

SENSORY FACT PACK



Autism Initiatives
real partnerships, unique solutions, positive outcomes

OSSME

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PROPRIOCEPTIVE

What is Proprioception?

Small receptors within our muscles and tendons detect the amount of stretch that occurs in muscle fibres and tendons. This allows us to sense the movements of our body parts without having to look at where they are. Activities that provide feedback into the muscles and joints of the body promote coordinated movement. Repetitive movement enables us to know where our arms and legs are in space. In addition, there is much written about the benefits of using proprioceptive activities to organise all of the senses in the treatment of sensory processing disorders (SPD). This is especially apparent when the muscles are used in "heavy work" patterns. "Heavy work" is any gross motor activity that involves moving against resistance to provide deep pressure into the muscles and joints of the body. Pushing, pulling, carrying, lifting or jumping are examples. Interestingly, many of the same heavy work activities that help *reduce* hyperactivity in children also help to engage children who appear listless, tired or floppy.

PROPRIOCEPTIVE AVOIDING (HYPER)

- Appears lazy or lethargic
- Avoids active activities or exercise
- Can be a picky eater
- Prefers to sit still
- Avoids touch from others
- Seems uncoordinated
- Needs to look to do familiar activities
- Difficulty using stairs

PROPRIOCEPTIVE SEEKING (HYPO)

- Runs into objects, furniture, walls, people
- Uses extreme force
- Appears to be stronger than usual for his/her age
- Stomps, walks loudly
- Poor body awareness
- Kicks, bites, hits or pinches
- Poor sense of personal space
- Prefers tight clothing
- Chews clothing, pencils, fingers, objects

PROPRIOCEPTIVE ACTIVITIES

- ❖ Bear hugs and deep pressure massages
- ❖ Beanbag to use as a crash-landing pad
- ❖ Animal walks (e.g. frog jumps, bunny hops, crab crawls)
- ❖ Carrying/lifting books/boxes/laundry
- ❖ Wiping things down, e.g. tables, surfaces, wipe boards
- ❖ Sweeping, mopping (with a wringer mop)
- ❖ Pull a wagon filled with toys/other items
- ❖ Tug of War
- ❖ Adventure playground: monkey bars, ladder, fireman pole, etc.
- ❖ Relaxing in a squishy bean bag chair
- ❖ Cocooning: wrap child up tightly in a blanket or large towel. If wrapped in a towel, combine this with vestibular input and rock them/gently twirl them off the ground
- ❖ Sitting with backpack on or resting on feet
- ❖ Sitting with pencil case on lap
- ❖ Playing catch with a heavy ball
- ❖ Wall/desk pushups
- ❖ Playdough/clay/putty/bread dough kneading
- ❖ Resistance band activities
- ❖ Trampoline or jumping with a skipping rope
- ❖ Stacking/pushing chairs
- ❖ Wash outdoor windows/toys

VESTIBULAR

What is Vestibular?

To give us our sense of balance, there are small structures within the inner ear called the semi-circular canals. These act as a Carpenter's Level in a way. The semi-circular canals tell us when we are upright or tilted. The vestibular system controls our feelings of balance. It serves as a gravitational guide. It lets you know where your body is in space in relation to gravity.

Observe how a child reacts to playground equipment. Some children may fear climbing a ladder or walking on an unsteady surface. Others may crave certain movements such as jumping, rocking or twirling. Children who over react or under react to movement often benefit from activities that provide input into the vestibular system.

VESTIBULAR AVOIDING (HYPER)

- Scared of movement activities
- Fearful around playground equipment such as stairs, swings, merry-go-rounds etc.
- Fearful of lifts and escalators
- Dislikes being turned upside down or picked up
- Can appear clumsy and uncoordinated
- Can appear stubborn
- Avoids stairs or holds on tightly with both hands on the rails

VESTIBULAR SEEKING (HYPO)

- Unable to sit still
- Needs to be in constant motion (rocking back/forth or side-to-side, spinning, fidgeting).
- Can be very impulsive
- Can't get enough movement
- Runs everywhere, instead of walking
- Takes unsafe risks, both inside and outside
- Prefers to be upside down or hanging off a couch or chair
- Appears to throw themselves around, often diving on things

