

Special Educational Needs Inclusion Service
Down syndrome
Supporting Children's Sensory Needs



- We have SEVEN senses.
- A person may be over responsive in some senses and under responsive in others.
- Think about your child's sensory profile and how you can help them to meet their sensory needs.
- There are different areas of sensory development and motor development.



For concerns or any specific advice, please contact your Occupational Therapist.



SENSORY INTEGRATION requires the processing of information received through seven different systems:

- Visual
- Auditory
- Olfactory (perception of smell)
- Gustatory (gut, including mouth)
- Tactile (sense of touch)
- Vestibular (balance and movement)
- Proprioception (our body position in space determined by muscles and joints/how much force)

Under responsive is when someone has a dampened response to a particular sensory experience. The sensations are not registered enough. Therefore they may then **seek** sensations.

- Constantly fidgeting
- Throwing objects
- Constant climbing in infancy
- Grinding /mouthing objects
- Attracted to loud noises /flashing lights
- Eating excessively, especially strong flavours
- Under sensitive to pain
- Likes wrestling and rough play
- Crashes into things

Over responsive is when someone has a heightened response to a particular sensory experience. The sensations are registered too intensely. Therefore they may **avoid** sensations.

- Dislikes loud noises
- Dislikes being in crowds
- Dislikes bright lights
- Dislikes over –stimulating environments
- Over picky eater
- Extremely cautious in their environment, unwilling to take risks
- Doesn't like being touched



Sensory Processing Difficulties Associated with Down syndrome include:

- Hypotonic
- Joint hypermobility
- Decreased deep tendon reflexes
- Hand-eye co-ordination
- Laterality
- Speed
- Reaction timing
- Equilibrium
- Visual motor control

Our sensory system is primitive and when children are under pressure, they can enter one of these three modes:

FIGHT MODE

- Hitting/ punching
- Kicking
- Biting
- Destroying things



FLIGHT MODE

- Running away
- Distraction techniques



FREEZE MODE

- Sitting down in transitions
- Going under the table
- Refusing to do tasks



Sensory Sensitive

Sensory sensitive is when some children's sensory systems require very little stimulation. They may interpret otherwise harmless input as painful and very unpleasant.



Possible Issues:

- Present with behaviour that can sometimes be difficult to explain
- May dislike playing in sand or water
- May cover their ears
- May have poor attention as they struggle to ignore the sensory input
- May find it difficult to process instructions/information
- May overreact to minor cuts or scrapes
- May refuse to wear some clothes

Top Tips for your child:

- Be aware of the volume of noise and light in the room.
- Be near your child when you are speaking to them
- Provide tactile input such as rice or pasta.
- Provide a play tent as a quiet space.
- Prepare your child before an unpleasant sensory experience. Try using a schedule to 'ready' them for the experience or use ear defenders for loud noises.
- Create a 'sensory break time' and have 'sensory boxes'. Try using balloons filled with flour, Blue Tack or fidget toys.
- Never force a sensory sensitive child to try a sensory experience that they wish to avoid.



Sensory Seeking

Sensory seeking is the term used to describe the behaviour when some children have developed sensory systems that need more input than others. These children are often in a low state of 'arousal' and need more input to feel alert. Some children will actively seek out the input needed to increase their arousal levels e.g. rocking in their chair. Others may not seek out movement but are constantly under aroused and appear to be day dreaming.



Possible Issues:

- Move or fidget excessively
- Smell/lick non-food items
- Make noises
- Prefer busy visual environments

Top Tips for your child:

- Allow your child to fidget or move in their chair. Try using a wobble cushion.
- Use play dough that is scented/unscented or textured/non-textured.
- Allow time for chewing or blowing bubbles.
- Provide foods that are crunchy, sweet, spicy, sour or cold.
- Bright lighting and lots of colours.
- Provide toys that your child can ride or swing on.
- Encourage your child to help move equipment such as books.
- Deep pressure hugs can provide focus and improve concentration.

Postural Control

Postural control is the ability to maintain a stable posture for movement. Postural control is required for performing coordinated gross and fine motor skill movements.



Possible Issues:

- May lie across the table or use their hands to prop up their head
- Appear fidgety in their seat
- Tire easily with all motor activities e.g. writing, sitting up straight, indoor and outdoor physical activities

Top Tips for your child's environment:

- Make sure desk is slightly higher than their elbow.
- Use a sloped board (or large ring binder folder) to learn on.
- Make sure their feet are resting comfortably on the floor.
- Attach a non-slip surface (e.g. non-slip mat) to the chair to prevent your child from slipping off.



Top Tips for your child:

- Allow for activities in different positions such as lying on the floor or standing.
- Have frequent movement breaks.
- Encourage your child to stretch e.g. arms/hands in the air, action songs such as 'heads, shoulders, knees and toes' etc.
- When seated make sure hips and knees are at 90 degrees.
- Play games which include physical activities

Body Awareness

Body awareness is an internal map of the body developed from appropriate sensorimotor experiences. It is the ability to find our direction in the environment e.g. to distinguish left from right and to walk across the room without bumping into furniture.



