

DO YOU KNOW THIS CHILD?

AN OVERVIEW OF SENSORY PROCESSING DISORDER



Presented by:

Tracy Meyer, MS, CCC-SLP

Ania Plocha, MOT, OTR

(Early Intervention Providers from the Developmental
Disabilities Resource Center)



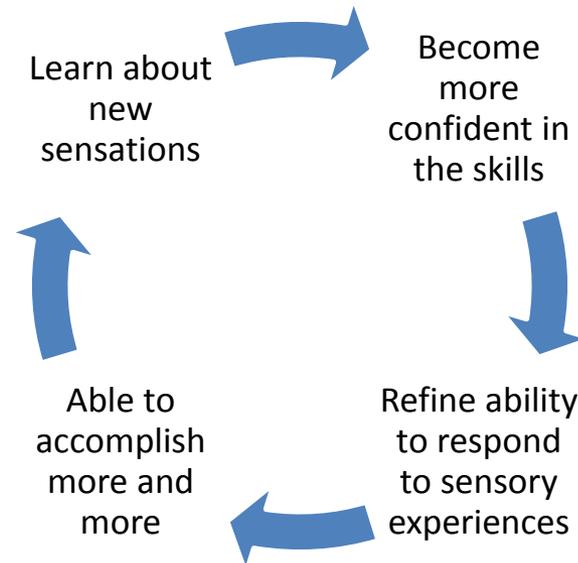
Course Outline

1. What is Sensory Integration and What Does It Do?
2. Sensory Problems and Sensory Processing Disorder
3. Red Flags to Watch For at Home and at Childcare
4. Simple Strategies For Home and Childcare
5. Resources
6. Question & Answer

What is Sensory Integration and What Does it Do?

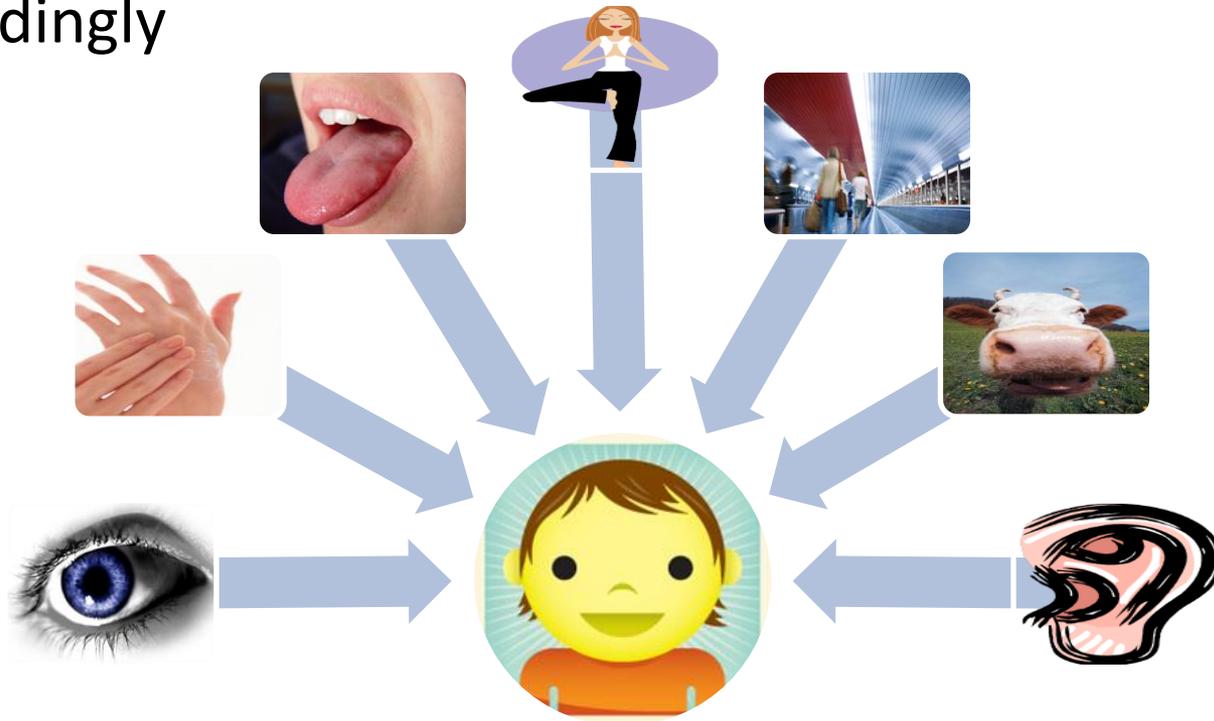
What is Sensory Integration and What Does it Do?

