

Adoption 101

Heartland for Children's
Trauma Informed, Relationship Focused Adoption Training

Class Four

Welcome To Adoption 101, Class Four!

- Welcome back!
- Discussion of last week & homework
- Today's Agenda!
 - Guest Speaker
 - Pillars of Complex Developmental Trauma
 - Empowerment Principles

Three Main Pillars for Healing

- *Safety* – The child IS safe and FEELS safe
- *Connection/Relationship*
- *Building Coping Skills*

Principles of Trust-Based Relational Intervention

- The 3 Pillars parallel the 3 evidence based principles of Trust-Based Relational Intervention (TBRI):
 - Empowering
 - Connection
 - Correction
- We will discuss elements of each principle, starting with empowerment.

What are empowering principles?



*Empowering is
connecting by
meeting a child's
needs.*

Meeting Needs is Critical for Attachment & Felt Safety

- Attachment Cycle
 - Child has a need > Child Expresses Need > Need Met by Caregiver
 - Trust, Attachment, Felt Safety

Let's not forget what our children's attachment cycle has historically looked like & their attachment style!

- *All of the TBRI Principles aim to meet a child's needs.*
- Empowerment principles looks at meeting the child's physical needs, both ecologically and physiologically.

Physiological Strategies of Meeting Needs

- Hydration
 - Improves memory, attention, cognition and behaviors.
 - Should be drinking every 2 hours!
- Nutrition
 - Proper nutrition can improve cognitive & emotional functioning
 - Whole grains, turkey, fish, nuts, lentils, & Omega-3 fatty acids provide the building blocks for healthy brain chemistry
 - Children with histories of substance exposure and early childhood trauma often have significant changes to insulin receptor sites, making them subject to dramatic shifts in behavior when their blood sugar begins to drop below optimal levels.
 - Need regular, nutritious snacks every 2 hours! Focus on protein and complex carbohydrates
- Healthy Touch
 - Touch is our first sense to develop and our skin is our largest organ!
 - Touch can actually change brain chemistry and is critical to healthy development
 - Remember that some children are fearful of touch - find way to engage in a way that feels safe for the child
- Physical Activity
 - Physical Activity can regulate brain chemistry by brining down excitatory and stress neurochemicals in the brain and boosting calming neurochemicals.
 - If they receive the appropriate levels of physical activity, a child's learning and memory are enhanced. If they overdo it, they can have a meltdown.
 - Every 2 hours they should be involved in a physical activity!
- Sleep

Physiological Needs Continued

- Sensory Processing

- 1 out of 20 children have sensory processing difficulties, with a higher than average rate for children who have experienced trauma. It is often undetected, overlooked, or diagnosed as something else.
- Sensory Processing Disorder can be defined as a “practical inability to use information received through the senses so as to function smoothly and normally in everyday life.”
- This can lead to difficulties with eating, getting dressed, riding in a car, playing with others, etc.
- Helpful to pay attention to input they are seeking and what they are avoiding. Journaling is sometimes helpful.

Physiological Strategies: Understanding Sensory Processing

- Five external senses: sight, smell, touch, taste, and sound
- The senses serve four primary functions:
 - ALERT the body and brain to important cues
 - PROTECT the body and brain from becoming overwhelmed
 - SELECT what is important to pay attention to
 - ORGANIZE the brain automatically
- Three internal or body-centered senses help the brain create meaning from sensory input received from the environment
 - Vestibular
 - Proprioceptive
 - Tactile

How can we meet our children's sensory needs?

- Weight lifting (proprioceptive, calming, organizing)
- Basketball (vestibular, hand-eye coordination)
- Swimming (proprioceptive, tactile)
- Trampoline (vestibular)
- Climbing (proprioceptive, vestibular, hand-eye coordination)
- Tight clothing (proprioceptive)
- Massage (proprioceptive, tactile)

Empowering Principles, Ecological Strategies

- Supporting our children in their environment, and ensuring they are *seen, heard, and valued!*
- Felt Safety
 - To have felt safety, must feel connected, that they belong, and are being their true self
- Transitions
 - Daily Transitions
 - Life Transitions
 - Prepare them for success!
- Scaffolding Self-Regulation
 - Help your child learn to self-regulate

More Empowering Strategies

- Daily Routine
 - Consistent, predictable, and prepares for what is coming next
- Rituals
 - Routine that builds connection!
- Artifacts
 - Object with meaning, sentimental

How do you connect?



Reflection:

- What elements of Mr. White video relates to what we talked about today?
- What are some key words for you that has stuck in your mind related to the empowering principles?
- After learning this information, where there any “ah ha” moments?
- After learning this information, is there anything you may start doing differently in your everyday life?

QUESTIONS?

Thank you!

- Homework:
 - Empowering Strategies
- Handouts:
 - The Healing Power of “Giving Voice”
 - Dan Hughes’ 24 S’s: A Guide for Raising your Troubled or Sensitive Child
 - 10 Tips for Stressed Out Parents
 - Your 8 Senses
 - Sensory Profiles
 - Weighted Items: Tools for Helping Children Learn to Regulate

3. Describe a daily routine, ritual, and artifact that you either currently do within your family or have thought about adding to your family?

4. What are some routines, rituals, and artifacts that you can recall from your own childhood and what did they mean to you?

5. Please describe at least one thing that stood out to you in the handouts/articles provided in class four.

Class 4 Homework

Empowering Strategies

Name: _____

1. Physiological empowerment strategies aim to meet physiological needs such as nutrition, touch, physical activity, sleep, and hydration. Based on what you learned in class, what are some little things you can do in your life to incorporate being able to meet these needs for a child currently in your home, or a child who may be in your home in the future?
2. Describe your understanding of how we can empower children to help them learn to self-regulate through co-regulation?

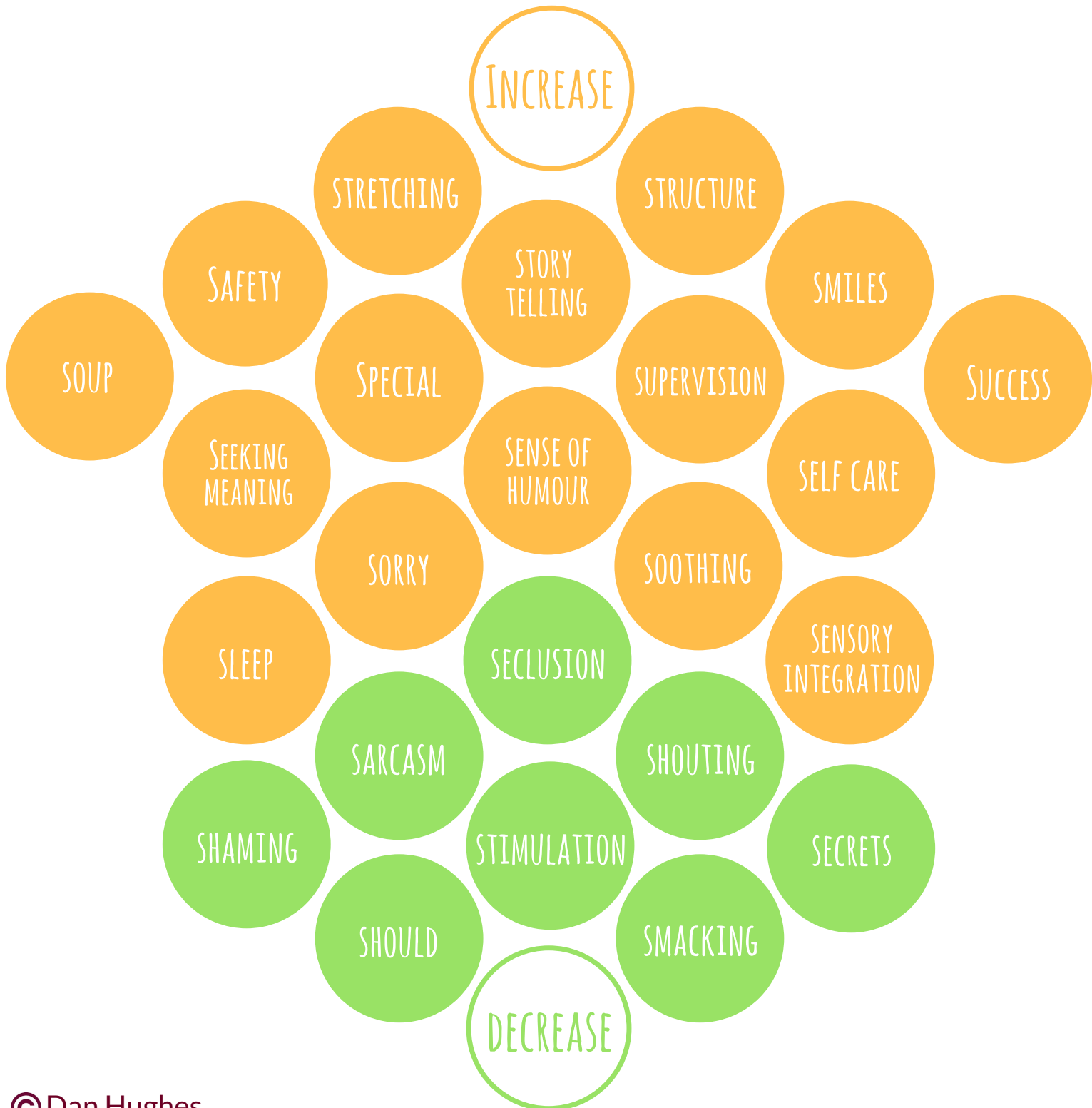
3. Describe a daily routine, ritual, and artifact that you either currently do within your family or have thought about adding to your family?

4. What are some routines, rituals, and artifacts that you can recall from your own childhood and what did they mean to you?

5. Please describe at least one thing that stood out to you in the handouts/articles provided in class four.

DAN HUGHES' 24 S'S

A guide for raising your troubled or sensitive child





10 Tips for Stressed out Parents!

Juli Alvarado
Coaching for LIFE
www.coaching-forlife.com
April 2011

10 Tips for Stressed out Parents!

We have learned about trauma.

We have learned about attachment.

We have learned about emotional regulation.

We have made all the appointments, met all the therapists, researched all the diagnosis, completed the mounds of paperwork, put our lives into a big fishbowl for others to review, run all the errands, made all the beds, started the laundry, dinner is on the stove, and the day is gone.

How did that happen? I thought I had planned well enough that I would have a couple of hours before the kids get home....and oh my, summer break is just around the corner.

I love my family, my children and my role in life.

And, I AM TIRED, stressed out and depleted at times.

