



The Auditory (Sound) System

Our auditory (sound) system, or sense of hearing allows us to hear someone talking to us, to hear possible dangers, or to enjoy our favourite music.

Auditory (Sound) Hypersensitivity

For a person with sound hypersensitivity, listening to even mild, unexpected noises can feel like listening to deafeningly loud noise.

Possible behaviours that may be seen

- The person may make their own noise, in an attempt to block out other unexpected or intolerable noises
- The child may constantly complain that others are yelling at him
- The child may hear noises that others do not hear and may startle in response to these noises
- The child may have difficulties filtering noise in a classroom, so is unable to understand and
- take in what he is being taught. There are examples where children have been unable to
- learn from something as simple as the buzz of the fluorescent lights, and were only able to learn after the lights were changed.

By controlling their sensory input, they feel better. It may not make sense that someone sensitive to noise may make more noise, but here are some examples about how being in control of input helps people handle it:

- It's impossible to tickle yourself and make yourself laugh. However, when someone else tickles you, it's much easier to laugh and feel tickled .
- When driving in a car, people tend to feel less carsick or nauseous if they are the person driving the car.
- In both these cases, the key is that when you are in control of the stimulation, it makes you more able to cope.

Strategies for children who are sensitive to sound

Prior to going into noisy environments

Give (transition) warnings ahead of time that the child will be going into a noisy environment. A social story can support this.

- If you are going to a crowded gathering, let the child know well in advance. That way you can plan ahead as well, e.g. ensuring that there will be a quiet place where your child can go if over whelmed.
- If you are going to be vacuuming, or using loud appliances (e.g. mowing the lawn), then you can plan strategies, such as earplugs, letting the child go somewhere else, watch a favourite TV show, etc.
- Speak with your child's teacher at the beginning of the year about fire drills. During those times, options might be
 - * Doing the drill when the child isn't around;
 - * Giving the child ear plugs to wear prior to the drill;
 - * Giving the child a sense of control over the sound (which helps the child cope with it), e.g. letting the child participate in activating the alarm drill
 - * Transition warnings where teachers will use a musical instrument to warn the child ahead of the drill, e.g. a triangle or soft flute.
- Provide sensory input that is calming to the child before going into the noisy environment e.g. deep tactile pressure, movement break.



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While in the noisy environment

Reduce external stimulation whenever possible

- Limit the amount of noise or sound volume that the person is exposed to
- When sitting to do work (e.g. at school), seat the person further away from sounds/noise if possible

Mask out external stimulation

- Consider using white noise or soothing background music, e.g. through headphones and
- a portable music player (e.g. Walkman, mp3 player, portable CD player)
- Give headphones or earplugs, or during the winter time (ear muffs)
- With some children, it may be sufficient to just put their hands over their ears during noisy
- times; teach younger children how to do this

Distract the child from external stimulation

- When in places that may be overwhelming, e.g. shops or restaurants, give the child a
- structured task to divert attention from excessive stimulation

Make use of quiet sanctuaries

- Dressing/changing rooms or rest rooms can provide a nice quiet area
- At school allow the student a 'quiet space' where they can go to if they feel they need it, or a place where the teacher can ask the student to go if the student appears to be getting overwhelmed. A card or a visual prompt can be used to do this more discreetly.

Environmental changes

- When possible, improve the acoustics of the room by using items such as rugs or curtains to dampen sound
- Eliminate other sources of sensory (over) stimulation, e.g. eliminate fluorescent lighting if possible.

Be aware that certain situations may be more of a trigger

- Enclosed spaces such as gymnasiums, cafeterias, school buses, machinery such as vacuum cleaners, or lawn mowers, echoing in bathrooms, hand dryers; fireworks
- Some situations you may not be able to avoid, but if possible, avoid situations that are not essential for the child, e.g. fireworks displays, parties, supermarkets

Auditory Integration Therapy

Although there is a lack of strong evidence, there are some parents who report that techniques such as auditory integration therapy (e.g. Tomatis, Berard Auditory Integration Training) or 'Therapeutic Listening' can be helpful for reducing auditory hypersensitivity. This is not available on the NHS.

Auditory under-sensitivity

These are persons who seek more auditory or sound input.

Possible behaviours that may be seen

They may report that they study better with a bit of background noise or music, and may seem to find it difficult to concentrate /study in absolute silence.

Strategies for children who are more calm, alert and focused with sound

- Allow the person to listen to background music, or background noise when needed, e.g. through headphones, or through turning on the television, radio, or stereo, white
- To help the person to sleep, consider background noise through a fan, white noise generator, radio, or stereo

Information taken from: Information for families (Michael Cheng and Jennifer Boggett-Carsjens 2011)