- The process of our brain (and nervous system) translating sensory input from our body by way of the environment
- The senses work together to give us an accurate picture of the world and our place in it



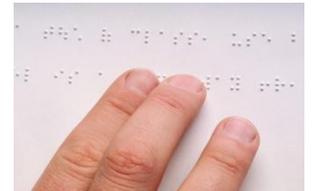
What is Sensory Processing and What Does it Do?

- The brain uses information about sights, sounds, textures, smells, tastes, movement and gravity in an organized way which gives meaning to sensory experiences, and allows people to respond and behave accordingly



What is Sensory Integration and What Does it Do?

- Five Classic Senses:
 1. Smell – savory, sour, sweet, pungent, ...
 2. Sight – light, dark, bright, colors, ...
 3. Hearing – loud, quiet, conversation, sounds, ...
 4. Taste – hot, cold, spicy, sweet, salty, ...
 5. Touch – soft, scratchy, smooth, rough, ...



What is Sensory Integration and What Does it Do?

- Two Additional Important Senses:

1. Vestibular (balance and sense of movement)

- Gravitational security
- Movement and balance
- Coordination



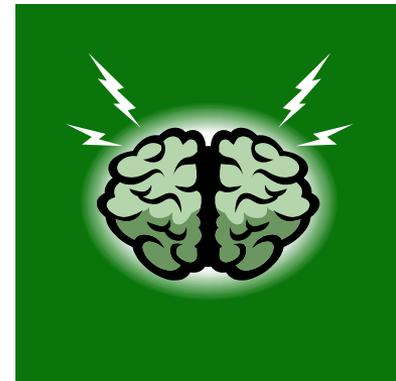
2. Proprioception (sense of knowing one's position in space)

- Where our body is in space = body awareness
- How our body parts relate to each other
- How fast our body is moving through space



What is Sensory Integration and What Does it Do?

- A typical sensory system is well regulated = self-regulation
- Self-regulation is the ability of one's brain to interpret the sensory information properly which allows the person to have an appropriate response in the environment
- This occurs without conscious effort for most people
 - i.e. ironing while talking, going up/down stairs without looking at them
- Important to remember that the responses vary – they do not have to be the same day-to-day, or the same between people



What is Sensory Integration and What Does it Do?

Levels of Awareness

Shutdown: hides face, moves to corner to avoid input/interactions, may appear to be sleeping

Nervous, anxious, limited ability to attend, easily distracted

Alert, attentive, able to participate actively, engaged in listening/learning, able to shift focus, and move from activity to activity easily

Drowsy, lethargic, needs cues or assistance maintain participation

Asleep

Sensory Problems and Sensory Processing Disorder

Sensory Problems and Sensory Processing Disorder

- Sensory processing can be inefficient for other people
- This becomes an issue when it has an impact on ability to function in “everyday situations”
- May be considered Sensory Processing Disorder (SPD)
 - Other terminology includes Sensory Integrative Disorder
- A. Jean Ayres, PhD
 - Occupational Therapist and Neuroscientist
 - Likened SPD to a “neurologic traffic jam that prevents certain parts of the brain from receiving information necessary to interpret sensory information correctly”



Sensory Problems and Sensory Processing Disorder

- People with sensory processing problems are not able to translate sensory information correctly
 - Have difficulty figuring out what is going on inside and outside their bodies
- Their sensory information may not be accurate
 - Can't rely on it
 - Don't know how to behave in response
 - May have trouble learning and behaving appropriately
- This is **much more excessive** than the average dislikes of certain foods, sounds, smells, etc
- Has a **strong impact** on day-to-day functioning:
 - Can't sit still
 - Won't touch finger paints
 - Gag on foods, etc

Sensory Problems and Sensory Processing Disorder

- May avoid confusing or distressing situations =
 - Over-Sensitive
- May not respond to a sensation =
 - Under-Responsive
- May seek out more of the sensation to learn more about it =
 - Seeker
- Or may present with any combination of the above
 - May vary day-to-day
 - Or may vary within the same day

