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Hyperacusis

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Hyperacusis (pronounced hyper-a-queue-siss) is a condition when people experience the sounds of everyday life as intrusively loud, uncomfortable or even painful.

Hyperacusis affects people in different ways. For some, it is a minor annoyance. Others find it difficult to live with and withdraw from social and professional activities.

What is hyperacusis?

Hyperacusis is a condition when people experience the sounds of everyday life as intrusively loud, uncomfortable or even painful.

Hyperacusis affects people in different ways. For some, it is a minor annoyance. Others find it difficult to live with and withdraw from social and professional activities. This isolation can make the problem worse.

Therapy can help to address fears and anxieties and sound therapy can help to re-build a tolerance for sound.

If you are concerned about your tolerance to noise, please discuss this with your GP, who can refer you to an appropriate specialist opinion.

How common is hyperacusis?

There is not much reliable information to tell us about the numbers of people with troublesome hyperacusis.

One internet study has suggested that the figure may be as high as 9% of adults but most professionals working in the field feel that this is too high. A more conservative estimate suggests that about 2% of the adult population have some degree of hyperacusis. The number of people who are severely affected is a small proportion of this total.

Hyperacusis is very common in people with autism spectrum disorder (ASD) or other sensory conditions. It is also common in people with tinnitus.

What are the effects of hyperacusis?

Hyperacusis affects different people in different ways.

Some people say that although they feel more sensitive to sound, it doesn't impact too much on their everyday life.

Other people report that hearing certain sounds makes it difficult for them to concentrate. They can feel tension or even anger.

Some people with severe hyperacusis become so afraid of sounds that they withdraw from daily activities in order to avoid sound altogether. This can lead to the auditory system becoming even more sensitive.

Sound intolerance

The human auditory system has an extraordinary range. It can pick up very quiet sounds such as the gentle rustling of leaves and tolerate extremely loud sounds like music in a club.

An extreme level of sound, around 120dB or louder, can cause physical pain. This is the volume of a jet plane taking off. We generally reach a point where we feel that sound is too loud and do something about it, long before we reach the threshold of pain. This point of maximum comfortable loudness varies from person to person. For all of us it will also change according to our mood and the context of the sound.

You may have noticed that some sounds (eg. a radio in the background) will be quite pleasant one day, but intrusive on another day. This reduced tolerance is especially likely to happen when you are tired or stressed.

As well as having a maximum comfortable sound level, most people have particular sounds they find unpleasant whatever the volume. Common examples of sound intolerance include fingernails on a chalkboard, or a tap dripping, or a pen being tapped against a desk.

For some people, the ability to tolerate sound is so severely altered that it can impact on their daily lives

Types of altered sound tolerance

Hyperacusis is used to refer to **all types** of altered sound tolerance. It describes the experience of some people for whom even quite modest environmental sounds appear loud, intrusive and sometimes painful.

There are some additional words used to describe types of hearing sensitivity.

Phonophobia is a fear or aversion to certain sounds. This could be hand driers in public toilets, fireworks or the scraping of cutlery on a plate. It varies from person to person.

Misophonia describes an intense dislike or even repulsion to a particular sound, often one generated by other people, such as chewing.

Recruitment is a specific form of altered sound tolerance in people who have a hearing loss. When talking to someone who has recruitment, they may say, "Speak up a bit, I can't hear

what you're saying." The speaker will then raise their voice slightly, only to be told, "Don't shout! I'm not deaf." In recruitment, the auditory system goes from too little, to too much very quickly.

What causes hyperacusis?

A few medical conditions can have hyperacusis as a symptom so it is important to speak to your GP. Medical conditions associated with altered sound tolerance include migraine, head injury, Lyme disease, William's syndrome and Bell's palsy. Sometimes people can experience hyperacusis after certain types of ear surgery.

Exposure to sudden loud noise can trigger hyperacusis. In some cases, a negative life event appears to be associated with the onset. For many people, no clear reason can be identified.

For other people, hyperacusis can be connected to their sensory sensitive condition such as autism spectrum disorder (ASD) or tinnitus.

There are several theories about the mechanisms that underlie hyperacusis. What they share is that hyperacusis is usually associated with increased sensitivity (or auditory gain) in the central auditory system (the hearing pathways in the brain). This sensitivity can be influenced by mood.

Is there a link with tinnitus?

