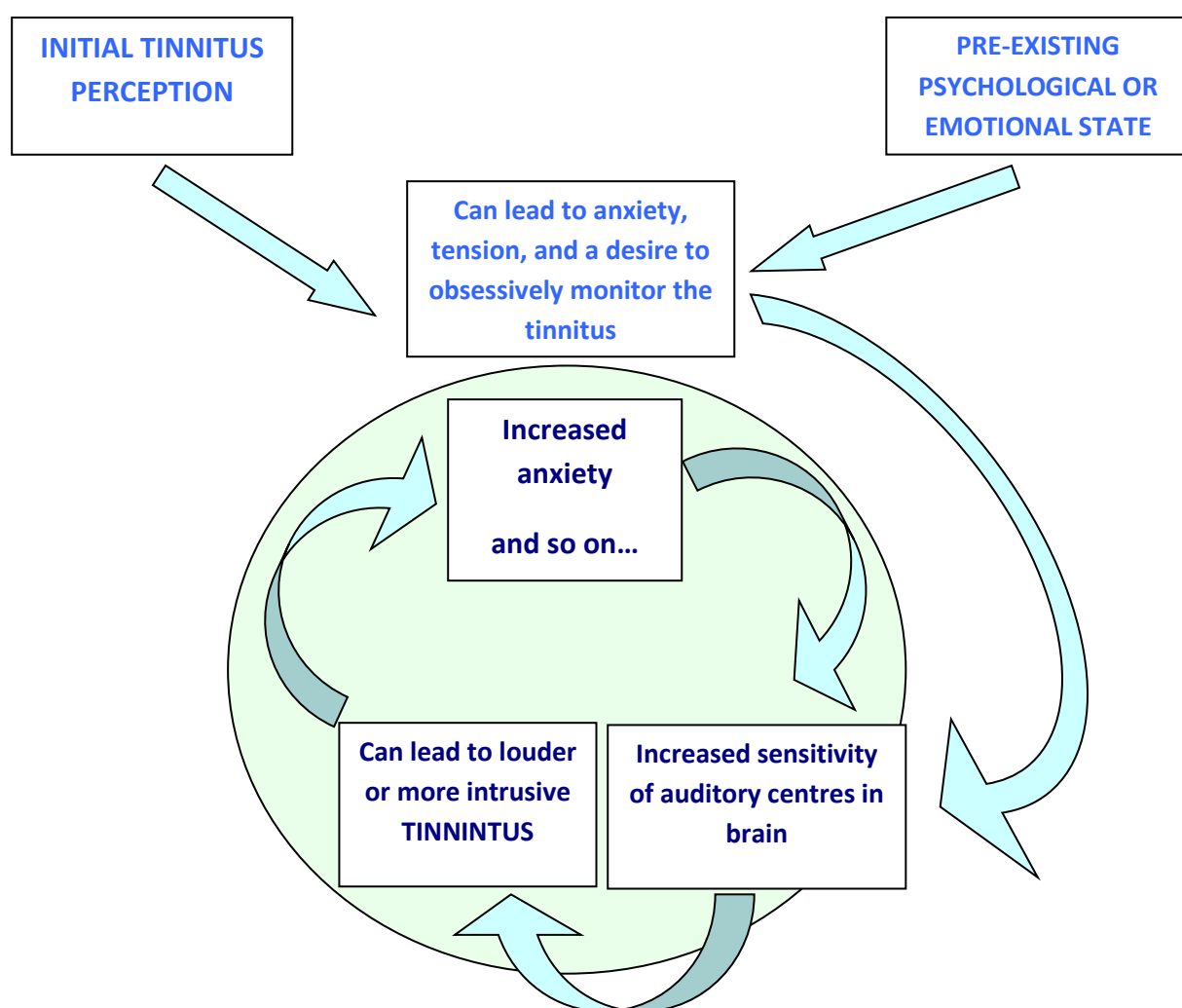
Mindful meditation involves relaxation and breathing exercises that help you to pay attention to the present moment; it can help you to become more aware of how you tend to respond to difficult things such as stress and your tinnitus. It has been shown to be helpful in changing how we react to things and whilst it may not

change the tinnitus itself it can help you change how you react to it reducing strong emotions such as anger, anxiety or frustration. There are courses online and there may be classes local to your area.

