

Supporter's Optimal Solutions

1. Use the following tool to screen each IwDD to determine if an occupational therapist should assess the needs for a sensory integration treatment plan.
2. List the activities that are highly preferred and help the IwDD do these activities on a near daily basis.
3. List the activities that are strongly resisted and as much as possible, eliminate these environmental concerns.
4. Follow the occupational therapists' recommendations as much as possible each day.

Screening for Sensory Irregularities

Use the following to screen for sensory issues and then if appropriate engage an Occupational Therapist for assessment and treatment.

Rating:

1	not applicable/seldom
2	
3	several times per week
4	
5	nearly daily

Things to consider as you make your rating:

- Everyone has some sensory integration problems now and then, because no one is well regulated all the time. All kinds of stimuli can temporarily disrupt normal functioning of the brain, either by overloading it with, or by depriving it of, sensory stimulation. Screen for trend lines.
- Gut health is an extremely important consideration for sensory integration. Poor GI function limits production of necessary neurotransmitters required to interpret and regulate sensory messages. Regulation often requires improved GI, bowel and digestive symptoms management.
- Once the screening indicates some concerns (e.g. two to three items at ratings of three and above), a qualified Occupational Therapist should be retained to assess, develop a plan and train supporters to implement the plan.

Signs of Tactile Dysfunction:

Tactile Sense: input from the skin receptors about touch, pressure, temperature, pain, and movement of the hairs on the skin.

Hypersensitivity to Touch (Tactile Defensiveness)

- becomes fearful, anxious or aggressive with unexpected touch
- appears fearful of, or avoids standing in close proximity to other people or peers (especially in lines)
- becomes frightened when touched from behind or by someone/something they cannot see
- bothered by rough bed sheets (i.e. if old and “bumpy”)
- avoids group situations for fear of the unexpected touch
- resists friendly or affectionate touch from anyone besides parents or siblings (and sometimes them too!)
- may overreact to minor cuts, scrapes and or bug bites
- avoids touching certain textures of material (blankets, rugs, stuffed animals)
- refuses to wear new or stiff clothes, clothes with rough textures, turtlenecks, jeans, hats, or belts, etc.
- avoids/dislikes/aversive to “messy play”, i.e. sand, mud, water, glue, glitter, playdoh, slime, shaving cream/funny foam etc.
- will be distressed by dirty hands and want to wipe or wash them frequently
- excessively ticklish
- distressed by seams in socks and may refuse to wear them
- resists brushing teeth and is extremely fearful of the dentist
- can be a picky eater, only eating certain tastes and textures; mixed textures tend to be avoided as well as hot or cold foods; resists trying new foods
- may refuse to walk barefoot on grass or sand
- may walk on toes only

Hyposensitivity to Touch (Under-Responsive):

- may crave touch, needs to firmly touch everything and everyone
- is not aware of being touched/bumped unless done with extreme force or intensity
- is not bothered by injuries, like cuts and bruises, and shows no distress with shots (may even say they love getting shots!)
- may not be aware that hands or face are dirty or feel his/her nose running
- may be self-abusive; inching, biting, or banging his/her own head
- mouths objects excessively
- repeatedly touches surfaces or objects that are soothing (i.e. blanket)
- seeks out surfaces and textures that provide strong tactile feedback
- thoroughly enjoys and seeks out messy activities
- craves vibrating or strong sensory input
- has a preference and craving for excessively spicy, sweet, sour, or salty foods

Signs of Vestibular/Balance Dysfunction:

Balance Sense: input from the inner ear about equilibrium, gravitational changes, movement experiences.

