A Short Introduction to Sensory Processing Issues

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Group Discussion

Do your children have any sensory issues?

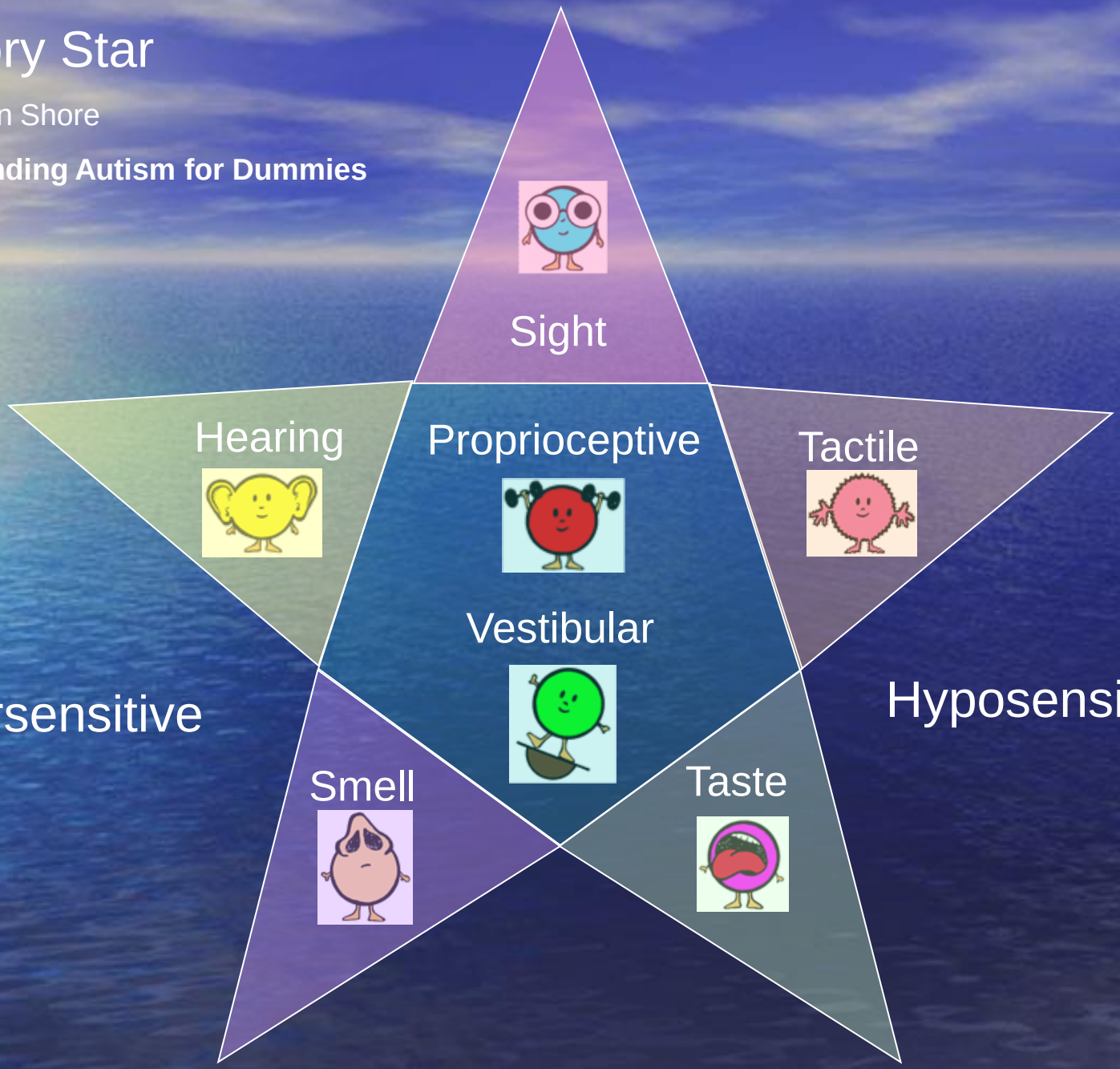
Are there things that impact on their daily life?

Video: Ros Blackburn

Sensory Star

By Stephen Shore

Understanding Autism for Dummies



Sensory Processing

- A person's ability to receive, sort out, and make use of information from the world and their own body.
- Allows us to make appropriate responses.
- Sensory systems begin developing before birth and continue throughout life.
- Brain stores, sorts, compares, and weights incoming information – memory is a significant part.
- Happening at an unconscious level all the time.