Many parents have written to me over the years asking for ways to calm, work on their own stress and for suggestions for free or low cost means to feel better. I offer my response~
But, there is a catch.

I can share 10 tips for easy stress reduction; ways to help you get and stay more emotionally regulated *and* they will do you absolutely no good unless you practice them daily.

We have to intentionally take care of ourselves. Talking about it will not help. Doing it will.

What's Breath got to do with it??

The emotional experience of stress triggers a chemical reaction in the brain. The chemical reaction impacts our physiological system. Now we have a brain/body reaction to stress.

The brain loses its ability for clear thinking, decision making and rational thought. We become impulsive, irrational and we do and say things that we soon regret.

The body becomes rigid, down to the cellular level we constrict under stress. Muscles tighten up, the jaw clenches, we often sweat as our heart rate increases and blood pumps more quickly under fire from the stress response system.

All of this happens for good reason! It primes us to respond to the stress~prepares us to take action through fight, flight or freeze against that which is threatening to us.

However, when we are pumped up, ready to fight, we simply add to that which has stressed us to begin with. A fight is not what we typically need in our day to day lives to bring the situation back to calm. **Fighting against a person fighting just gets us more fighting!** We make bad decisions, we add to the anger and tension and we suffer in our emotional and physical being.

Breathing, deep breathing is the connection between our body, mind and spirit. It is through deep breaths that we bring both our emotional, physical and spiritual being back into regulation. Stop right now, take 3 very deep breaths, exhaling slowing and intentionally. Allow your body to relax a bit as you do. You will understand clearly how powerful a simple breath is to our Peace and healing.

The brain learns through repetition, the more you do something the more natural it becomes. I started practicing deep breathing years ago, now I unconsciously stop and breathe to bring myself to regulation all through the day. My stress is extremely low, my impulsive, frustrated, intolerant reactions are almost non existent. I can function from a state of love and calm even in the midst of the storm, which I, like you, have daily.

Integrated into the 10 tips for stress reduction for parents is breathing, lots of breathing. I encourage you to pick 2 or 3 of my suggestions and begin to practice them daily. You will change. Your life will change. When you change for the better, so too, will your family change. Try it for 30 days, you will be glad you did!

10 Tips for Stressed Parents:

AWARENESS: unless you are aware of that which dysregulates, (stresses) you, you cannot create an environment opposite to that for your healing. We must first take a look inside and figure out what stresses us. Make a note of any stressful, current situations in your life. What is it about this situation that stresses you? Write it down. If there is something that you can do to change it, engage that change today. If there is not, you can always change you.

It is often our reaction to a situation that stresses us out as much as the situation itself. If your reaction is out of fear, anger or anxiety, choosing instead to stop before you react and taking 3 deep breaths, calms your mind and body. Your reaction is causing your stress response system to activate. We can calm the system instead of activate the system simply through your breath.

EVERY HOUR: set your timer or alarm on your computer or phone to provide a soft, soothing reminder every hour of the day. When the alarm goes off, stop everything that you are doing, stand up, stretch your entire body for a full 60 seconds, take 3 very deep breaths and go back to work. You will feel better in one day. Guaranteed.

MEDITATION/PRAYER: every morning before your feet hit the floor, offer gratitude for another day, another chance, another breath. Thank God and the Universe for all that is provided you another day. Take three deep breaths to bring your mind/body/spirit into alignment before you hit the ground running. Stretch your body as much as you can when you first awaken. Your day will be better the very first day you begin this routine!

YOGA: if you cannot join a class, or purchase an inexpensive DVD yoga class to do in your own home, you can always find a yoga class on one of the health TV stations. Yoga helps you learn to control your breathing and increase heart rate variability. This helps the body to respond more flexibly to stress. Once a week is good, twice is better. Your body, your mind and your spirit will feel better in one week!

WALKING: a 15 minute brisk walk, two times a day increases the release of feel good chemicals into your brain and body. If it is cold out, walk inside. I sometimes will set my timer for 5 minutes and walk up and down the steps in my office 2-3 times a day to increase the cardio exercise. I follow that with three deep breaths and go back to work. Gets me feeling better every single time.

Any exercise rebalances melatonin which enhances sleep cycles and releases endorphins which enhances mood. Get up and move every day in some way.

SLEEP WELL AND REST DAILY: sleep deprivation keeps your nervous system on high-alert and your cortisol levels too high. This keeps you feeling anxious throughout the day. If you do not sleep well at night, rest during the day if you can, even for 30 minutes. This will bring your relaxation chemicals back to target.

SENSORY STIMULATION: your stress system is affected by sensory input; what you hear, taste, touch, smell and see. Are your surroundings calm, soothing, tranquil and content? If not, what can you do to change that, now? I listen to very soothing music with no words while I work. I light candles with light scent, and I use lamps with soft lighting. I create a sensory experience that draws me in with comfort.

TIME OUT: not for your kids, but for you if needed! If you are at the point of blowing, you have permission to give yourself a time out. Let your children or loved ones know that you will be back, that you just need to walk away for a few minutes. That is must less damaging than what may slip out if you stay!

TRIPLE A's: affection, attention and attunement. Your kids need this everyday, but so do you. Create relationships that are full of affection, that provide you with the attention you need, and that are attuned to your needs and wants. The more of these you get, the more you can share! Cultivate the friendships you long for; coffee with a good friend is more helpful than most therapy sessions!

Stop Drop and Roll: when all else fails and the stress returns,

Stop: completely stop, stop talking, moving and reacting

Drop: drop into deep breaths, slowly inhale and exhale focusing only on breath

Roll: roll back into relationship only after you have calmed your mind and body

This provides a calm platform for both you and the other person to come back into safety. If the other person is still upset, work to remain slow in your movements and low in your tone of voice. This will help you remain calm and bring the other person down with you.

If you are in need of a personal coach, someone to help you, listen to you and direct you as a coach would do, please visit us at www.coaching-forlife.com

We have wonderful parent coaches, many free resources and links for articles, research and further information supporting you toward a more peaceful life!

Please reach out, if you need support, ask someone. You are not alone.

And remember, breathe~

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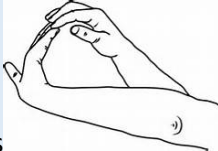
Juli Alvarado is the founder and Sr. Clinical Consultant at coaching for LIFE!, a personal and professional development organization.

For further information about our trainings, coaching and consulting work, please visit us at www.coaching-forlife.com



Playful Parenting with Children who
Have Experienced Trauma
Resource Guide

Child Appears	Sensory Activities
<p>Slow Tired Under Responsive</p>	<ul style="list-style-type: none"> • Give myself a hug • Hand massage (self or therapist) • Seat push ups • Textured, firm fidget (spiky ball, racquet ball) • Drinking water through a straw • Finding small objects in Theraputty or Sensory Bin • Wall push • Mints or minty gum • Animal walks • Crossing midline exercises (Superman Pose, Army Crawl w/ crossed arms, Windmills) • Crunchy snacks (carrots, pretzels, celery) • Sour or spicy snack • Chewing on rubber bracelet (LiveStrong style) or Chewelry • Frozen snacks • Play a game using freezer pack • Sitting/bouncing on yoga or peanut ball • Climbing, hanging or swinging • Draping body over yoga ball or bolster to do floor or written work • Games with resistance bands/Push me pull you • Music and movement games • Playing with clay or Playdough (especially squishing / using rolling pins to flatten)
<p>Fast Wiggly Unfocused</p>	<ul style="list-style-type: none"> • Brian Gym exercises • Weighted objects, weighted blanket, wearing ankle weights • Deep pressure activities (kid taco: wrapping child in blanket or covering body with cushions, steamrolling with body roller or yoga ball) • Playing catch/ rolling with heavier ball • Joint compression exercises- jumping, bouncing on yoga or peanut ball, jumping jacks, pushing palms/soles of feet together • Give myself a hug

<p>Fast Wiggly Unfocused (Cont.)</p>	 <ul style="list-style-type: none"> • Finger pulls • Wall pushes • Wheelbarrow walks • Rocking activities, rocking chair, rocking on yoga ball • Manipulatives such as stress balls, tangles, stretchy animals, textured balls • Sitting on “wobble seat” or Dynadisc • Deep breathing exercises • Blowing pompoms or cotton balls with a straw (have child follow lines on paper as a game) • Reduce light and noise levels (headphones if needed) • Blowing bubbles • Calming olfactory experiences, smelling lavender, vanilla, etc. (can add scents to weighted object) • “Heavy work” activities- carrying loaded backpack, moving full laundry baskets, adding wrist weights while playing games • Swinging SLOWLY • Placing hands on child’s shoulders or head with safe, firm pressure • Balance board • Stretching inside Body Sock • Pull heavy items around on a sheet
<p>Self-Harming Head Banging, Skin Picking, etc.</p>	<ul style="list-style-type: none"> • Vibrating objects • Temperature play (ice sensory bin, playing with warm rice sachet) • Highly textured manipulatives • Deep pressure in general area of harm or weighted item (i.e. weighted hat or compression headband for head banging) • In crawling position, have child push head into soft object such as pillow or beanbag
<p>Anxious Nervous</p>	<ul style="list-style-type: none"> • Visual calendar of session activities • Weighted object or blanket • Deep breathing • Blowing bubbles, blowing up balloons, blowing through a straw, games with party

Anxious Nervous (Cont.)


- blowers (whistles can be removed when necessary)
- Hanging (head toward floor) over yoga ball or edge of sofa, chair, bed, etc.
- Ripping paper (junk mail or newspaper is great for this, see who can make the biggest pile)
- Play with vibrating toy or object
- Metronome games, clapping to a slow steady beat
- Noise machine, especially heartbeat sound
- Soft tactile objects (Stuffed animals, baby blankets, etc.)
- Kaleidoscopes or I-Spy tubes
- Yoga prompt cards

Hitting, Kicking and Throwing Objects

- Provide appropriate objects to throw or kick (wadded paper, beanbags, ping pong, foam or rubber balls for throwing, foam blocks, beanbags or floppy stuffed toys such as Beanie Babies for kicking; use targets to create games)
- Play with splat balls



- Play with water balloons
- Walking/running
- Stomp on rubber stress balls
- Change the environment (go outdoors and throw balls/kick rocks)
- Digging in sensory bins or sand box
- Massage shoulders, hips, ankles
- Add large motor activity to daily sensory diet/ engage in activity before session begins
- Add heavy work to daily sensory diet/ engage in activity before session begins
- Add shoulder, hip and ankle compressions to daily sensory diet/ engage in activity before session begins

<h1>Seeking Environmental Input</h1>	<p><i>Create and follow through with daily sensory diet (typically 2x per day) to address area of seeking along with daily sensory breaks as needed</i></p> <p><u>Tactile</u></p> <ul style="list-style-type: none"> • Sensory bins • Play dough, clay • Cloud dough: Mix 5 cups flour with 1 cup baby oil • Coco-dough: Mix 1 cup coconut scented hair conditioner and 2 cups corn starch • Temperature play: ice, hand warmers • Texture play: texture matching, coloring on sandpaper, kinesthetic bag • Sand box • Water play • Vibration: vibrating pillow, hand massagers • Massage <p><u>Auditory</u></p> <ul style="list-style-type: none"> • Headphones for AV devices (with volume control for safety)  <ul style="list-style-type: none"> • Phonics Phone • Musical instruments such as chimes and bells • Rainsticks, small fan, white noise machine • Whistles, party blowers

Seeking Environmental Input (Cont.)