Hypersensitivity to Movement (Over-Responsive):

- climbs stairs one at a time
- avoids/dislikes playground equipment; i.e. swings, ladders, slides, or merry-go-rounds
- prefers sedentary tasks, moves slowly and cautiously, avoids taking risks, and may appear “wimpy”
- avoids/dislikes elevators and escalators; may prefer sitting while they are on them or, actually get motion sickness from them
- may physically cling to an adult they trust
- may appear terrified of falling even when there is no real risk of it
- afraid of heights, even the height of a curb or step
- fearful of feet leaving the ground
- fearful of going up or down stairs or walking on uneven surfaces
- afraid of being tipped upside down, sideways or backwards; will strongly resist getting hair washed over the sink
- startles if someone else moves them; i.e. pushing his/her chair closer to the table
- may be fearful of and have difficulty riding a bike, jumping, hopping, or balancing on one foot (especially if eyes are closed)
- loses balance easily and may appear clumsy
- fearful of activities which require good balance
- avoids rapid or rotating movements

Hyposensitivity to Movement (Under-Responsive):

- in constant motion, can't seem to sit still
- craves fast, spinning, and/or intense movement experiences
- could spin for hours and never appear to be dizzy
- loves the fast, intense, and/or scary rides at amusement parks
- always jumping on furniture, trampolines, spinning in a swivel chair, or getting into upside down positions
- loves to swing as high as possible and for long periods of time
- is a “thrill-seeker”; dangerous at times
- always running, jumping, hopping etc. instead of walking
- rocks body, shakes leg, or head while sitting
- likes sudden or quick movements, such as, going over a big bump in the car or on a bike

Signs of Proprioceptive/Awareness of Body and Space Dysfunction:

Proprioceptive Sense: input from the muscles and joints about body position, weight, pressure, stretch, movement, and changes in position in space (the body has a mind of its own).

Sensory Seeking Behaviour: (Hyposensitivity Proprioceptive Functioning):

- seeks out jumping, bumping, and crashing activities
- stomps feet when walking
- kick his/her feet on floor or chair while sitting at desk/table
- bites or sucks on fingers and/or frequently cracks his/her knuckles
- loves to be tightly wrapped in many or weighted blankets, especially at bedtime
- prefers clothes (and belts, hoods, shoelaces) to be as tight as possible
- loves/seeks out “squishing” activities
- enjoys bear hugs
- excessive banging on/with toys and objects
- loves “roughhousing” and tackling/wrestling games
- frequently falls on floor intentionally
- would jump on a trampoline for hours on end
- grinds his/her teeth throughout the day
- loves pushing/pulling/dragging objects
- loves jumping off furniture or from high places
- frequently hits, bumps or pushes other people
- chews on pens, straws, shirt sleeves etc

Difficulty with “Grading of Movement”:

- misjudges how much to flex and extend muscles during tasks/activities (i.e. putting arms into sleeves or climbing)
- difficulty regulating pressure when writing/drawing; may be too light to see or so hard the tip of writing utensil breaks
- written work is messy and he/she often rips the paper when erasing
- always seems to be breaking objects and toys
- misjudges the weight of an object, such as a glass of juice, picking it up with too much force sending it flying or spilling, or with too little force and complaining about objects being too heavy
- may not understand the idea of “heavy” or “light”; would not be able to hold two objects and tell you which weighs more
- seems to do everything with too much force; i.e. walking, slamming doors, pressing things too hard, slamming objects down
- plays with animals with too much force, often hurting them

Signs of Auditory Dysfunction (no diagnosed hearing problem):

Hypersensitivity to Sounds (Auditory Defensiveness):

- distracted by sounds not normally noticed by others; i.e. humming of lights or refrigerators, fans, heaters, or clock ticking
- fearful of the sound of a flushing toilet (especially in public bathrooms), vacuum, hairdryer, squeaky shoes, or a dog barking
- startled with or distracted by loud or unexpected sounds
- bothered/distracted by background environmental sounds; i.e. lawn mowing or outside construction
- frequently asks people to be quiet; i.e. stop making noise, talking or singing
- runs away, cries and/or covers ears with loud or unexpected sounds
- may refuse to go to movie theaters, parades, skating rinks, musical concerts etc.
- may decide whether they like certain people by the sound of their voice

Hyposensitivity to Sounds (Under-Registers):

- often does not respond to verbal cues or to name being called
 - appears to “make noise for noise’s sake”
 - loves excessively loud music or TV
 - seems to have difficulty understanding or remembering what was said
 - appears oblivious to certain sounds
 - appears confused about where a sound is coming from
 - talks self through a task, often out loud
 - had little or no vocalizing or babbling as an infant
 - needs directions repeated often, or will say, “What?” frequently
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Signs of Oral Input Dysfunction:

