People with hyperacusis (one type of reduced tolerance to sound) often find ordinary noises too loud, while loud noises can cause discomfort and pain. Damage to the inner ear from ageing or exposure to loud noise is the most common cause. This condition is often associated with tinnitus (buzzing, ringing or whistling noises in the ears) and distortion, so that a pure tone may be split or jangling. Usually both ears are affected, although it is possible to have it in only one ear. Other types of reduced tolerance to sound include loudness recruitment and phonophobia.

Symptoms of hyperacusis

The onset can be gradual or sudden. Symptoms include:

- very quiet sounds are well tolerated, while ordinary sounds like voices at conversational volume are experienced as too loud or distorted
- the person’s own voice seems too loud or distorted
- low intensity sounds, such as the noise of a refrigerator, seem too loud
- sudden, loud noise can cause discomfort and pain
- loud noises can worsen sound intolerance for some time
- loud noises can worsen tinnitus and distortion
- loud noises can cause a ‘popping’ sensation inside the ear.

Impact of hyperacusis

In severe cases, reduced sound tolerance can confine the person to their home and affect their career and social life. Everyday activities, such as driving a car, using a lawn mower, vacuum cleaner or power tool, watching the television or listening to music, are problematic. Shopping centres, restaurants and movie theatres are usually too loud. Career options may be limited.

Causes of hyperacusis

Some known causes include:

- changes in hearing associated with the ageing process
- one-off exposure to loud noise, such as an explosion
- a slap on the ear
- chronic exposure to noise, such as working in a noisy environment
- certain medications
- head injury
- surgery to the ear
- paralysis of the facial nerve – in this case, the mechanism in the middle ear that protects us from loud noise is not functioning
- medical procedures – clearing a blocked ear canal may cause temporary increased sensitivity to sound.

There are no objective tests for diagnosing hyperacusis. There is usually no cure for hyperacusis. Treatment focuses on insight, reassurance and protection of the ears.
When intolerance is in one ear only, this should be investigated for an acoustic neuroma (a tumour) on the balance (vestibular) nerve. A tumour is more easily removed if it is detected early. However, even if a tumour is found, not all cases require removal.

**Diagnosis of hyperacusis**

There are no objective tests for diagnosing decreased sound tolerance. Diagnosis depends mainly on the person’s description of their discomfort. Audiological tests are used to assess the health of the ear.

**Treatment for hyperacusis**

There is usually no cure once noise sensitivity has started, because the common causes are noise damage and ageing damage to the inner ear. Avoiding exposure to noise will help.

There are disorders of the inner ear, which may be mistaken for hyperacusis, which are treatable, so prompt assessment of the ears may be critical.

Generally, sound sensitivity is managed in a number of ways, including:

- wearing hearing protection in noisy environments, such as when working with power tools or being around loud music. This is because tinnitus and sensitivity may be exacerbated by excessive sounds. It is not necessary to wear hearing protection for everyday activities
- reintroducing everyday sounds as soon as possible – this is known as desensitisation
- asking people to avoid raising their voice when they speak to you. Let them know it irritates your ears and distorts the message
- if anxiety or other reactions persist, talking to someone about your symptoms. A counsellor or psychologist may be able to talk with you and help you to identify factors which may be influencing your reactions to loud sounds, and develop coping strategies. Knowing and remembering that hyperacusis is not caused by a threatening disorder can help your tolerance significantly
- tinnitus retraining therapy (TRT) – this involves wearing special hearing aids called ‘noise generators’, which can, over time, reduce your sensitivity to noise. The ears become accustomed to the barely audible ‘white noise’ and eventually ignore it
- medication to help you sleep – this may be needed in the short term.

**Where to get help**

- Your doctor
- Ear, nose and throat specialist (your doctor can refer you)
- Audiologist (hearing scientist)
- Tinnitus Association of Victoria Tel. (03) 9510 1577
- Vicdeaf Tel. (03) 9473 1111, TTY: (03) 9473 1199, toll free for country callers Tel. 1300 780 225, TTY 1300 780 235
- The Royal Victorian Eye and Ear Hospital Tel. (03) 9929 8666
- Meniere’s Australia Tel. 1300 368 818

**Things to remember**

- The most common known causes of hyperacusis are exposure to loud noise, and ageing.
- There are no objective tests for diagnosing hyperacusis.
- There is usually no cure for hyperacusis.
- Treatment focuses on insight, reassurance and protection of the ears.