



Sensory Processing



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What is sensory processing?

Sensory processing organises and distinguishes sensation from your body and the environment, helping us to engage effectively within our environments and informing our reactions and behaviours.

Every sound, movement, sight, smell, taste and everything we touch produces sensations which travel to the brain for processing. Our reactions and behaviours depend upon how this information is processed.

Sometimes sensory receptors perceive everyday stimuli such as lights, noises, and textures as too bright, too loud, or uncomfortable which can result in overwhelming feelings and sensory meltdown.

Alternatively, sensory processing systems can sometimes result in reduced sensory information. This may lead to sensory-seeking behaviours to compensate for perceived low levels of input.

Have you ever spotted colleagues biting their pencil or clicking the top of the pen or moving their legs up and down during staff meetings and training events? These are examples of how adults might seek extra stimulus.

Children have sensory needs too and sometimes these result in behaviours such as pushing, running, shouting, play fighting and bumping into people.

Meet your 8 senses

You may be already aware of the five external senses of vision, hearing, touch, taste, and smell. However, there are three lesser-known internal senses - vestibular, interoceptive and proprioceptive which are also critical for interacting with the environments.

If we liken the sensory processing systems to driving; the traffic may be flowing well but we still need to look and react to what is going on. This may mean reducing or increasing our speed. or steering to switch lanes to help maintain the flow. However, road closures, weather conditions or a road traffic accident could adversely affect the smooth flow of traffic. These may impact the smooth flow of traffic or cause a traffic jam and we might need to find an alternative route.

The same analogy/principles apply to sensory processing too.

Sensory seeking

Sensory seekers are under sensitive (hyposensitive), so crave sensory input. Where it is perceived that there is a low level of sensory input, you may observe children with sensory-seeking behaviours compensating for low levels of sensory input. You can be under sensitive to any of your senses. For example, low levels of tactile input may result in children pouring water from the water tray over their head or covering themselves in paint or gloop. Low levels of auditory input may result in behaviours such as people talking all the time, being very loud and shouting and screaming. They may not hear you talking in a quiet voice. Low levels of proprioceptive input may result in children seeking more movement. It is important for energetic children to have an outlet for all their energy. Stifling it, or trying to, will often make things a whole lot worse.

Sensory avoiders

Sensory avoiders are oversensitive (hypersensitive), experiencing sensory input more intensely than others. You can be oversensitive to any of your senses. For example, intense tactile input may result in children finding their clothes or labels in their clothing itchy or uncomfortable. They try to avoid busy environments, songs and rhyme times, engaging in musical activities, etc, because it is overwhelming to them.

Sensory overload

Sensory processing challenges may lead to sensory overload (too much information). This may cause dysregulation and lead to sensory meltdowns when the threshold for sensory input is crossed. We all have differing sensory preferences and thresholds. Lower thresholds mean that the brain starts to struggle processing the incoming sensory information, leading to difficulties functioning. In turn this may invoke the fight or flight response or lead to a sensory melt down.

Sensory overload can be instant, such as hearing a fire alarm, a siren from one of the emergency services, a vacuum or a hand drier. However, sensory overload may also build up over time, making it trickier for us to spot the cause/trigger. For example, children may try hard to keep control for a long time and then let it all go when they feel in an emotionally safe space (like a pressure cooker). People might feel itchy and irritable, (like they are going to explode or boil over), they may feel dizzy, have a fuzzy head or flutters in their tummy. These feelings will lead to difficulties when children are learning to self-regulate. A sensory overload is similar to going into shock and children may be embarrassed in the aftermath.

Busy environments (lots of people, noises, smells, etc) can be a challenge for some people. We can help by doing a sensory audit of our early years settings. For example:

- any repetitive noises
- background noise
- groups times such as snack and meal times or dining room or circle times
- the smell of meals cooking in the setting
- harsh lighting or bright sunshine

What does the EYFS say?

It is an EYFS statutory requirement that each child is assigned a key person.

‘Their role is to help ensure that every child’s care is tailored to meet their individual needs, to help the child become familiar with the setting, offer a settled relationship for the child and build a relationship with their parents and/or carers. They should also help families engage with more specialist support if appropriate’ (DfE, 2024).

It is therefore useful for anyone carrying out a key person role to understand a little about some of the sensory challenges that children may have. You can find out more from Sue in her Sensory Processing webinar recording [here](#) and more about the Role of the Key Person in Sue’s webinar recording [here](#).

What can you do?

- Observe children to find out more about any sensory preferences or triggers
- Carry out a sensory audit of your setting
- Help children to understand their bodies’ signals and reactions.

Offer coping strategies, such as:

- Noise cancelling headphones
- Fidget toys
- Breathing techniques
- Times for activity and times for calm
- Creating a calm cave or calm area to retreat to

Consider how you can provide information for parents. Routine tasks such as taking a shower and hair washing can seem like constant battles for some families.

However, this is a huge sensory experience with the sensation of the water, the smell of the shampoo and tipping their head back or forward might upset the vestibular system. [Here’s](#) information from an occupational therapist which might be useful.

If you are worried about a child

Children can experience some powerful emotions in early childhood. The way that they process sensory information may lead to sensory meltdowns which could happen frequently and for prolonged periods of time. It is important to observe and support each unique child. Remember that children being overactive, restless, crying, irritable or unhappy could be signs of dysregulation. Share your observations with the child’s parents and your setting’s SENCo.

We also need to remember that the ways in which child behave and any sudden changes to children’s behaviours may indicate that they are at risk of harm or are experiencing/have experienced trauma.

You should always follow your setting’s policies and procedures if you are worried about a child’s well-being. This may include discussing concerns with your:

- Manager
- Behaviour lead, SENCo or DSL (as appropriate)
- Speaking to parents and signposting them to their Health Visitor or GP

- With parental permission, childminders can speak to the area SENCo in your local authority or someone within your inclusion team for advice and support.
- Childminders need to report any safeguarding concerns following your LSCP procedures.
- You might find some useful information on your Local Authority's Local Offer page.

Closing statement

You can access Sue's webinar on Sensory Processing [here](#). As sensory processing has close links to children's behaviour you might also find Sue's webinar recording and blog on Self-Regulation Skills in Young Children useful. These are part of the Thames valley Stronger Practice Hub resources [here](#).

References and Links to useful resources

DfE (2024) Early years foundation stage statutory framework: For group and school-based providers [Statutory framework for the early years foundation stage for group and school providers \(publishing.service.gov.uk\)](#)

DfE (2024) Help for Early Years Providers – Mental health for early years children - [Mental health for early years children - Help for early years providers - GOV.UK \(education.gov.uk\)](#) accessed 14 February 2024

Grogan, A. (2003) Here's a Method to Help Kids That Hate Hair Washing (online) [Here's a Method to Help Kids That Hate Hair Washing \(yourkidstable.com\)](#) accessed 11 March 2024