Hypersensitivity to Oral Input (Oral Defensiveness):

- picky eater, often with extreme food preferences; i.e. limited repertoire of foods, picky about brands, resistive to trying new foods or restaurants, and may not eat at other people’s houses)
- may gag with textured foods
- has difficulty with sucking, chewing and swallowing; may choke or have a fear of choking
- resists/refuses/extremely fearful of going to the dentist or having dental work done
- may only eat hot or cold foods
- refuses to lick envelopes, stamps, or stickers because of their taste
- dislike or complains about toothpaste and mouthwash
- avoid seasoned, spicy, sweet, sour or salty food; prefers bland foods

Hyposensitivity to Oral Input (Under-Registers):

- may lick, taste, or chew on inedible objects
 - prefers foods with intense flavour; i.e. excessively spicy, sweet, sour, or salty
 - frequently chews on hair, shirt, or fingers
 - acts as if all foods taste the same
 - can never get enough condiments or seasonings on his/her food
 - loves vibrating toothbrushes and even trips to the dentist
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Signs of Olfactory Dysfunction (Smells):**Hypersensitivity to Smells (Over-Responsive):**

- reacts negatively to, or dislikes smells which do not usually bother, or get noticed, by other people
- tells other people (or talks about) how bad or funny they smell
- refuses to eat certain foods because of their smell
- offended and/or nauseated by bathroom odours or personal hygiene smells
- bothered/irritated by smell of perfume or cologne
- bothered by household or cooking smells
- decides whether he/she likes someone or some place by the way it smells

Hyposensitivity to Smells (Under-Responsive):

- has difficulty discriminating unpleasant odours
 - may drink or eat things that are poisonous because they do not notice the noxious smell
 - unable to identify smells from scratch ‘n sniff stickers
 - does not notice odours that others usually complain about
 - fails to notice or ignores unpleasant odours
 - makes excessive use of smelling when introduced to objects, people, or places
 - uses smell to interact with objects
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Signs of Visual Input Dysfunction (No Diagnosed Visual Deficit):**Hypersensitivity to Visual Input (Over-Responsiveness):**

- sensitive to bright lights; will squint, cover eyes, cry and/or get headaches from the light
- has difficulty keeping eyes focused on task/activity he/she is working on for an appropriate amount of time
- easily distracted by other visual stimuli in the room; i.e. movement, decorations, toys, windows, doorways etc.
- has difficulty in bright colourful rooms or a dimly lit room
- rubs his/her eyes, has watery eyes or gets headaches after reading or watching TV

- avoids eye contact
- enjoys playing in the dark

Hyposensitivity to Visual Input (Under-Responsive or Difficulty with Tracking, Discrimination or Perception):

- has difficulty telling the difference between similar printed letters or figures; i.e. p & q, b & d, + and x, or square and rectangle
 - has a hard time seeing the “big picture”; i.e. focuses on the details or patterns within the picture
 - has difficulty locating items among other items; i.e. papers on a desk, clothes in a drawer, items on a grocery shelf, or toys in a bin/toy box
 - often loses place when copying from a book or the chalkboard
 - difficulty controlling eye movement to track and follow moving objects
 - has difficulty telling the difference between different colours, shapes, and sizes
 - often loses his/her place while reading or doing math problems
 - makes reversals in words or letters when copying, or reads words backwards; i.e. “was for “saw” and “no” for “on” after first grade
 - complains about “seeing double”
 - difficulty finding differences in pictures, words, symbols, or objects
 - difficulty with consistent spacing and size of letters during writing and/or lining up numbers in math problems
 - difficulty with jigsaw puzzles, copying shapes, and/or cutting/tracing along a line
 - tends to write at a slant (up or down hill) on a page
 - confuse left and right
 - difficulty judging spatial relationships in the environment; i.e. bumps into objects/people or missteps on curbs and stairs
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Internal Regulation (The Interoceptive Sense):

