

## **TABLE OF CONTENTS**

Sensory Diet Activities for Indoor Play

Core Development

Fine Motor Development/Getting Children Ready for Handwriting

## **WELCOME**

Welcome to the fourth edition of The Parent's Place sponsored by The Therapy Place staff. This newsletter is intended to provide parents and caregivers with helpful information on various topics regarding their children. In this issue topics covered will include: Sensory diet activities for indoor play, with some great suggestions for indoor parks in our area, core strengthening and fine motor activities to promote getting ready for handwriting.

Contributors: Tanya Hallman, OTR; Lynn Kopfmann, OTR; Denise Peick, OTR; Jana VandenHoek, OTR

## **SENSORY DIET ACTIVITIES FOR INDOOR PLAY**

Tis' the season for having to move indoors! Which unfortunately makes it more difficult for your children to get the "just right" amount of sensory input to achieve and maintain those optimal levels of arousal for attention and performance. Since their activities change with "Minnesota weather" that causes us to be more house bound, it is even more important to schedule "sensory diet" activities at regular intervals, preferably every 90 minutes to 2 hours, throughout their day. The most powerful and satisfying activities include movement, deep pressure and heavy work. They generally provide the most long lasting impact on the nervous system. The sensory diet can be a powerful behavioral tool and help prevent challenging behaviors. Plus it's fun and gets everybody moving. Some suggestions are listed below:

- Mini trampoline
- Jumping onto cushions
- Sit n Spins
- Hippity hops
- Weighted objects to play with and throw (heavy bean bags, beach balls partially filled with water.)
- Crawling through tunnels or boxes on all fours playing tug of war (can use ropes or old inner tubes)
- Tying a rope to a door knob, stretching rope out, laying on stomach and starting at opposite end, pull self hand over hand to door. This can also be done on a scooter board as well.
- Tie items with jump rope and pull around the house
- Animal walks
- Spin in a swivel chair

- Blow up/plastic wading pools are great sensory bins to fill up with beans, rice or pillows
- Laundry baskets can be used to sit and climb in and out of or to give rides in
- Big inner tubes can be used as mini tramps
- Zoom ball (can place one end on a hook and let your child send the buoy up, can also try it lying down or kneeling)
- Doing table top activities seated on a therapy ball
- Blankets and hammocks can be used for swinging, hiding and rolling
- T-shirt tubing, bought in lengths (can be purchased at Hancock Fabrics) can be used for tunnels and giving rides.
- Carrying heavy things such as groceries, water jugs, books, weighted backpacks, etc.
- Building a tent or fort with couch cushions and then wrapping up tightly in a blanket inside the fort
- Doing core work activities as prescribed by your child's therapist
- Treadmills and weight lifting are great for teenagers
- Playaway Toy Company Inc. ([www.playawaytoy.com](http://www.playawaytoy.com)) sells portable sensory equipment including a swing apparatus that fits in a doorway.

There are also many fabulous indoor parks and play areas that are reasonably priced or free. Check out [www.gocitykids.com](http://www.gocitykids.com) for additional ideas.

Edinborough Park, Edina: Indoor park, pool and picnic tables for lunch.  
[www.edinboroughpark.com](http://www.edinboroughpark.com)

Woodbury Central Park  
[www.woodburycentralpark.com](http://www.woodburycentralpark.com)

The Depot, Downtown Minneapolis: Indoor water park and skating rink  
[www.thedepotminneapolis.com](http://www.thedepotminneapolis.com)

The Blast at the Eagan Community Center  
[www.eagancommunitycenter.com](http://www.eagancommunitycenter.com)

Maple Grove Community Center: Play areas & Pools  
[www.maplewoodcommunitycenter.com](http://www.maplewoodcommunitycenter.com)

Vertical Endeavors: Climbing walls  
[www.verticalendeavors.com](http://www.verticalendeavors.com)

REI in Bloomington: Climbing wall  
[www.rei.com](http://www.rei.com)

Many of the shopping malls such as the Eden Prairie Center & Mall of America have play areas for small children.

## **CORE DEVELOPMENT**

What is the Core?

The core is the deep postural muscles surrounding the trunk that enable us to maintain balance when moving throughout the environment. It helps keep us centered and focused. Proprioception (awareness of posture, movement and body position) impacts the deep musculature close to the bone to effect vertical orientation which is necessary for antigravity control. It provides midline awareness which is necessary for bilateral control. In general, when the core stability is there the muscles used to generate movement can move easier without conscious effort. It provides the foundation and stability for skill development and allows for more refined control of smaller muscles (i.e. in hands). The core also helps to regulate breathing. Self-regulation, self-confidence, self-esteem and self-determination all emerge from the core.

The Importance of Breath:

When you breathe deeper into your trunk, you receive more oxygen.

The core muscles require more oxygen than superficial muscles. Primary muscles for breathing are diaphragm, intercostals, and abdomen - with the transverse abdominis being critical for the exhale.

Before you can get appropriate and full diaphragmatic movement, you need spinal alignment and rotation.