Visual

- Mirrors at eye level
- Light up/glowing toys or balls
- Glow sticks
- Activities for visual discrimination: matching, sorting, color grading, I Spy books
- Photo albums and colorful picture books
- Adding color to other sensory activities such as sensory bins, substituting colored pompoms for cotton balls in games and activities, etc.

Oral Processing and Taste

- Chewies: Abilitations Integrations Chewlery, Live Strong style rubber bracelets baby toothbrush, vibrating toothbrush, clean tubing
- Rubber tubing on the top of pencil
- Gum: can also be added to IEP or 504 if not allowed at school
- Offer diverse food textures and intensity levels at each meal, ie. Crunchy and spicy foods
- Muffin tin snacks: small portions of multiple foods

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- Scented lotions, hand sanitizers
- Scent matching
- Incorporating scent into other sensory activities i.e. warm lavender glow stick bath, cedarwood scented rice bin

Vestibular: Movement & Balance

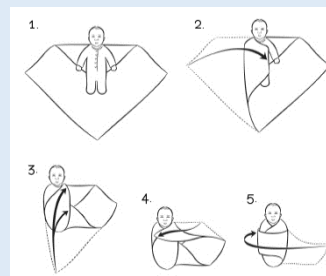
- Swinging: hang bar, hammock swing (Ikea's Ekorre), tire swing
- Spinning: sit and spin, mom powered spinning with beach towel (10x each direction only)

Seeking Environmental Input (Cont.)

- Bouncing on yoga ball or jump ball
- Standing or sitting on Bosu Ball
- Hanging upside down
- Dance, gymnastics, tumbling
- Roll tubes
- Rocking chair/ rocking horse
- Indoor see-saw (Ikea Rusig)
- Animal Walks
- Obstacle Course incorporating several of the above activities
- Outdoor Play

Proprioception: Body in Space/Heavy Work

- Hanging
- Joint compressions
- Create sensory “hideaway” with cushions, under a table, between objects, etc. for environmental compression
- Compression garments: Under Armor, Target has an in-store brand
- Body sock
- Weighted objects- vest, blanket, stuffed animal, scarf, hat
- Incline sitters, Dyna-Disc
- Heavy work- push, pull, carry heavy objects such as items in a wagon, books in a backpack, creating heavy work games
- Push on large therapy ball with someone else giving resistance from the other side.
- Have child hold therapy ball with arms and legs while lying on his/her back. Try to take the ball away and tell the child to hold on to the ball as hard as he can
- Blankets: burrito games, swaddle (with child consent and arms outside)



- Yoga ball: steam roller, back bends, sitting
- Trampoline, Bosu Ball

	<ul style="list-style-type: none"> • Crawl Tunnel • Bikes, scooters, Plasma Car • Theraband activities
<h2>Avoiding Environmental Input</h2>	<p><i>Create and follow through with daily sensory diet (typically 2x per day) to address area of seeking along with daily sensory breaks as needed</i></p> <p><u>Tactile</u></p> <ul style="list-style-type: none"> • Place doughs, lotion or gel in Zip-lock bags for avoiders • Mark off child's area with carpet square, tape etc, to avoid closeness to others • Purchase seamless socks and/or garments • Cut tags from clothing • Allow child to wear clothing without metal fasteners, elastic waistbands, made from soft material, etc. ("fancy clothes/church clothes" can be very stiff and scratchy) <p><u>Auditory</u></p> <ul style="list-style-type: none"> • Noise canceling headwear for loud environments • White noise machines, fans • Music for the brain: Dr. Jeffrey Thompson, Brainsynch or classical music played at low volume

Avoiding Environmental Input (Cont.)

Visual

- Avoid visual distractions (muted colors, using dividers to eliminate distractions, cut clutter, “a place for everything and everything in its place”)
- Note what sets off child particularly color, speed of movement, lighting, and avoid these triggers
- Sunglasses or caps to shade eyes, window covers for light sensitivity in car, black-out shades for sleeping

Oral Processing and Taste

- Have child brush teeth with infant toothpaste and toothbrush or a washcloth/ linen cloth
- Provide preferred snacks every 2 hours
- Play with food. Play with pudding, create peanut butter dough, play with Jell-O sensory bin, cooked spaghetti sensory bin this can create food familiarity and tolerance
- Food Chaining technique from “Food Chaining by Cheri Fraker

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- Avoid scented household products, personal care products

Vestibular: Movement & Balance

- Make note and honor your child’s sensory preferences. Some children may display an irrational fear of change in position or movement, may be fearful of having their feet leave the ground, or having their head tipped backward. Sensory defensive children

may not like swings, slides, or any movement where they are not firmly planted. Consult an Occupational Therapist for evaluation and sensory diet.

Proprioception: Body in Space/Heavy Work

- Assist in creating body awareness in the child through games that isolate body parts (place the beanbag on your knee, draw around body on large paper, dance, yoga, free movement)
- Fun activities that strengthen fine motor skills - picking up puffballs with chopsticks or tweezers, “writing” with Bingo Markers, lacing cards, bead stringing, hammering golf tees into clay, snap together toys such as Legos, placing coins in a piggybank, etc.
- Fun activities that strengthen gross motor skills – jumping rope, playing catch, hula-hoops, bowling games, etc.
- Massage
- Make note and honor your child’s sensory preferences, proprioceptive avoiders may have low muscle tone and or difficulty grading motion. Consult an Occupational Therapist for evaluation and individualized sensory diet.

Sensory Groups and Related Activities/Equipment

TACTILE PROCESSING: TOUCH

Sensory Bins

- ❖ *Salt*
- ❖ *Rice*
- ❖ *Seed*
- ❖ *Gems*
- ❖ *Marbles*
- ❖ *Beads*
- ❖ *Coffee beans*
- ❖ *Aquarium gravel*
- ❖ *Moon sand*
- ❖ *Dry corn*
- ❖ *Cooked spaghetti*
- ❖ *Shaving cream*
- ❖ *Lotion*
- ❖ *Conditioner*
- ❖ *Ice Cubes*
- ❖ *Dry pasta*

***color can be added to dry pasta, rice
and salt with food dye and rubbing alcohol*

***bury objects in the bin for matching*

***essential oils can be added*

- *Play dough, clay*
- *Cloud dough: Mix 5 cups flour with 1 cup baby oil*
- *Coco-dough: Mix 1 cup coconut scented hair conditioner and 2 cups corn starch*
- *Place doughs, lotion or gel in Zip-lock bags for avoiders*
- *Temperature play: ice, hand warmers*
- *Texture play: texture matching, coloring on sandpaper, kinesthetic bag*
- *Sand box*
- *Water play*
- *Vibration: vibrating pillow, hand massagers*
- *Massage*

AUDITORY PROCESSING:

SOUND

- *Headphones for media*
- *Noise canceling headwear for loud environments*
- *White noise machines, fans*
- *Music for the brain: Dr. Jeffrey Thompson, Brainsynch*
- *Instruments, bells, chimes*
- *Desensitizing*



*Sensgard Hearing Protector - Model#
Sensgard ZEM 26*



3M Peltor Junior Earmuff, Black



VISUAL PROCESSING:

SIGHT

- *Avoid visual distractions (muted colors, using dividers, cut clutter)*
- *Note what sets off child particularly color, speed of movement, lighting, and avoid*
 - *Place mirrors at eye level*
 - *Sunglasses or caps to shade eyes, window covers for light sensitivity*
 - *Colored light for sleep*
 - *Glow sticks*
- *Activities for visual discrimination: matching, sorting, I Spy books*

ORAL PROCESSING AND TASTE

- *Chewies: Abilitations Integrations Chewlery, zVibe, baby toothbrush, vibrating toothbrush, clean tubing*
- *Rubber tubing on the top of pencil*
- *Gum: can be added to IEP or 504 if not allowed at school*
- *Diverse food textures, ie. Crunchy and spicy foods for seekers*
- *Muffin tin snacks: small portions of many foods*
- *Food chaining to address feeding issues: book Food Chaining by Cheri Fraker*
- *Play with food; pudding painting, peanut butter dough, etc*

Peanut Butter Play-Doh

2 cups of creamy peanut butter

2 cups of honey

Mixing Instructions: In a large bowl, mix together the honey and peanut butter. Slowly add in the powdered milk and knead the mixture until the dough reaches a thick consistency. The dough can

OLFACTORY PROCESSING: SMELL

- *Aromatherapy: diffuser, spray, essential oils (clear with medical professional before use)*
 - *Frankincense: Very stimulating to the limbic system of the brain.*
 - *Cedarwood: Calming and purifying.*
 - *Lavender: Calming and relaxing to nervous system..*
 - *Vetiver: Sedating, grounding, mood stabilizing*
- *Scented lotions, hand sanitizers*
- *Scent matching*
- *Incorporating scent into other sensory activities i.e. warm lavender glowstick bath, cedarwood scented rice bin*



VESTIBULAR: MOVEMENT/BALANCE

- *Swinging: hang bar, hammock swing (Ikea's Ekorre), tire swing*
- *Spinning: sit and spin, mom powered spinning with beach towel, Dizzy Disc Jr., playground merry go round*
- *Bouncing on yoga ball*
- *Rody Horse*
- *Hanging upside down*
- *Dance, gymnastics, tumbling*
- *Roll tubes*
- *Rocking chair*
- *Indoor see-saw (Ikea Rusig)*
- *Animal Walks*
- *Obstacle Course*
- *Outdoor Play*

