



Tinnitus summary

TINNITUS is pronounced either **ti-NIGHT-us** or **TIN-i-tus**. Both pronunciations are correct. The word is of Latin origin, meaning "to tinkle or to ring like a bell." Put simply, tinnitus is the perception of sound in the ears or head where no external source is present. Some call it "ringing in the ears" or "head noise."

Tinnitus is the perception of a sound that has no external source. In almost all cases, tinnitus is a subjective noise, meaning that only the person who has tinnitus can hear it. People describe hearing different sounds: ringing, crickets, whooshing, pulsing, ocean waves, buzzing, dial tones, even music. It can be constant or intermittent and is heard in one ear, both ears or in the head. Tinnitus can originate in the middle ear (behind the eardrum) or in the sensorineural auditory system.

Tinnitus is usually accompanied by hearing loss, and sometimes accompanied by loudness hyperacusis (when moderately loud sounds are perceived as very loud). Some 50 million adults suffer from tinnitus (it can also affect children). For 12 million, the problem is severe enough that it impacts their everyday life. Because tinnitus can be a symptom of a more serious disorder, it is important to have an appropriate health evaluation, from an audiologist or physician.

The Impact of Tinnitus

Tinnitus affects people differently. The most common areas in which tinnitus has a direct influence are:

- **Thoughts and emotions.** Some are annoyed, bothered, depressed, anxious or angry about their tinnitus. They think and focus on their tinnitus often.
- **Hearing.** In some, the sound of the tinnitus competes with or masks speech or environmental sound perception.
- **Sleep.** Many tinnitus sufferers report that their tinnitus interferes with them getting to sleep. It can also make it more difficult to get back to sleep when they wake up in the middle of the night.
- **Concentration.** Some tinnitus sufferers report that they have difficulty focusing on a task because of their tinnitus. This might include reading a book or the newspaper.

□ Stress+

The Treatment of Tinnitus

For most tinnitus sufferers, there is no cure. There is no pill or surgery that has been shown to eliminate tinnitus in scientific studies that have been replicated and accepted by the healthcare community.

There are some important exceptions to this. Some forms of tinnitus, particularly middle ear tinnitus, can be treated. Sometimes a medication can cause tinnitus, and stopping or changing medications can eliminate the tinnitus (check with whoever prescribed the medication).

There are several things you can do for yourself, and specific tinnitus treatment modalities you can do to lessen the impact of the tinnitus. The information on this website has attempted to mention the most well known and most helpful of these.

Educate yourself from this and other websites. Read books on tinnitus (or borrow some of the ones we have in our library). An important thing to do is find ways to decrease your stress levels. Stress makes tinnitus much worse so find what works for you—some examples are exercise, relaxation exercises, meditation, and being around people or doing activities that you love to do.

A tinnitus coordinator is available seven hours per week to answer your questions in person, by email, or by phone.

Can anything make tinnitus worse?

Exposure to loud noises, as mentioned earlier, can have a negative effect on your hearing and exacerbate tinnitus. Be sure to protect yourself with earplugs, earmuffs, or by simply not taking part in noisy events.

Some medications can make tinnitus worse. Tell all of your physicians—not just your ear, nose, and throat doctor—about all prescription and over the counter medications you are currently taking or have recently taken.

Many people find that alcohol, nicotine, and caffeine can worsen their tinnitus, as can eating certain foods. Some people find that foods with a high sugar content or any amount of quinine (tonic water) make their tinnitus seem louder. Monitor how you respond to different stimuli, and find a healthy balance where you do not eliminate all the foods that you love, but also where you do not unnecessarily exacerbate your tinnitus.

Finally, stress and fatigue can affect your tinnitus. Make time to relax, and understand that life events can manifest themselves in your body in the form of increased tinnitus. Of course, this is easier said than done.

What causes tinnitus?

There are lots of different causes. There are, however, several likely sources, all of which are known to trigger or worsen tinnitus. We know that tinnitus can be linked to:

- Noise-induced hearing loss - Exposure to loud noises can damage and even destroy hair cells, called cilia, in the inner ear. Once damaged, these hair cells cannot be renewed or replaced. Hearing loss can also be caused by excessive noise exposure. Coincidentally, up to 90 percent of all tinnitus patients have some level of hearing loss.
- Wax build-up in the ear canal - The amount of wax ears produce varies by individual. Sometimes, people produce enough wax that their hearing can be compromised or their tinnitus can seem louder. If you produce a lot of earwax, speak to your physician about having excess wax removed *manually*-not with a cotton swab, but by an otolaryngologist (also called an ear, nose, and throat doctor).
- Certain medications - Some medications are ototoxic-that is, the medications are toxic to the ear. Other medications will produce tinnitus as a side effect without damaging the inner ear. Effects, which can depend on the dosage of the medication, can be temporary or permanent. Before taking any medication, make sure that your prescribing physician is aware of your tinnitus, and discuss alternative medications that may be available. A list of the most common drugs affecting tinnitus is available from the tinnitus coordinator.
- Ear or sinus infections - Many people, including children, experience tinnitus along with an ear or sinus infection. Generally, the tinnitus will lessen and gradually go away once the infection is healed.
- Jaw misalignment - Some people have misaligned jaw joints or jaw muscles, which can not only induce tinnitus, but also affect cranial muscles and nerves and shock absorbers in the jaw joint. Many dentists specialize in this temporomandibular jaw misalignment and can provide assistance with treatment. Some chiropractors are trained to deal with this as well.
- Cardiovascular disease - Approximately 3 percent of tinnitus patients experience pulsatile tinnitus; people with pulsatile tinnitus typically hear a rhythmic pulsing, often in time with a heartbeat. Pulsatile tinnitus can indicate the presence of a vascular condition-where the blood flow through veins and arteries is compromised-like a heart murmur, hypertension, or hardening of the arteries.

- Certain types of tumours - Very rarely, people have a benign and slow-growing tumour on their auditory, vestibular, or facial nerves. These tumours can cause tinnitus, deafness, facial paralysis, and loss of balance.
- Head and neck trauma - Physical trauma to the head and neck can induce tinnitus. Other symptoms include headaches, vertigo, and memory loss.
- Certain disorders, such as hypo- or hyperthyroidism, Lyme disease, fibromyalgia, and thoracic outlet syndrome, can have tinnitus as a symptom.