VESTIBULAR ACTIVITIES

- ❖ Swinging on a swing/hammock
- ❖ Riding on trikes and bikes
- ❖ Jumping on trampolines or with a skipping rope
- ❖ Spinning activities
- ❖ Hanging upside down
- ❖ Rocking on playground equipment, rocking chair or rocking horse
- ❖ Wobble cushion for sitting activities
- ❖ Monkey bars, climbing/balancing activities
- ❖ Walking through an uneven terrain obstacle course (stepping over step stools, boxes, bubble wrap, pillows, cushions)
- ❖ Rolling down a grassy hill
- ❖ Sitting and bouncing on a large exercise ball
- ❖ Standing on balance boards
- ❖ Walking or running up and down ramps
- ❖ Going up and down stairways or curbs
- ❖ Taking a message to another classroom/office/another floor of the building
- ❖ Opportunities in class to stand up and walk around
- ❖ Wobble board to rest feet on when seated
- ❖ Sit with legs crossed (on floor or on a chair) and bounce one leg
- ❖ Rolling neck and head slowly
- ❖ Stretching different body parts
- ❖ Rock, shift or squirm in chair

TACTILE

TACTILE AVOIDING (HYPER)

- Avoids certain fabrics, textures and clothing
- Distressed by certain aspects of clothing such as tight pants, seams in socks, tags/labels, new textures
- Avoids/dislikes messy activities
- Extremely ticklish
- Dislikes getting face/hands washed
- Avoids hugs/physical contact
- Fearful of large crowds
- Anxious/overexcited at light touch
- Dislikes hair brushing, washing or drying
- Picky eater
- May only walk on toes
- May refuse to walk barefoot
- Prefers shoes off with socks on

TACTILE SEEKING (HYPO)

- Prefers tight clothing
- Always seems dirty/messy
- Not aware of being touched by others
- High pain tolerance
- Low impulse control - seems to want to touch everything
- Craves vibrations
- Hurtful to other children - pushing, pinching, hitting
- May crave strong flavours - spicy, sweet, salty
- Puts things in mouth
- Not aware of being too hot or too cold

TACTILE ACTIVITIES

- ❖ Encourage play in dry, non-messy media rather than in gooey or sticky textures. If the child still won't touch anything, have him/her use containers to scoop and pour the materials. Gradually move on to playing with messier textures.
- ❖ Approach from the front (no surprises) and use a firm touch, never a light touch.
- ❖ Sensory bins filled with rice, flour, beans, pasta, bird seed. Locate small toys hidden there using both hands.
- ❖ Sensory doughs such as playdough, cloud dough, moon sand etc.
- ❖ Fingerpainting with paint, shaving foam, whipped cream, custard and other mushy foods.
- ❖ For brushing, encourage the child to brush his/her own arms and legs with a soft hair brush/make-up brush. Progress to adult brushing him/her.
- ❖ For deep pressure: weighted garments, blanket or weighted lap toys.
- ❖ Squashing activities (e.g. under cushions, yoga ball)
- ❖ Tight squeezes: deep pressure massage, hand squeezes, bear hugs
- ❖ Monitoring of body temperature
- ❖ In school, define personal space with carpet squares/mats or tape on the floor. Allow child to sit in the periphery of a group so that others are not behind him/her.
- ❖ In the dining hall, arrange for the child to sit close to a wall or pillar to feel safe.