Resources

Amazon.com: all products recommended in this list can be found on Amazon

flaghouse.com

Funandfunction.com

Specialneedstoys.com

Therapro.com

Rompa.com

www.abilitations.com

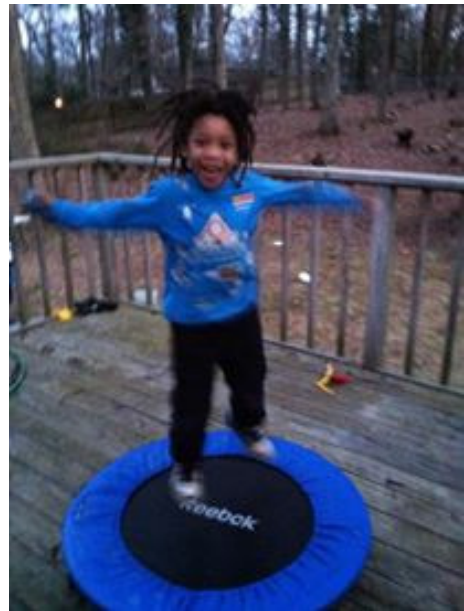
**Pinterest: search terms "sensory play", "sensory fun", etc.*

**Ikea store or website*

**Dollar Tree: sensory bins and materials*

PROPRIOCEPTION: THE BODY IN SPACE/HEAVY WORK

- *Hanging*
- *Joint compressions:
compression games (Engage
robot)*
- *Compression garments: Under
Armor, Target has an in-store
brand*
- *Body sock (Amazon has many)*
 - *Weighted objects- vest,
blanket, stuffed animal, scarf,
hat*
- *Incline sitters, Dyna-Disc*
- *Heavy work- push, pull, carry*
- *Blankets: burrito games,
swaddle*
- *Yoga ball: steam roller, back
bends, sitting*
- *Trampoline, Bosu Ball*
 - *Crawl Tunnel*
- *Bikes, scooters, Plasma Car*
 - *Therabands*





Hand Clapping Rhymes

Patty Cake Song

Pat-a-cake, pat-a-cake, baker's man.

Bake me a cake as fast as you can.

Pat it, roll it, and mark it with a B.

Put it in the oven for baby and me.

Patty cake, patty cake, baker's man,

Bake me a cake as fast as you can.

Roll it up, roll it up,

And throw it in a pan!

Patty cake, patty cake, baker's man.

Double, Double

Double, double, this, this.

Double, double, that, that.

Double this, double that.

Double, double, this, that.



Miss Mary Mack

Miss Mary Mack, Mack, Mack,

All dressed in black, black, black,

With silver buttons, buttons, buttons,

All down her back, back, back.

She asked her mother, mother, mother,

For fifty cents, cents, cents,

To see the elephants, elephants, elephants,

Jump over the fence, fence, fence.

They jumped so high, high, high,

They touched the sky, sky, sky,

And didn't come back, back, back,

Till the fourth of July, July, July.

Long Legged Sailor

Have you ever, ever, ever,



In your long-legged life,

Seen a long legged sailor,

And his long legged wife?

No, I've never, never, never,

In my long legged life,

Seen a long legged sailor,

And his long legged wife.

- Have you – clap your own hands
- ever – clap right hand with partner
- ever – clap own hands
- ever – clap left hand with partner
- in your – clap own hands
- long – arms extended, left hand palm up, right hand palm down, clap partners
- legged – left hand palm down, right hand palm up, clap partners hands
- life – arms up clap partners hands palm-to-palm
- seen a – clap own hands
- long – arms extended, left hand palm up, right hand palm down, clap partners
- legged – left hand palm down, right hand palm up, clap partners hands
- sailor – arms up clap partners hands palm-to-palm
- and his – clap own hands
- long – spread own hands far apart
- legged – clap own hands



- wife – clap partner's hands palm-to-palm

Concentration

Let's Play

Concentration

No repeats

Or hesitation

I'll go first

You go second

Category is... (make up category such as names, animals, books)

- Let's- left hand palm down, right hand palm up, clap partners hands
- Play- left hand palm down, right hand palm up, clap partners hands, clap own hands 3x
- Concentration- left hand palm down, right hand palm up, clap partners hands, clap own hands 3x
- No Repeats - left hand palm down, right hand palm up, clap partners hands, clap own hands 3x
- Or hesitations- left hand palm down, right hand palm up, clap partners hands, clap own hands 3x



- I'll go first- left hand palm down, right hand palm up, clap partners hands, clap own hands 3x
- You go second- left hand palm down, right hand palm up, clap partners hands, clap own hands 3x
- Category is- left hand palm down, right hand palm up, clap partners hands, clap own hands 3x
- Names as many items as you can in the category stated while- left hand palm down, right hand palm up, clap partners hands, clap own hands 3x

A Sailor Went to Sea

A sailor went to sea, sea, sea,

To see what he could see, see, see.

But all that he could see, see, see,

Was the bottom of the deep blue sea, sea, sea.

- A – clap own hands
- sai – clap right hand with partner
- lor – clap own hands
- went – clap left hand with partner
- to – clap own hands
- sea, sea, sea – clap partner's hands three times



Poetry Books for Children

A Child's Garden of Verses by Robert Louis Stevenson

The Bill Martin Jr Big Book of Poetry by Bill Martin Jr. (Editor), Michael Sampson

It's Raining Pigs & Noodles by Jack Prelutsky

Mother Goose Treasury: A Beautiful Collection of of Favorite Nursery Rhymes by Parragon Books

Now We Are Six by A. A. Milne

Poetrees by Douglas Florian

The Random House Book of Poetry for Children by Jack Prelutsky

Shout!: Little Poems that Roar by Brod Bagert

Sing a Song of Seasons: A Nature Poem for Each Day of the Year Edited by Fiona Waters

Where the Sidewalk Ends by Shel Silverstein



Home Theraplay Activities for Young Children

Originally published in the The Theraplay® Institute Newsletter of Spring, 1994

The Theraplay Institute, Wilmette, Illinois

Lullaby: Parent cradles child in arms in such a way that eye contact is fully maintained. Parent sings lullaby to child, inserting, wherever possible, child's name and descriptions of his or her features. Example: "Twinkle, twinkle little star, what a lovely boy you are. Nice brown hair and soft, soft cheeks. Big brown eyes from which you peek. Twinkle, twinkle little star. What a lovely boy you are."

Peek-a-boo with hands, feet, towel, blanket, hood of coat, behind pillow or door.

This little piggy went to market.

What will happen when I push this button: Parent gently presses nose, ear, toe and "beeps," "honks," etc.

"Pop" cheeks: Parent fills own cheeks with air and guides child's hands to push gently on parent's cheeks with fingers to pop out the air, encourage child to fill up cheeks and parent pops. Toes can also be used to pop cheeks.

Patty-cake: can be played with feet too!



Any song or rhyme paired with movement, such as dancing, bouncing, rocking, moving limbs, finger plays. Personalized wording, as in Twinkle above, is preferred. Examples: Rock a bye baby, Patty cake, Itsy bitsy spider, Ride a horsie, The wheels on the bus, Rub a dub dub, I'm gonna get you.

Various experiences with touch and textures: Lotioning, making hand or foot prints in powder, pressing hands or feet into play dough or shaving cream, baby oil for back rub with the child facing you. Be aware of possible sensitivities to odors.

Activities promoting eye contact: parent puts sticker on own nose and helps child pull it off: parent puts cotton ball on nose with a dab of lotion, child blows it off. Blow bubbles in front of child and help him pop with fingers or toes.

Lotion pass: parent puts lotion on nose, passes to child's cheek, helps child pass it back to parent's forehead, rubs lotion on child.

Comb hair with child facing you, commenting on special color, texture, etc.

Tower of hands: Put lotion on parent's and child's hands and make a hand stack, alternating slippery hands. Move from bottom to top and top to bottom.

Pushing over: Parent and child are face to face with child lying on back cradled between parent's legs; parent and child put hands together or child puts feet on parent's shoulders; child pushes parent over (gently) while parent comments on strength. Note: pushes can also be with fingertips, noses, elbows, etc.

Blowing over: blowing mightily, parent "blows over child" encourage child to do same.



Games for 2 adults

Back and forth: child runs, hops, somersaults between 2 adults with encouragement and happy greetings upon arriving at each adult.

Hiding and finding: one parent hides with the child by covering both with a blanket or pillows, other parent joyfully finds and uncovers the treasure.

Catch: parents gently cradle child, swing and carefully "toss" to the other parent.

Shoe and sock race: both parents race to put kisses on feet, then cover with shoes and socks.

Blanket swing: place child in blanket and give a gentle swing, can be done while singing to child. Lyrics might be: "My (name) lies over the ocean..."

Wiggle in and out: Child wiggles out of and back into parent's encircling arms.



Attachment Play

Power Reversal Games

- Knock Me Over with a Feather: This is a great activity for young children. Give the child a craft feather, Get on your knees and pretend to be really, really strong, saying “nobody will ever be able to push ME over!” Then let your child use the feather push you over, and make a big deal about how strong she is. Adjust how hard or easy it is to push you over based on your child’s age, strength, and temperament.
- Chase Reversal: Run around and have your child try to catch you. You can use the catch as an opportunity to be physically close to your child by hugging or kissing him while you’re on the ground. Adjust how hard or easy it is to catch you based on your child’s age, strength, and temperament.

Regression Games

- Feed the Bird- have the child sit in your lap or across from you with your knees touching. Pretend to be the mommy bird and feed your baby bird bites of Cherios cereal or gummy worms. Touch the food to the “baby bird’s” nose or chin



asking, "Is this how we feed the bird?" allow the child to enjoy the treat while maintaining eye contact and a smile.

- Burrito Game-Child lays in the middle of a blanket on the floor, the blanket is the burrito wrap. Pretend to sprinkle various toppings (tomato, salsa, lettuce, sour cream, etc.) on the burrito, making silly sounds for each, then wrap the blanket, swaddle style around the "kid burrito". Gently press on the length of the child's body with palms flat for extra sensory input, then pretend to eat the burrito!

Activities with Body Contact

- The Sock Stealing Game is one of our family's favorite attachment games. It's silly, fun and easy to play with kids of all ages and developmental levels. Players simply attempt to pull the socks off their opponent's feet while staying seated and scooting around the floor or while crawling on their hands and knees. It's great for one-on-one play or as a team game- kids against adults is always fun. The Sock Stealing Game provides lots of chances for appropriate, non-threatening physical touch and eye contact and helps children feel powerful and competent when they successfully snatch a sock!
- Engage the Robot- Have child lay on blanket or yoga mat, adult will kneel beside the child. Pretend you are unwrapping a big box that your child is inside saying- "Oh, it's that robot I ordered, I know it needs to be powered up before he can



move.” Explain that in order for your “kid robot” to become mobile, you need to engage all the robotic systems. Begin at the feet, with gently pressure move feet back and forth, move to knees, place gentle pressure on the child’s knees, gently squeeze or press on his tummy, shoulders, elbows, wrists and fingers. With each application of pressure let child know the robot is powering up. When complete give him a big squeeze and let him know he can move about with full power.