When tinnitus is a symptom of another disorder, treating the disorder can help alleviate the tinnitus.

For many people with tinnitus, the cause isn't clear. They may never have experienced any of the things mentioned above.

Drugs and tinnitus

Is there a drug that can cure tinnitus?

As yet, there is no such thing as a 'tinnitus drug' or 'wonder drug' that can cure tinnitus. Tinnitus is caused by many different factors, none of which is fully understood. People also experience and react to their tinnitus very differently, so there is no single drug that is effective for everybody.

In recent years, researchers have been trying to identify why people get tinnitus and to find drugs that may help particular groups of people with the condition. Small-scale research trials have helped us find out something about drug treatment for tinnitus, but, so far, research has not found a drug specifically for all forms of tinnitus. Some drugs prescribed for other conditions may occasionally help. Unfortunately, they often have unpleasant side effects and so are not prescribed to treat tinnitus.

Sometimes, tinnitus is a symptom of another condition that you may be able to treat with drugs. For example, if you have an ear infection, antibiotics may help clear the infection, which may in turn also improve the tinnitus.

Habituation

Many people find that they are able to 'habituate' to tinnitus over time and that it gradually plays a less important role in their lives. Habituation is the term used to describe the brain's ability to ignore a stimulus – such as sound – over a period of time. For example, someone who has just moved to live near a busy road may find that they are very aware of the traffic noise. As time goes by the sound becomes less important to them and the brain learns to ignore it. This is habituation.

What is the relation between stress and tinnitus?

Research has shown that there is a strong link between stress and tinnitus. All sources of stress such as illness, bereavement, redundancy, divorce or exams can sometimes

be a trigger for tinnitus, or make it worse.

However, tinnitus affects people in different ways. Some people – though not all – find that it makes them feel stressed, tense, anxious and depressed, and have difficulty getting to sleep and staying asleep. These feelings are not always caused by tinnitus, but they can be made worse by it.

How can I manage stress with drugs?

Many people learn to manage stress without using conventional drugs but by using relaxation techniques, counselling, meditation or complementary therapies. Have a look at the Tinnitus, Stress and Relaxation; Tinnitus and Sleep; and Complementary Therapies sections may be helpful.

If you do feel that you need a little extra help, your doctor may prescribe sedatives, tranquillizers and antidepressants to help reduce anxiety.

- **Sedatives** have a calming effect and so can help sleep. They may also help people feel less anxious.
- **Tranquillizers** are particularly helpful in reducing anxiety.
- **Antidepressants** are mainly prescribed for improving mood and treating depression. They can also reduce anxiety and help sleep.

These drugs may be prescribed for a short time to help you through a difficult period or for a longer period, depending on your needs.

Tranquillizers and sedatives can be extremely dangerous when mixed with other drugs, including alcohol. Tranquillizers can be very addictive. It is important that you talk to your GP about any side effects these drugs might have before you take them.

Antidepressants and side effects

A number of antidepressants list tinnitus as a side effect, and some people have reported that antidepressants make their tinnitus worse. At present, there is not enough research to back this up either way, and it seems some people are more sensitive to them than others.

Occasionally, some people find that when they come off a drug they have been on for a long time, too quickly, their tinnitus may become worse. It may help to withdraw from the drug more slowly and it is important to discuss this with your GP. Research has shown this to be particularly true for some people taking the benzodiazepine group of drugs, which are used as tranquillizers or sedatives. **These groups of drugs should always be reduced gradually.**

Which drugs may cause tinnitus or make it worse?

Drugs that may be damaging to the ear or hearing are known as 'ototoxic'. There are

very few ototoxic drugs compared to the number of drugs available. Your GP will be able to talk to you about any possible side effects of drugs you have been prescribed. In many cases these drugs will be prescribed to save your life and this is likely to outweigh the risk of any side effects. You should be strictly monitored when you are prescribed ototoxic drugs.

Main ototoxic drugs

- **Aminoglycoside antibiotics** are powerful drugs used to treat very serious infections.

- **Cytotoxic drugs** are used to treat cancer.

- **Loop diuretics** increase the production of urine and are used to treat heart failure, high blood pressure and some kidney disorders. They are only likely to cause permanent damage to the hearing when used with other ototoxic drugs.

Some people with tinnitus think that it was caused by, or has been made worse by, a medicine they have been prescribed. Although a large number of drugs list tinnitus as a possible side effect, not everyone will develop tinnitus as a result of taking that drug. This is partly due to the way that the side effects of drugs are reported, but also because we all react differently to drugs.

It is worth remembering that even though a drug may cause someone else's tinnitus or make it worse, it may not have the same effect on your tinnitus. Even if tinnitus is listed as a side effect of a drug, this does not necessarily mean it is ototoxic. It could just be a coincidence that this seems to have happened at the same time that you started taking the drug. Also, the condition that you have been prescribed medicine for may be making your tinnitus worse, rather than the drug you are taking for it, particularly if your condition is making you anxious or stressed.

If you are concerned that a drug you have been prescribed is making your tinnitus worse, you can discuss this with your GP. You can ask about an alternative drug, which does not list tinnitus as a side effect. Sometimes, you will need to continue taking the drug even if it is making your tinnitus worse, as there may not be any alternative available. The tinnitus coordinator has a reference book listing drugs, herbs, and chemicals that can affect tinnitus and/or hearing.

Most common drugs reported to cause or worsen tinnitus

□ **Antimalarial drugs** – such as quinine and chloroquine. These are prescribed to prevent you getting malaria or to treat malaria. Although these can cause permanent damage to the hearing when taken in high doses, there is no evidence of permanent damage when taken in the low doses that are prescribed for malaria. They can give some people temporary tinnitus. If you are planning to travel to a malaria-infected area, you must talk to your GP or practice nurse about taking antimalarial drugs.