VISUAL

VISUAL AVOIDING (HYPER)

- Covers eyes, squints or screens out sights
- Avoids bright lights and sunlight
- Withdraws from participating in group movement
- Scared of sudden movements, moving objects
- Avoids direct eye contact
- Frequent headaches, dizziness or nausea after visual stimulation
- Unaware of contrasting colours/tones
- Seems clumsy due to being unaware of objects in a path
- Unable to determine distance
- Rubs eyes

VISUAL SEEKING (HYPO)

- Stares at bright lights, flickers or direct sunlight
- Stares at moving objects
- Moves and shakes head during fine motor or writing activities
- Holds items close for inspection
- Seems unaware of new people/objects in an environment
- Has difficulty focusing on stationary objects
- Frequently loses the place on a page
- Seeks visual stimulations such as fans, spinners, patterns and fences

VISUAL ACTIVITIES

- ❖ Reducing clutter
- ❖ To avoid being distracted by visual stimuli, create a barrier/screen around the child's workstation
- ❖ Visual schedules/checklists
- ❖ School worksheets should include as much white space as possible; if necessary have information printed on more pages to increase white space
- ❖ Reduce the amount of color used on written materials or run through a copier for a black and white version
- ❖ Give eye breaks
- ❖ Tinted glasses indoors
- ❖ Sunglasses/baseball cap outdoors
- ❖ Darkened room/blindfolds
- ❖ Dim lighting if possible. Use lamps and side lighting rather than overhead
- ❖ Estimation jars
- ❖ Lava lamps/fibre-optic lights
- ❖ Bean bag toss
- ❖ Play catch with slow-moving objects, e.g. balloons
- ❖ Colour matching games
- ❖ Flashlight tag - in a darkened room while on your back, chase each others' flashlight beams
- ❖ Light table activities
- ❖ Sensory bottles/jars
- ❖ Drawing, painting, gluing
- ❖ Marble mazes/labyrinths
- ❖ Ball bearing puzzles
- ❖ Spinning tops
- ❖ Drawing, stencils, tracing, colouring. When colouring, teach child to trace around the lines of the design first and then colour it in.
- ❖ Pencil and paper mazes, spot the difference, hidden pictures
- ❖ Play "I Spy" game (adapted): describe an item in the room by its colour, size, shape, what it's used for, etc.
- ❖ School writing paper: use dark lines (run through copier to make darker if needed) for writing on.
- ❖ Highlight writing lines in yellow
- ❖ Worksheets should be of high contrast, lots of white space and clear of spots, smudges, etc.

AUDITORY

AUDITORY AVOIDING (HYPER)

- ❑ Cries, screams or becomes angry at sudden noises
- ❑ Strong emotions or avoidance behaviour when noise volume increases
- ❑ Covers ears or hides in social situations
- ❑ Avoids every day noises like toilets flushing, hand dryers, water flowing
- ❑ Bothered by high pitched noises such as whistles
- ❑ Distressed by metallic sounds such as cutlery clinking, musical instruments (cymbals, xylophones, triangles)

AUDITORY SEEKING (HYPO)

- ❑ Prefers/enjoys loud noises
- ❑ Speaks loudly
- ❑ Makes loud noises in quiet settings
- ❑ Puts loud devices/instruments next to ears
- ❑ Craves common noises like air conditioner, fan, water running
- ❑ Seems to be calmed by noises or certain music

AUDITORY ACTIVITIES

- ❖ Quiet place
- ❖ Head phones/ear defenders
- ❖ Ear plugs
- ❖ In the classroom, place child away from sources of noise and commotion such as the door, air conditioner, sink, bathroom, etc.
- ❖ Play a relaxation CD or a CD of nature sounds, "white" noise or soothing music
- ❖ Prepare child for noisy situations ahead of time. Often, knowing when something is going to happen (e.g., fire drill) helps the child to mentally get ready for it
- ❖ Speak slowly and quietly. Do not shout at the child

- ❖ Singing games/chants
- ❖ Movement connected to sound
- ❖ Musical instruments
- ❖ Pre-recorded books

To minimise auditory distraction and gain attentiveness:

- ❖ Get the child's attention before speaking
- ❖ Speak slowly and clearly
- ❖ Give one instruction at a time in simple language
- ❖ Pair instructions with gestures or visual demonstrations whenever possible
- ❖ Allow extra time for the child to process the information and respond
- ❖ Place child away from sources of noise such as the doorway, air conditioner, sink, bathroom, etc.