Sensory Problems and Sensory Processing Disorder

	Over-Sensitive	Under-Responsive	Seeker
Touch	Responds negatively to light touch, including the anticipation of touch; touch seems scary or uncomfortable; wrestle during dressing or lifting; kick, punch, scream when someone is too close	Often disregards touch; typical injuries don't hurt, usually doesn't protect self well	Needs more deep pressure and skin contact than most; touch & feel everything in sight, even dangerous things or things uncomfortable to others; loves messy play
Hearing	Listen to every sound CONSTANTLY; easily distracted; startle to or irritated by standard sounds; covers ears; refuse to participate	Seems unaware of sounds; does not respond visibly to sounds; may speak softly	Loves crowds and places with noisy action; wants to turn the volume up; may make own noisy sounds; uses "outside voice" often

Sensory Problems and Sensory Processing Disorder

	Over-Sensitive	Under-Responsive	Seeker
Sight	Reacts strongly to contrasts, reflections, bright lights, etc; may turn eyes away or cover them; may be disturbed by moving objects; may duck when ball comes toward them	May not pay attention to new things visually such as holiday decorations, rearranged furniture, etc; may not respond fast enough when objects come in their direction; may stare at objects or people's faces	Might always want to be in front of TV or computer screen, etc; may be attracted to bright lights
Taste	Objects to certain textures or temperatures of foods; may gag while eating or spit foods out; may plug nose; may become upset by certain smells or tastes	Might be able to eat foods that have a lot of taste, spice, flavor, etc	Might try to taste or lick items that are not edible (i.e. chalk, Playdough, etc); may prefer spicy, flavorful foods

Sensory Problems and Sensory Processing Disorder

	Over-Sensitive	Under-Responsive	Seeker
Vestibular	Movement, or the possibility of it, causes negative reaction or to become overexcited; may get car sick, avoid riding a bike, sliding or swinging, etc; may become easily dizzy; may lose the ability to keep up with others	Doesn't seem to notice movement - may have been an "easy baby"; lacks inner drive to move actively; doesn't usually seek movement, but once started, has difficulty stopping; doesn't protect self well from falling	Seeks and enjoys a lot of vigorous movement, often in unusual ways (i.e. upside down, "downward dog", place head on the floor); may love to climb; may crave rocking, swinging, spinning in circles, etc; attention span may be short

Sensory Problems and Sensory Processing Disorder

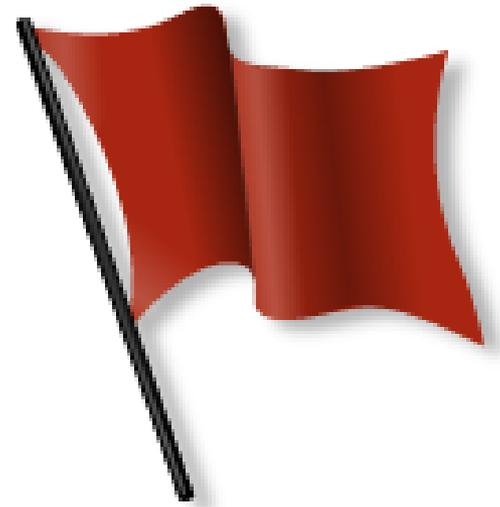
	Over-Sensitive	Under-Responsive	Seeker
Proprioception	May avoid stretching and contracting muscles; poor body awareness; rigid, tense & uncoordinated; may stay away from playground activities with a lot of sensory input (i.e. jumping, hopping, running); may not like tight hugs; may be a picky eater	Lacks inner drive to move and play; postural problems; clumsy with toys & materials; may be unable to orient body to dress self	May crash and bump into a lot of things; craves pushing, pulling, crash landings, etc; likes bear hugs; may like to be pressed, squeezed, etc; may seem aggressive; may bite self, bang head, etc as stimulation

Red Flags to Watch For at Home and at Childcare

Red Flags to Watch For at Home and at Childcare

When Might You See Red Flags?