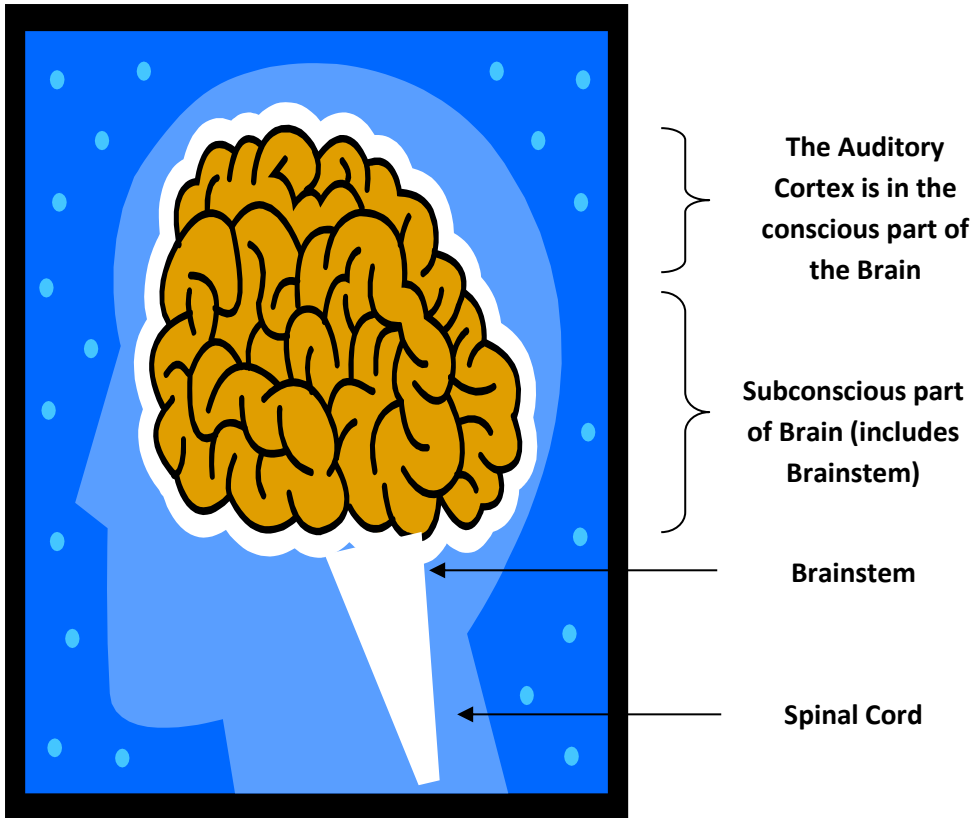
## ❖ Tinnitus Counselling

Is available countywide with our specially trained clinicians. If you would like more support have a chat to your GP or Ear Nose and Throat consultant about being referred to our audiology service.

### Tinnitus can sometimes be in a vicious circle



# Auditory Pathway



The neural messages then reach the Auditory Cortex in the conscious part of the brain, where the brain makes sense of the sounds



Part of our hearing occurs in the subconscious (we are unaware of this part)



Sounds enter the ear and travel up the auditory nerve to the Brainstem



**Tinnitus UK (formally the British Tinnitus Association) offer support and information:**

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

Free phone helpline: 0800 018 0527

### **Take on Tinnitus by Tinnitus UK**

Online Tinnitus Management Resource

On the web: <https://tinnitus.org.uk/how-we-can-help/take-on-tinnitus>

### **24Hr Mental Health Free Helpline**

Telephone: 0808 196 9127 or call NHS 111

### **Samaritans**

Telephone: 116 123

### **The contact details for Now We're Talking for Healthy Minds (formally IAPT) are:**

You can self- refer for talking therapies on the NHS and get help with conditions such as anxiety/depression/Obsessive Compulsive Disorder.

On the web: [www.healthyminds.whct.nhs.uk](http://www.healthyminds.whct.nhs.uk)

### **The Silver Line**

The Silver Line offer friendship, conversation, and support to older people aged 55 and over. Whatever the day or time, you can pick up the phone and speak to one of their friendly Silver Line team members.

Opening hours: 24/7

Telephone: **0800 4 70 80 90**

Website: [www.thesilverline.org.uk](http://www.thesilverline.org.uk)

### **The contact details for RNID (formally Action on Hearing Loss) are:**

On the web: [www.rnid.org.uk](http://www.rnid.org.uk)

Telephone: 0808 808 0123

Textphone: 0736 026 8988

**Contact details for the Birmingham and district tinnitus group:**

On the web: [www.tinnitusbham.org.uk](http://www.tinnitusbham.org.uk)

Online Enquiry form available

Meets 2nd Tuesday of February, April, June, August,

October and December at:

St Martin in the Bullring

Edgbaston Street

Birmingham B5 5BB

**How do I find out more?**

Please do not hesitate to contact us if you have any questions or queries:

**Worcester:** 01905 760171

**Redditch/ Bromsgrove:** 01527 505741

**Evesham:** 01386 502578

**Kidderminster:** 01562 826324/ 826323

**Text users:** 07786 334306/ 07436 035394/ 07808024894

**Website:** [www.worcsacute.nhs.uk/audiology](http://www.worcsacute.nhs.uk/audiology)

**Email:** [wah-tr.AudiologyHearingServices@nhs.net](mailto:wah-tr.AudiologyHearingServices@nhs.net)



**If your symptoms or condition worsens, or if you are concerned about anything, please call your GP, 111, or 999.**

### **Patient Experience**

We know that being admitted to hospital can be a difficult and unsettling time for you and your loved ones. If you have any questions or concerns, please do speak with a member of staff on the ward or in the relevant department who will do their best to answer your questions and reassure you.

### **Feedback**

Feedback is really important and useful to us – it can tell us where we are working well and where improvements can be made. There are lots of ways you can share your experience with us including completing our Friends and Family Test – cards are available and can be posted on all wards, departments and clinics at our hospitals. We value your comments and feedback and thank you for taking the time to share this with us.

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

If you have any concerns or questions about your care, we advise you to talk with the nurse in charge or the department manager in the first instance as they are best placed to answer any questions or resolve concerns quickly. If the relevant member of staff is unable to help resolve your concern, you can contact the PALS Team. We offer informal help, advice or support about any aspect of hospital services & experiences.

Our PALS team will liaise with the various departments in our hospitals on your behalf, if you feel unable to do so, to resolve your problems and where appropriate refer to outside help.

If you are still unhappy you can contact the Complaints Department, who can investigate your concerns. You can make a complaint orally, electronically or in writing and we can advise and guide you through the complaints procedure.

### **How to contact PALS:**

**Telephone Patient Services: 0300 123 1732 or via email at: [wah-tr.PALS@nhs.net](mailto:wah-tr.PALS@nhs.net)**

### **Opening times:**

The PALS telephone lines are open Monday to Friday from 8.30am to 4.00pm. Please be aware that you may need to leave a voicemail message, but we aim to return your call within one working day.

If you are unable to understand this leaflet, please communicate with a member of staff.