Poor Sensory Processing

…….when sensory signals don't get organised into appropriate responses and a person's daily routines and activities are disrupted as a result…….i**mpairing social, emotional, motor, and/or function.**

Sensory Modulation

failure to orient

Sensory Registration Problems

Sensory Dysfunctional Modulation

overorientation

Sensory Defensiveness

Rayeen & Lane. 1991.

Video: Luke Jackson

How to Keep Your Engine Running?

The Alert Program
www.alertprogram.com

If we know what can reduce engine/body speed or increase engine/body speed we can then use what this is to perhaps spike/calm the engine speed as needed!

By tracking times of the day that you feel our children + ourselves seem more hyper/hypo (or faster/slower 'engine'/body speeds) – it gives us a better idea of expectations that we can set for our children & when.

How does the brain-body process sensation?

The senses:

- Vestibular
- Proprioception
- Tactile
- Visual
- Auditory
- Smell
- Taste

Register, Orientate, Interpret, Organise a response, Take action

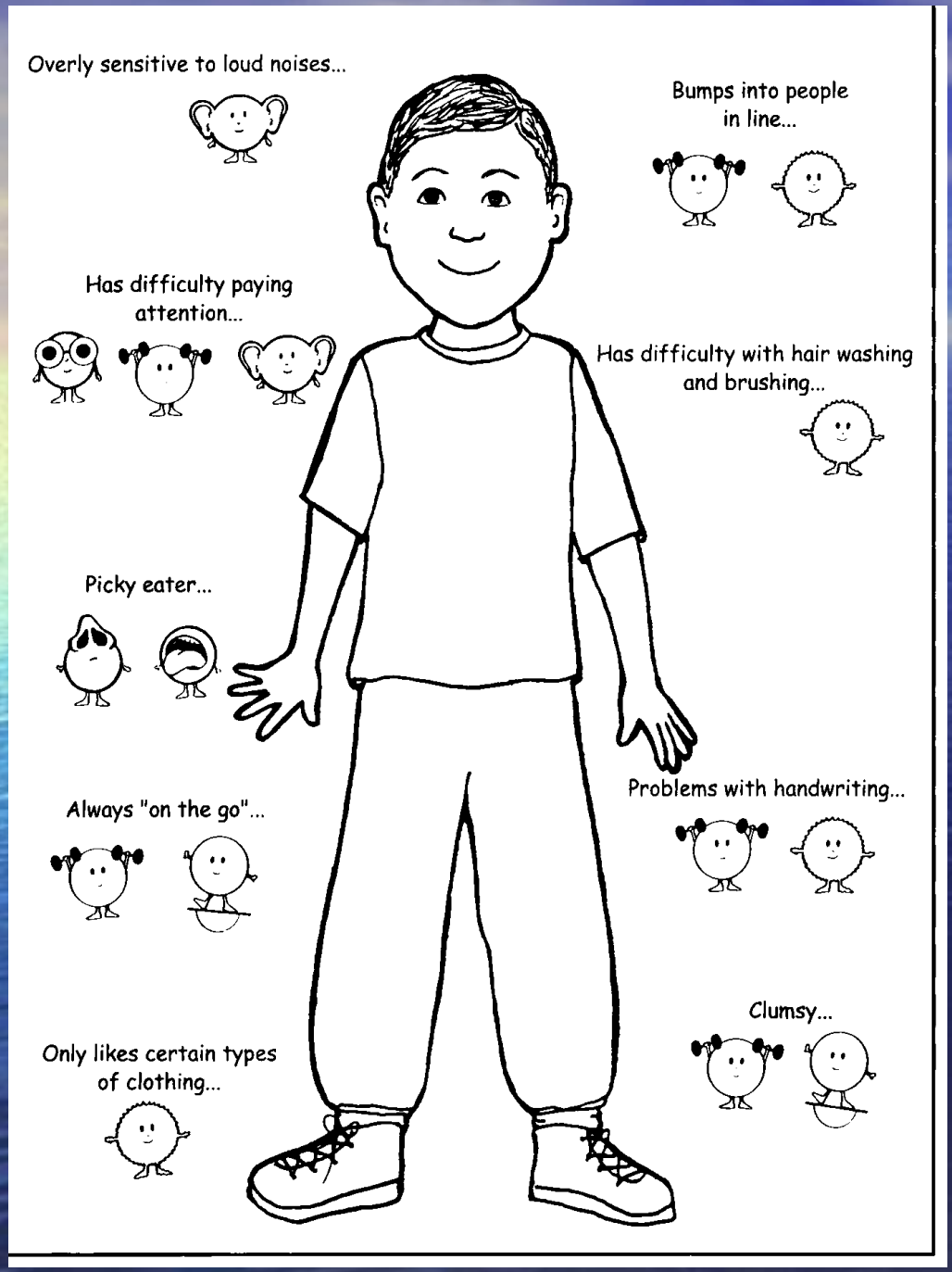
Table 1.1

Location and Functions of the Sensory Systems

System	Location	Function
Tactile (touch) 	**Skin** – density of cell distribution varies throughout the body. Areas of greatest density include mouth, hands, and genitals.	Provides information about the environment and object qualities (touch, pressure, texture, hard, soft, sharp, dull, heat, cold, pain).
Vestibular (balance) 	**Inner ear** – stimulated by head movements and input from other senses, especially visual.	Provides information about where our body is in space, and whether or not we or our surroundings are moving. Tells about speed and direction of movement.
Proprioception (body awareness) 	**Muscles and joints** – activated by muscle contractions and movement.	Provides information about where a certain body part is and how it is moving.
Visual (sight) 	**Retina of the eye** – stimulated by light.	Provides information about objects and persons. Helps us define boundaries as we move through time and space.
Auditory (hearing) 	**Inner ear** – stimulated by air/sound waves.	Provides information about sounds in the environment (loud, soft, high, low, near, far).
Gustatory (taste) 	**Chemical receptors in the tongue** – closely entwined with the olfactory (smell) system.	Provides information about different types of taste (sweet, sour, bitter, salty, spicy).
