

1. Sensory Processing:

Welcome to the Warrington Occupational Therapy service training on sensory processing. In this video you will learn the following: what is occupational therapy? what is sensory processing? and what are sensory difficulties?

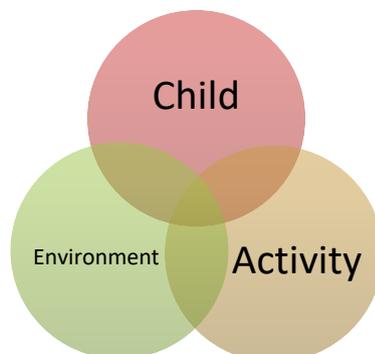
Watch our other videos to learn about the different senses and different sensory strategies. We recommend that you watch the videos in the order that they are numbered to help with your understanding.

What is Occupational Therapy?

The children's Occupational Therapy team sees children and young people who have difficulty joining in with the activities they need and want to do every day. We call our everyday activities 'occupations.' As an adult, our occupations may include going to work, cooking, driving, or going to the gym. Children and young people's occupations may include:

- Self-care tasks (such as dressing, bathing, using cutlery, or toileting)
- Educational tasks (such as handwriting, scissor skills, organising their work, or sitting and listening)
- Play and leisure tasks (such as riding a bike, playing sports, colouring pictures)

Occupational Therapists help children to participate in their everyday activities. They look at the relationship between the child, the environment and the activities that they have to do every day. We often look at these three areas, in order to help us think about how the child or young person is performing their activities. If their performance is poor and they are having trouble doing the task, the Occupational Therapist may suggest changing the environment, adapting the activity, or supporting the child by helping them to learn a new skill or supporting their sensory



or physical needs.

Occupational Therapists work closely with parents and teachers as these people often know the child best. They know what environments the child copes best in, what activities they like and dislike, and how they respond to different daily activities.

Hopefully, with this training, you will gain the strategies and tools to problem-solve and think about what may work best for your child.

What is sensory processing?

Sensory processing is the way we get information from our senses and what our brains do with this information. I will use this diagram to explain this process.



First, we receive the sensory information through the senses. In this picture, the ear is receiving an auditory message. For this example, we will use the example of a fire alarm.

This auditory message travels to the brain and the brain registers the message and starts to process it and make sense of it. For the fire alarm, you may think “oh! There’s a loud noise! What is that?”

Then the brain organises this information; your brain decides whether you’ve had this sensation before and decides if you need to pay attention to it. Again, with a fire alarm you may think “I know that sound, it’s the fire alarm!”, or you may think “I’ve never heard that sound before, what does it mean?”.

Finally, we respond to the sensation. We could respond with movement, communication, or by interacting with the environment. For the fire alarm, your response may be to calmly walk out of the building, or you may put your hands over your ears and run away in a panic. How your brain processes the message, will affect your response.

This process happens so quickly, that we don't really think about it. With one sensory message such as the sound of the fire alarm, we can break the process down and see how sensory processing happens. However it is not that simple! Our bodies are constantly taking in lots and lots of sensory information from the environment and from our bodies.

Think of the room you are in now, what sensory information is your body receiving?

The sound of my voice, the noise or hum of the fridge, the feeling of the clothing on your skin, the rumble of hunger in your tummy, the feeling of your feet on the floor.



Our brain processes all of these messages, and decides which messages are important and which messages to ignore. When the brain can't process all of this information at the same time, it can be like a traffic jam in your head.

There can be too many messages coming in quickly from all directions and it's difficult to make sense of them all. If the messages are misinterpreted, then we can respond in different ways, ways which may appear inappropriate.

For example, your child may have a meltdown over something which seems small, such as the feeling of their socks on their skin in the morning, however that one stimulus may be the one which causes the traffic jam to crash and for your child to feel overloaded!

When talking about sensory processing difficulties, there are some important things to consider:

- Sensory Processing Disorder (or SPD) is not recognised as a diagnosis on its own in the UK. You might read about it in books or on websites based in other countries. However sensory processing difficulties are listed as a symptom of other conditions, such as Autism, ADHD, or Developmental Coordination Disorder.
- Sensory likes and dislikes are not always problems! We are all different, so it makes sense that our brains will process information differently. This means that we ALL have different sensory likes and dislikes, for example, some



people love the taste of coffee but others hate it. Some people love rollercoasters but they make other people feel sick, some people love to go barefoot in the house and others don't. Take a minute to think about your own sensory likes and dislikes. These preferences make us who we are, they are part of our personality. These preferences do not affect our ability to do our daily activities.

