

A young girl with long, dark, straight hair is seen from the back, covering her eyes with both hands. She is wearing a light-colored, possibly pink, top. In the background, a computer monitor is visible, displaying a bright, colorful image. The scene is set in what appears to be a classroom or office environment.

Understanding and Supporting Sensory Differences in Autism

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MY MORNING ROUTINE

Make a list of the things you did to get ready for work this morning.





• LEMON WATER

• YOGA



• BREAKFAST



• SHOWER



• BEAUTY RITUALS

MORNING
ROUTINE



• PLANNING



What are the sensory systems of the body?

Olfactory

Sense of smell
Info. received
through the nose

Gustatory

Sense of taste
Info. received
through the mouth

Vestibular

Sense of balance
and spatial
orientation

Tactile

Sense of touch
Info. received by
contact through
the skin

8 SENSES

THE SENSORY SYSTEM

Auditory

Sense of sound
Info. received
through the
ears

Proprioception

Awareness of body
in space and
strength needed to
complete actions

Interoception

Awareness of
internal bodily
states

Visual

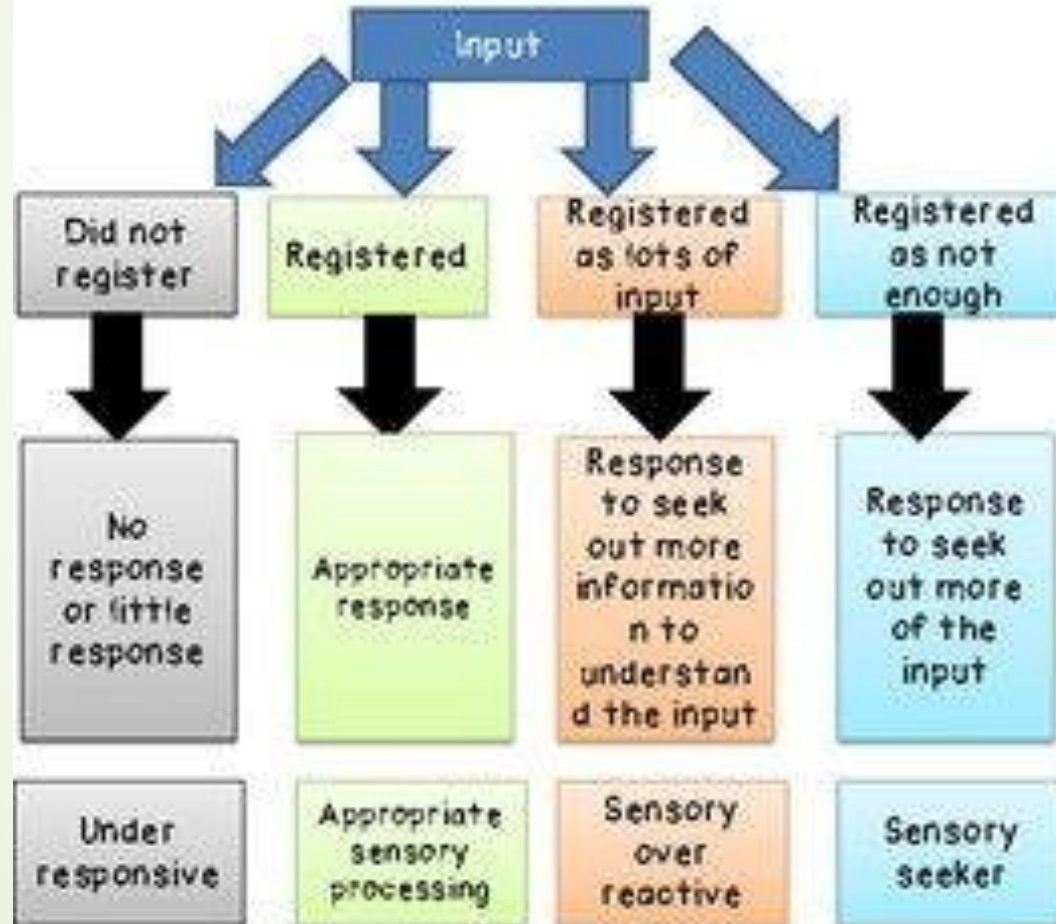
Sense of sight
Info. received
through the
eyes