Olfactory (smell) 	**Chemical receptors in the nasal structure** – closely associated with the gustatory system.	Provides information about different types of smell (musty, acrid, putrid, flowery, pungent).

Sensory Channels and Locations

Smith Myles, Cook, Miller, Rinner, Robbins, Asperger Syndrome and Sensory Issues, 2000



[Link to 'Straight Talk' video clip]

Sample of some sensory characteristics

Smith Myles, Cook, Miller, Rinner, Robbins. Asperger Syndrome and Sensory Issues, 2000

Intervention Strategies

- Sensory Integration

  Intervention strategies to help regulate arousal levels, maximize functional skills and decrease anxiety

- Sensory Diet

  Replacing stereotypic behaviours with similar sensory experiences to increase the organization of the CNS

Sensory Diet & Diet Goals

- Calms an over-aroused person
- Increases the activity level of an under aroused person
- Helps an individual remain in the calm alert state for longer periods
- Help the person understand his/her sensory needs
- Help the person learn to choose beneficial and safe activities
- Eventually teach self-regulation (initially you are the regulator)

How to support a child with sensory processing difficulties:

- See Behaviour, Think Sensory!!
- Replace, don’t eliminate.

Strategies: VESTIBULAR

- **Seeker** – allow extra movement, e.g. therapy ball, cushion, lean down to pick up pencil etc.

- Avoider – do not overwhelm. Support other sensory systems. Refer on.

Strategies: PROPRIOCEPTION

- Lots of purposeful movement opportunities for seekers. Work in standing, lying. Heavy jobs.
- Encourage slumpers to move. Beware of terms e.g. ‘good sitting’. Work in standing, lying. Heavy jobs.
- Encourage movement for the avoiders - rare

Strategies: TACTILE

- Avoiders – allow to stand at the front or back of the line, sit in well spaced area. Give warnings.

- Seekers – fiddle toys, bracelets, scrunchies, offer a range of textured resources

Strategies: VISUAL

- Avoiders – quiet visual area. Review levels of visual noise.
- Seekers – use colour and highlighters. Do not overload content on page.

Strategies: AUDITORY

- Seekers – play background music, may also need to reduce noise when explaining
- Avoiders – arrange areas of the class with reduced noise e.g. small quite work

Strategies: SMELL/TASTE

- Allow avoiders to sit near open window or door leaving if necessary.
- Stimulate seekers – what can you tolerate?