



Sensory processing signs of difficulty - Auditory (hearing)

You will have heard about our 8 sensory systems: hearing, sight, taste, smell, touch, vestibular, proprioception and interoception. You will have also heard about how we process our sensory information; we receive and organise sensation from the environment, then we process that information and make an effective meaningful response.

Now we can consider what it may look and feel like if we have a difference in our auditory sensory system.

Auditory Sensory System

The Auditory sensory system is all about the sense of sound (things that we hear). It refers to the information that we receive through the ears. But it also helps us filter out unwanted sensory stimuli in terms of the sounds that we do not need to attend to.

Sensitivity to sounds can include hearing problems and also ear infections therefore it is important that these are investigated before assuming that the problems are due to processing difficulties.

Processing Auditory sensory information

You will remember that we used cups to describe how we register sensory information.



When we have a little cup it does not take much information before we notice it - your little cup fills up very quickly! We call this over responsive.

When we have a big cup it takes a lot more information for us to notice - it takes more to fill up our cup. We call this under responsive.



Remember that this is not always a problem, and that our ability to register, process and integrate our sensory information can sometimes feel difficult - when we are tired, unwell or overwhelmed it can feel like our cup fills up quickly.

Signs of Difficulty:



Over responsive 	Under responsive 
<ul style="list-style-type: none">• Dislikes loud noises• Easily startled• Anxious before noises• Covers ears• Talks loudly to cover up loud noises	<ul style="list-style-type: none">• Likes really loud noises• Enjoys making loud noises• Doesn't pick up unexpected sounds or noises.• Seems to calm with noises

Strategies to Support:

Over responsive 	Under responsive 
<ul style="list-style-type: none"> • Reassuring the child regarding the source of the sound • Create a quiet corner • If a noise is planned - offer verbal or visual warning before the loud sound (such as school fire alarm or before hoovering), this allows the child to move away or cover their ears • Wearing headphones or ear defenders • Listening to preferred music • Use of rhythmic or white/quiet noise • Reassure your child that you understand it is difficult • Have a plan for if it gets too noisy - where can you move to, do you have items which comfort, are you safe? • Suck on a sports water bottle or eat crunchy foods • Chewing gum or other strong proprioceptive input to lessen sensitivity • Use of fidget toys as a calming distraction • Consider tight underclothing such as Lycra, this can provide deep touch pressure to calm. • Organisation helps to keep a child regulated and calm • Clear behavioural boundaries are also helpful in keeping the child feeling safe 	<ul style="list-style-type: none"> • Provide suitable opportunities to experience and make loud noises • Discuss/ make aware of sounds and noise that the child is not picking up. • Provide suitable opportunities to have music that is calming • Learning through songs • Tone of your voice - vary it, tone/pitch, to provide more interest



Occupational Therapy Service for Children and Young People
Aneurin Bevan University Health Board