

# Bringing OT home

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# What is Occupational Therapy?

- Occupational therapy focuses on enabling people to participate in **meaningful** and **purposeful** activities of daily life. An individual's "occupation" is an activity that "occupies" his or her time.
- For children, "occupation" is considered play, learning, and taking care of oneself.
- Also included, important family routines (walking the dog, going to out to eat)

# Who might need OT?

- Children with developmental disabilities may have difficulty engaging in the necessary occupations of their life. Common disabilities are:
  - Down Syndrome
  - Autism spectrum disorders
  - Cerebral palsy
  - Developmental Delays
  - Spina Bifida
  - Cognitive Impairment
  - Several others

# Infants

- Reflexes (grasp reflex, ATNR)
- Integration of reflexes
- Head and neck control
- Core strength and stability
- Visual tracking
- Grasping (Voluntary Release)
- Cause and effect
- Shoulder and arm strength
- Early self help skills (holding bottle)

# What OT might look like

- PRONE (TUMMY TIME)
- Watching moving objects
- Grasping objects
  - Links, rattles, one inch blocks
- Bumbo chair / Supported sitting
- Support in four point (hand and knees)
- Dropping toys into containers
- Transferring toys between hands (bilateral integration)
- Cause and effect toys
- Start holding and playing with spoon
- Physical assistance to hold own bottle
- If feeding concerns, oral motor and / or sensory feeding help

# Resources

- Blocks

- <http://www.learningthings.com/itemdesc.asp?ic=LER-0136X&eq=&Tp>

- Ocean Wonders Fish Bowl

- <http://www.amazon.com/Fisher-Price-73299-Ocean-Wonders-Fishbowl/dp/B00005YVRP>

- Activity Mat

- [http://www.walmart.com/catalog/product.do?product\\_id=10463743&sourceid=1500000000000003260330&ci\\_src=14110944&ci\\_sku=10463743](http://www.walmart.com/catalog/product.do?product_id=10463743&sourceid=1500000000000003260330&ci_src=14110944&ci_sku=10463743)

- Pooh Garden Spin

- [http://www.walmart.com/catalog/product.do?product\\_id=8707307](http://www.walmart.com/catalog/product.do?product_id=8707307)

- Oral Motor / Feeding

- Talk tools: <http://www.talktools.net/>

# Preschool

- Pre handwriting skills
- Manipulation skills
- Attention to task
- Transitions between tasks
- Simple dressing skills
- More independence with feeding skills
- Pre-cutting skills
- Maturing grasping patterns
- Finger strengthening and dexterity

# What OT might look like

- Engagement in simple, reciprocal games like Don't Break the Ice
- Play ground / Therapy ball for core strength
- Manipulation of containers and toys
- Pre-Cutting (THUMBS UP)
  - Use of tweezers / spray bottles / clothes pins
  - Play doh scissors and training scissors
- Strengthening/Dexterity
  - Pouring beans, sand, water
  - Coloring
  - Macaroni art
  - Finger painting
  - Simple crafts
  - Play doh activities

# Resources

- **Pop Up Pirate**

- <http://www.amazon.com/International-Playthings-TY7028-Pop%252dUp-Pirate/dp/B0000669DR>

- **Tweezers**

- [http://www.groovycandies.com/V2ProdDetail1.asp?Product\\_ID=9555](http://www.groovycandies.com/V2ProdDetail1.asp?Product_ID=9555)

- **Link to Crafts website**

- <http://www.enchantedlearning.com/crafts/>

# Scissors

**Loop Scissors**



**Training Scissors**



# Early Elementary

- More advanced writing skills in school and at home
- Improved attention to task
- Following multi step directions
- Ability to sit and attend to school lessons, dinners at home
- Turn taking and waiting during play
- Complete independence vast majority of self care
  - Buttons
  - Shoes
  - Self feeding
  - Some simple food preparation

# What OT might look like

- Handwriting (school versus community)
- Following directions
  - Simple snack preparation
  - Craft projects (making play doh, tie dye)
- Continued finger strengthening and dexterity
  - Beads out of putty
  - Perler activities
- Visual Motor activities
- Continued core strength and stability
- Attention to task

