

Living with tinnitus can be distressing.

What can you do about it?

Tinnitus affects millions of people and it can take many different forms. But there are therapies that can help make it more bearable

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Tinnitus is when you hear ringing, buzzing or hissing sounds in your ears when no external noise is present. Illustration: Anand Purohit/Getty Images

For some it's a high-pitched mosquito whine; for others it's a low bass hum. It might come and go with periods of stress, or it might be the permanent, irritating background track to daily life and nightly sleep.

Whatever form it takes, tinnitus – hearing sounds like ringing, buzzing or hissing when no external noise is there – can be extremely distressing because it's quite literally in your head; there is no escaping it. Given that at least one-quarter of the population report experiencing

tinnitus at some stage in their life, it's surprising how little is understood about why.

"The theory that's most supported at the moment is that there's some sort of change in the hearing pathway, and the nerves in the hearing pathway are basically firing more than they should do," says Dr Emma Laird, an audiologist at La Trobe University in Melbourne. "We're hearing this increased activity as that tinnitus sound."

There is no cure for tinnitus but the good news is that there is a variety of treatment approaches – audiological, psychological, physiotherapeutic and technological – that can be effective at helping people to manage the condition. "I've had tinnitus for probably 20 years now," Laird says. "Because I've habituated to it – so my brain can just pop it at the back of my head – it's not causing distress day to day."

The first and most important step in finding the best treatment approach is to rule out more serious medical conditions for which tinnitus might be a side-effect. Laird looks for other symptoms such as headaches and vision changes that could point to neurological conditions such as migraines or stroke. If the tinnitus is only in one ear or the sound pulses with the heartbeat, that could suggest an acoustic neuroma – a tumor on the nerve that leads from the inner ear to the brain.

She also does full hearing assessment, because hearing loss is a common cause of tinnitus, particularly after exposure to loud noise.

"If they do have hearing loss, then hearing aids are actually quite beneficial," Laird says. "You're providing the hearing system with other sounds that it can focus on, so that tinnitus then becomes more of a background."

Even something as simple as a buildup of earwax can trigger tinnitus.

But for many people, tinnitus is unexplainable; an irritating noise that starts and persists without any clear physiological explanation. But far from being "all in the mind," tinnitus is very real, and for a small number of people – around 2% – it's extremely distressing.

"It's impacting their mood, it's impacting their functionality, like maybe they're not sleeping very well," says Paula Sieradzki, a Sydney psychologist specialising in tinnitus. "Most people make changes to their life, they're not going out anymore, some may give up work."

Psychological therapies

The goal of psychological therapies for tinnitus is not to get rid of the tinnitus, but to reduce or eliminate the distress associated with it. "To get to the point where tinnitus may still be there, but they're not reacting to it in such a negative way and it's not impacting them," Sieradzki says.

Cognitive behavioural therapy, or CBT, for tinnitus has good evidence supporting it, and has been endorsed by numerous audiology and hearing organisations. It works by challenging and resetting thoughts, behaviours and emotions around tinnitus.

Sieradzki starts by explaining to patients that tinnitus happens when the brain classifies an otherwise benign sound as harmful. "If people have classified in a negative way that tinnitus is important because it's really annoying them and they're fearful and it's really distressing them and it's caused upheaval in their life, it's telling the brain this is a threat," she says. That leads to a stress response, which in turn increases the perception of threat. "When that's the case, the brain can actually almost selectively attend to tinnitus, even when there are other sounds going on."

The heart of CBT for tinnitus is helping people to habituate to the sound; breaking what Sieradzki calls the "tinnitus distress loop" by retraining the brain to realise that the sound is not important and not a threat.

A similar therapeutic approach is what's called acceptance and commitment therapy, or ACT, which focuses more on changing a person's relationship with their tinnitus. "Acceptance is not so easy because people have been so wanting to get rid of it and ignore it," Sieradzki says, but this approach allows people to let their tinnitus be without attaching such intense negative thoughts to it.

Release tension

Tinnitus is often associated with stress and anxiety. Dr Peter Selvaratnam, a physiotherapist and associate professor at the University of Melbourne, focuses on the neck and jaw in his work with tinnitus patients, because one thing many stressed people do is clench and grind their teeth.

"There is a nerve that goes to the facial region called the **trigeminal nerve**, which also goes to the neck and jaw and it goes to the middle ear muscle called the tensor tympani muscle and it also projects to the hearing centre, to the cochlear nucleus," Selvaratnam says. That **clenching and bruxism – grinding – can lead to increased neural activity that can both cause tinnitus and be caused by it.**

He uses a variety of techniques to address the bruxism, including getting patients to focus on changing the position of their tongue so it's behind their top teeth, working with acupressure points around the jaw, head and neck to release tension, as well as breathing and mindfulness techniques to address the underlying stress and anxiety. Selvaratnam says those methods help about 60% to 70% learn to accept their tinnitus, and about 10% find it goes away altogether.

Sound enrichment therapy

Another approach uses sound to cut through the tinnitus feedback loop in the auditory pathway. “It’s like an alarm system – it stays on in that person’s brain – so by introducing external sound generation or therapies, which helps that system calm down over time,” says Kathryn Penno, an audiologist at Perth Audiology and Dizziness.



Sound enrichment might use the sounds of a waterfall or rustling leaves to calm the experience of tinnitus. Photograph: ViewStock/Getty Images

Sound enrichment is tailored both to the tinnitus – in terms of its pitch – and to the soundscape people want to hear; the sound of a waterfall, or summer cicadas, or wind-rustled leaves. It’s not about masking the sound, but “we’re actually trying to match from the central pathway the tinnitus frequency, so that this individual can habituate to it over time,” Penno says.

For sound enrichment, it needs to be on all the time, even during sleep. “You can’t skip a beat with it for your neural pathway to reorganise itself to calm down or habituate to your tinnitus,” Penno says. That can take the form of an audio app listened to out loud or, if people are in a work or home environment where they want to minimise the impact on others, through headphones or hearing aids.

Penno says most people with tinnitus will show significant improvements from around three months of 24/7 sound enrichment. And because tinnitus can recur, particularly during times of stress and anxiety, “you have the tools then in your remit to implement it again,” she says.

Experts stress that most of the time tinnitus has nothing to do with the ear, and everything to do with the brain.

“There’s lots of literature to show that you can have normal auditory or hearing and have tinnitus that’s associated with these psychological impacts,” Penno says. But with a range of effective management strategies and techniques available, most people can get relief.

“If you’re consistent with any therapy, you will get benefit, and it’s about finding the right fit for that person,” Penno says.

Source: [*The Guardian*](#)