One of the most gratifying aspects of my profession as a pediatric occupational therapist is the opportunity to partner with parents and caregivers to develop environmental supports, routines, structure, and daily activities to address the unique challenges and abilities of their children who have sensory-based concerns.

What is sensory processing? Sensory processing is the way in which the central nervous system (our brain and spinal cord) and the peripheral nervous system (our bodies) manage incoming sensory information through our various sensory systems: Vestibular (movement and balance), proprioceptive (force and body position awareness), tactile (touch), auditory (sound), visual (sight), olfactory (smell), and gustatory (taste).
The winter months can be especially problematic because opportunities for outdoor games and activities may be limited. Children and parents may inadvertently become over-reliant on using technology such as television, computers, and iPads, which don’t provide the vital body-oriented and movement options needed to address the sensory and behavioral challenges their children experience.

Our brain and body receive and organize information from the environment through sensation. We take in information through our various systems and respond to it. When there is dysfunction in sensory processing, a child will exhibit disorganized or maladaptive responses.

Some children are over-responsive and will have dramatic, exaggerated responses to typical environmental stimuli and may appear fearful, anxious, or in a hyper-alert state. Other children are under-responsive and will respond more slowly, or may not even respond to sensory stimuli and appear lazy or disengaged. Some children can be described as “sensory seeking” and will appear hyperactive as they seek out movement and other sensations.

Although there is variation in the types of sensory profiles, the commonality is that these children’s deficits in sensory processing affect their functional and active participation in the home, and can affect the entire family dynamic. These challenges in registering, interpreting, and modulating responses to sensory stimuli can affect daily function for children.

They may have melt downs, difficulty sitting still for meals and homework, trouble maintaining attention to tasks, and experience sleep disturbances. They may also exhibit poor motor planning, coordination, and dexterity for self-care and academic activities. Parents often ask, “What are some things I can do at home for my child to help him with his sensory issues and to occupy his time?”

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There are, however, alternatives to explore that are fun, inexpensive, motivating, and therapeutic. A child’s primary preoccupation is play, and children learn best about their world by moving through it. Purposeful movement will calm and organize the over-responsive and sensory-seeking child, and will alert the under-responsive one. The key elements for purposeful, play-based movement are: to be child-directed, motivating, and FUN! Here are some suggestions for sensory-based activities to try at home:
Calming and Organizing Activities ("Heavy Work")

These will aid sleeping, calm a child down, prepare the child to go out into the community and help attain and maintain an alert state for schoolwork.

**Large Therapy Ball Activities and Games:**

- Wheelbarrow walk with or without assistance: the child will lie on his/her stomach and walk forward, then backward on the hands without falling off the ball
- Lift ball high above head to throw, bounce, or roll to parent, sibling, or friend
- “Push, push, push” the therapy ball against the parent or sibling while in a kneeling position, using arms, or lying on the back using legs

**Superman:** Lie on stomach; hold arms and legs straight out and off the floor. Try to hold this position as long as possible.

**Rollie Pollies:** Lie on back; bend knees toward head, crunching the trunk up as much as possible while holding legs. Roll back and forth and side to side, trying to keep head and knees close together.

**Chair Lift-Offs:** Sit on a hard chair with back straight. Put hands on the edges, by hips, with thumbs pointing forward. Push arms HARD until bottom lifts off the chair. Try to hold this position as long as possible.

**Sampson:** Stand by a blank wall, facing forward. Back up about 4 or 5 feet and put hands on the wall at shoulder-height. The child will be leaning into the wall, holding the body up, and elbows will be straight. Keeping the back STRAIGHT, pretend to try to push the wall down.

**Quicksand:** Hold the child’s feet at the ankles when he/she is in a four-point kneeling position. Have him crawl to the designated “land” and out of the “quicksand” while the adult provides resistance to make the muscles of the legs, trunk, and arms really work hard to move forward.

**Chin-ups/Pull-ups:** Purchase an adjustable chin-up bar at a sporting goods store to hang in a bedroom or classroom doorway.

**Dog Pile:** Take turns lying on the bottom of the pile while others lie on top. Try to get out from beneath the pile.

**Note:** It is important to let the child dictate “how much” and “how long.” When you witness a calming effect, make a simple comment, such as, “Wow, you are really settling down. Does this feel good?”

**Body Awareness and Motor Planning Activities**

These activities will help improve balance, coordination, and gross motor skills, as well as improve sensory registration and discrimination:

- Walk on a straight or curved line, heel to toe (use masking tape on carpet or floor)
- Stand on sofa cushions or bed to play catch. Try it again on one foot.
- **Army Crawl:** Combat crawl under “tunnels” made of chairs or over “mountains” of sofa cushions
• “Simon Says”
• Jump to targets (e.g., inside a taped circle, hula hoop from pillow to pillow)
• Jump rope (this can be modified from typical jump roping to games such as “The Limbo” or jumping over the rope, starting at a low level and increasing the height)
• Obstacle courses (use furniture, chairs, cushions, pillows)
• Animal walks (Bear, Crab, Elephant, Lion, Monkey, Snake, etc.)
• Mini trampolines can be used inside to help your child attend for longer periods when he appears motor restless or inattentive. Your child can jump on it to learn Math facts or spelling words, or you can play catch with him while he is jumping

**Fine Motor Activities**

These activities will develop hand arches, separation of the hand, and finger isolation to improve manipulative ability for self-care and handwriting. They help improve sensory awareness for the tactile (touch) system and will improve fine motor coordination:

- Use tweezers to eat snacks such as popcorn or mini-marshmallows
- Play the “flicking game” – put small items on a tabletop, curl the fingers in and “flick” with index and thumb. Make a round target on a tabletop (use the format of a dart board or archery target), using masking tape or washable marker, and award points for accuracy, with the highest point for hitting the center of the target
- Use the tabletop target to blow cotton balls or small balls of paper, using straws to blow the balls to the target. A variation of this activity is to make “goals” at opposite ends of a table and try to blow the ball into the goal while the opponent “defends” it by blowing the balls back away from the goal
- Flip playing cards over to match/sort by color, suit, or number
- Teach your child traditional card games such as Old Maid, Crazy 8s, and Go Fish, and board games such as Scrabble, Monopoly, Sorry, Trouble, or Candy Land. These games develop visual motor skills, hand dexterity, and social interaction through turn taking
- Put stickers on the child’s body and have the child remove them with his “pinchy fingers” (thumb and index). Increase the challenge by removing them with his eyes closed
- Use a squeeze bottle to help clean mirrors or play with in the bathtub
- Hide coins or other small items inside balls of Play-Doh for the child to discover with fingertips
- Put shaving cream on cookie sheets for sensory exploration
Focus on Activities

- Make a bin of rice and beans and hide small items for the child to discover. Variations are to use a blindfold and ask your child to guess what the item is.
- Make a “Feel-and-Find” box by cutting a fist-sized hole in the lid, place items inside the box, and have your child locate an item and identify it without using visual aids. A variation of this activity is to take digital photos or make flashcards with the items’ names and take turns drawing a card and finding the matching object.

When children engage in sensory activities, many wonderful things occur! Your child will learn how to control his body movements, improve body awareness, increase his ability to attend for longer periods, improve motor, social, and play skills, regulate behavior, and feel a sense of mastery and self-worth. Best of all, these activities can include siblings and parents and will foster family relationships through play. Enjoy.

Beth Aune, OTR/L, currently has a private practice as a pediatric occupational therapist. She assists children with autism spectrum disorders and developmental disabilities. Beth has presented numerous workshops that focus on the care and treatment of children with disabilities. She is also the author of the popular Behavior Solutions book series.

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