Cooperative Board Games

Outfoxed!

Max

Forbidden Island

Forbidden Desert

The Nighttime Animals Save the World

Hoot Owl Hoot

Richard Scarry's Busytown: Eye found it! Game

Pandemic (for older players)

Shadows Over Camelot (for older players)



Special Playtime

Helping children build attachment and heal from trauma is a major role of foster and adoptive parents. Dr. Bruce Perry, child psychologist and trauma expert, says that parents do this well by embodying the 4 P's.

Present: Be present. Spend one-on-one time with your child.

Parallel: We often think connection means looking each other in the eye and sharing our deepest truths. This kind of interaction can be incredibly overwhelming for children with attachment challenges or trust issues. Being side by side, sharing an experience or completing activities in the same space; offering - not forcing interaction can break down the barriers children who have lived with trauma and neglect have built to protect themselves.

Persistent: Even if your child rebuffs your attempts at playfulness, try and try again. Gentle persistence builds trust and shows your child she is worth the effort.

Patient: Building trust and attachment may be a lengthy process. Patience is the key. Becoming a family is the work of a lifetime.

During this playtime attempt to complete the following:

- Don't take yourself too seriously, make your child laugh.
- Touch your child in a nurturing way. A pat on the back or a touch on the hand can comfort and ground your child.
- Give 2 specific praises. Feeling competent is a major factor in resilience.
- Delight in your child. Find a way to help your child feel seen. We all long to feel acknowledged and understood.



Suggested Special Playtime Toys:

- Dolls
- Bottle
- Doctor Kit
- Play Phone
- Play Money
- Animal Figurines
- Toy Soldiers
- Lone Ranger Mask
- Toy Handcuffs
- Playdough on Tray
- Play Dishes/Silverware
- Dress-up Items and Hand Mirror
- Scotch Tape
- Egg Cartons
- Child Sized Scissors
- Paper/Greeting Card Scraps
- Crayons
- Washable Markers
- Paper



Resources List

150+ Screen-Free Activities for Kids: The Very Best and Easiest Playtime Activities from FunAtHomeWithKids.com! by Asia Citro

Attachment Play: How to Solve Children's behavior Problems with Play, Laughter and Connection by A.J. Solter

I Love Dirt!: 52 Activities to Help You and Your Kids Discover the Wonders of Nature by Jennifer Ward

The Out-of-Sync Child Has Fun, Revised Edition: Activities for Kids with Sensory Processing Disorder by Carol Kranowitz

Parenting with Theraplay®: Understanding Attachment and How to Nurture a Closer Relationship with Your Child by Helen Rodwell

Playful Learning: Develop Your Child's Sense of Joy and Wonder by Mariah Bruehl

Playful Parenting: An Exciting New Approach to Raising Children That Will Help You Nurture Close Connections, Solve Behavior Problems, and Encourage Confidence by Lawrence J. Cohen

NEW Winter Groups Are Filling!


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Your 8 Senses

You Have Eight Sensory Systems

(Please note: figures below are from Wikipedia)

DESCRIPTION OF THE EIGHT SENSORY SYSTEMS

The five basic sensory systems:

1. [Visual](#)
2. [Auditory](#)
3. [Olfactory \(smell\) System](#)
4. [Gustatory \(taste\) System](#)
5. [Tactile System](#)

The three sensory systems Ayres focused on in describing sensory integration dysfunction:

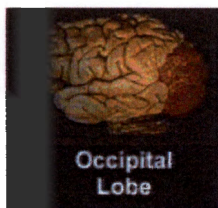
5. [Tactile System \(see above\)](#)
6. [Vestibular \(sense of head movement in space\) System](#)
7. [Proprioceptive \(sensations from muscles and joints of body\) System](#)

The most recently discussed set of sensations related to internal organs

8. [Interoception](#)

A. The five basic sensory systems:

1. Visual System



The visual system is responsible for seeing.

The primary visual area of the brain is the occipital lobe (see figure). Projections are received from the retina (through the thalamus) where different types of information are encoded. Types of visual information include: color, shape, orientation, and motion. From the ventral stream in the occipital lobe information projects to the temporal lobe to process what objects are. From the dorsal stream, information goes to the parietal lobes to process where objects are located.

2. Auditory System



The auditory system is responsible for hearing.

The primary auditory cortex is located in the superior temporal gyrus of the brain (see figure). Specific sound frequencies can be mapped precisely onto the primary auditory cortex. Particular areas in the auditory cortex process changes in sound frequency or amplitude, while other areas process combinations of sound frequencies. The major area involved in comprehending language, (called Wernike's area) is located in the left hemisphere in most people.

3. Olfactory (smell) System



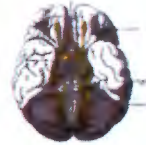
Photo: Child and Therapist in the STAR Institute Treatment world famous sensory garden

The olfactory system is responsible for processing smell.

The olfactory bulb is located in the most forward part of the brain on the bottom side of the brain (see figure). The olfactory bulb transmits smell information from the nose to the brain, and is thus necessary for a proper sense of smell. Unlike the other sensory systems, the olfactory bulb has only one source of sensory input (neurons of the olfactory epithelium) and one output. Thus it is assumed to be more of a **filter** than an associative circuit that has many inputs and many outputs.

The olfactory bulb does receive "top-down" information from areas such as the **amygdala, neocortex, hippocampus**, and others. It has four functions:

- discriminating among odors
- enhancing detection of odors
- filtering out many background odors
- allowing higher brain areas related to arousal and attention to modify the detection and/or the discrimination of odors



Looking up from the base of the brain

4. Gustatory (taste) System



The Gustatory system is responsible for the sense of taste.

It allows us to discriminate between safe and harmful foods. Usually, individuals prefer sweet and salty tastes to sour or bitter tastes. Detecting salt is critical to keeping a regulated and stable internal body environment. This taste is perceived positively because it facilitates **re-uptake** of water into the blood. Since it helps survival, salt is perceived as a pleasant taste by most humans.

Sour taste can be good in small quantities, but when it gets too sour it becomes unpleasant to taste. This has occurred through evolution to protect us from eating over-ripe fruit, rotten meat, and other spoiled foods (dangerous because of bacteria which grow in these environments).

The bitter taste is almost completely unpleasant to humans. This is because many **dangerous** pharmacological agents taste bitter, including **caffeine, nicotine, and strychnine**. Some bitter tastes can be overcome (note how popular Starbucks is world wide! Also note how many medicines when chewed, have a bitter taste, apparently being interpreted by our bodies as poisons.)

Sweet taste signals that **carbohydrates** are present. Carbohydrates have a high calorie count and are desirable (humans in the distant past did not know when their next meal would occur, so they evolved to want/need to eat sweet tastes.)

The primary gustatory cortex is located near the somatotopic region for the tongue, in the **insular cortex** deep in the **lateral fissure** with the secondary taste areas in the **opercula** (see figure). This means the location is folded deeply within the cortex within the lateral sulcus between the temporal and frontal lobes.

5. Tactile System



Postcentral gyrus of the human brain.

The tactile system is responsible for processing touch information from the body.

The body sends tactile information to the somatosensory cortex through neural pathways to the spinal cord, the brain stem, and the thalamus. The primary somatosensory cortex is the primary receptive area for touch sensations and is located in the lateral **postcentral gyrus**, a prominent structure in the parietal lobe of the human brain.

Due to its many connections to other brain areas, the somatosensory cortex is the part of the nervous system that integrates touch, pressure, temperature, and pain.

The tactile system is extremely important in SPD. Many individuals with the disorder have tactile symptoms such as tactile defensiveness or under-responsivity to touch and pain. The touch system is one of the three foundational systems used in sensory integration treatment.

B. The three sensory systems Ayres focused on in describing the treatment of sensory integration dysfunction:

5. **Tactile system** (see description above)

6. **Vestibular System**

The vestibular system contributes to balance and orientation in space. It is the leading system informing us about movement and position of head relative to gravity.

Our movements include two positions rotations and linear directionality. Thus, the vestibular system has two related components: the semicircular canal system, (related to detecting rotation) and the **otoliths**, (related to detecting linear acceleration/deceleration).

The vestibular system sends signals primarily to the neural parts of the brain that control our eye movements, and that keep us upright.

The vestibular system contains three **semicircular canals**, which are approximately at right angles to each other:

the **horizontal** canal, which detects rotation around a vertical axis (as when you do spins in ice skating),

the **anterior semicircular canal**, detects movement in forward/backward plane as in a nodding movement,

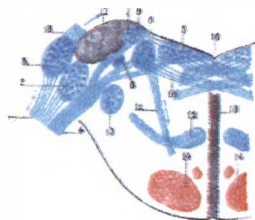
the **posterior** canal, detects movement in a frontal plane as in when cartwheeling.

The canal on each side has an almost parallel counterpart on the other side. Each pair of canals works in a push-pull fashion: when one is stimulated, its partner is inhibited. Together the partners allow us to sense rotation in all directions.

Emphasis on the function of the vestibular system comes from Ayres influence when she identified sensory processing disorders as a new condition. This sensory system has a broad influence in many parts of the brain projecting to:

- The cerebellum (to effect movements of the head, eyes, and posture).
- Cranial nerves III, IV, and VI (to permit the eyes to fix on a moving object while staying in focus).
- Reticular formation (to signal how to adjust circulation and breathing when the body assumes a new position).
- Spinal Cord (to allow quick reflex reactions related to balancing).
- Thalamus (to control head and body motor responses).

The information above is only a simple introduction to the role of the vestibular system as it relates to SPD. The figure below depicts the complex vestibular system. This figure is in the public domain from *Gray's Anatomy* (book).



Terminal nuclei of the vestibular nerve, with their upper connections. (Schematic.) 1. Cochlear nerve, with its two nuclei. 2. Accessory nucleus. 3. Tuberculum acusticum. 4. Vestibular nerve. 5. Internal nucleus. 6. Nucleus of Donders. 7. Nucleus of Bechterew. 8. Inferior or descending root of acoustic. 9. Ascending cerebellar fibers. 10. Fibers going to raphe. 11. Fibers taking an oblique course. 12. Lemniscus. 13. Inferior sensory root of trigeminal. 14. Cerebrospinal fasciculus. 15. Raphe. 16. Fourth ventricle. 17. Inferior peduncle. Origin of stria medullaris. (Testut.)