# Resources

- Handwriting without tears
  - <http://www.hwtears.com/>
- Perler
  - <http://www.perlerbeads.com/>
- Shoe Tying
  - <http://www.fieggen.com/shoelace/standardknot.htm>
- Visual Motor worksheets
  - [http://edhelper.com/visual\\_skills.htm](http://edhelper.com/visual_skills.htm)

# Early Teen and Teen years

- Continued independence in all self care tasks
- Pre vocational skills
- Increased independence within the community
- Continued maturity in group settings

# What OT might look like

- Food preparation
- Possible pre vocational support
  - Sorting / Folding / Organizing
- Continued finger strength and dexterity
- Social skills for group activities
- Simple community outings
  - Practice paying for items at check out
  - Study bus routes
  - Walking / biking in community for proper safety

# Resources

- Adaptive utensils
  - [http://www.elderstore.com/eating-utensils\\_55.aspx](http://www.elderstore.com/eating-utensils_55.aspx)
- Shoe laces
  - <http://www.curlylaces.com/shoelaces.html>
- Resources for independent living in the community
  - AZ Bridge to Independent Living : <http://www.abil.org/>

# Elastic laces and Adaptive Utensils

**Curly, elastic shoe laces**



**Utensils**



# Resources for toys and tools

- Flaghouse
  - <http://www.flaghouse.com/Special-Populations>
- Southpaw Enterprises
  - [www.southpawenterprises.com](http://www.southpawenterprises.com)
- Affordable Therapy Solutions
  - <http://www.affordabletherapysolutions.com/index.asp>
- Lakeshore Learning
  - <http://www.lakeshorelearning.com/home/home.jsp>

# What is Sensory Integration?

- “The neurological process that organizes sensation from one’s own body and from the environment and makes it possible to use the body effectively within the environment”  
– A. Jean Ayres

# We all need sensory “food”

- We all need and receive certain amounts of sensory information
- This information “feeds” our brain
- Some children aren’t getting enough, some may be getting too much
- Prescribe a “sensory diet”

# Preference versus Dysfunction

- We all have preferences
- When sensory needs or cravings interfere with a child's ability to engage in everyday and important social and learning tasks, it is dysfunction

# Sensory Integration

- There is a very complex and intricate relationship between sensory systems and rarely is there a kiddo that has difficulties isolated to just one area
- Children can demonstrate difficulties at both ends of the spectrum of overly sensitive to under responsive

# Tactile

- What is it?
  - Perception of touch input
  - Touch is our first language in utero and it mediates our first experiences in this world. We are nourished, we are calmed, and we first become attached to others through touch
  - “There remains little doubt that tactile stimulation is an important factor in the social, emotional, physical, and neurological development of infants and young children”

# Oral - Tactile

- Hyposensitive: May seek high flavor foods
  - Tend to see this with children with low muscle tone
- Sensitivities/Defensiveness
  - Limited variety of flavors, textures, and/or temperatures
  - Described as picky eater
  - Resists tooth brushing
  - Possible likes:
    - Chicken nuggets, chips, french fries, pretzels

# Tactile

## Red Flags for Dysfunction

- **Hypersensitive (Defensive)**
  - Resist standing close to others in line
  - Unable to tolerate grooming tasks such as hair cuts, nail cuts, teeth brushing
  - Resist touching anything sticky or wet, such as finger paint or any food
  - Does not like certain clothing fabrics or tags on shirts
  - Dislikes bathing
  - May prefer long sleeved or short sleeved clothing, regardless of what the temperature is
  - Is particularly fearful of surprise touches
- **Hyposensitive**
  - May get hurt and not realize it
  - May know they have been touched but can't show where
  - May not have any preference for what temperature the bath water is

# Tactile

- Treatment Activities
- Continued, gradual exposure to difficult inputs
- DEEP PRESSURE TOUCH
  - Bear hugs
  - Lotion Massage
  - Wilbarger Brushing Protocol
  - Deep touch/massage prior to hygiene tasks
  - “squishes” with therapy ball

# Vestibular

- What is it?
- This system senses movement of the body, balance, and vibration. Sensors for this system are located in the inner ear.
- Also contributes to posture and maintaining stable visual field
- Vestibular nuclei projects to the spinal cord that have influences on muscle tone