- **Anti-inflammatories** – taken to reduce swelling.
- Some **antidepressants** – used to treat depression.
- Some **antihistamines** – taken to prevent or reduce allergic reactions.
- Some **antihypertensives** – taken to lower blood pressure.
- **Aspirin** – taken to relieve pain and reduce fever. It is used in many medicines for colds, period pain, headaches and joint or muscular pains. It also helps blood clots from forming. It contains salicylate, which is an ototoxic drug.

Aspirin and tinnitus

If you have already got tinnitus, you may find that even a small dose of aspirin makes it worse. This does not happen to everyone and you may find taking a single tablet has very little effect. Nevertheless, some people are more sensitive to aspirin than others. If you think aspirin is making your tinnitus worse, speak to your GP to see whether an alternative medicine would be more suitable, particularly if you are taking aspirin as a painkiller. The effect of aspirin on tinnitus is usually reversible, which means that when you stop taking aspirin, your tinnitus should return to its previous level. However, aspirin may cause tinnitus to last longer if you take it over a long period of time, or in higher doses.

Therapies to help you with your tinnitus

- Counselling
- Cognitive Behaviour Therapy (CBT)
- Tinnitus Retraining Therapy (TRT)

Currently there is one Clinical Psychologist specializing in tinnitus and who uses counselling and CBT, and one practicing Audiologist who does TRT in the Calgary area.

Counseling

To talk to someone who has a specialist understanding of tinnitus, you really need counselling. Successful counselling is based on knowing the nature and causes of tinnitus and how to manage it. If you have tinnitus, counselling can help in several ways by:

- relieving your fears
- helping you understand your tinnitus, which can help you accept it
- showing you that tinnitus is a common complaint
- encouraging you to accept that most people eventually learn to live with their tinnitus – and ignore it
- showing you that your tinnitus can be managed quite effectively using simple

techniques.

Counselling may be given by a variety of professionals, including an audiologist, or a clinical psychologist.

Counselling is also an essential part of cognitive behaviour therapy (CBT) and tinnitus retraining therapy (TRT), which tries to reduce tinnitus distress.

What is cognitive behaviour therapy (CBT)?

CBT examines your thought patterns, beliefs and the way you do things, in order to understand why you react in certain ways. Therapy may be provided on a one-to-one basis or in a group session. The professionals most likely to offer and use CBT are clinical psychologists or psychotherapists.

How can CBT help me if I have tinnitus?

What you think about your tinnitus affects how you feel about it. The more attention you pay to your tinnitus, the worse you may feel. CBT can help you in a number of ways:

- It can teach you coping techniques to deal with negative feelings and distress.

Your thoughts and feelings can become more positive.

- By changing how you think about tinnitus and what you do about it, your distress is reduced, you start to tolerate the noises and they eventually become less noticeable.

What happens in a course of CBT?

You are usually asked to keep a diary of the times that your tinnitus noises are most annoying or distressing, making a note of the nature of the distress and any thoughts that go with it. For example, you might write: "Tonight I feel upset and scared about the cause of my tinnitus noises. I worry about my health". The therapist will help you look at the reasons behind your strong reactions to your tinnitus.

Your therapist will discuss your thoughts with you and suggest different ways of doing things. Throughout therapy, you are encouraged – and given help – to challenge your ways of thinking. A therapist will not try to force a set of beliefs on you, but will help you find the best way of approaching your tinnitus.

Group sessions

Sometimes, your therapist may suggest you participate in a group session. A group of you meets the therapist for a number of sessions. During these sessions, you are taught how to discover your hidden beliefs and how to challenge negative thoughts. The people in the group will have at least two things in common – they have tinnitus and they are upset by it.

What is tinnitus retraining therapy (TRT)?

TRT is based on the neurophysiological model of tinnitus developed in the late 1980s by Pawel Jastreboff and Jonathan Hazell. The neurophysiological model of tinnitus suggests that it is the limbic system – the subconscious part of the brain responsible for our emotions – that gives importance and meaning to the tinnitus signal.

According to this model, we perceive the tinnitus signal to be a threat or a danger and this provokes an emotional response. Our awareness of tinnitus is heightened and so

we perceive it to be louder or more persistent.

TRT is the term given to tinnitus treatment that combines counselling and low-level sound therapy. It does not work directly on your tinnitus, but on your awareness and understanding of it. In time, as your awareness of the sounds is reduced, you will only notice it when you focus on it. This is known as 'habituation' and is the ultimate goal of TRT. Results and their time-frame can vary from one person to another.

How does TRT work?

TRT works through a combination of two main elements – counselling and sound therapy.

Counselling

Counselling is a key part of TRT. In-depth explanations of how your hearing works will help you understand why you have tinnitus. Similarly, talking and learning about your hearing system can help you overcome your fears and make your tinnitus seem less threatening. This is all part of the habituation process.

Sound therapy

Your tinnitus may seem louder in quiet environments (for example, at night). Sound therapy works to make tinnitus less noticeable by reducing the contrast between tinnitus sounds and background sounds. It also helps your hearing system become less sensitive to the tinnitus. This can be achieved by wearing 'white noise' generators – these produce a soothing shhhh sound – and by using environmental sounds, for example, from CDs, cassettes or table-top sound generators. For more information, see Equipment, Sound Therapy, and Tinnitus.

If you have hearing loss, having a hearing aid fitted can help. The hearing aid will compensate for your hearing loss and provide sound therapy by making environmental sounds louder – this, in turn, can distract you from your tinnitus.

Therapy with a clinical psychologist

What does a clinical psychologist do?

Clinical psychologists work with people with psychological problems such as anxiety or depression. They help people understand the causes and effects of their problems and to reduce their distress.

You may be referred to a clinical psychologist if you are in a lot of distress because of your tinnitus. Psychologists help people with all types of problems and being referred to one does not mean that you are in danger of 'going mad'!

How can a clinical psychologist help me if I have tinnitus?

The clinical psychologist may offer strategies to help you cope better with the effects of tinnitus. These could include:

- helping you recognize and assess how tinnitus is affecting you
- offering therapies to help with anxiety or depression
- using cognitive therapy – changing your thoughts and beliefs about tinnitus
- suggesting relaxation and imagery exercises
- counselling

- hypnosis
- finding ways of improving your sleep and your social environment in order to reduce the negative effects of your tinnitus.