7. Proprioception

Proprioception (sense of muscle and/or joint movements) System

The proprioceptive system (sometimes abbreviated as “prop” by therapists when they talk about it) senses the position, location, orientation, and movement of the body muscles and joints. Proprioception provides us with the sense of the relative position of neighboring parts of the body and effort used to move body parts.

Proprioception is activated by input to a proprioceptor in the periphery of the body. The proprioceptive sense combines sensory information from neurons in the **inner ear** (detecting motion and orientation) and **stretch receptors** in the **muscles** and the joint-supporting ligaments for stance.

Two types of proprioception exist:

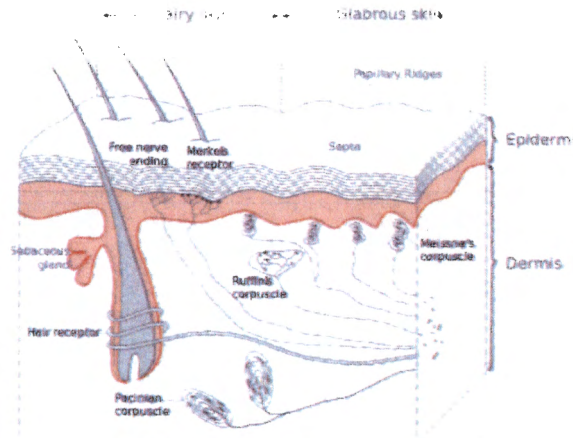
- Conscious proprioception, which travels up the **posterior column-medial lemniscus pathway** to the **cerebrum**; and
- Unconscious proprioception which travels up the **dorsal spinocerebellar tract**,^[20] to the **cerebellum**.

Proprioception was felt by Ayres to be the foundation (with vestibular impairments) of SPD. It is one of the three sensory systems used by SI trained therapists as the cornerstone of the sensory aspect of advanced treatment.

Temporary proprioceptive impairment is reported during times of quick growth, mostly during adolescence. Other large increases or drops in bodyweight/size due to fluctuations of fat (e.g., liposuction) and/or muscle content (e.g., body-building) also affect proprioception.

Proprioception is occasionally impaired in typically developing individuals, for example, if you are tired. Generally speaking we do not notice our proprioceptive sense because we disregard through **habituation**, **desensitization**, or **adaptation** sensory stimuli that is continuously present. In essence, the habituation makes the proprioceptive sensory impressions disappear. One practical advantage of this is that unnoticed sensations continue in the background while an individual's attention can move to another concern.

Temporary impairment of proprioception has also been known to occur from an overdose of vitamin B6 and or by **cytotoxic** factors such as **chemotherapy**.



8. Interoception

Free interoception download

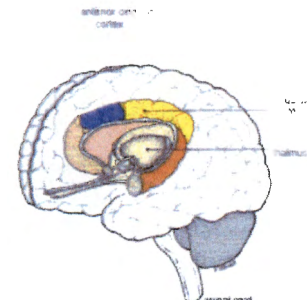
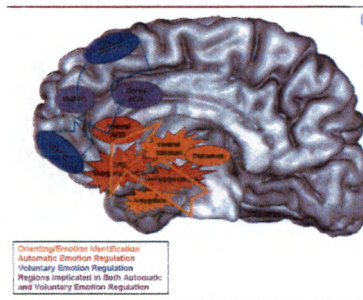
Watch this video explanation

The eighth, often neglected, but frequently problematic sensory system in SPD is the Interoceptive System. Interoception refers to sensations related to the physiological/physical condition of the body. Interoceptors are internal sensors that provide a sense of what our internal organs are feeling. Hunger and thirst are examples of interoception.

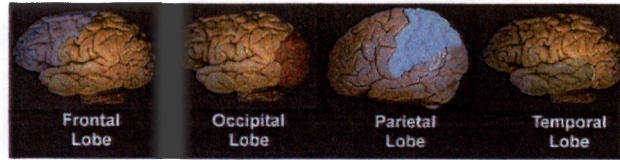
Interoception detects responses that guide regulation, including hunger, heart rate, respiration and elimination. The Interoceptive stimulation is detected through nerve endings lining the respiratory and digestive mucous membranes. Interoception works the vestibular and proprioceptive senses to determine how an individual perceives their own body. Well-modulated interoception helps the individual detect proprioceptive and vestibular sensation normally. For example, if a person feels his/her heart pounding, while it is not comfortable, trauma from the stimulation is not likely; nor will the stimulation be craved. The same is true for hunger and thirst, as well as the feeling of the need to urinate or have a bowel movement.

Interoception is associated with autonomic motor control, and is different than mechano-reception (in the skin) and proprioception (in the muscles and joints). Interoception is located in the dorsal posterior insula and it creates distinct feelings from the body including pain, temperature, itch, muscular and visceral sensations, vasomotor activity, hunger, thirst, and the need for air. In humans, the primary interoceptive activity occurs in the right anterior insula, which provides the basis for subjective feelings of ones' emotional awareness.

Some researchers believe that our perceptions of well-being, energy and stress are based on sensations representing the physiological condition of our bodies. They suggest that interoception is a foundation subjective feelings, emotion and self-awareness. There is evidence that the anterior insula-cingulate system may integrate Interoceptive information with emotional salience to form a subjective representation of the body; while the mid-cingulate cortex, are more likely involved in environmental monitoring, response selection, and body orientation (see Taylor KS, **Seminowicz DA, Davis KD** (2009). Two systems of resting state connectivity between the insula and cingulate cortex. Human brain mapping, 30(9), 2731-2745).



See below for general diagram of the neuroanatomical locations noted in above descriptions. The brains depicted below are shown from a side view with the nose pointing to the left.



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Weighted Items

Tools for Helping Children Learn to Regulate



Toddler holding a weighted doll.

Weighted Items Are Calming

Weighted items provide safe, calming, deep pressure for persons experiencing anxiety, distress, restlessness, and difficulties with attention and executive control. These items include blankets, vests, dolls, and other soft items that are filled with heavy beads or pellets to add extra weight to them. We have successfully used weighted blankets, weighted vests, weighted dolls, and weighted teddy bears in our work for over fifteen years, as a way to help children and teens learn to self-manage their emotions and behavior.

Children can hold a weighted item, place it on their lap, wrap it around their shoulders, or use it as a sleep aid. The amount of weight that is helpful for specific children can vary, and the weight that is most comfortable for the individual child should be used. HOW a weighted item is used, and WHETHER to use a weighted item, are ALWAYS controlled by the child or teen that is using it.

— Dr. Karyn B. Purvis

Weighted Items

Weighted items such as weighted vests and weighted blankets have been shown to have a number of benefits for children, teens, and adults. For example, Buckle et al. (2011) found, using an experimental manipulation, that weighted vests improved the in-seat behavior and attention-to-task of school-aged children diagnosed with ADHD. Similarly, Lin et al. (2014) found, again using an experimental manipulation, that weighted vests improved three different attentional measures and three different on-task behaviors among school-aged children diagnosed with ADHD. The impact on classroom behavior in this study was

significant: There was a 23% reduction in off-task behavior, an 82% reduction in out-of-seat behavior, and a 52% reduction in fidgeting (Lin et al., 2014). Fertel-Daly et al. (2001), Olson and Moulton (2004), and VandenBerg (2001) have published additional evidence regarding the use and effectiveness of weighted vests.

There is not as much evidence for the impact of weighted blankets as there is for weighted vests, but the data are beginning to accumulate. Mullen et al. (2008) investigated the safety and efficacy of weighted blankets in college-age adults using an experimental design with multiple physiological and self-report measures. Vital sign metrics

indicate that weighted blankets are safe, while data obtained on effectiveness revealed a 33% decrease in electrodermal activity (an indicator of emotional arousal) and a 63% decrease in self-reported anxiety after use, while 78% of the participants preferred the blanket as a calming modality. The authors conclude that weighted blankets can have a safe, calming influence for at least some non-hospitalized adults (Mullen et al., 2008).

In an in-home study, Lindstedt and Oie Umb-Carlsson (2013) found that adults diagnosed with ADHD rated weighted blankets as “most helpful” among a suite of cognitive assisted technologies designed to

support daily activities and promote life satisfaction. In an evaluation of a sensory room in a hospital (psychiatric) setting, Novak et al. (2012) found that use of a sensory room was associated with significant reductions in distress and improvements in a range of disturbed behaviors, and that those individuals who used a

weighted blanket in the sensory room reported significantly greater reductions in distress and clinician-rated anxiety than those who did not use a blanket. Positive research findings are consistent with the growing use of weighted blankets in clinical settings (Mullen et al., 2008), as well as in our own therapeutic summer

camp (Purvis and Cross, 2006; Purvis et al., 2007, see also the figure on this page). In the next section of this TBRI Practice Brief, we take a look at **Sensory Rooms**, which commonly employ weighted items as part of a sensory menu.



A Hope Connection camper with a weighted blanket.

Sensory Rooms

Sensory rooms are designed to provide a self-managed sensory diet for children, teens, and adults who are experiencing difficulties self-regulating their emotional and behavioral states (Champagne and Stromberg, 2004; Webber, 2007). Sometimes, sensory rooms are referred to as “multi-sensory rooms” or “comfort rooms.” Very often, sensory rooms include weighted items, as in the study by Novak et al. (2012), mentioned in the previous section. You will recall that the overall sensory room experience was therapeutic, as was the self-managed use of weighted blankets (Novak et al., 2012). In a separate study of sensory-based approaches deployed within an inpatient psychiatric setting (Chalmers et al., 2012), there were significant reductions in pa-

tient distress, as rated by the patient (48% reduction), and by the clinician (47% reduction). Similar findings have been reported by Smith and Jones (2014). In our own work with residential treatment centers (RTCs) serving youth, we have seen a virtual elimination of restraints and seclusions once the RTCs implement a voluntary sensory room, stocked with weighted blankets, among other sensory items (see also Champagne and Stromberg, 2004).

Based on studies such as these, as well as a growing foundation of clinical experience, there is considerable interest in sensory rooms as a therapeutic modality in residential settings (Champagne and Stromberg, 2004; Webber, 2007). As part of this movement, the National Association of State Mental Health Program Directors (NASMHPD) has issued a plan-

ning framework for mental health agencies that specifies comfort and sensory rooms as seclusion/restraint reduction tools (Huckshorn, 2005). Tonarelli (2007) provides some guidance for setting up sensory rooms in residential facilities, but Chalmers et al. (2012) discuss how environmental changes are insufficient on their own, and must be accompanied by deliberate cultural change efforts within residential settings, with buy-in from both staff and clients.