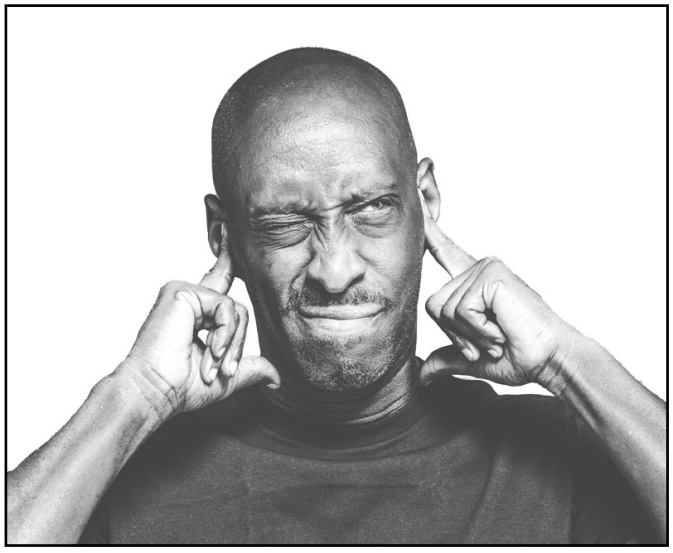
Yes and no. Quite a few people who have tinnitus also have hyperacusis. Most people with significant hyperacusis also have tinnitus.

But many people have one and not the other. Just because people have one, that certainly doesn't mean that they are going to develop the other.

Investigation of hyperacusis

Because significant hyperacusis in adults is an unusual condition, most GPs will have limited understanding of it. A formal investigation would usually be carried out by an ear, nose and throat (ENT) surgeon or audiovestibular physician.

The specialist will talk to you about your sound tolerance and will want to know when and how it started. They will ask about other illnesses or circumstances at the time of it starting. You can expect questions about how you manage day-to-day, as well as how things have changed since it started. Usually, you'll be asked about hearing loss, noise exposure and tinnitus.



You may also be asked to complete questionnaires regarding your general mood, hyperacusis and quality of life. These questionnaires help to provide clarity regarding your situation and may be used to guide therapy and monitor how well it's working.

Your ears will be examined, and you'll most likely have a hearing test. Some doctors might suggest other tests, and these will be explained to you at the time of the examination. If you are at all concerned about the tests, talk to your specialist about them.

Treatment of hyperacusis

Hyperacusis is not troublesome for most people. In these cases, an explanation and reassurance can be all that is needed to help you manage the condition successfully.

For some though, this is not the case, and they might be referred for therapy. This is usually delivered within an audiology clinic by a professional who also works with people who have tinnitus. If hyperacusis is the symptom of a specific medical condition, this condition will be treated in parallel.

The person that you see for therapy will want to find out how the hyperacusis affects you. They will explore with you what you can do differently to try to reduce the impact of hyperacusis on your day-to-day life.

Many people with hyperacusis cut themselves off from sound. Therapists find ways to slowly and gently reintroduce sound into the person's life so that they can start to resume the activities they have been avoiding. This is called sound therapy. It may involve using an ear-level device or a bedside sound generator. The most commonly used sound is white noise, which effectively sounds like a rushing or "shhh" type of sound.

An alternative approach is the use of Cognitive Behavioural Therapy (CBT). This method explores what makes living with hyperacusis easier or harder. The therapist helps you to find more helpful ways of managing, thereby reducing the impact it has on you.

Ear protection

It is very common for people with altered sound tolerance to try to avoid loud sounds. Although this may seem like common sense, it can lead to an increased sensitivity to sound. As people avoid sound, their environment becomes quieter. This causes the auditory system to become even more sensitive to sound due to the lack of input.

For that reason, it is recommended that ear protection shouldn't be used for normal day-to-day activities. While it is understandable that someone may wish to use earplugs or ear muffs when doing tasks which generate a sound they find unpleasant, such as emptying a dishwasher or driving a car, it will not help with learning to manage hyperacusis in the long term. It is of course recommended, however, that everyone uses ear protection when doing something really noisy such as using DIY tools.

If you are using ear protection in everyday situations, please discuss ways for reducing their use with your hyperacusis therapist. They will have some useful suggestions and be able to provide support through what can seem like a daunting time.

Further information

The Hyperacusis Network (hyperacusis.net) is a self-help resource offering information, forums and products for hyperacusis.

Living with Tinnitus and Hyperacusis (McKenna, Baguley and McFerran, 2021, Sheldon Press ISBN 978 1529375355) is a very helpful book, aimed at people who have tinnitus and hyperacusis.

Hyperacusis: diagnosis, mechanisms and therapies (Baguley and Andersson, 2007, Plural Publishers ISBN 978 1597561044) is aimed at the professional community but can be accessed by people with hyperacusis. It summarises present scientific and clinical information.

Our webinar on tinnitus and hyperacusis is available to purchase. It includes a presentation from a guest speaker and Q&A with the audience. Please note that all webinars are recordings and you will receive a link to watch this on-demand. You can buy it at tinnitus.org.uk/support-for-you/tinnitus-webinars/

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**

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Tinnitus UK publications

**Available in Easy Read*

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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 temporo-mandibular 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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