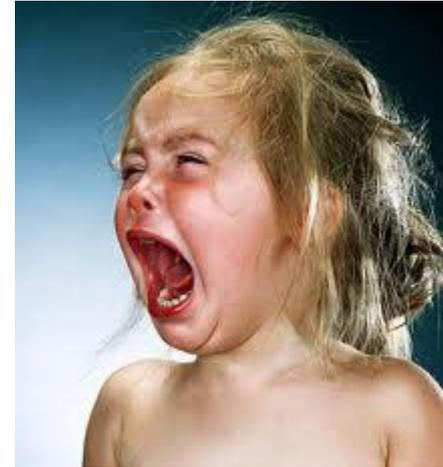
- Transitions
- Free Play Time
- Structured Activities
- Playground
- Mealtime
- Naptime/Bedtime
- Self-care



Red Flags to Watch For:

Transitions

- Extreme difficulty when being dropped off at a familiar setting, even after routinely visiting that same setting for awhile
- Takes a very long time (more than typical for age) to calm and/or always requires assistance to calm after changes in routine
- Shows resistance/difficulty when asked to stop one activity and start another



Red Flags to Watch For:

Free Play

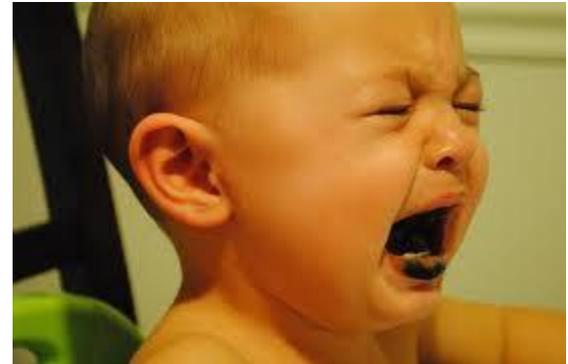
- Gets “stuck” playing with one toy *or* very short attention span for toys
- In everyone else’s face and space
- Mouths toys (beyond expected age)
- Play is dominated by constantly running, spinning, jumping, crashing
- W-sitting



Red Flags to Watch For:

Structured Activities

- Can't sit with the group
- Avoids groups all together
- Never seems to be paying attention
- Colors “heavy” with crayons
- Extremely upset by “messy” play (ex. finger-paints)
- Difficulty imitating actions of songs
- Upset by play guided by an adult



Red Flags to Watch For: Playground

- Extremely clumsy/falls a lot
- Lack of safety awareness (ex. edge of platform)
- Avoids swings and/or slides
- Doesn't seem to "wear out"
- Constantly walking on tiptoes
- No awareness of pain when hurt
- Little or no playing on equipment; may prefer to run around instead



Red Flags to Watch For:

Mealtime

- Difficulty sucking from bottle
- Dislikes any foods with flavor *or* LOVES high flavor foods
- Overly upset if hands or face get messy
- Eats only foods of a specific texture
- Extremely messy eater (more than typical for age)
- Over-stuffs food in mouth, may gag frequently
- “Pocketing” food



Red Flags to Watch For: Naptime and Bedtime

- Difficulty going to sleep (daily) *or* extreme difficulty waking
- Will only sleep when lying next to a person or the wall; sleeps better with a heavy blanket



