American Speech-Language-Hearing Association

AUDIOLOGY Information Series

Hyperacusis

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Hyperacusis is a rare hearing disorder that causes sounds which would otherwise seem normal to most people to sound unbearably loud. People who suffer from hyperacusis may even find normal environmental sounds to be too loud. Hyperacusis is not discomfort around ***loud*** sounds. Individuals with hyperacusis may find a car engine, dishes clanking, rustling of paper, or even loud conversation uncomfortable enough to avoid such situations.

Many people with hyperacusis have normal hearing. The disorder can occur in one or both ears and is often accompanied by tinnitus (ringing or buzzing in the ear). The Hyperacusis Network reports that 1 in 50,000 people has hyperacusis and that 1 in 1,000 people who have tinnitus will also have hyperacusis.

CAUSES

There are some diseases or disorders that are linked to hyperacusis, such as:

- Bell's palsy
- Chronic fatigue syndrome
- Lyme disease
- Meniere's disease
- Posttraumatic stress disorder
- Depression
- Autism

Additionally, hyperacusis is seen in patients who have experienced a head trauma, such as an air bag deployment, surgery to the jaw or face, or a viral infection of the inner ear.

One major cause of hyperacusis is **loud noise** exposure. It may be triggered by a single intense noise such as a gunshot, or it may develop gradually from listening to loud noise without hearing protection. People exposed to loud levels of noise through their occupation, whether as a machinist or a musician, should be protective of their hearing to avoid noise-induced hearing loss and other changes in their hearing such as tinnitus or hyperacusis.

Hyperacusis can also be found in individuals with autism or autism spectrum disorders. As autism rates grow, more families are living with someone who has hyperacusis. Reports estimate that up to 40% of children with autism have hyperacusis. Often people with autism can have multiple sensory integration issues involving hearing and other senses.

TREATMENTS

Depending on the cause, hyperacusis may get better with time. Specifically, in cases of trauma to the brain or hearing system, there is a chance that the sensitivity to sounds will become more tolerable. However, in cases where the cause is not clear, relief may not come on its own.

Many people who suffer from hyperacusis get by in their everyday life by wearing earplugs or earmuffs to reduce incoming sound levels that may be bothersome or by withdrawing from social situations that may have uncomfortable sounds present. This is a logical response. However, these strategies may not work—hyperacusis sufferers may be furthering their poor tolerance to relatively soft sounds. Wearing earplugs or earmuffs may provide immediate relief from an environment that seems uncomfortably loud, but when the individual eventually removes the earplugs or muffs, that environment will seem even louder than it might have otherwise.

))) **People who suffer from hyperacusis may even have a reduced tolerance to normal environmental sounds.** (((

A better treatment for some is called *sound desensitization*. Under the guidance of a specialist, the person with hyperacusis listens to barely audible static noise for a set period of time each day. Over time, perhaps 6 months to a year or more, the tolerance to sound is built up, and sensitivity to normal sounds is no longer painful.

Some individuals seek out another treatment called auditory integration therapy (AIT). AIT is also commonly used with people with autism. With this treatment, one listens to filtered music at various loudness levels for a set amount of time each day. However, there is insufficient scientific research and evidence that this treatment is effective. Therefore, it is the position of the American Speech-Language-Hearing Association (ASHA) that AIT does not meet scientific standards for effectiveness that would support its practice by audiologists and speech-language pathologists except in well-planned, institutionally approved research protocols designed to assess the effectiveness of AIT.

Other experimental treatments are available, including biofeedback, relaxation strategies, and acupuncture.

It is important to research any hyperacusis management technique before beginning to use it.

Treatments should be personalized to the individual. Medication is not generally a treatment for hyperacusis but may be a part of the treatment process, helping sufferers cope with the stress related to the disorder.

Through future research, a better understanding of the underlying causes of hyperacusis will lead to new and better treatments.

NOTES:

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