You may see a clinical psychologist on a one-to-one basis or in group therapy sessions with other tinnitus patients.

Equipment, sound therapy and tinnitus

What are sound and noise generators?

Sound and noise generators are devices that make soothing sounds to distract you from your tinnitus. They can therefore help you manage and live with tinnitus and hyperacusis (sensitivity to noise). Using sound in this way is sometimes known as 'sound enrichment' or 'sound therapy'.

Sound enrichment is a vital part of Tinnitus Retraining Therapy (TRT). You can read more about TRT in Therapies to help you with your tinnitus.

What types of sound and noise generators are available for people with tinnitus?

Wearable noise generators

Wearable noise generators look like – and are worn like – hearing aids. There are several types available:

- In-the-canal (ITC) models that fit inside the ear canal.
- In-the-ear (ITE) models that sit at the entrance of the ear canal.
- Behind-the-ear (BTE) models that are worn behind the ear. Sound reaches the ear via a plastic tube and ear mould.
- Combination instruments that are combined hearing aid and noise generators.
- A noise generator "shoe", an attachment on certain models of hearing aid, that makes a combination instrument.

Wearable noise generators have been known by various names in the past, including tinnitus maskers, white noise generators, wide band noise generators, or blockers. All produce a soothing shhhh sound known as white noise or pink noise. Pink noise is slightly richer and less shrill than white noise. Both types consist of a mix of high, middle and low sound frequencies.

Some specialists recommend wearing the generators for a few hours each day and at times when the tinnitus is particularly troublesome. Other specialists think that people who use noise generators should wear them all the time when they are awake.

If you wear the generators often, they will increase the chances of 'habituation' – the gradual process whereby, over time, you become less aware of your tinnitus and eventually only notice it when you consciously focus on it.

Your audiologist should be able to provide you with further advice on whether or not one might be suitable for you.

In the past, wearable noise generators were set at a level that was so loud it blocked out the tinnitus. Nowadays, they are set at a level that is either just below or at the same

pitch as your tinnitus.

Where can I get them?

You can get ITE and BTE models, combination instruments and 'shoes' from Audiologists and Hearing Aid practitioners who are trained for this.

They can be expensive. If you are thinking of buying one, look for someone that offers you a trial period of at least 30 days. This will give you time to test out the noise generator in a wide range of settings to make sure it will benefit you.

Bedside or desktop noise generators

Bedside or desktop noise generators have a built-in speaker and/or plug-in headphones, a speaker that goes under your pillow, or an ITE receiver. These noise generators give out a range of soothing sounds such as light rain, a waterfall, a bubbling stream or birdsong. With some models, you can buy a range of additional sounds.

Pillow speakers

Pillow speakers do not actually generate sound themselves – instead, you connect them to a sound source of your choice such as a cassette, DVD or CD player, radio, stereo or television. You slip the pillow speaker under your pillow and you can then listen to your choice of sound without having to wear headphones or earphones. As the sound comes through the pillow, it will not disturb other people as long as you set the volume at the right level.

If your bedside clock radio has a sleep/snooze button, you can plug the pillow speaker into it and listen to it until it turns itself off. This means you can go to sleep without leaving the radio on all night. Pillow speakers are not designed to go under the mattress.

The Sound Pillow is a pillow with stereo speakers contained inside. You can connect it to any sound source and listen to the sound of your choice.

Can I use ordinary household equipment to help manage my tinnitus?

Yes. For example:

- Fans
- Radios
- Personal cassette, CD's and Mp3 players

Fans

Desktop fans usually make a whirring sound as their blades spin and they vibrate on whatever surface they are sitting on. Quite often, the cheaper the fan, the louder the noise!

Radios

A radio that is tuned off-station on FM creates a shhhh-type noise that is similar to white or pink noise.

Personal cassette, CD and MP3 players

Personal cassette, CD and MP3 players direct sound into the ears through headphones or earphones. Used at sensible volume levels, they are perfect for sound enrichment. You can also use them to play white/pink noise or relaxing sounds.

Are there special CDs and cassettes to help with tinnitus?

Yes. You can listen to relaxation CDs and cassettes of soothing sounds such as the sea or other sounds of nature. Talking books can also be a relaxing and enjoyable way of taking your mind off your tinnitus. Look for cassettes in bookshops, record shops and occasionally health or 'New Age' shops. There are CD's created specifically for tinnitus (an example is the set created by Petroff Audio Research)

Water fountains

The sound of running water can be very soothing and can help distract you from your tinnitus. Try installing an indoor fountain in your home.

Tinnitus, Stress and Relaxation

What is the relation between tinnitus and stress?

Most people have some stress in their lives – it is almost unavoidable. Although it is unlikely that stress can actually cause tinnitus, we do know that it can make it worse. Many people notice their tinnitus more when they are worried or tired, which may increase stress and anxiety levels further, triggering a cycle of stress and worry. Learning to relax will help you break this cycle. As you become calmer and more relaxed, you will be better able to manage your tinnitus. Here are some simple tips and ideas to help you manage stress.

What can I do to reduce stress?

Although tinnitus can sometimes be distressing, it is not life-threatening. You may not be able to get rid of tinnitus completely and you may still be able to hear it if you are listening for it. However, the tips and ideas here are designed to help you make your tinnitus less noticeable. One of the ways you can do this is by reducing stress.

Some of the things you could try in order to reduce stress are:

- complementary therapies
- sound therapy
- improving your general health
- learning to relax in different ways.

Which complementary therapies are best for tinnitus?

There is no clear-cut answer to this question. What helps some may be of no benefit to others. You may even find that some people question whether complementary medicine has any role at all in tinnitus management.

However, there is very little conclusive evidence to prove or disprove the usefulness of any particular therapy, but it is thought that each works by helping you relax and sleep. If a therapy works for you – use it. But be wary of leaping from one type to another in the hope of finding the 'miracle cure'. Repeated disappointments will not be good for you or the tinnitus.