Children often develop compensatory postural fixing patterns, which therefore don't allow for full diaphragmatic breathing.

To take a full breath, focus on the exhale first (i.e. don't take a big inhale because you may be encouraging fixing patterns). After you exhale fully, that is when you get a true inhale.

Things to consider when thinking about your child's breath:

- focus on the exhale
- coordinate trunk movement with respiratory patterns
- incorporate sounds to activate diaphragm (quick "haa" sounds and drawn out "ss" sounds are most effective)
- handling: direct the breath with your touch on the body

Core Activities:

Vestibular activation: “Rock & Roll” - have child lie on back and curl legs up, placing hands under the knees; use momentum to roll back and forth (don't let them push themselves up with elbows on the floor).

Breath activation: “Standing Power Haa's” - have child stand with legs spread apart; inhale with arms out and on the exhale, bend forward, placing arms between legs (as if reaching something on the floor behind them) while making the “haa” sound.

Core Activation: “Whoa Horsey” - child crawls forward on hands and knees while you come from behind and slow them down by giving resistance (pulling toward your body) with your hands in front of his/her hips, requiring them to really work to move forward.

## **FINE MOTOR DEVELOPMENT GETTING CHILDREN READY FOR HANDWRITING**

Children use their hands to engage with the world, to explore it and learn from it. If children's hands are not developed properly, they may never discover or achieve what it is they are supposed to do in this world. Due to technological changes, children tend to spend more time engaging with two dimensional media (hand held games, computer, TV, etc.) and less time exploring toys and objects in a three dimensional sense.

Consequently, they are not using their hands in ways that promote adequate development of the muscles inside the hands. This development is essential in the development of refined grasp patterns like those needed for handwriting. Studies have shown that good hand muscle development correlates with legibility for handwriting. Refined hand development occurs between the ages of 3 and 6.

Therefore, it is important that children in this age range have lots of opportunities to explore varied materials and toys that promote the development of the hand muscles.

So, you may be asking, “What is hand development, anyway?” Hand development includes the development of arches in the hand that make our palms form a small bowl. This bowl allows us to fully oppose our thumbs to our other fingers - a skill that makes us uniquely human! We also need to be able to separate the two sides of the hand so we have a stable side (the pinkie and ring finger side) and a precision side (the thumb, index and middle fingers). Once the muscles in the hands are well developed, a child can move small objects from the fingers to the palm and vice versa. He/she can shift objects up and down in the fingers or hand or rotate objects with the whole hand or just the fingers. We use all of these skills everyday, without even thinking about it. For example, if we are writing with a pencil and make a mistake, we flip the pencil around to the eraser side, erase and then return the pencil to the writing position, all in one hand!

Before we can use the fine hand muscles, we have to have a stable base for support. The muscles in the shoulder girdle must be fully developed or the child tends to prop or hold their hands against the body for fine motor activities. In addition, when we hold our wrists in extension (with the palm facing down and the wrist bent up toward the ceiling), it helps to lock the tiny muscles just below our wrists, which adds stability. Therefore,

when children are doing fine motor activities, it is important to position them and/or the activity so their wrists are in extension.

Here are a few simple activity ideas to promote good hand muscle development. Be sure your child is holding the pinkie and ring fingers curled against their palm - we like to call this the “secret side” of the hand. If they have a hard time with this, use a sticker, small object or draw something in the palm just below where the fingers join the hand and have your child “hide” it with the pinkie and ring fingers as they do the activity. Some children need to work on shoulder girdle stability, so putting the activity on the floor or on a vertical surface (for coloring or painting) can encourage this. Check with your therapist to see which positions make sense for your child.

- Lite Brite: Seated on the floor, laying on tummy or at the table.
- Playdough: Make tiny balls and have your child pinch them between thumb and index fingers - be sure they are pushing finger pad to finger pad! Make snakes and have your child pinch the length of the snake. Cut the playdough with a scissors.
- Scissors play: Cut envelopes, playdough, paper, etc. Be sure they have the “secret side” of the hand hidden and that the scissors is held so that the thumb is in one whole, the mid in another and the index is the “guide” finger for the index finger. You may need to flip the child's scissors upside down to encourage this. Your occupational therapist can show you how to do this.
- Hide small objects (proportionate to your child's hand to encourage a neat pincer grasp) in beans, rice or bird food.
- Use clothes pins to make designs or construct structures.
- Play with tongs to pick up objects and place them in containers. Be sure your child is holding the tongs between the thumb and first two fingers to encourage hand separation.
- Play with eye droppers to fill containers with water or to color paper towels with colored water.
- Break your child's crayons in half to encourage a mature grasp pattern when they are writing.
- Use a push pin or toothpick to poke holes along lines on paper to make designs or pictures. Put the paper on styrofoam, a piece of carpet or another soft surface.
- String beads or pasta noodles.
- Play with actual nuts and bolts.
- Tops, marbles and jacks.
- Use stamps that are small enough to encourage a refined grasp.

These are just a few beginning ideas. As your child plays and explores, they will come up with their own ideas. Just have fun!!!