Deep Pressure

Weighted items such as blankets, vests, dolls, and stuffed animals provide a particular form of sensory stimulation, namely, what Mullen et al. (2008) and others refer to as *Deep Pressure Stimulation* (DPS). Grandin (1992) observed that

DPS can help calm autistic children, calm children diagnosed with ADHD, and calm other large mammals besides humans. She further speculated that the neurological mechanisms responsible for the calming effect of DPS may involve the cerebellum, a topic to which we will return later in this Practice Brief (see [Sensory Processing](#), below). More recently, Reynolds et al. (2015) found that DPS, applied with a “Vayu Vest” (therapeutic-systems.com), reduced sympathetic arousal (distress), increased parasympathetic arousal (calming), and enhanced cognitive performance in a sample of normal adults.



Youth with a weighted animal.

DPS can take many forms, including weighted items, hugs, and massage. There is considerable neuropsychological research on the benefits of massage, which may provide insight about the neurophysiological underpinnings of DPS effects in general. In a comprehensive review of therapeutic massage research, Field et al. (2005) conclude that therapeutic massage results in a 31% decrease in cortisol, a 28% increase in serotonin, and a 31% increase in dopamine. All of these changes are in the direction of improved psychological functioning and well-being, and they are averaged across studies investigating a wide range of problems, including depression, chronic pain, autoimmune conditions, and stress reduction. Field (2010) reviews the effects of touch more generally, including the necessity of healthy touch for the developing child, and the beneficial impact

of touch and massage for adult social interaction and personal well-being. Field et al. (2010) argue that the neurophysiological mechanism for massage (DPS) involves the *vagal system*, which develops into an autonomic platform for the child’s engagement with with his or her environment.

“

The diverse benefits of massage therapy observed across a wide range of conditions may stem from a common underlying mechanism. Recent findings suggest that this mechanism may involve increased vagal activity from the stimulation of pressure receptors under the skin. (p. 381)

”

– Field et al. (2010)

Sensory Processing

The vagal system works with the autonomic systems of the brain and body (sympathetic and parasympathetic) to regulate arousal as we humans engage with the physical and (especially) the social environments (Porges, 2011; Porges and Furman, 2011). Research suggests that these autonomic systems are what give children and youth the capacity for resilience in the face of challenge and stress (Doussard-Roosevelt et al., 2003; Porges, 2011). These lower-order neurophysiological systems are the foundation for engagement itself, which involves a complex and dynamic network of interacting sensory, cognitive, and motor components (Angelaki and Cullen, 2008; Koziol et al., 2011; Owen et al., 2013). Building on the pioneering work of Ayres (1979) and Wilbarger (1984), occupational therapists have developed a wide range of sensory processing supports for children (Kranowitz, 2006; Miller and Fuller, 2007), and for teens (Dorman et al.,

2009). The sensory processing supports that have been discussed in this newsletter, including weighted items and sensory rooms, are elements of a large menu of sensory strategies that are available to those who wish to help youth “who come from hard places.”



Teen with a weighted blanket.

Relational Trauma

Children adopted from Eastern European orphanages may experience serious sensory processing challenges (Cermak and Danhauer, 1997; Cermak and Groza, 1998), and that the extent of their sensory processing challenges increases with the length of their institutionalization (Lin et al., 2005). These children may also experience self-regulation challenges, apparently as a function of extreme deprivation during their formative years (Gunnar, 2001; Gunnar et al., 2001). A similar pattern of outcomes is associated with early relational trauma (Atchison, 2007; Schore, 2001), even though these children typically have not experienced nearly the level of deprivation that the orphanage-reared children have experienced.

But why are social and sensorimotor experiences so important to the developing human? Esther Thelen and Linda Smith provide some answers, for they argue that sensorimotor experiences and processes are essential components of a complex dynamic system that generates key developmental outcomes (Smith and Thelen, 2003; Thelen, 2000). In particular, Smith and Breazeal (2007)

identify three principles that, when taken together, can explain developmental change: (a) coordination of component processes during sensorimotor activity; (b) coordination of external actions and internal states with a (mindful) social partner; (c) overlapping component processes engaged in the solution of many inter-related and developmentally ordered tasks. These are likely to be the developmental mechanisms whereby the complex neurophysiological systems described by Angelaki and Cullen (2008) and Koziol et al. (2011) are constructed (see [Sensory Processing](#), above).

According to Smith and Breazeal (2007), developmental change arises on processes that are sensorimotor,

social, and complex. In light of this, it is interesting (and important) that we can see an emerging consensus about interventions designed to help those who have experienced relational trauma. In the view of prominent developmental traumatologists, successful interventions must include a focus on the body and sensorimotor experiences. Bessel van der Kolk (2014) provides a strong, evidence-based argument for “body work” with adults, and Warner et al. (2013) extend this argument to youth living in residential settings. Kaiser et al. (2010) is one example of an empirical demonstration of these principles. Bruce Perry’s Neuro-Sequential Model also recognizes the developmental and therapeutic underpin-

nings provided by sensorimotor experiences (Perry, 2006, 2009). Bath (2008) has synthesized these ideas and proposed an approach that is based on three “pillars” of trauma-informed care:

1. Connection (Relationship)
2. Felt-Safety
3. Self-Regulation

It is worth noting that providing weighted items not only helps children and youth *self-regulate* (the obvious effect), but also helps them *feel safe* (because they *feel* self-regulated and in control of their own feelings and actions) and *connected* (because they appreciate an adult seeing and meeting their needs).



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SENSORY PROFILE

Winnie Dunn, Ph.D., OTR, FAOTA

Caregiver Questionnaire

Child's Name: _____ Birth Date: _____ Date: _____

Completed by: _____ Relationship to Child: _____

Service Provider's Name: _____ Discipline: _____

INSTRUCTIONS

Please check the box that best describes the frequency with which your child does the following behaviors. Please answer all of the statements. If you are unable to comment because you have not observed the behavior or believe that it does not apply to your child, please draw an X through the number for that item. Write any comments at the end of each section. Please do not write in the Section Raw Score Total row.

Use the following key to mark your responses:

ALWAYS

When presented with the opportunity, your child always responds in this manner, 100% of the time.

FREQUENTLY

When presented with the opportunity, your child frequently responds in this manner, about 75% of the time.

OCCASIONALLY

When presented with the opportunity, your child occasionally responds in this manner, about 50% of the time.

SELDOM

When presented with the opportunity, your child seldom responds in this manner, about 25% of the time.

NEVER

When presented with the opportunity, your child never responds in this manner, 0% of the time.

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Sensory Processing

Item			A. Auditory Processing	ALWAYS	FREQUENTLY	OCCASIONALLY	SELDOM	NEVER
?	L	1	Responds negatively to unexpected or loud noises (for example, cries or hides at noise from vacuum cleaner, dog barking, hair dryer)					
?	L	2	Holds hands over ears to protect ears from sound					
?	L	3	Has trouble completing tasks when the radio is on					
?	L	4	Is distracted or has trouble functioning if there is a lot of noise around					
?	L	5	Can't work with background noise (for example, fan, refrigerator)					
?	H	6	Appears to not hear what you say (for example, does not "tune-in" to what you say, appears to ignore you)					
?	H	7	Doesn't respond when name is called but you know the child's hearing is OK					
?	H	8	Enjoys strange noises/seek to make noise for noise's sake					
Section Raw Score Total								



















Comments

Item			B. Visual Processing	ALWAYS	FREQUENTLY	OCCASIONALLY	SELDOM	NEVER
👁️	L	9	Prefers to be in the dark					
👁️	L	10	Expresses discomfort with or avoids bright lights (for example, hides from sunlight through window in car)					
👁️	L	11	Happy to be in the dark					
👁️	L	12	Becomes frustrated when trying to find objects in competing backgrounds (for example, a cluttered drawer)					
👁️	L	13	Has difficulty putting puzzles together (as compared to same age children)					
👁️	L	14	Is bothered by bright lights after others have adapted to the light					
👁️	L	15	Covers eyes or squints to protect eyes from light					
👁️	H	16	Looks carefully or intensely at objects/people (for example, stares)					
👁️	H	17	Has a hard time finding objects in competing backgrounds (for example, shoes in a messy room, favorite toy in the "junk drawer")					
Section Raw Score Total								








Comments

Item			C. Vestibular Processing	ALWAYS	FREQUENTLY	OCCASIONALLY	SELDOM	NEVER
→	L	18	Becomes anxious or distressed when feet leave the ground					
→	L	19	Dislikes activities where head is upside down (for example, somersaults, roughhousing)					
→	L	20	Avoids playground equipment or moving toys (for example, swing set, merry-go-round)					
→	L	21	Dislikes riding in a car					
→	L	22	Holds head upright, even when bending over or leaning (for example, maintains a rigid position/posture during activity)					
→	L	23	Becomes disoriented after bending over sink or table (for example, falls or gets dizzy)					
→	H	24	Seeks all kinds of movement and this interferes with daily routines (for example, can't sit still, fidgets)					
→	H	25	Seeks out all kinds of movement activities (for example, being whirled by adult, merry-go-rounds, playground equipment, moving toys)					
→	H	26	Twirls/spins self frequently throughout the day (for example, likes dizzy feeling)					
→	H	27	Rocks unconsciously (for example, while watching TV)					
→	H	28	Rocks in desk/chair/on floor					
Section Raw Score Total								

Comments

Item		D. Touch Processing		ALWAYS	FREQUENTLY	OCCASIONALLY	SELDOM	NEVER
	L	29	Avoids getting "messy" (for example, in paste, sand, finger paint, glue, tape)					
	L	30	Expresses distress during grooming (for example, fights or cries during haircutting, face washing, fingernail cutting)					
	L	31	Prefers long-sleeved clothing when it is warm or short sleeves when it is cold					
	L	32	Expresses discomfort at dental work or toothbrushing (for example, cries or fights)					
	L	33	Is sensitive to certain fabrics (for example, is particular about certain clothes or bedsheets)					
	L	34	Becomes irritated by shoes or socks					
	L	35	Avoids going barefoot, especially in sand or grass					
	L	36	Reacts emotionally or aggressively to touch					
	L	37	Withdraws from splashing water					
	L	38	Has difficulty standing in line or close to other people					
	L	39	Rubs or scratches out a spot that has been touched					
	H	40	Touches people and objects to the point of irritating others					
	H	41	Displays unusual need for touching certain toys, surfaces, or textures (for example, constantly touching objects)					
	H	42	Decreased awareness of pain and temperature					
	H	43	Doesn't seem to notice when someone touches arm or back (for example, unaware)					
	H	44	Avoids wearing shoes; loves to be barefoot					
	H	45	Touches people and objects					
	H	46	Doesn't seem to notice when face or hands are messy					
				Section Raw Score Total				