Before you begin any course of complementary therapy, you should consult your GP. If necessary, they will refer you to a specialist who can explore your condition in full. Some complementary therapies should be avoided if you have other medical conditions. Your GP will be able to advise whether the type of therapy you are considering would be suitable for you. **Also, make sure you use a qualified practitioner who is registered with the relevant professional body.** For more information about complementary therapies, see Complementary therapies and tinnitus.

What is sound therapy?

Many people find that they are more aware of tinnitus in quiet environments. In these, tinnitus sounds may seem louder and are more likely to become a problem. For this reason, many people find it helpful to avoid silence.

Sound therapy – or sound enrichment – works by filling silence with therapeutic sounds. It involves listening to background sound such as:

- recordings of nature sounds such as the sea or a woodland glade
- the television
- music
- a sound generator

Having these background sounds may help to distract you from listening to tinnitus and reduce the contrast between the tinnitus and silence. This will make the tinnitus seem less noticeable. Try not to use the sounds to ‘mask’ tinnitus, because this will make it more difficult for you to cope with tinnitus in the long run.

Sound therapy can be used in many situations – for example, during a daily relaxation session, at bedtime, or while driving.

Can improving my general health help with tinnitus?

Yes. Ensuring you have a well balanced diet with regular exercise will help your overall wellbeing and give you a more positive outlook. Your GP can give you advice about exercise and improving your diet. For example, some people find that reducing their caffeine intake (by drinking less coffee, tea, chocolate and cola) helps their tinnitus. If you sleep poorly because of tinnitus, try not to worry about being awake. The more you worry, the more difficult it will be for you to get back to sleep. For more information, see Tinnitus and Sleep.

What are the different ways to relax?

Relaxation tapes

Listening to relaxation CDs and CDs of soothing sounds such as the sea or other sounds of nature may help tinnitus. Talking books can also be a relaxing and enjoyable way to take your mind off tinnitus. You can buy these kinds of CDs in bookshops, music

shops and some health shops, or try your local library. Several organizations have also produced CDs specifically for people with tinnitus. There are also tapes and CDs which will talk you through a relaxation process.

Relaxation exercises

Simple relaxation exercises can help relieve tension in your body. You can learn how to do these exercises from books, CDs or relaxation classes. You do not need expensive equipment or a special place to practice relaxation. If you are patient and gentle with yourself, you, and the people around you, will soon benefit.

When you are relaxing, the following changes take place:

- **Physically** your muscles let go of tension so that toxins can be cleared from your blood stream. Your breathing becomes more even. Your blood pressure drops and your heart beats more regularly and slowly. Other organs, including the brain, slow down their activity.
- **Mentally** you actually decrease your response to any type of symptom, including tinnitus. Concentration and decision-making become easier because you are mentally refreshed.
- **Emotionally** you feel 'quieter', calmer and more confident because it does not take so much effort to cope with things. You feel able to take life as it comes without over-reacting. After a period of relaxation, many people find that they can get things back into perspective and the difficulties, which they had perceived as huge, shrink back to their right proportions.

By learning to relax, you are taking an active part in controlling tinnitus. Although relaxation may not reduce the tinnitus, it can change your response to it and will help you deal with it.

The tinnitus coordinator has a copy of a six-lesson course in relaxation exercises. For a copy, email her at sylvia.bird@dhhs.ca

How do I manage tinnitus if I'm severely or profoundly deaf?

Your ENT doctor or some audiologists will be able to discuss the options available to help you manage stress.

You may like to try learning relaxation exercises from a book or class, or see whether complementary therapies can help you relax and sleep.

Tinnitus and Sleep

How common is sleep disturbance?

Sleep disturbance affects almost everyone at some stage of their lives and mild sleep disturbances are very common. 'Insomnia' can be described as the disturbance of your normal sleep pattern – either due to difficulty getting off to sleep, or waking up intermittently after only short periods of sleep, or consistently waking up very early. All may result in daytime fatigue.

What is the normal pattern of sleep?

A normal night's sleep includes several stages from light to deep sleep. The normal pattern also includes several 'awakenings', the first after a few hours' sleep. Natural awakenings are usually forgotten by the morning, but if a person worries about his or her tinnitus during them, they will last longer.

Does tinnitus affect sleep?

It depends. Although a large number of people experience tinnitus, most of them are not troubled by it. About half of the people who are troubled by their tinnitus sleep poorly, but the other half sleep very well. How loud the tinnitus is, or what it sounds like, does not seem to make a difference to whether it troubles people or not. Everyone responds to tinnitus in their own way, and this includes sleep.

Can tinnitus wake me up?

This is possible. However, it seems most likely that tinnitus does not actually wake people, but is the first thing that a person is aware of when a natural awakening occurs. This can create the impression that it was the tinnitus that woke them.

Do sleep patterns change with age?

Yes. As people grow older:

- they may need less sleep at night time
- they have more awakenings
- their sleep becomes lighter and more fragmented so they may nap during the day.

Most people get about seven or eight hours of sleep a night, but there is an enormous range in sleep times. If you are concerned about your general sleeping pattern, you should discuss it with your GP.

What are some tips for a good night's sleep?

- Try relaxation exercises. They can be extremely helpful for troubled sleepers, and classes and tapes are widely available. Practice during the day and find a short exercise to try when you are in bed.
- 'Wind down' for at least an hour before bedtime – have a warm bath, a milky drink, or listen to some relaxing music. This helps to draw a line between daytime and bedtime and will help you get ready for sleep.
- Go to bed when you feel sleepy, not just because it is a certain time.
- Try to lower your intake of caffeine (for example, in tea, coffee, cola) and nicotine during the evening. Both are stimulants that will help keep you awake.
- Try regular exercise. Fit people tend to sleep better. But avoid exercising too close to bedtime.
- Introduce some gentle sound into your environment, such as an electric fan, soft

music (via a CD player or radio) or a clock with a prominent tick.

□ A 'bedside noise generator' or 'tinnitus relaxer' placed on your bedside table may be helpful as it will omit a variety of soothing, calming nature sounds that can help you relax and distract you from your tinnitus.

□ Try to avoid over-stimulating your brain in the hour before bed time. Reading, watching television or surfing the internet should be done earlier in the evening rather than just before bed time.

