The Eight Sensory Systems

System	Location	Function	Signs of Hyporeactivity	Signs of Hyperreactivity	Sample Sensory Diet or Sensory Lifestyle Activities
Auditory (Hearing)	Inner ear-stimulated by air/sound waves.	Provides information about sounds in the environment	_ bangs objects _ shouts when speaking _ makes sounds constantly _ may appear as if he/she can't hear you _ Other:	_ avoids specific sounds and may cover ears _ dislikes crowds _ unable to block out noises from outside _ startles easily to sounds _ challenges with selective attention _ Other:	Offer ear plugs or noise-canceling headphones Use social stories to help child anticipate potential noxious sounds in the environment Use calming, soothing music as needed Try singing/whispering instructions
Auditory total			Hyporeactivity total =	Hyperreactivity total =	
Visual (Sight)	Retina of the eyestimulated by light.	Provides visual information	_ difficulty finding objects in visually stimulating environments _ fascinated with visual games _ does not notice people coming into room Other:	_ frequently covers eyes, squints or rubs eyes _ covers part of the page when reading _ watches everyone when they move around _ Other:	Use visual supports (i.e. visual schedules) Remove competing visual information If under-responsive, introduce visual toys-rain-sticks, bubbles and/or glittering toys Adjust or dim lighting or offer sunglasses
Visual total			Hyporeactivity total =	Hyperreactivity total =	
Tactile (Touch)	Skin-density of cell distribution varies throughout the body.	Provides information about the environment and object qualities.	_ low reaction to pain _ seeks deep pressure by pushing against others _ seeks to bump into others _ likes heavy or tight clothing _ touches people and objects to the point of irritating others Other:	_ resists physical touch _ dislikes certain types of fabric and avoids getting messy _ difficulties standing in line or close to others _ difficulties with self-care routines _ difficulties with transitions _ Other:	Massage/bear hugs Sandwich game (playful squishes with pillows) Sitting on bean bag chairs Weighted equipment (lap snakes, pressure vests), weighted lap pads) Experiment with different types of clothing (e.g. tight lycra and spandex clothing) Introduce different textures to play with, Fidget Tools
Tactile total			Hyporeactivity total =	Hyperreactivity total =	

System	Location	Function	Signs of Hyporeactivity	Signs of Hyperreactivity	Sample Sensory Diet or Sensory Lifestyle Activities
Olfactory (Smell)	Chemical receptors in the nose-closely associated with the gustatory or taste system as well as the emotional parts of the brain.	Provides information about different types of smell. Gives us information about food flavours.	_ smells self or others _ smells foods or objects _ seeks out strong odors and tastes _ smells new items _ Other:	_ keeps a distance from others _ avoids kitchen and bathrooms _ reacts emotionally to smells _ picky eater _ Other:	Be aware that some kids may react adversely to smells Use scented candles, Experiment with scented lotions or scented markers Try different essential oils to see what is pleasing to the person
Olfactory total			Hyporeactivity total =	Hyperreactivity total =	
Gustatory (Taste)	Chemical receptors in the tongue, inside the cheeks, on the roof of the mouth and in the throat.	Provides information about different types of taste (sweet, sour, bitter, salty and spicy).	_ craves certain foods _ chews or licks on non-food objects _ mouths objects _ may 'pocket' food in cheeks _ Other:	_ uses tip of the tongue for taste _ gags easily _ limited foods in diet _ very particular about food textures _ Other:	Experiment with different textures Alerting-sour, salty or cold Calming-resistive chewing (gum, granola bars, water bottle spout) and resistive sucking (crazy straws)
Gustatory total			Hyporeactivity total =	Hyperreactivity total =	
Interoception: (Internal body signals)	Interoceptors, or internal sensors, are located throughout the body	Perception of stimuli originating from inside the body (hunger, thirst, need to use washroom, etc.)	_unusually high pain threshold _poor awareness of hunger or thirst cues _toilet training challenges _ not aware of being unwell or sick _ Other:	_ unusually low pain threshold _overly sensitive to temperature changes _becomes easily upset & cannot figure out why _ Other:	Use of cognitive tool to increase awareness of internal body states (i.e. Body Scan charts, Hunger awareness charts, etc.)
Interoception total			Hyporeactivity total =	Hyperreactivity total =	
Vestibular (Movement & Gravity)	Inner ear-stimulated by head movements and input from the visual and proprioceptive sensory systems.	Provides information about where our body is in space including speed and direction of movement.	_ craves movement _ always 'on the go' _ fearless, often climbing, bumping, falling and jumping	_ avoids movement _ dislikes riding in a car _ resists participating in activities where feet leave the ground	Consider flexible seating- sitting on a wiggle cushion or ball-chair Movement breaks Running/jumping/skipping Rocking chair Handstands

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Vestibular continued			_ rocks/cannot sit still on the chair Other:	_ avoids playground equipment or being upside down Other:	'Log rolling' Moving to active songs (Hokey Pokey, Head & Shoulders, etc.) Simple Obstacle Courses
Vestibular total			Hyporeactivity total =	Hyperreactivity total =	
System	Location	Function	Signs of Hyporeactivity	Signs of Hyperreactivity	Sample Sensory Diet or Sensory Lifestyle Activities
Proprioception (Body awareness)	Muscles and Joints- activated by muscle contractions and movement.	Provides information about where a body part is and how it is moving in relation to other body parts.	_ poor endurance for tasks, tires easily, collapses _ needs to look at body part to determine how to move, jerky movements _stomps when walking, gives hard 'high-5s' _hangs on desk for support or slouches, falls off chairs _ difficulty using force needed to write _ breaks things easily _ Other:	(rare to have an over- responsive proprioceptive system)	Animal walks Carrying a heavier back pack Chair/wall push ups Tug of war/pulling on theraband Crunchy/chewy snackes Blowing activities (i.e. blow pens) Make a 'kid sandwich' rolling a ball over the student with moderate pressure
Proprioception total			Hyporeactivity total =	Hyperreactivity total =	

Having read about these sensory systems, what do you think you are key areas of challenge for yourself or the individual you care about who is on the autist spectrum?
What strategies do you want to try to help you respond in a more productive or helpful way?

^{*} If your child has a number of sensory issues as identified by this checklist, it may be helpful to consult with an Occupational Therapist (OT) who is certified to work with children with sensory processing issues.