Sensory processing



Sensory Processing

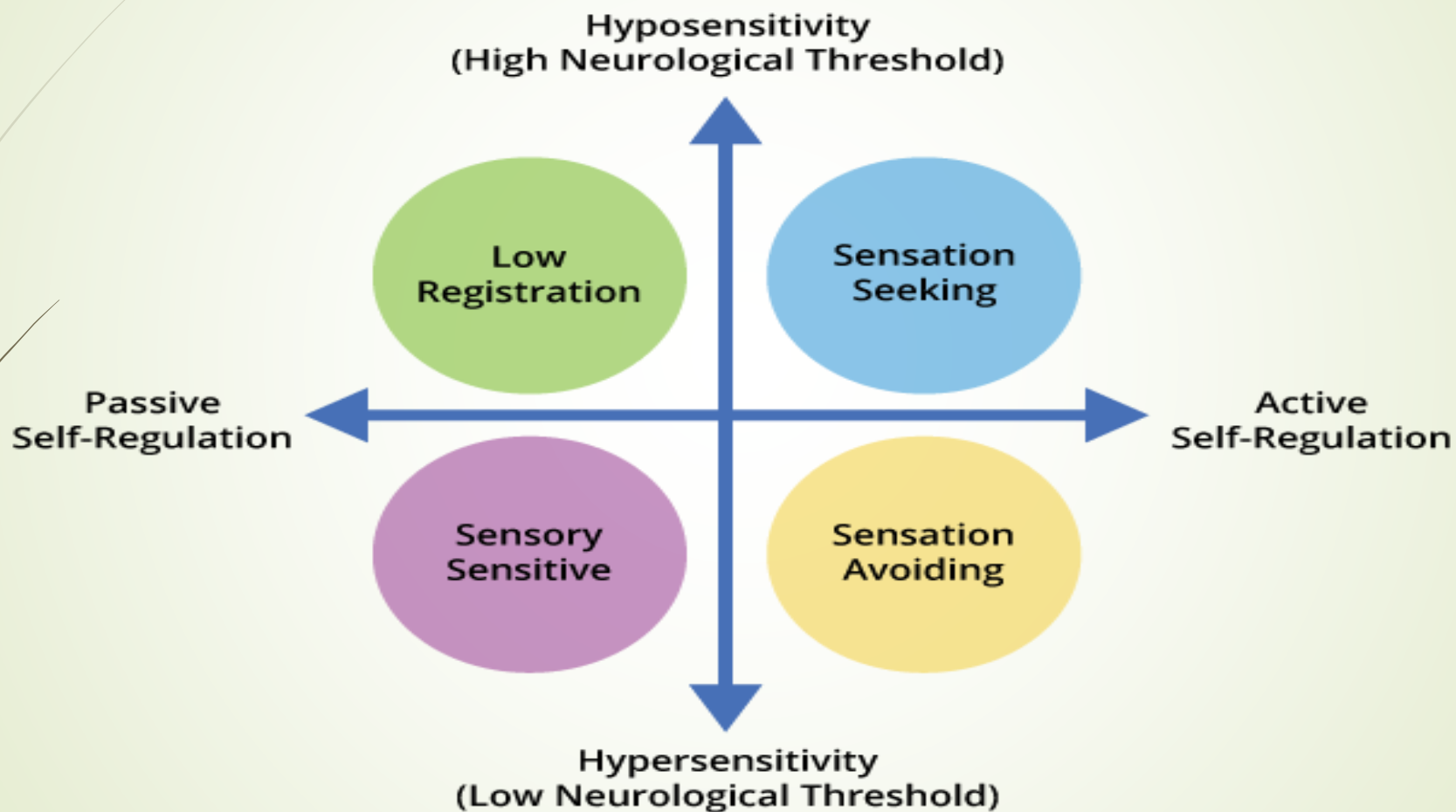


Sensory behaviour and autism

- An estimated 92% of children aged between 3 and 6 with autism have sensory processing difficulties.(Dunn)
- 80% of people with autism have sensory processing difficulties (NAS)
- Some children have sensory processing difficulties but do not have autism.
- All of us have our own particular 'sensory profile'.



