



Sensory processing - Interoception

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 interoception sensory system.

Interoception sensory system

Interoception is an internal sensory system in which allows us to 'feel' or sense the inside of our bodies. Here is where the physical and emotional states of the body are noticed, recognised/identified and responded to. Interoception skills are required for a range of feelings and functions such as hunger, fullness, pain, nausea, itch, tickle, body temperature, heart rate, muscle tension, knowing when to go to the toilet, being aware that you are becoming angry or upset and being able to manage your emotions proactively. When children and young people have not yet developed interoception skills they will struggle with not only their own emotions but with social interactions and even just being around others may be difficult for them to manage.

Processing visual 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">• Overly sensitive to pain• Becomes anxious to a smallest sensation i.e. hunger, thirst, or bathroom needs• The slightest change in temperature or even hearing their own heartbeat can be extremely distracting	<ul style="list-style-type: none">• Struggles to recognising when hungry, full or thirsty• Unable to identifying when tired• Difficulty with toileting (bed wetting and accidents)• Under sensitive to pain or high pain threshold• Difficulties pinpointing symptoms of illness• Struggles identifying emotions in self or others• Unable to recognising signs of distress as they build up

Strategies to support:

Over responsive



Under responsive






- Yoga - allows slow activity to focus on listening to the child's body and provides vestibular and proprioceptive input to enhance how the body feels.
- Verbally labelling emotions as we see them and also responding appropriately to encourage functional responses.
- Visual prompts, cues, or communication devices that encourage children to identify body functions and feelings
- Help your child to communicate wants, needs, emotions, and feelings by first recognizing them and then communicating them appropriately (social stories could be helpful for this).



Noticing being hungry

If the child finds it difficult to recognise that they are hungry;

		
<p>Eat at set times each day</p>	<p>Set a reminder on a phone or a technical device to prompt the time to eat</p>	<p>Carry healthy snacks around with the child, this is helpful if they tend to get hungry very suddenly</p>





Noticing being full

If the child finds it difficult to recognise that they are full;

			
<p>Find out how many calories the child should be getting per day based on their age, weight, gender and activity levels. Ask the health visitor or GP if you are unsure</p>	<p>Portion out meals and snacks rather than allowing them to help-themselves</p>	<p>Write a meal/food plan for the day - include the time the food will be eaten</p>	<p>Set a reminder on a phone or a technical device to prompt the time to eat</p>



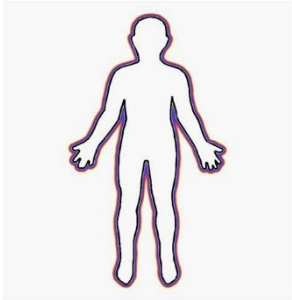
Noticing feeling thirsty

If the child finds it difficult to recognise that they are thirsty;

			
<p>Find out how much liquid the child should be getting per day based on their age weight, gender and activity levels. Ask the health visitor or GP if you are unsure</p>	<p>Set a reminder on a phone or a technical device to remind the time to have a drink</p>	<p>Write a drinking plan for the day - include the time the liquid will be drank</p>	<p>Use a 'smart' bottle to track how much the child drinks each day</p>



Noticing feeling sick or in pain

If the child finds it difficult to recognise that they are sick or in pain;

		
<p>Check the child for any signs of illness or injury every day or if they are older encourage them to do this for themselves in privacy</p>	<p>If the child has an accident, do not presume that they have not hurt themselves. Check for signs of injury</p>	<p>Use a drawing of a body outline if you suspect that the child is sick or has an injury and encourage them to point to the drawing of what hurts</p>




Noticing feeling hot or cold

If the child finds it difficult to recognise that they are hot or cold;

	
<p>Look at the weather forecast when selecting the clothes that will be worn</p>	<p>If you know the child is sensitive to the changes in temperature, take a range of clothing when going out</p>




Noticing feeling sleepy or tired

If the child finds it difficult to recognise that they are sleepy or tired;

		
<p>Encourage the child to go to the bed at the same time each night. Consider using an alarm or a technical device to give a reminder of the time</p>	<p>Set an alarm to go off at the same time each morning</p>	<p>Set a regular bedtime routine which gives enough time for the child's brain to 'wind down', this includes removing technical devices that the child may be playing on/watching</p>

Noticing feeling the need to use the toilet

If the child finds it difficult to recognise that they need to use the toilet;

		
<p>Set a timer at regular intervals throughout the day to ask if the child needs to go to the toilet</p>	<p>Build using the toilet into the child's daily routine e.g. get out of bed and go to the toilet, go to the toilet before eating lunch etc</p>	<p>Keep a diary of when the child tends to go to the toilet and use this to set a reminder on a technical device</p>

Recommended source of information

www.kelly-mahler.com