□ If you have particular worries, set aside an amount of time earlier in the evening – say half an hour – to think about how to resolve your problems. Write your ideas down. Try not to think about them as you are trying to get off to sleep.

□ Get up at the same time each day – even at weekends. This is one of the most important things you can do to improve sleep. Try not to sleep in the day or to catch up on lost sleep, as this does not improve sleeping patterns.

Be aware:

□ Alcohol may help some people to get off to sleep initially, but it has been found to suppress an important stage of sleep. Alcohol should not be used as a means to get off to sleep. It may cause you to wake sooner and you may experience more trouble getting back to sleep.

□ Over-the-counter medicines to help you sleep may have a similar effect to alcohol. Herbal remedies and natural healthcare products may be beneficial to some people.

□ Trying to force sleep may be counter-productive. Simply resting in bed may be beneficial.

□ Eating just before bed time or during the night is not a good idea as it will boost your energy level and you may feel more alert as a result. If you are more alert your tinnitus perception may be increased. Your body may come to expect food at these times every night.

□ Napping during the day may result in reduced night time sleep.

□ If you are too hot or too cold in bed you are more likely to wake during the night, so think about room temperature and the bedding you use. If your mattress is uncomfortable, this may also cause you to wake more easily.

Complementary therapies and tinnitus

Which complementary therapies may help if you have tinnitus?

There is very little conclusive evidence to prove or disprove the usefulness of a particular therapy in relation to tinnitus. However, it is thought that they work by helping you relax – which, in turn, can help with your tinnitus. Different therapies suit different people and what works for one person may not work so well for another. It is very much a case of ‘try it and see’. Try not to pin all your hopes on the success of a complementary therapy. The therapy you choose may not work directly on your tinnitus – but it may help to alleviate the stress and anxiety associated with the condition. Below is a list of some of the complementary therapies that are more widely available. By providing this list, we are not recommending one therapy over another. These therapies have been chosen to give you an idea of the range of complementary medicines that can be used as part of tinnitus management. They include:

- Acupuncture
- Aromatherapy
- Chiropractic
- Herbal medicine
- Homeopathy
- Hypnosis and hypnotherapy
- Naturopathy
- Craniosacral Therapy
- Reflexology
- Shiatsu

Why do some people choose complementary therapies?

Complementary therapies, also known as ‘alternative therapies’, are now widely accepted and used by many people. Complementary practitioners aim to treat you holistically – that is, to work with you as a whole person. As well as working on the symptoms of your condition, they may ask you about your emotional, physical and mental wellbeing to find out if these are affecting your health.

Tinnitus and stress

Complementary therapies may help you relax and get to sleep more easily. Alleviating sleep problems may reduce any stress you are experiencing. There is a strong link between tinnitus and stress. Muscle tension, anxiety and a range of other emotional responses that can be triggered by stress could make your tinnitus worse. An increase in stress could create a tinnitus-stress cycle, with each one making the other worse. See Tinnitus, Stress and Relaxation and Tinnitus and Sleep for more information. Many practitioners of complementary therapies spend time talking to you about your symptoms (such as tinnitus) and aim to build a good relationship with you. This can have a positive effect in itself, as talking about your tinnitus to a sympathetic listener is often therapeutic. Overall, you may gain a sense of control over your tinnitus.

What should I do before starting complementary therapy?

Before you start on a course of complementary therapy:

- Talk to your GP about the therapy you are thinking of starting. This is particularly important if you are already taking any prescribed medications or undergoing other treatments.
- Make sure you use a qualified practitioner who is registered with the relevant professional body. A good practitioner should be happy to work alongside any treatments arranged by your GP to help you manage your tinnitus.

Will I have to pay for complementary therapies?

You will usually have to pay for treatments yourself. It's also important to remember that you may need a whole course of treatments, rather than just one appointment.

Acupuncture

Acupuncture is an ancient Chinese therapy. It uses very fine needles, which are inserted into precise points on your body. The most you will feel is a sensation as the needle goes into your skin.

Acupuncturists believe that the body has a life or energy force – qi – which flows through your body in channels, called meridians. Each meridian is associated with a particular organ. The chronic over- or under-activity of any of these meridians is thought to cause a particular organ to work less effectively, resulting in illness or certain symptoms. Acupuncture works by stimulating your body's own healing responses and through the release of endorphins (our body's natural pain killer) which can relax you and help to bring your body back into a state of balance.

Aromatherapy

An aromatherapist uses a range of essential plant oils to help relax you, restore your emotional wellbeing, increase energy levels and reduce your stress. The oils are diluted – they can irritate your skin in their natural form – and are normally massaged into your skin. You can also use them in baths or inhale them.

You should get professional advice before using any essential oils, especially if you are pregnant or have any other medical condition, such as asthma or skin allergies.

Chiropractic

A chiropractor diagnoses and treats conditions linked to problems of the spine, which can lead to irritation of the nerves that control your posture and movement. Chiropractors use their hands to adjust and manipulate stiff joints and tight muscles, especially those of the spine. This helps realign the spine and other joints, and helps to restore nerve function, reduce pain, improve mobility and promote health and feelings of wellbeing.

Chiropractic may be used to treat arthritic and rheumatic conditions, whiplash or sports injuries, and their effects on the nervous system.

Herbal medicine

Herbal medicine or herbalism involves using plants to prevent and treat illness. The herbalist aims to treat both the symptoms and the underlying cause of your condition. They prescribe herbs in different forms including tablets, powders and ointments. You can choose between Chinese or Western herbalism.

Ginkgo Biloba

You may have read about the herb ginkgo biloba and its effects on tinnitus. Although there is anecdotal evidence that ginkgo biloba can help some people with tinnitus, clinical trials have been inconclusive.

Homeopathy

Homeopathy aims to help the body heal itself. It is based on the principle that symptoms are the body's defences in action and need to be encouraged to develop and not be suppressed. When deciding on a treatment for you, the homeopath aims to find a remedy, which in high doses would produce symptoms similar to those of your condition. You then take this remedy in a very diluted form.

Hypnosis and hypnotherapy

Hypnosis is a state of intense relaxation and concentration. When you are hypnotized, you are not asleep or unconscious. It is thought that your mind becomes remote and detached from daily cares and concerns, and that the subconscious part of your mind responds creatively to any suggestions.