Four patterns of sensory processing



Sound



Hypersensitive

- Be able to hear and become distracted by background noise others may not notice.
- Prefer the TV or music volume to be low, or off.
- Become upset while eating crunchy foods due to the noise from the crunch.
- If a child has a sensory avoiding pattern for auditory processing they may:
 - Run away from or avoid situations with loud or sudden noise such as a toilet flush, hair dryer, or lawn mower.
 - Avoid situations or places with large numbers of people, such as an indoor playground.
 - Place their hands over their ears in situations with loud or sudden noises. For example, during a fire drill at school.

Hyposensitive

- Need you to repeat things multiple times to understand what you are saying
- Not respond when their name is called
- Be unable to locate where sounds come from
- very excited with loud music or noises
- Listen to the TV or music with a very high volume
- Be described by others as loud or noisy

Touch



Hypersensitive

- Dislikes being touched or held
- Dislikes messy play or food on hands/face
- Dislikes certain food textures
- Cannot tolerate some clothes

Hyposensitive

- Doesn't notice pain, temperature, twisted clothing
- Doesn't notice when hands or face are messy
- Seeks out messy play, certain textures
- Explores by touch

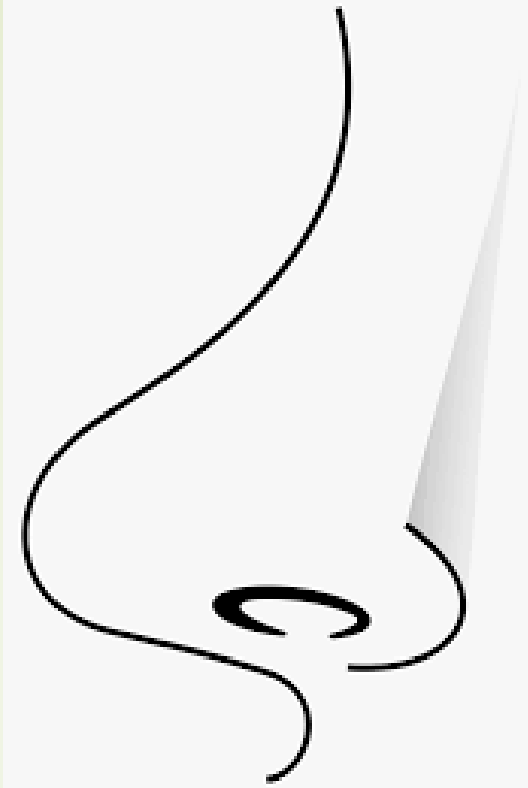
Smell

Hypersensitive

- Can be very distracted by smells others don't notice
- Distressed by perfumes
- Selective or picky eater, refusing to eat certain foods based on scent. They may refuse to eat certain foods even if they are extremely hungry.
- Avoid shared lunch spaces due to the dislike of other lunch smells.
- Plug their nose when in the presence of particular smells, such as the smell of a flower, perfume/cologne, another child, or food item.
- Refuse to use public bathrooms due to the scent.
- Refuse to go to a particular place, such as a friend's house because of the smell.

Hyposensitive

- Explores by sniffing
- Must smell before tasting
- Enjoys strong smells
- Enjoy eating foods with strong scents such as oranges, garlic, or pickles.



Taste

Hypersensitive

- A supertaster – can tell the difference between brands of same food
- Fussy eater
- Hates cleaning teeth

Hyposensitive

- likes very hot or very cold foods
- Poor chew and swallow
- May taste/mouth non food items



Vestibular (head movement)

Hypersensitive

- Dislike of movement activities – swinging, jumping, spinning
- Avoids balance activities
- afraid of heights and having their feet off the floor
- frequently become motion sick or dizzy
- Avoid using the playground equipment at the park. Instead they may prefer to sit and play in the grass or sit on a bench.
- Avoid activities that involve running, spinning and jumping. They may be less active than other children their age.
- Refuse to go on any roller coasters or rides such as a merry-go-round.