Comments

Item		E. Multisensory Processing		ALWAYS	FREQUENTLY	OCCASIONALLY	SELDOM	NEVER
		47	Gets lost easily (even in familiar places)					
		48	Has difficulty paying attention					
	L	49	Looks away from tasks to notice all actions in the room					
	H	50	Seems oblivious within an active environment (for example, unaware of activity)					
	H	51	Hangs on people, furniture, or objects even in familiar situations					
	H	52	Walks on toes					
	H	53	Leaves clothing twisted on body					
				Section Raw Score Total				

Comments

Item			F. Oral Sensory Processing	ALWAYS	FREQUENTLY	OCCASIONALLY	SELDOM	NEVER
	L	54	Gags easily with food textures or food utensils in mouth					
	L	55	Avoids certain tastes or food smells that are typically part of children's diets					
	L	56	Will only eat certain tastes (list: _____)					
	L	57	Limits self to particular food textures/temperatures (list: _____)					
	L	58	Picky eater, especially regarding food textures					
	H	59	Routinely smells nonfood objects					
	H	60	Shows strong preference for certain smells (list: _____)					
	H	61	Shows strong preference for certain tastes (list: _____)					
	H	62	Craves certain foods (list: _____)					
	H	63	Seeks out certain tastes or smells (list: _____)					
	H	64	Chews or licks on nonfood objects					
	H	65	Mouths objects (for example, pencil, hands)					
Section Raw Score Total								

Comments

Modulation			G. Sensory Processing Related to Endurance/Tone	ALWAYS	FREQUENTLY	OCCASIONALLY	SELDOM	NEVER
		66	Moves stiffly					
	H	67	Tires easily, especially when standing or holding particular body position					
	H	68	Locks joints (for example, elbows, knees) for stability					
	H	69	Seems to have weak muscles					
	H	70	Has a weak grasp					
	H	71	Can't lift heavy objects (for example, weak in comparison to same age children)					
	H	72	Props to support self (even during activity)					
		73	Poor endurance/tires easily					
		74	Appears lethargic (for example, has no energy, is sluggish)					
Section Raw Score Total								

Comments

Item			H. Modulation Related to Body Position and Movement	ALWAYS	FREQUENTLY	OCCASIONALLY	SELDOM	NEVER
♡		75	Seems accident-prone					
👁️		76	Hesitates going up or down curbs or steps (for example, is cautious, stops before moving)					
→	L	77	Fears falling or heights					
→	L	78	Avoids climbing/jumping or avoids bumpy/uneven ground					
→	L	79	Holds onto walls or banisters (for example, clings)					
→	H	80	Takes excessive risks during play (for example, climbs high into a tree, jumps off tall furniture)					
→	H	81	Takes movement or climbing risks during play that compromise personal safety					
→	H	82	Turns whole body to look at you					
🚶	H	83	Seeks opportunities to fall without regard to personal safety					
🚶	H	84	Appears to enjoy falling					
Section Raw Score Total								





Comments

Item			I. Modulation of Movement Affecting Activity Level	ALWAYS	FREQUENTLY	OCCASIONALLY	SELDOM	NEVER
🚶	L	85	Spends most of the day in sedentary play (for example, does quiet things)					
🚶	L	86	Prefers quiet, sedentary play (for example, watching TV, books, computers)					
→	L	87	Seeks sedentary play options					
→	L	88	Prefers sedentary activities					
→	H	89	Becomes overly excitable during movement activity					
🚶	H	90	"On the go"					
🚶	H	91	Avoids quiet play activities					
Section Raw Score Total								


















Comments

Item			J. Modulation of Sensory Input Affecting Emotional Responses	ALWAYS	FREQUENTLY	OCCASIONALLY	SELDOM	NEVER
♡		92	Needs more protection from life than other children (for example, defenseless physically or emotionally)					
☀️	L	93	Rigid rituals in personal hygiene					
♡	H	94	Is overly affectionate with others					
♡	H	95	Doesn't perceive body language or facial expressions (for example, unable to interpret)					
Section Raw Score Total								







Comments

Item			K. Modulation of Visual Input Affecting Emotional Responses and Activity Level	ALWAYS	FREQUENTLY	OCCASIONALLY	SELDOM	NEVER
	L	96	Avoids eye contact					
	H	97	Stares intently at objects or people					
	H	98	Watches everyone when they move around the room					
	H	99	Doesn't notice when people come into the room					
Section Raw Score Total								




Comments

Behavior and Emotional Responses			ALWAYS	FREQUENTLY	OCCASIONALLY	SELDOM	NEVER
		100	Seems to have difficulty liking self (for example, low self-esteem)				
		101	Has trouble "growing up" (for example, reacts immaturely to situations)				
		102	Is sensitive to criticisms				
		103	Has definite fears (for example, fears are predictable)				
		104	Seems anxious				
		105	Displays excessive emotional outbursts when unsuccessful at a task				
		106	Expresses feeling like a failure				
		107	Is stubborn or uncooperative				
		108	Has temper tantrums				
		109	Poor frustration tolerance				
		110	Cries easily				
		111	Overly serious				
		112	Has difficulty making friends (for example, does not interact or participate in group play)				
		113	Has nightmares				
		114	Has fears that interfere with daily routine				
		115	Doesn't have a sense of humor				
		116	Doesn't express emotions				
Section Raw Score Total							

Comments









Item		M. Behavioral Outcomes of Sensory Processing			ALWAYS	FREQUENTLY	OCCASIONALLY	SELDOM	NEVER
	117	Talks self through tasks							
	118	Writing is illegible							
	119	Has trouble staying between the lines when coloring or when writing							
	120	Uses inefficient ways of doing things (for example, wastes time, moves slowly, does things a harder way than is needed)							
	L 121	Has difficulty tolerating changes in plans and expectations							
	L 122	Has difficulty tolerating changes in routines							
Section Raw Score Total									

Comments

Item		N. Items Indicating Thresholds for Response			ALWAYS	FREQUENTLY	OCCASIONALLY	SELDOM	NEVER
	123	Jumps from one activity to another so that it interferes with play							
	H 124	Deliberately smells objects							
	H 125	Does not seem to smell strong odors							
Section Raw Score Total									

Comments

FOR OFFICE USE ONLY

ICON KEY	
	Auditory
	Visual
	Activity Level
	Taste/Smell
	Body Position
	Movement
	Touch
	Emotional/Social

THRESHOLD KEY	
	Neither low nor high
L	Low
H	High

SCORE KEY	
1	Always
2	Frequently
3	Occasionally
4	Seldom
5	Never

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Sensory Checklist

From *Raising a Sensory Smart Child*, © Biel & Peske, 2005

TOUCH				
	AVOIDS	SEEKS	MIXED	NEUTRAL
Being touched on some body parts, hugs and cuddles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Certain clothing fabrics, seams, tags, waistbands, cuffs, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clothing, shoes, or accessories that are very tight or very loose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Getting hands, face, or other body parts "messy" with paint, glue, sand, food, lotion, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grooming activities such as face and hair washing, brushing, cutting, and nail trimming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taking a bath, shower, or swimming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Getting toweled dry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trying new foods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feeling particular food textures and temperatures inside the mouth—mushy, smooth, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Standing close to other people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walking barefoot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PROPRIOCEPTION (BODY SENSE)				
	AVOIDS	SEEKS	MIXED	NEUTRAL
Activities such as roughhousing, jumping, banging, pushing, bouncing, climbing, hanging, and other active play	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High-risk play (jumps from extreme heights, climbs very high trees, rides bicycle over gravel)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fine motor tasks such as writing, drawing, closing buttons and snaps, attaching pop beads and snap-together building toys	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Activities requiring physical strength and force	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eating crunchy foods (pretzels, dry cereal, etc.) or chewy foods (e.g., meat, caramels)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smooth, creamy foods (yogurt, cream cheese, pudding)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Having eyes closed or covered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VESTIBULAR (MOVEMENT SENSE)

	AVOIDS	SEEKS	MIXED	NEUTRAL
Being moved passively by another person (rocked or twirling by an adult, pushed in a wagon)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Riding equipment that moves through space (swings, teeter-totter, escalators and elevators)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spinning activities (carousels, spinning toys, spinning around in circles)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Activities that require changes in head position (such as bending over sink) or having head upside down (such as somersaults, hanging from feet)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Challenges to balance such as skating, bicycle riding, skiing, and balance beams	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climbing and descending stairs, slides, and ladders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Being up high, such as at the top of a slide or mountain overlook	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Less stable ground surfaces such as deep pile carpet, grass, sand, and snow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Riding in a car or other form of transportation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

AUDITORY/LISTENING

	AVOIDS	SEEKS	MIXED	NEUTRAL
Hearing loud sounds—car horns, sirens, loud music or TV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Being in noisy settings such as a crowded restaurant, party, or busy store	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watching TV or listening to music at very high or very low volume	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Speaking or being spoken to amid other sounds or voices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Background noise when concentrating on a task (music, dishwasher, fan, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Games with rapid verbal instructions such as Simon Says or Hokey Pokey	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Back-and-forth, interactive conversations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unfamiliar sounds, silly voices, foreign language	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Singing alone or with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VISION

	AVOIDS	SEEKS	MIXED	NEUTRAL
Learning to read or reading for more than a few minutes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Looking at shiny, spinning, or moving objects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Activities that require eye-hand coordination such as baseball, catch, stringing beads, writing, and tracing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tasks requiring visual analysis like puzzles, mazes, and hidden pictures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Activities that require discriminating between colors, shapes, and sizes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visually "busy" places such as stores and crowded playgrounds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Finding objects such as socks in a drawer or a particular book on a shelf	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very bright light or sunshine, or being photographed with a flash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dim lighting, shade, or the dark	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Action-packed, colorful television, movies or computer/video games	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New visual experiences such as looking through a kaleidoscope or colored glass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

TASTE AND SMELL

	AVOIDS	SEEKS	MIXED	NEUTRAL
Smelling unfamiliar scents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strong odors such as perfume, gasoline, cleaning products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smelling objects that aren't food such as flowers, plastic items, playdough, and garbage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eating new foods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eating familiar foods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eating strongly flavored foods (very spicy, salty, bitter, sour, or sweet)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
