BRIGHT START THERAPY

What is Sensory Integration?

Sensory Integration is the ability of the central nervous system (or brain) to process information received through the senses so we can respond appropriately through an action or behaviour.

1. "Let's jump"

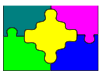
5. Appropriate response

"You've got mail!"

Received from inside body and from the environment

THE PROCESS OF SENSORY INTEGRATION

The picture is clear



4. Sensory Info Organised

3. Sensory Info Interpreted

By Zoe Planck, Director & Senior Occupational Therapist, Bright Start Therapy

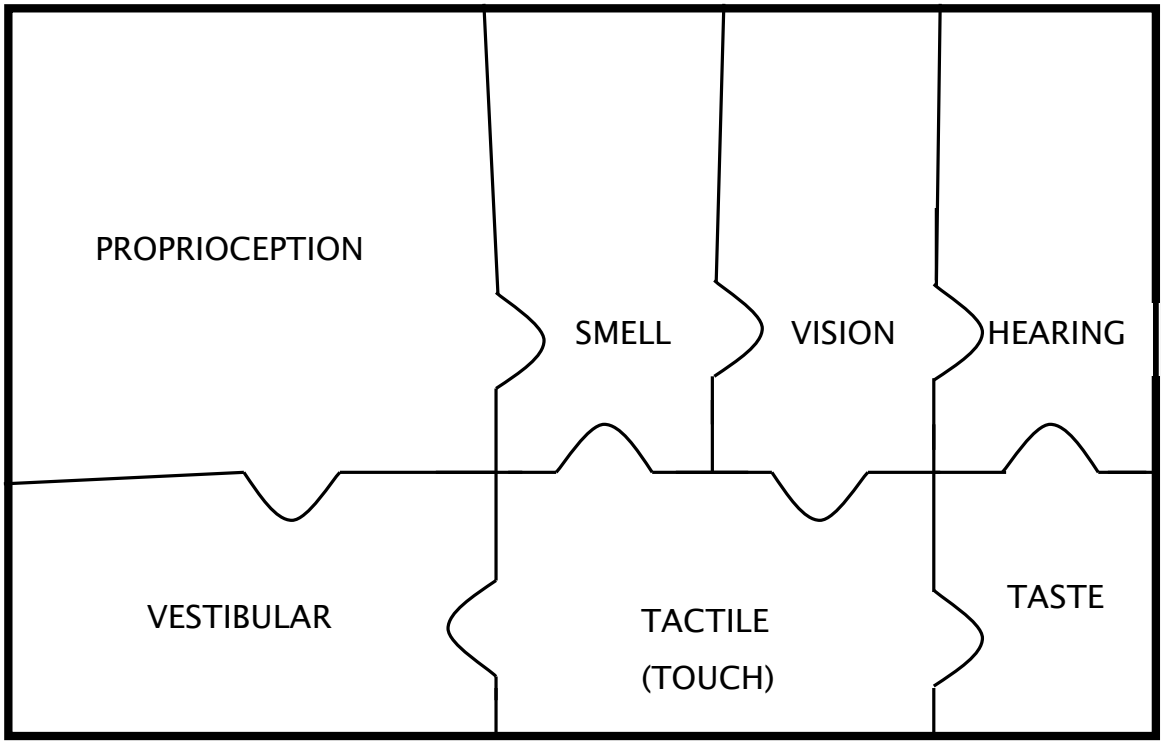
Our senses can be divided into two groups:

- Senses that give us information about what is happening outside our body (sight, sound, smell, taste and touch)
- Senses that tell us what our body is doing (regarding posture, movement, balance and body position).

The sense of movement is generated by the **vestibular system**. This system is found in the inner ear, and sends information to our brain concerning gravity, balance, movement, and changes of position in space. It coordinates our eyes, head and body so we can perform skills like kicking a soccer ball without falling over and looking up to the blackboard and back down to our page keeping our place. The same vestibular sense contributes to maintaining muscle tone (the readiness of our muscles to move), coordinating both sides of the body and holding our head and body up against gravity.

The sense of body position is known as **proprioception**. Information is constantly sent to the brain about what our muscles, joints, and ligaments are doing. This means at all times we know where our body parts are without looking at every action we perform. When proprioception is functioning efficiently pencils, buttons and spoons can be manipulated skilfully in our hands without looking and we can step off the gutter onto the road in a smooth, fluent motion.

Information from the senses should fit together like puzzle pieces. They form an accurate picture about our body and the environment so our brain can then give directions of how to act in the most appropriate and efficient way.



When the pieces of the puzzle do not fit together perfectly or the process is too slow, dysfunction occurs. This means the brain has difficulty analysing and interpreting- or "integrating" the messages it has received. The result is that the individual does not respond, the response is too slow or the response is inappropriate. Some everyday examples of Sensory Integrative dysfunction are:

- Reacts negatively and emotionally to light touch.
- A greater than normal resistance to everyday activities like brushing hair, cleaning teeth and getting nails cut.
- Sensitive to types of clothing (eg. long sleeves) or certain fabrics. May take shoes off at every opportunity, hates wearing new clothes and be irritated by seams or tags.
- Avoid touching things like finger paint, mud or glue.
- Prefers to touch rather than being touched
- Unaware of being touched unless the pressure is very intense.
- Unaware of messiness on face

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- Appears to feel no pain
- Unintentionally hurts others as doesn't appear to realise own strength.
- Dislikes playground activities like swinging, spinning and sliding
- Anxiety when feet leave the ground
- Doesn't like lifts, escalators and may experience car sickness
- Fear of falling when no danger exists
- Needs to keep moving eg. wriggles in chair, walks around room
- Shakes head, rocks back and forth, or jumps constantly (particularly when anxious)
- May appear have a loose or "floppy" body
- Falls over more than others
- Chews constantly on objects like collars, hood strings, pencils and toys
- Says "I can't do that" before even trying. Will only participate in activities that they have practiced and know they can do.

How Sensory Integration (SI) Therapy can help your child

The aim of therapy is to provide sensations specifically to your child's needs to challenge their "sensory integrating" abilities. Your child will be guided through unusual, non-learnt activities like going down a ramp on a scooter board and picking up objects while lying in a hammock. Training of specific skills (eg. catching a ball) is not the focus of this kind of program. Instead, sensory integration therapy will develop the underlying ability of the central nervous system that enables us to learn such skills efficiently. For more information on sensory integration therapy contact our Occupational Therapists on 9785-7279 or 0437-953-867 or send us an email contactus@brightstarttherapy.com.au and we would be happy to guide you further.