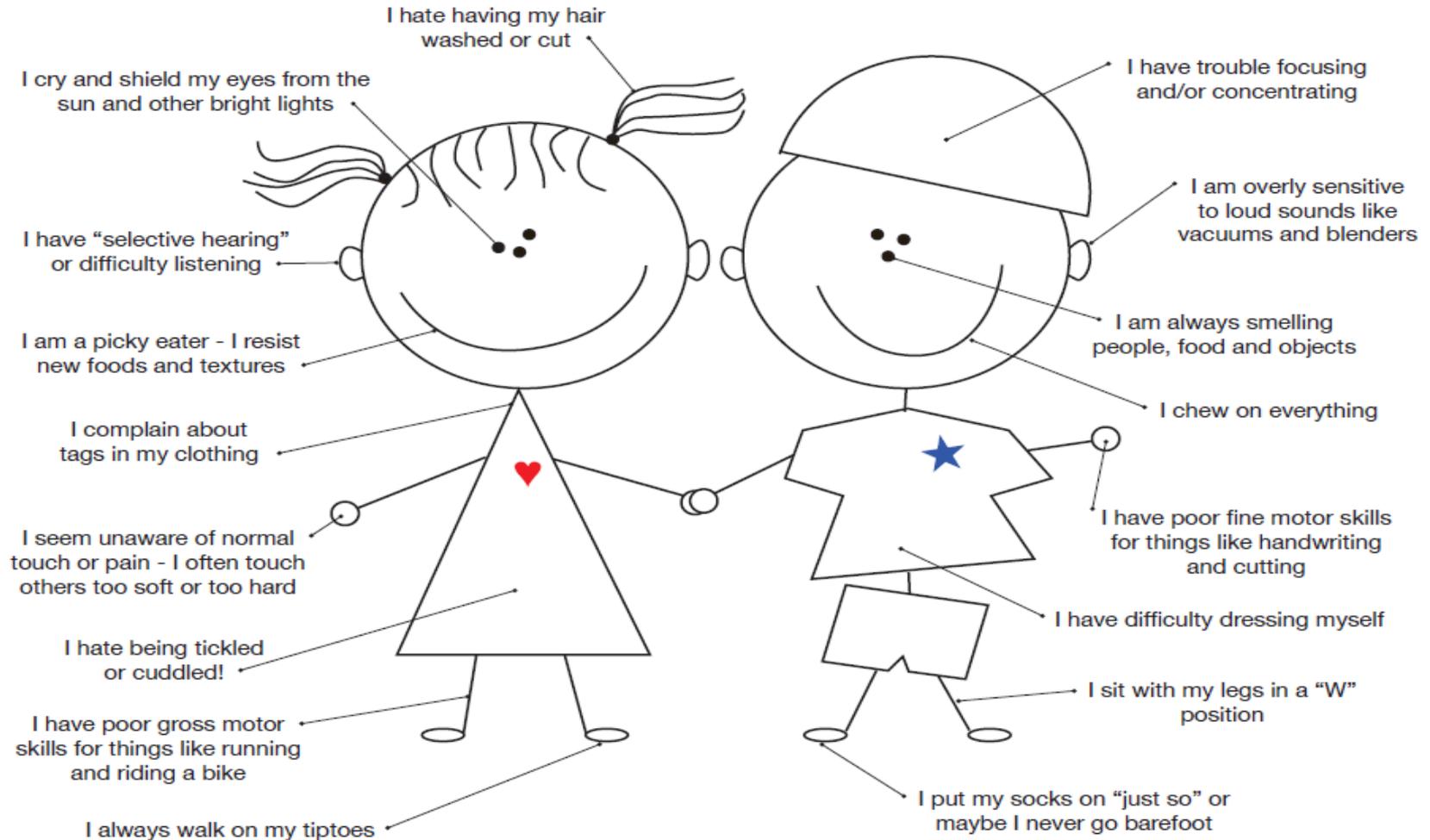
Red Flags to Watch For:

Self-care

- Extremely upset during diaper changes
- Chews on shirt/clothing
- Overly afraid of toilet flushing
- Does not like bath-time or playing in water
- Intensely likes or dislikes tooth-brushing



Red Flags to Watch For: **DO YOU KNOW ME?**



Simple Strategies For Home and Childcare

Simple Strategies For Home and Childcare: Arranging Your Space

- Create a space for quiet-time when the child starts to get upset
 - Soft mat
 - Blanket
 - Books
- Provide a specific “space” for children to sit during circle time (ex. carpet square)
- Use rugs and other soft surfaces to help absorb noise
- Limit excess toys and other distractions during sit-down activities



Simple Strategies For Home and Childcare: Schedules/Timing of Activities

- Incorporate quiet time into daily routine
- Prepare for transitions
 - Gentle sounding timer
 - Clapping pattern
 - Verbally (i.e. five more minutes until...)
 - Provide a visual schedule through pictures
- Ease into sensory play
- Play calming classical musical when able
- Allow movement breaks

Simple Strategies For Home and Childcare:

Strategies to Aid in Learning

- Promote participation by allowing choices during activities
- Heavy work
 - Have child help by pushing heavy things around
 - Crawling through tunnels/forts
 - Rough-housing on pillows/cushions/blankets on the floor
- Let the child become involved as he/she feels more comfortable with the activity
- Replacement – i.e. child can't throw large legos but can throw beanbags into a container
- Provide firm, clear rules – difficulty with sensory processing does not mean the child gets to make his/her own rules