We all engage in different movements throughout the day which help us feel "just right". Some people will tap a pencil or chew on their pen while concentrating. We also avoid some sensory information too - some people will avoid playing in sand or don't like the texture of orange juice with pulp! It is when our sensory need or dislikes interfere with our daily functioning that it is seen as a difficulty.

Some children might cover their ears or go out of the room if you put the Hoover on. You may think that the child is processing the information differently, which is true, however they've come up with an effective strategy to manage it. It doesn't stop them taking part in activities. Their sensory processing difference doesn't cause them a problem.



Some children may jump up and down and flap their hands when they are excited. This is a way for them to regulate their level of excitement and joy. This does not stop them from taking part in activities. Again, their sensory processing difference doesn't cause them a problem.

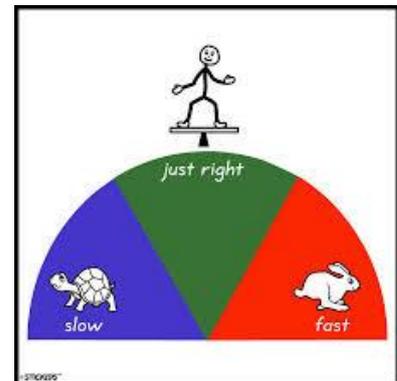
So what are sensory difficulties?

Sometimes the way we process information stops us from doing something we want or need to do. This is described as a sensory difficulty.

Sensory difficulties can affect with how a person engages in self-care tasks, play activities, learning activities and can affect relationships.

We all need different amounts of sensory information to feel comfortable or ready to learn. We use our different sensory likes and dislikes to help keep our system balanced throughout the day.

This allows us to feel 'just right' for taking part in the activity we are doing. We call this process self-regulation. If our level of alertness is low or we are feeling 'slow' as you can see in the picture, we may stand up and walk around, get a drink of water, or put on some lively music to help us feel 'just-right' again.



If our level of alertness is high or we are feeling 'fast' as you can see in the picture, we may turn off the music, have a crunchy snack, or snuggle under a blanket to help us to relax and feel 'just-right' again.

There are different types of sensory processing difficulties.

Some people will only need a small bit of sensory stimulation throughout the day to feel ok and alert enough to do their activities. These people have what we call a low-threshold for sensory information.

These people are quick to notice information from their senses or are highly aware of their environment.

They only need a small amount of stimulation before they feel overwhelmed, for example, a light touch from someone, causes them to be upset; or getting nails cut / hair brushed is difficult. This would mean they have a low threshold to the touch sense.

Other people need lots of sensory stimulation before they can register and feel the sensation. These people have high thresholds.

They may not notice sensory information around them. These people often seek extra sensory input in order for them to register and feel the sensation, for example, a child who is always on the go and can't sit still. This would mean they have a high-threshold to movement.

You may notice that your child seems scared of loud noises one day, however is fine with the same loud noise the next day.

This is very common. Our thresholds and ability to manage sensory stimulation can change from hour to hour, and day to day. Our senses and levels of alertness are often affected by stress, illness and feeling tired. This is why you might like the radio on in the kitchen one day, but when you're feeling stressed and trying to do something which requires attention, you may turn off the radio.



Your level of stress and tiredness has made your senses become more sensitive.

It is important to recognise that our level of alertness will change throughout the day, and so will your child's.

You may notice that your child appears stressed and anxious before going to school, or that before bed time they find it very difficult to settle and go to sleep. Being aware of your child's level of alertness will help you begin to realise when your child may need more support from you, and more support to self-regulate.

Remember, you know your child best and will already know lots about their sensory likes and dislikes. Take some time to sit and think about what your child likes, what calms them down, what makes them anxious or upset? All of these clues will help you to support your child's sensory needs and levels of alertness.

Have a look at our other short videos on the sensory systems and sensory strategies for more information.