# Vestibular

## Red Flags for Dysfunction

- **Hypersensitive**  
**(Gravitational Insecurity)**
  - Avoids playground equipment
  - Resists having head tilted back
  - Resists stairs, curbs, climbing
  - Doesn't like rough play
  - Demonstrates fear or anxiety during play on therapy ball
  - Moves slowly
  - Low muscle tone (loose, floppy)
  - Postural difficulties
- **Hyposensitive**
  - “On the go” kiddo
  - Can twirl and spin endlessly
  - Has trouble sitting still and attending to age appropriate tasks
  - Poor hand eye coordination

# Vestibular

- Treatment
- Increased opportunities to movement activities (trampoline, climbing, play ground)
- Slow, linear vestibular input (swinging) is calming and organizing
- Activities involving movement and target toss (throwing bean bag at target while on swing)
- PRONE position to help improve extension

# Proprioceptive

- What is it?
  - The perception of joint and body movements as well as position of the body in space
  - We use proprioception to help us know where, how, and with how much force we should use our body

# Proprioceptive

## Red Flags for Dysfunction

- **Hypersensitive**
  - Overreacts to getting hugged or bumped
  - Avoids activities where can come in close contact with others
- **Hyposensitive**
  - Crashes and bumps
  - Shows decreased safety awareness
  - Enjoys being in tight spaces
  - Hugs very hard
  - Seeks heavy play activities, such as rough housing with older siblings
  - Clumsy (poor motor planning)

# Proprioceptive

- Treatment
- Increased opportunity for heavy work play activities
- Calming vestibular input
- Obstacle courses

# Heavy Work Play Activities

- Carry heavy loads = Have the child carry things like gallon bottles, laundry baskets, or containers of toys. You turn these activities into races, or have him help during "clean up" time.
- Pushing and Pulling = Have the child push things like the vacuum, stroller, or any other large toy that is appropriate. Have the children get wrapped up in a bed sheet and they can take turns dragging each other across the carpet. This can also be done with a laundry basket.
- Hanging = at the playground, encourage the child to play on the monkey bars. When he hangs, he is sending sensory information to his brain. If he shifts weight, he is also developing upper extremity strength.
- Turtle = Have the child pretend he is a turtle and put a bag of rice, bag of beans, or any other heavy bag on his back. Have him crawl around the room and try to keep his "shell" on.
- **BIG** hugs
- Joint compressions
- Playing catch with a heavy ball
- Tug of War
- Jumping activities
- Crashing games. Put couch cushions, pillows, or bean bags on the floor and have The child "crash" into them

# Visual and Auditory

- Vision
  - Detects and focuses on visual stimuli
- Auditory
  - Our sense of hearing. Sound travels through outer, middle, and inner ear.

# Visual

## Red Flags for Dysfunction

- **Hypersensitive**
  - Covers eyes when exposed to bright lights
  - Covers eyes when exposed to changes in intensity of lights
  - Prefers dark rooms
- **Hyposensitive**
  - Seeks out high action TV shows, busy books, etc.
  - May make objects spin or look at objects from a variety of angles

# Auditory

## Red Flags for Dysfunction

- **Hypersensitive**
  - Covers ears when unexpected noises present (fire truck)
  - Turns volume down or off frequently
  - Fear of household items such as dishwasher, vacuum
- **Hyposensitive**
  - Seeks loud noises, turns volume up
  - May appear to “tune out”
  - May not respond to own name even though you know hearing is fine

# Sensory Versus Mechanical

- Deafness and blindness are NOT considered Sensory Integration Dysfunction disorders...they are MECHANICAL disorders

# Modulation

- Central Nervous System's regulation of it's own activity
- Difficulties with modulation can result in:
  - Tactile Defensiveness
  - Gravitational Insecurity
  - Sensory seeking behaviors

# Key Points

- Children with SID will most likely NOT demonstrate the exact preferences & tendencies at all times
- SID is dysfunction with neurological processes that organize sensory information from the environment
- If children are having a hard time processing sensory information, how can they make an appropriate motor response?
- Treatment includes enhanced sensation as a part of a meaningful activity
- The measure of successful outcome of intervention for this child is not whether there has been a change in the sensory processing, but whether there is a change in the child's ability to engage in activities that are personally satisfying and more growth supporting

# Sensory Tools

- Weighted products (blankets, lap pads)
- Vibrating toys
- Chewy toys and foods
- Toys to enhance tactile sensation
- Compression products around abdomen / chest
- Linear swinging!
- Heavy work tasks