Possible Issues:

- Bumping into things or knocking objects off tables without being aware
- Demonstrate poor letter formation and disorganised work on the page
- Be unable to set things down without spilling or dropping
- May trip over objects on the floor

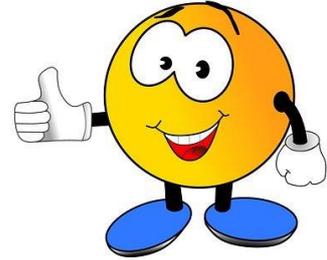
Top Tips for your child:

- Prepare your child for skilled motor tasks by first doing activities which put pressure through the joints and muscles such as pushing, pulling, running or jumping.
- Use more tactile and multisensory learning techniques e.g. drawing in the air and sand, tactile pencil grips, eyes open and then closed.
- Games with eyes both open and then closed e.g. Simon says, “Eyes closed”, Simon says, “eyes open” etc.
- Drawing games with eyes closed
- Pin the tail on the donkey.
- Regular breaks from motor activities that require concentration.
- Give short, clear instructions to help with direction.



Balance and Coordination

Balance and coordination is the body's ability to successfully combine a sequence of movements using both sides of the body together. It is the fine tuning of sensory/motor systems.



Possible Issues:

- Unable to cross the midline, a skill that is required for reading/writing e.g. cross arms and touch opposite knees
- Poor balance
- Have no defined hand dominance, may use both the left and right hands
- Poor two-hand co-ordination and poor concept of left–right orientation
- Slow to use a knife and fork

Top Tips for your child:

- Physical activities and games.
- Keep activities at a level where your child can succeed.
- Allow your child to watch and copy other children doing physical activities.
- Imitate crossing midline postures e.g. touching left ear and right elbow, right ear and left elbow, cross arms and touch opposite knees etc.
- Cut using safe scissors, draw around stencils and colour on small pieces of paper i.e. activities that encourage the use of one hand while the other is required to stabilise.

Motor Planning and Sequencing

Motor planning and sequencing is the ability to plan, organise and sequence movements, especially those which are new or complex e.g. learning to ride a trike or bike.

Possible Issues:

- Difficulty with gross motor skills such as catching and kicking balls, climbing confidently on play equipment or doing activities which require balance
- Avoid tasks or are reluctant to hold crayons/pencils, use cutlery, do up fastenings on clothing, use construction toys or cut with scissors
- Art activities and crayon/pencil activities appear messier
- Poor organisational skills such as knowing left from right, organising for tasks and keeping the work area/desktop tidy
- Bump into things or drop things
- Poor attention and concentration; the child may be easily distracted

Top Tips for your child:

- Allow your child to watch other people perform new motor tasks first.
- Moving like different animals such as bears, crabs or rabbits.
- Do movements such as hopping, jumping, walking, squatting, shrugging shoulders, star jumps or stride jumps.
- Make and hold a statue when music stops.



Organisational Skills

Organisational skill is the ability to organise your belongings and even your activity or work on a page.

Possible Issues:

- Untidy belongings/desk/work
- Frequently forget their break, lunch or school bag
- Can be obsessed with order as it is difficult to achieve

Top Tips for your child's environment:

- Ensure there is a clear path around your home.
- Try to keep their room and workspaces orderly, talk through tidy-up time of their toys etc.
- Label the drawers and cupboards in their bedroom.
- Use visual reminders, whenever possible, to help your child remember what is needed, by having pictures.



Top Tips for your child:

- Ensure all of your child's belongings are clearly labelled.
- Allow extra time to complete some tasks.
- Use reward systems for good organisation.
- Ask your child to repeat back what needs to be done after a verbal instruction is given.
- Be a good example and talk through getting ready for activities.
- Have a piece of Blue Tack on their homework table for your child to put his/her pencil on if it keeps falling off the desk.



Visual Motor Skills

Visual motor skill is the ability to integrate what is seen and to transfer it into a motor output. It is an important foundation for handwriting skills.



Possible Issues:

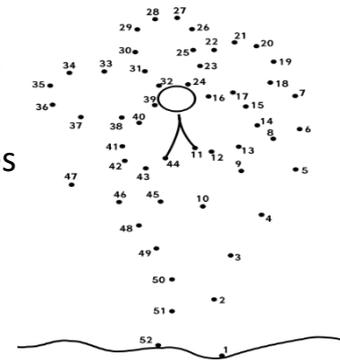
- Difficulty with copying pictures, letters and numbers.
- Difficulty in achieving accuracy for motor tasks which require visual guidance such as colouring within lines.
- Slow to finish the task due to the extra effort required to deal with these difficulties.

Top Tips for your child:

- Do some hand warm-ups to activate muscles in the hand and arm e.g. make a fist, stretch five fingers, spider presses etc.
- Copy designs made out of blocks or pegboard patterns.
- Complete dot to dots, mazes, and tracing activities.
- Make lines on colouring sheets thicker by going over the top with a marker.
- Allow your child to miss a line when writing so that it is easier to read back.

Visual Perception

Visual perception refers to what is perceived through the eyes and interpreted by the brain. Both the eyes and the brain must work together to interpret the world. The eyes look and the brain sees.

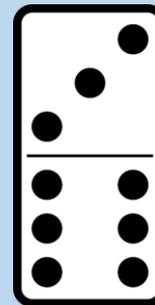


Examples

- May find focusing on a stationary object difficult.
- May experience tired eyes and rub them frequently.
- Difficulty judging distances and may bump into things around them and have difficulty throwing and catching a ball.
- May have difficulty recognising and recalling letters or shapes.

Top Tips for your child:

- Picture matching games like lotto, snap and dominoes.
- Matching objects to outlines drawn.
- Spot the difference between two pictures.
- Memory games using a small selection of picture cards for finding or matching pairs or play the 'blanket game'- get a group of children to close their eyes and cover one child with a blanket; ask the children to guess who is missing.
- Use of coloured overlays.



For more information on sensory needs, please have a look at <https://view.pagetiger.com/RISENI>