Hyposensitive

- clumsy, often falling over, tripping and losing their balance. Movement seeker unable to follow moving objects, such as cars with their eyes.
- Fidgets to focus
- Be described as a risk taker and fearless. They may jump from high heights and spin in circles fast on the swings at the park.
- Enjoy a large amount of bouncing, jumping and spinning without becoming nauseous or dizzy. They may be described as having too much energy.
- Enjoy thrill seeking activities, such as roller coasters.
- Rock back and forth while standing or sitting.
- Love being upside down. For example, while on the monkey bars at the park.

Proprioception

Hypersensitive

- ❑ Avoid wearing tight clothing.
- ❑ Avoid and refuse to participate in activities that require physical effort such as riding a bike, climbing or running.
- ❑ Extremely sensitive to touch and avoid situations where others may touch them. This is due to proprioceptive input received by touch. These children may strongly dislike hugs and other signs of affection. Tactile and proprioceptive processing are closely linked.

Hyposensitive

- ❑ Have difficulty navigating rooms and avoiding objects when moving around.
- ❑ Appear floppy and have difficulty with balance. They may have difficulties sitting upright in a chair or on the floor and keeping their head upright. The child may lean against people, furniture and walls for support.
- ❑ Stumble and fall more than other children their age.
- ❑ Have difficulty with some activities that require balance. For example, riding a bike.
- ❑ Have difficulty with activities that require a change in body positioning. For example, playing sports.
- ❑ Sit in a "W" stance on the floor.
- ❑ Hold onto items with a weak grasp and drop objects easily. For example, they may be unable to hold a marker tight enough to use it and they may often drop their toys.
- ❑ Have a limited sense of personal space. They may unknowingly stand too close to other individuals or objects.
- ❑ Bang or hit their body parts. For example, they may hit their head with their hands, bang their hands together or bang their head on a wall.
- ❑ Prefer tight clothing. Tight clothing can give a large amount of proprioceptive input.
- ❑ Constantly be in motion. For example, they may constantly flap their hands and fidget and not be able to sit still. This may impact their ability to focus in class, as they may constantly be trying to gain proprioceptive input through movement instead of listening.
- ❑ Prefer to run, jump or stomp instead of walking. They may walk very loudly, by stomping their feet on the ground.
- ❑ Walk on their tip toes.
- ❑ Case example:

What is in your sensory toolkit?


- 3 alarms
- Prep clothes
- Coffee
- TV – news
- Fed cats
- Petted cats
- Glanced through presentation one more time.
- Another cup of coffee
- Crunchy apple
- Packed laptop and diary in backpack
- Walked



How to make adaptations in school?

Detailed sensory profile
Sensory diet
Safe place
Safe people
Movement breaks
Options where to work
Seating plan
Group work
Lunch time
Break time





How to incorporate the sensory toolkit into a sensory diet for individual students?

- ❑ What is a sensory diet?

It's a planned and scheduled programme of activities designed to provide the 'just right' combination of sensory input a person needs to stay focused and organised through the day.

- ❑ Includes a good mix of sensory motor activities throughout the day to help students to be in a better state of focus to work in class.
- ❑ A programme designed by you for a student to fit in with your class timetable.

Types of sensory diet activities:

- ❑ **ALERTING** – vestibular activities – involve moving of the head in space: bouncing, jumping, running, spinning, climbing, jumping, rocking.
- ❑ **ORGANISING** – proprioceptive activities (heavy work) – involve moving the body against resistance. Give us good feedback as to where our limbs are in space: press ups, rolling across the floor, using a scooter or a balancing board, crawling, swinging on monkey bars, pushing/ pulling heavy toys, rough and tumble, skipping.
- ❑ **CALMING** – deep touch pressure activities, may involve weights or whole body pressure: rolling up in a blanket or a mat, getting into a sleeping bag/ body sock, weighted or deep pressure clothing or blankets, being squashed with a gym ball.