Resources

Resources - Books

- *The Out-of-Sync Child: Recognizing and Coping with Sensory Processing Disorder*, Revised Edition. Lucy Jane Miller & Carol Stock Kranowitz, 2006. Perigee Trade.
- *The Out-of-Sync Child Has Fun: Activities for Kids with Sensory Integration Dysfunction*. Carol Stock Kranowitz, 2006. Perigee Trade.
- *Growing an In-Sync Child: Simple, Fun Activities to Help Every Child Develop, Learn, and Grow*. Carol Stock Kranowitz & Joyce Newman. 2010. Perigee Trade.
- *Sensational Kids: Hope and Help for Children with Sensory Processing Disorder (SPD)*. Lucy Jane Miller & Doris Fuller. 2007. Penguin Books.
- *Raising a Sensory Smart Child; the Definitive Handbook for Helping your Child with Sensory Integration Issues*. Lindsay Biel & Nancy Peske. 2005. Penguin Books.
- *The Sensory-Sensitive Child: Practical Solutions for Out-of-Bounds Behavior*. Karen A. Smith & Karen R. Gouze. 2004. HarperResource.

Resources - Internet

- **SPDFoundation.net**
www.SPDFoundation.net
Provides information on research, education, and advocacy for recognition of Sensory Processing Disorder.
- **SPD-Parent Connections**
<http://www.spdfoundation.net/families.html>
A grassroots network providing support and information to anyone dealing with sensory processing issues. Located in more than 70 communities worldwide, conduct group discussions, educational programs, and fundraisers for the Sensory Processing Disorder Foundation.
- **Sensory Planet**
www.SensoryPlanet.com
An online social community for parents, teachers, and those who treat SPD operated by Carrie Fannin, host of SPD-Parent Connections in Washington.
- **Sensory World an imprint of Future Horizons**
<http://www.fhsensory.com/>
An online resource of books, videos and conferences that provide information on sensory processing, specifically in relation to Autism.
- **ComeUnity**
http://www.comeunity.com/disability/sensory_integration/
An online website for articles and resources for parenting children with special needs or disabilities, one category is specifically focused on sensory integration

Resources - Local

1. Pediatrician
2. Early Intervention Colorado

- www.eicolorado.org
- 1-888-777-4041

- In Colorado, the overall system of early intervention is known as **Early Intervention Colorado**. It is designed to “connect” a family with **early intervention services**, such as occupational, speech or physical therapy, to help infants and toddlers grow and develop, and to help their family in this process. It is a voluntary program and does not discriminate based on race, culture, religion, income level, or disability.

3. Local OT/Sensory Clinics



Resources - Local

Denver Metro OT/Sensory Clinics

The Star Center

5420 S. Quebec St., Suite 103
Greenwood Village, CO 80111
303-221-STAR (7827)
www.starcenter.us

Care by The Children's Hospital, Westminster

7577 W. 103rd Avenue, Suite 200
Westminster, CO 80021
720-777-1330

Care by The Children's Hospital, Littleton

151 W. County Line Road
Littleton, CO 80129
720-777-1320

Sensory Pathways 4 Kids

(at the Neuro-Developmental Center)
7935 E. Prentice Ave., Suite 104
Greenwood Village, CO 80111
and
5275 Marshall Street, Suite 104
Arvada, CO 80002
303-756-0280 Ext. 100
www.sensorypathways4kids.com

Unique Prints Pediatric Therapy Services

2900 South University Blvd.
Denver, CO 80210
303-773-1034
www.uniqueprintstherapy.com

Developmental FX

2000 S. Dahlia #300
Denver, CO 80222
303-333-8360
www.developmentalfx.org

Colorado Center for Pediatric Learning and Development

1958 Elm St, Room 310 & 311
Denver, CO 80220
303-333-4982
www.ccpld.com

Chatterpillars Therapy Center

215 St. Paul Street, Suite 205
Denver, CO 80206
303-333-4062
www.chatterpillarkids.com

Amaryllis Therapy Network, Inc.

2680 18th St, Suite 150A
Denver, CO 80211
303-433-0852
www.amaryllistherapy.net

References

- www.SPDFoundation.net
- http://www.comeunity.com/disability/sensory_integration/
- <http://school.familyeducation.com/sensory-integration/parenting/36660.html>
- *The Out-of-Sync Child: Recognizing and Coping with Sensory Processing Disorder*, Revised Edition. Lucy Jane Miller & Carol Stock Kranowitz, 2006. Perigee Trade.
- *Raising a Sensory Smart Child: the Definitive Handbook for Helping your Child with Sensory Integration Issues*. Lindsay Biel & Nancy Peske. 2005. Penguin Books.

Questions?