



Transcript

Welcome to our mini-series on sensory integration. In this mini-series we will discuss what is meant by the term 'sensory integration' and the sensory needs you may see in relation to your child. We will focus on different levels of alertness and provide practical strategies and advice on how to support your child to remain in a calm and focused state throughout their day.

In this first video, we will discuss what we mean by the term 'sensory processing' and outline the different sensory systems within our body. We will also provide examples of how any difficulties within each system may impact upon your child.

Sensory integration or as you will often hear it talked about sensory processing is something all living things do. In humans registering sensory information, modulating it, integrating it, and producing effective behavioural responses is part of everyday life. This ability helps to drive our development and enables us to adapt to the environmental demands of work, leisure, self-care, and care of others. For children it may be their learning, the play that they engage in and how they look after themselves.

It alerts us and allows us to take protective action so if we touch something hot it ensures we pull away quickly. It also supports our curious exploration of the world, so the more we that see, hear and look, encourages us to touch and find out more about the world around us.

We all have 8 sensory systems within our body some of which you may be very familiar with such as our sense of smell. As occupational therapists we

look at how all 8 sensory systems work together to impact on a child's function and behaviour.



Our sense of smells simply helps us detect different smells within our environment. It plays a role in protecting us, for example by letting us know if our toast is burning. It also plays a role in our enjoyment of food, for instance imagine how the smell of freshly baked bread impacts on our hunger signals. Difficulties may include not noticing smells or becoming distressed by everyday cooking smells.



Our sensory systems include vision which relates to what we see around us. Potential difficulties with vision may include seeking out colourful lights or being distracted in busy environments.



Our sense of hearing helps us to notice and respond to sounds within our environment. Difficulties in this sense might include being distracted or distressed by loud or unexpected sounds such as a siren or sounds within our everyday environment such as the vacuum cleaner or the background humming of the fridge. Children may also seek out noise by making lots of sounds themselves.



Our sense of taste lets us identify the differences in flavour for example letting us know if our food is sour sweet spicy or salty. Difficulties might include a dislike of strong flavours or seeking to taste or lick non-food items.



Our sense of touch has two main jobs. Firstly, a protective response, for example, automatically pulling your hand away when you touch something hot. It also helps us to identify differences within textures, like placing your hand in your bag and finding your keys without looking. Difficulties in this area might be being unable to tolerate clothing items such as seams in socks or seeking out tight hugs and squeezes.



Our proprioceptive system uses information from our muscles and joints to let us know where our body is within our environment. For example, you should be able to close your eyes and touch the tip of your nose. It also allows us to know how much force you're using during activities for example writing without breaking the end of your pencil. Difficulties might include appearing clumsy when moving around or using too much force and breaking toys unintentionally.



Our interoceptive system is our internal body sense. It helps us notice when we're hungry, thirsty or if we need to go to the toilet. Difficulties may be not noticing when they need to go to the toilet or never appearing hungry.



Our vestibular system is responsible for balance and movement; for example, it allows us to bend over and pick up an object from the floor without falling over. Difficulties in this area might involve constant fidgeting or seeking out intense movement like tipping their head upside down or spinning. Children might also show fear of movement by being scared of using stairs or escalators.

Sensory issues can limit your child's ability to interact with others, their environment, and their ability to perform meaningful tasks. This is so true of the children we work with in how they deal with busy environments and how they manage tasks, either looking after themselves in terms of feeding or dressing or in school in terms of their learning.

Sometimes they may seek sensory input to make them feel better e.g. a cuddle. Sometimes they withdraw from sensory input such as very loud noises or bright lights because it makes them feel uncomfortable. We all do things to make us feel better, for a child it may be to play with a special toy or, be wrapped up in a blanket or watch a movie that they like.

So now we know about the different sensory systems, let's think about how it can impact upon your child's behaviours. If we use the example of tooth brushing. When a child is brushing their teeth some of the sensory systems, we talked about will take in this information. The touch system will take in the information about the feel of toothbrush; the taste system will detect the minty taste and the proprioceptive system will tell the child about how much force they are using against their teeth whilst brushing.

These sensations are processed within the brain and messages are sent so the child can carry on with this activity. However, if there are difficulties in processing these sensations, signals within the brain can become confused resulting in difficulties in being able to complete the activity and instead, having a flight, fight or freeze response. For example, they may refuse to take part in the activity, gag when the toothbrush is in their mouth or run away and hide.



Please go on to look at our next videos which will discuss what we mean by the term 'modulation', how to recognise your child's levels of alertness and how you can support them to feel just right.