Hypnotherapy uses hypnosis as a treatment. It can help you focus on things you wish to change and on the best ways to do it. There are two main types:

- **Suggestion therapy** is generally used to treat simple problems, such as smoking and nail-biting. You will probably need one or two sessions of treatment.
- **Analytical therapy** is based on the principle that every effect or symptom must have a cause. It is usually a long-term treatment, where the hypnotherapist builds a relationship with you and helps you look at and get rid of the 'subconscious' cause of your condition. By doing this, they hope to reduce the severity of your symptoms.

Naturopathy

Naturopathy is a distinct, integrated system of primary health care offered by licensed physicians. It consists of diagnosis, treatment, and prevention of human disorders by the therapeutic use of natural methods and materials. These might include Clinical Nutrition, Herbal Medicine, Homeopathy, Naturopathic Manipulation, or ancient medical systems like those of China or India.

Craniosacral therapy

Craniosacral therapy is similar to cranial osteopathy. It aims to treat any imbalances in your brain, spinal cord and the fluids that surround them, using gentle touch. Craniosacral therapy helps your fluids and related soft tissue move naturally and so helps your body heal itself.

Reflexology

Reflexology works on the principle that points on your feet represent energy pathways to different parts of your body. Blockages in these energy pathways are thought to lead to illness or imbalance. By working on particular points on your feet, the reflexologist aims to clear these blockages.

Shiatsu

Shiatsu is a traditional Japanese treatment. Shiatsu practitioners believe that a vital energy – ‘ki’ – flows throughout your body in a series of channels called meridians. For many different reasons, the ki can stop flowing freely, which results in illness or symptoms of an illness.

The shiatsu practitioner gently holds and presses on your meridians with their palms, thumbs, fingers, elbows, knees and feet. When necessary, they may use more vigorous stimulation. It is thought that shiatsu works by stimulating your circulation and helping to release toxins and deep-seated tensions in your body.

Living with someone who has tinnitus

What does tinnitus sound like?

Tinnitus sounds can take a variety of forms such as buzzing, ringing, whistling, hissing or a range of other sounds. For some people, it can even sound like music or singing. Sometimes people only notice these sounds when it is very quiet, such as at night. Other people find that they are much louder and can intrude on everyday life. Sometimes the tinnitus noise can beat in time with a person’s pulse. This is called pulsatile tinnitus.

DHHS has a CD available that has many of the sounds of tinnitus on it. This CD was produced by the American Tinnitus Association so that family members could become aware of what the individual with tinnitus lives with every day.

What can trigger or aggravate tinnitus?

There are many different factors. We know that tinnitus can be triggered or aggravated by one, or a combination, of the following:

- exposure to loud noise
- hearing loss
- ear or head injuries
- some diseases of the ear
- ear infections
- emotional/psychological stress
- side-effects of medication.

Many people with tinnitus have never experienced any of the above and don’t have a hearing loss. There are several theories and continuing research as to what happens when a person has tinnitus. See Tune out tinnitus.

Does tinnitus cause the same difficulties for everyone?

No. Everyone responds to tinnitus in their own way. Two people who both have tinnitus

at the same 'loudness' might react to it very differently. One person might find it completely manageable, while another might find it highly distressing. Like pain, tinnitus causes different reactions in different people, and is very hard to compare and measure. However, any difficulties your partner might face fall into two categories:

- psychological/emotional difficulties
- practical difficulties.

These difficulties are often at their worst when a person first develops tinnitus, although they can be experienced at any stage. Over time, and with your support, all these difficulties can be managed and often overcome.

What psychological and emotional difficulties might my partner face?

Although reactions to tinnitus vary from person to person, the most common (listed alphabetically) can include:

- **Anger.** Your partner may feel angry that they have got tinnitus. As with other conditions and illnesses, they may feel a sense of unfairness or victimization summed up by the phrase, 'Why me?'
- **Anxiety/fear.** Tinnitus can cause anxiety by its constant presence. It can also make people anxious about their physical and mental health. Your partner may fall into a common cycle whereby their anxiety and tinnitus make each other worse. They may also fear that their tinnitus is a symptom of another illness, or that it will affect their quality of life.
- **Depression.** Depression can be an emotional consequence of many long-term physical conditions and illnesses. However, the nature and origin of depression can be complex and may have causes other than the tinnitus alone.
- **Guilt/self-blame.** Your partner may feel guilty about being unable to cope with their tinnitus or about the strain it puts on marital/family relationships. The knowledge that tinnitus is not life-threatening can also be a source of guilt – your partner might think, 'How can I fail to cope with something like this when some people have to cope with more serious illnesses?' Your partner might also think their tinnitus is self-inflicted and blame themselves – for going to a loud music concert, for example, or allowing themselves to get so stressed at work (thereby, in their minds, 'bringing on' their tinnitus, or making it worse). Such self-blame can be an additional source of guilt. Other reactions to tinnitus can include:
 - **Confusion.** Your partner may feel confused as to how they developed tinnitus, saying such things as 'But my hearing is fine' or 'But I never go to nightclubs'. This is a common reaction, especially as tinnitus can develop for no apparent reason.

- **Feelings of loss.** Your partner may react this way if they used to place great value on silence. Feelings of loss can also deepen frustration.
- **Frustration.** Your partner may feel frustrated that they cannot 'escape' their tinnitus or get rid of it. This frustration might make them feel irritable and give them 'a shorter fuse' than usual. They may also feel frustrated that there is, as yet, no cure for tinnitus.
- **Isolation.** Your partner may feel isolated and lonely because they feel that nobody else understands what they are going through – or that nobody else is going through anything similar.
- **Stress.** Your partner may find that their tinnitus makes them feel stressed, which makes their tinnitus more noticeable.

Your partner may experience all of these reactions, some of them, or none of them. They may have reactions that are not listed above. There is no right or wrong way to respond to tinnitus – all reactions are personal and therefore valid. What is crucial is that you accept and respond sensitively to whatever your partner may be feeling.

What can I do to help?