- becoming too hot or too cold sooner than others in the same environments; may not appear to ever get cold/hot, may not be able to maintain body temperature effectively
- difficulty in extreme temperatures or going from one extreme to another (i.e. winter, summer, going from air conditioning to outside heat, a heated house to the cold outside)
- respiration that is too fast, too slow, or cannot switch from one to the other easily as the body demands an appropriate respiratory response (heart rate variability (HRV))
- heart rate that speeds up or slows down too fast or too slow based on the demands imposed on it (HRV)
- narrow range of heartrate variability, e.g. high resting low when exerted
- respiration and heart rate that takes longer than what is expected to slow down during or after exertion or fear (HRV)
- severe/several mood swings throughout the day (angry to happy in short periods of time, perhaps without visible cause)

- unpredictable state of arousal or inability to control arousal level (hyper to lethargic, quickly, vacillating between the two; over stimulated to under stimulated, within hours or days, depending on activity and setting, etc.)
 - frequent constipation or diarrhea, or mixed during the same day or over a few days
 - does not seem to know when he/she has to “go” (i.e. cannot feel the necessary sensation that bowel or bladder are full)
 - unable to regulate thirst; always thirsty, never thirst, or oscillates back and forth
 - unable to regulate hunger; eats all the time, won’t eat at all, unable to feel full/hungry
 - unable to regulate appetite; has little-to-no appetite and/or will be “starving” one minute, then full two bites later, then back to hungry again (prone to eating disorders and/or failure to thrive)
- Pay attention to what individuals spontaneously do to calm themselves, and then help them do it when they start to become agitated. Encourage following the prescribed daily sensory diet developed by an occupational therapist to help senses remain balanced and prevent sensory overload (see examples below).
 - Use techniques as recommended by a qualified occupational therapist. The aim of these planned and controlled stimulations is to enhance levels of organization in the brain with the possibility of growing new neuron cells.

The following are examples of activities that could be beneficial with frequent and consistent use depending on OT recommendations.

Vestibular/Balance Integration Exercises to Stimulate:

- jumping, hopping, bouncing on mini-trampoline or stabilization ball, catching, throwing, skipping or bouncing on pogo stick;
- swinging, rotating or hammocking in all directions (also improves inner-ear function);
- walking toe-to-heel on balance beam (1” x 6” x 8” boards in pattern);
- balancing on boat bumpers;
- vaulting (sudden jolts are very helpful);
- standing and balancing on elliptical cushion while catching balls;
- doing balancing exercises on Wii or Xbox;
- sitting on an air cushion (weight shifting stimulates balance and improves inner ear and motor behaviour functioning therefore reducing movement fear and anxiety).

Proprioceptive Body Awareness Integration Exercises to Stimulate:

- vibration (highly stimulating to our proprioceptive sense, e.g. massage chair),
- weighted/compression clothing and blankets (self-calming to this sense),
- measured strengthening exercises to learn to use an appropriate level of force,
- squeeze machine,
- regular doses of touch from massage, brushing, handholding
- caving or rock climbing,

- pushing and pulling,
- carrying heavy objects,
- weight resistance and pressure workouts,
- jumping on the trampoline,
- throwing or catching a heavy ball or beanbag,
- rolling up tightly in a blanket,
- “bicycling” (two people laying on backs playing bicycle with their feet),
- digging in heavy sand,
- sucking on a water bottle,
- chewing heavy, crunchy food.

Tactile Integration Exercises:

To stimulate:

- Use chewing appliances;
- Walk on a variety of textures in bare feet;
- Use gripping appliances to stimulate feeling;
- Choose colourful clothing, pictures;
- Experience different textures through hand stimulation (e.g. from sand to water, from rough to smooth, from hot to cold).

To calm:

- Avoid people who get too close,
- Choose user-friendly clothing—not too tight or too scratchy,
- Arrange for snoozeling-type environments: slow moving, soft light, soft textures and colours, soft music, bubble tubes,
- Use ear plugs or headphones,
- Serve soft-textured food (minced, pureed, smoothies),
- Wear sunglasses.