Sensory diets include:

Main courses – at least three times a day e.g. on arrival, morning break, after lunch break – most effective if they are part of the daily routine and are on the student's visual time table.

- a break somewhere quiet
- a walk around the schools grounds
- physical activities such as a sensory circuit
- time wearing a weighted jacket

Snacks – more subtle opportunities to get sensory stimulation during the day

- headphones to shut out noise overload.
- fiddle toys.
- knobby cushions on their chair.
- “Chewelry” and oral motor toys.
- calming smells.
- weighted cushions.

The activities are not rewards for good work but a part of the student's day , which helps him/her to be able to work better.

Autism and Hypermobility



Adapted from Jane Green - a professional educationalist Autism lead UK, exAHT, an advocate and adviser on autism, EDS and symptomatic hypermobility. Chair and founder of the multi-award-winning SEDSconnective.

Link between neurodiversity and physical issues

People with autism, ADHD and Tourette's are twice as likely to have hypermobile joints and experience pain on a daily basis. Symptoms may include:

- *bone, muscle and nerve fibre pain*
- *tiredness, dizziness, brain fog*
- *anxiety*
- *headaches, migraine*
- *jaw pain, ear pain*
- *eyesight or vision issues allergies*

Additional symptoms:

- ❑ *dislocations*
- ❑ *laxity joints*
- ❑ *soft tissue injuries*
- ❑ *gastrointestinal issues: heartburn, ulcers, painful spasms while eating, reflux, vomiting and bowel bladder issues*
- ❑ *Associated with Ehlers-Danlos syndromes (EDS), or joint hypermobility syndrome (JHS), but it is tough to get this diagnosis. More often, children are said to have symptomatic hypermobility (SH).*




Useful adaptations

Acknowledge the pain children and young people report, dismissing it can cause trauma

Create comfort in the classroom and at home:

- More support when sitting – cushion, chair with a high back or simply sitting against the wall
- Allowing children to raise their legs if they feel dizzy or faint
- Weak ligaments in the finger joints can make holding pens or pencils painful – teach touch typing instead



Considerations around exercise and sport

Pupils might find all sports difficult: temperature changes can cause dizziness, rashes and fainting, they may have problems with fine and gross motor coordination, or they may struggle with loud sounds, smells and lighting. Activities can also be painful due to soft tissue injuries or joint issues, which are often not visible until too late. Senses like proprioception and interoception also play a big part here, some children might not feel the slow build-up of pain until it hits them out of the blue.

Discuss with children the amount of activity or sport they are comfortable with.

If a child excels at one particular sport, they will need to be reminded not to do too much, and encouraged to rest so they don't overextend and hurt themselves

Adjustments for food

As well as pain from standing, walking and sitting, students can experience a lot of pain around eating, due to swallowing and reflux issues, stomach spasms, IBS and injuries.

- ▶ Allow more time to eat their food.
- ▶ Some children may need to eat smaller meals, but more frequently, some may need special feeding shakes.
- ▶ Work with the child to make the necessary timetable adjustments e.g. allow children to be in both lunch sittings so they have extra time, allow them another food break in the afternoon.
- ▶ May need lots of water and salt packs, especially on hot days. If hypoglycemic they may need energy packs to stop flares.
- ▶ May need a toilet pass that they can use regularly and without question.
- ▶ May need reminding to go, and when they do, more time to do so.



Useful links

- ▶ <https://www.tes.com/magazine/teaching-learning/general/autism-5-adjustments-needed-your-classroom>
- ▶ <https://theschooltoolkit.org/>
- ▶ <https://www.sedsconnective.org/post/understanding-hypermobility-disorders-syndromes-in-schools>
- ▶ <https://www.youtube.com/watch?v=Mjo7rdAv5ps> – Dr. Jessica Eccles explains hypermobility
- ▶ <https://theschooltoolkit.org/reasonable-adjustments/>



Dad talking about son

<https://www.theguardian.com/society/video/2016/may/13/autism-a-carpet-made-my-son-feel-like-he-was-drowning-video>





Sensory Overload Video

<https://www.youtube.com/watch?v=K2P4Ed6G3gw>