Practical help

Perhaps the single most important thing you can do is to encourage your partner to visit their GP, who will check that your partner's ears are free of wax and infection. The GP may refer them to the ear, nose and throat (ENT) doctor. An ENT consultant will be able to give you and your partner advice and information about tinnitus, including possible causes.

If your partner's GP does not refer them and the tinnitus does not get any better, encourage them to return to their GP and ask for a referral.

The ENT consultant may arrange for your partner to have a magnetic resonance imaging (MRI) scan or a computerized tomography (CT) scan. These are normally done to make sure that the tinnitus is not a symptom of an underlying illness. MRI and CT scans are precautionary, routine and painless. They do not indicate that the consultant believes that something is seriously wrong with your partner. However, they can be noisy, so it would be worth your partner inquiring whether earplugs or earmuffs are available.

If they find the cause of the tinnitus is not a tumor, ear wax, or an infection, they may suggest a range of different treatments, including counselling, sound enrichment, tinnitus retraining therapy (TRT), cognitive behaviour therapy (CBT) and relaxation. It is important you know that this is suggested because they know how the brain works and these therapies can assist the brain to perceive the tinnitus differently.

If your partner has some hearing loss in addition to their tinnitus, you could encourage them to consider getting a hearing aid. Many people have found hearing aids to be helpful in dealing with tinnitus because they amplify surrounding noise and 'distract' the

brain from the tinnitus sounds. If your partner has been referred to a tinnitus clinic, this will be considered as part of the treatment process

Emotional help

Your partner may find that visits to their GP, ENT consultant or Audiologist make them feel anxious. For this reason, you could offer to accompany them or meet them before or after their visits. A little moral support can go a long way. Even if your partner chooses to go alone, offering to accompany them is a good way to show your care and concern.

It is likely that your partner will be given a great deal of information at these visits, not all of which they remember. If there are two of you present, you are likely to come away much better informed. You will also find out how you can best help your partner by understanding more about tinnitus yourself.

On a day-to-day basis, it is vital that you are always supportive and understanding, irrespective of whether your partner has just developed tinnitus or has lived with it for some time. Simply allowing your partner to speak freely about their difficulties can bring them enormous relief and may even make their tinnitus seem 'quieter'.

Although you might feel a natural urge to 'be positive' or 'cheer your partner up', contradicting or denying what your partner is feeling – with phrases such as 'Don't be so negative' – is not always the best approach. Such responses, however well meaning, can unintentionally deepen the isolation and frustration your partner might be experiencing. You may find that sympathetically accepting what your partner says is the best way to 'validate' and respect their feelings.

On the other hand, it is probably best not to ask them about their tinnitus all the time, as this will keep drawing their attention to it. Try to keep a balance and ask them how you could help them.

You may also wish to explore the option of private counselling for your partner. Be sure to look for a counsellor who is fully qualified and registered. It may help if the counsellor has some knowledge of tinnitus and its effects on people. Currently there is one psychologist in Calgary who specializes in tinnitus and also has a series of classes for individuals with tinnitus.

What practical difficulties might my partner face?

Despite the variety of responses to tinnitus, evidence shows that some people do experience similar difficulties, including:

- difficulty sleeping
- difficulty relaxing
- difficulty with sound sensitivity (hyperacusis).

Difficulty sleeping

About half the people who are troubled by their tinnitus sleep poorly. The other half

sleep very well. How loud the tinnitus is, or what it sounds like, do not seem to make a difference to whether it troubles people or not. The degree to which tinnitus disturbs sleep depends on how that particular individual responds to their tinnitus.

What can I do to help?

If your partner is one of those who does have trouble sleeping, you could suggest they try relaxation exercises to 'wind down' properly before going to bed. You could also suggest they try a bedside noise generator, which produces soothing sounds to distract them from listening to the tinnitus and help them get to sleep. For more information, see Tinnitus and Sleep and Equipment Sound Therapy and Tinnitus.

If your partner has difficulty sleeping because of their tinnitus, and you share the same bed, you might find that your own sleep is disturbed. Your partner may be restless, for example, or get up frequently during the night. They might also like to fall asleep with a television or radio on, as external noises can be a welcome distraction from their tinnitus and help them relax. If such noise is a problem for you, you could buy your partner a pillow speaker. These are 'private' noise generators that can provide relief for your partner without disturbing your own sleep.

If you find your own sleep affected because of your partner's tinnitus, it is important that you discuss the problem openly and seek practical solutions together. Although some tensions are inevitable, try not to get angry with your partner or start 'blaming' them, as they are likely to be as tired and frustrated as you are, if not more so. Arguments, especially in the early hours, will only create stress for both of you and make the situation worse.

Difficulty relaxing

We know that stress can make tinnitus worse. Your partner may have difficulty relaxing because of tinnitus-related stress.

Cycle of stress and tinnitus

Many people notice their tinnitus more when they are anxious or tired, which in turn increases their stress and anxiety – and makes them focus on their tinnitus even more. In this way, a cycle of stress and tinnitus can arise.

What can I do to help?

Encouraging your partner to relax will help break this cycle. You can also help your partner monitor their stress levels and urge them to change a situation or activity where possible (for example, driving in rush-hour traffic) if you think it is making their stress, and therefore their tinnitus, worse.

There are many ways that your partner could reduce their stress levels:

- make changes to their lifestyle. This can be done through an improved diet or introducing exercise into their daily or weekly routine.
- improve their general health
- try complementary therapies, such as acupuncture and homeopathy
- use sound therapy, such as noise generators and relaxation CDs.

For more information, see Tinnitus, Stress and Relaxation, Complementary Therapies and Tinnitus, Equipment, sound Therapy and Tinnitus.

Difficulty with sound sensitivity (hyperacusis)

About 40% of people who have tinnitus also have hyperacusis, which means they are more sensitive than normal to everyday sounds. Your partner may find sound in general – or just certain sounds – uncomfortable or painfully loud, even when they don't bother other people.

What can I do to help?

If your partner develops hyperacusis, encourage them to consult their GP and ask for a referral to an ENT consultant. You could also discuss with your partner which domestic sounds they find uncomfortable – such as the clinking of plates while washing up – and try to keep these sounds to a minimum in their presence.