



Communication and Interaction Team

Sensory Processing

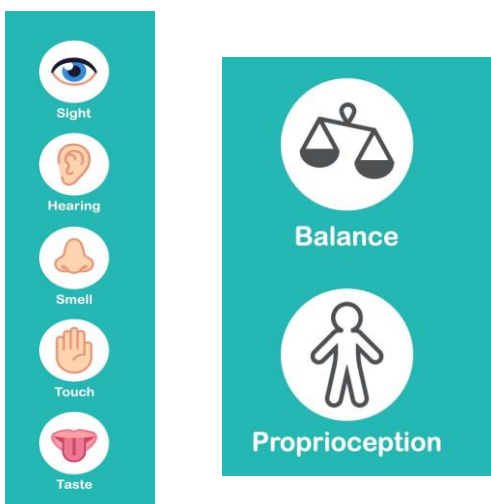
“Sensory integration (SI) or sensory processing is the organisation of sensation for use. Our senses give us information about the physical conditions of the body and the environment around us”

– Jane Ayres, OT

Sensory modulation is the ability to respond appropriately to **sensory** information and remain at an appropriate level of alertness for daily activities.

The development of sensory integration usually occurs when we are young and as part of our normal development in all the things that we do. For some Children and Young People (CYPs) this may be delayed or they may develop sensory processing differences or sensory modulating differences. All people with social interaction and communication needs and/or Autism (ASC) will have sensory processing differences while not all people with a sensory processing need/ difference will have ASC.

Although we often talk about the five main senses: sight, hearing, smell, touch and taste there are also three other main senses to consider these are



Proprioception (is linked to body awareness),
Vestibular (is often linked to balance and identifying

where your body is in space) and **Interoception** (is about how your body tells your brain what's happening internally e.g. when you're hungry or you feel full, feeling hot, ill or needing the toilet etc.)

To be in the best state to be able to focus, learn and engage with the environment you need to be in a regulated state.

CYP's with sensory processing/ modulating differences can find reaching this state very difficult as they may present as either;

- Hyper-sensitive to certain sensations, presenting with a low threshold to these and may be easily overwhelmed by them and may actively try avoid the sensation. **Or**
- Hypo-sensitive with a high threshold to this sensation, meaning that they may crave more or actively seek out the sensation.

This may change across the day, week or even second and will often present differently in different situations or environments. It is possible that a CYP may experience both hyper-sensitivity and hypo-sensitivity, for example certain noises (auditory information) may be overwhelming as they may perceive sounds to be louder than they are and find it harder to filter out in comparison to those without sensory processing differences and CYPs may require a lot of movement (proprioception) and seek out opportunities for deep pressure, climbing and may appear heavy handed etc.

A sensory audit can be useful to help identify these needs. If the CYP does not meet criteria for Occupational Therapy involvement then the Autism Education Trust (AET) have useful tools to support:

<https://www.aetraininghubs.org.uk/wp-content/uploads/2012/05/37.1-Sensory-audit-tool-for-environments.pdf>

<https://www.aetraininghubs.org.uk/wp-content/uploads/2012/05/37.2-Sensory-assessment-checklist.pdf>



Knowing a CYP's sensory needs is important in order for others to support them and help the CYP understand how to manage their sensory differences. These differences won't disappear, but if you are aware of them then you can often provide situations to help them regulate and understand their own needs to either remain or regain their ability to be calm, alert and regulated.

They may benefit from a number of supporting strategies including:

- A sensory diet and activities that can help them to regulate across the day
- Access to quiet/ calm areas (low arousal environments)
- Frequent sensory/ movement breaks
- Ways to indicate to staff that they need a break
- Clear visual cues in the environment of what to do and how to do it

A sensory diet may include:

- a break somewhere quiet
- a walk around the school grounds
- access to crunchy or chewy foods/ snacks
- physical activities (some may need fast bouncy movements other's may need slow and heavy activities)

- time wearing a weighted jacket, carrying a 'heavy' school bag or engaging in deep pressure/ body awareness activities such as massage
- weighted cutlery

Within the class room they may benefit from

- fiddle toys
- wobble cushions
- a variety of seating such as beanbags or chairs to sit on instead of the floor or ensuring their feet are well supported on the ground (placed on a step/box)
- "Chewelry" and oral motor toys
- headphones to shut out noise overload
- calming/ arousing smells
- weighted lap or shoulder cushions
- heavy weight activities such as carrying books/boxes
- Opportunities for experiencing different tactile input through messy play activities, texture books/bags etc.

Useful resources, links and further reading:

Further information and resources can be found at:

<https://www.babcockldp.co.uk/campaigns/coronavirus-support-for-schools-parents-and-pupils/links-for-home-schooling-resources-and-activities/communication-and-interaction>

<https://www.sensoryintegration.org.uk/What-is-SI>

<https://childrenandfamilyhealthdevon.nhs.uk/occupational-therapy/>

<https://www.spdstar.org/node/1485>

<https://www.ekhufft.nhs.uk/patients-and-visitors/information-for-patients/patient-information-leaflets/fizzy-leaflets/>

<https://www.zonesofregulation.com/index.html>

Useful Reading:

Sensory Strategies (Practical ways to help children and young people with autism learn and achieve) by Corinna Laurie (The national Autistic Society)

The Out of Sync Child by Carol Stock-Kranowitz

The Out of Sync Child Has Fun by Carol Stock-Kranowitz

101 Games and Activities for Children with Autism, Asperger's, and Sensory Processing Disorders by Tara Delaney

How to support children with sensory processing needs by Lois Addy (LDA)

Understanding your child's sensory signals by Angie Voss

Attention, Balance and Co-ordination the ABC of Learning Success by Sally Goddard Blythe (WILEY Blackwell)