ORAL

ORAL AVOIDING (HYPER)

- Avoids certain textures of foods
- Difficulty with new foods
- Gags, chokes or drools often
- Difficulty using a straw
- Problems chewing or swallowing
- Problems brushing teeth/visiting the dentist
- Avoids mushy foods
- Avoids foods that are a certain colour
- Eats a limited range of foods

ORAL SEEKING (HYPO)

- Craves certain foods
- Prefers spicy or hot foods
- Bites frequently
- Bites/chews nails
- Puts non-food items in mouth
- Chews furniture, toys, pencils etc.
- Highly motivated by food
- Eats quickly or overstuffs their mouth

ORAL MOTOR ACTIVITIES

Prepare the face and mouth for eating before a meal:

- ❖ Stroke child's face firmly with your fingers (or have child do this to himself initially): Massage firmly from the jaws to the corners of the mouth, from the ears along the cheeks to the mouth and around the mouth.
- ❖ Use a soft cloth or the back of a vibrating tooth brush in a similar manner.
- ❖ Hold a vibrating toy or toothbrush around, or in, the mouth
- ❖ Try one new food before dinner
- ❖ Introduce new tastes and textures one at a time and at repeated intervals

- ❖ Blow bubbles, blow bubbles in water/drinks using a straw
- ❖ Blow up balloons
- ❖ Blow football
- ❖ Blow whistles and other instruments
- ❖ Whistle or hum tunes
- ❖ Stick out tongue, roll tongue in a circle
- ❖ Play taste guessing games
- ❖ Make/buy an edible necklace
- ❖ Eat hard, chewy or crunchy foods
- ❖ Eat foods with strong flavours
- ❖ Give reminders to chew food properly
- ❖ Chewing gum
- ❖ Drink from a water bottle with a bite valve
- ❖ Drink through narrow/twisty straws
- ❖ Suck thick liquids through straws, e.g. custard, milkshakes, slushes
- ❖ Use a vibrating toothbrush
- ❖ Chew toys/jewellery

OLFACTORY

OLFACTORY AVOIDING (HYPER)

- ❑ Avoids particular smells
- ❑ Becomes agitated, frustrated around certain smells
- ❑ Tends to resort to 'fight' or 'flight' methods
- ❑ Gags with certain smells or foods
- ❑ Avoids familiar foods due to smells
- ❑ Foods don't taste appealing
- ❑ Likes bland food
- ❑ Tells other people they smell or 'stink'
- ❑ Avoids public places
- ❑ Does not like emptying bowels
- ❑ Does not like being hugged or being close to other people
- ❑ Dislikes perfume, air fresheners, scented candles etc.

OLFACTORY SEEKING (HYPO)

- ❑ Smells objects that seem 'odd'
- ❑ Enjoys strong scents
- ❑ Prefers food with strong smells
- ❑ Can't avoid sniffing things often
- ❑ Do not notice dangerous smells
- ❑ Prone to eating/drinking dangerous items due to the inability to smell 'danger'
- ❑ Trouble identifying smells of foods
- ❑ Smells objects/people constantly

OLFACTORY ACTIVITIES

Use smells the child likes to cover-up those disliked:

- ❖ Aroma-therapy: lotions/oils
- ❖ Apply a lotion or cream that the child likes under the nostrils prior to entering an undesirable environment
- ❖ Provide pocket-sized lotion, cream or perfume that the child can pull out their pocket and smell to mask an undesirable odour
- ❖ Verbally prepare the child for smells he/she may encounter beforehand
- ❖ Teach a strategy that can be used in intolerable situations (such as to use the pocket lotion)
- ❖ Look for unscented products if perfumes are intolerable
- ❖ Scented playdough (under supervision in case the child tries to eat it) or scented pretzel dough. Add extracts or herbs (e.g. vanilla, lemon, cinnamon, banana, peppermint, lavender)
- ❖ Scent matching activities
- ❖ 'Guess the smell' games (especially with blindfold on)
- ❖ Taste and smell activities
- ❖ Scented finger painting
- ❖ Aromatherapy
- ❖ Scented fidget toys
- ❖ Scented rice play
- ❖ Sweet and sour sorting
- ❖ Take a "smelly walk" outside and talk about the odours of the flowers, grass, mulch, etc.