

Sensory Processing **EXPLAINED**

A Handbook for Parents and Educators

SENSORY PROCESSING EXPLAINED

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By Heather Greutman and Sharla Kostelyk

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Heather Greutman is a Certified Occupational Therapy Assistant. Sharla Kostelyk is a mother with experience in sensory processing through parenting her seven children. This book is for educational purposes only. The advice and tips given are not a replacement for medical advice from a physician or pediatrician. Please consult their advice if you suspect any medical or developmental delay with your child. This book and tips do not replace the relationship between an Occupational Therapist and client in a one-on-one treatment session with an individualized treatment plan based on their professional evaluation. Please seek out your local Occupational Therapist for an evaluation if you suspect any delays or sensory processing concerns with your child.

All activities are designed to be completed with adult supervision. Please use your judgment when setting up these activities for your child and do not provide items that could pose a choking hazard for young children. Never leave a child unattended when completing any of these activities. Please also be aware of all age recommendations on the products you are using with your child. The author is not liable for any injury caused to your child while completing any of these activities.

WHAT OTHERS ARE SAYING ABOUT THIS BOOK



"Sensory Processing explained is such a fantastic resource for parents, caregivers, teachers, and therapists. I love how this book explains each of the different sensory systems and how dysfunction in processing can impact a child's behavior. This book is really is an ultimate guide because it's so comprehensive! I will definitely be recommending this resource to the families I work with."

Jaime Spencer, MS, OTR/L.

Miss Jaime, O.T. | www.missjaimeot.com

"This book is an invaluable resource for anyone that works with children. It will not only provide greater understanding about sensory needs, but a wealth of actionable ideas to help all children succeed."

Shelley Brewer

STEAM Powered Family | www.steampoweredfamily.com

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INTRODUCTION



This book has been a project a long time in the making. Heather and I (Sharla) have been friends for years. Early in the Spring of 2017, we started talking about collaborating to create a resource for parents and educators.

Heather's blog, Growing Hands-On Kids, and my blog, The Chaos and The Clutter, both aim to help parents, teachers and therapists working with children. We realized that by combining her background in Occupational Therapy with my real world experience, we could create something that would actually make a real difference for kids.

Our goal was to combine science and theory with the feelings and practical knowledge that comes from being in the trenches. In late 2017, Sensory Processing Explained was born and our small idea grew into something much bigger than either of us had envisioned.

In the beginning, we reached out to our communities and invited them to share their struggles, and their dreams, for their kids. They wanted suggestions for everyday problems like their child hating the feel of their clothing to larger problems like how to create a sensory area in a classroom with limited space and budget.

As we heard from more parents, teachers and therapists, an excitement about this project began to build. We took that feedback and input and used to bring this project to life in a way that truly was built around the needs of struggling children. It is our sincere hope that this guide and the companion guides for parents and for educators make this path just a little bit easier for you and the kids to walk.

Sharla & Heather



Chapter 1

INTRODUCTION TO SENSORY PROCESSING

Have you ever smelled something and immediately remembered a situation or memory, pleasant or unpleasant? Could you see in your mind exactly where you were? What was going on around you? Who you were with?

Or maybe hearing a certain phrase immediately brings up certain memories? When someone asks you where you were on 9/11, most of us can still recall exactly where we were and what we were doing when we heard the news that day, even almost 20 years later.

Sensory processing occurs when the brain receives sensory input through the senses (hearing, taste, touch, smell, sight, balance, where we are in space, and internal sensations) via the central nervous system in the spinal cord.

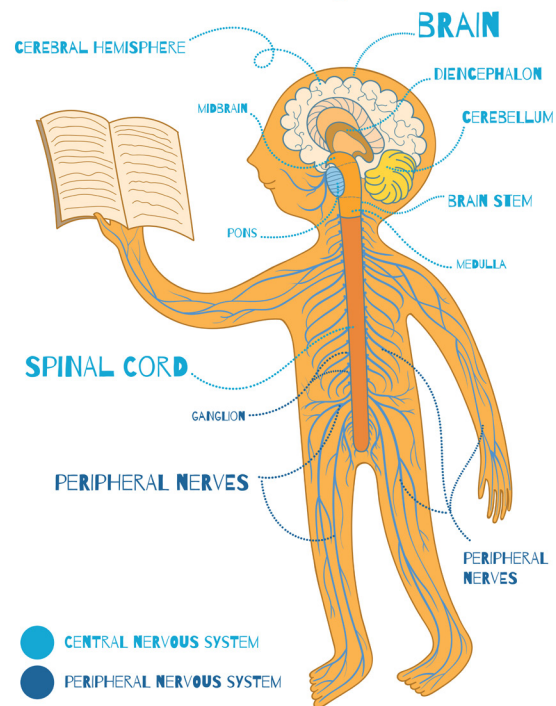
The central nervous system is comprised of nerve tissues that control the body and its activities. When a message is received by the nerves from the senses, it continues to the brain through the central nervous system and then the brain responds with an appropriate motor or behavior response.

The sensory system is comprised of the brain, spinal cord, and neurons. It is the neurological wiring by which we perceive and process sensory information coming from outside and even in-side our bodies.

The more experiences we have, the more pathways our brain creates. These neuro-pathways allow us to learn new things or do everyday activities without thinking about every single step needed to complete them. Just as our brain can create new pathways, it also prunes the ones it thinks it does not need or ones it has not used in a while. This is why providing multi-sensory activities and experiences for our children is so crucial to their development.

All the systems working together provide you with the “optimal level of arousal” which means

Nervous system



you are able to receive, process, and react to sensory stimuli and information in a timely manner.

When you think about the constant barrage of incoming information your brain has to organize and decide what is or isn't important enough to respond to, it really is mind boggling.

For anyone dealing with sensory processing difficulties, these messages either do not make it to the brain at all, they arrive incomplete, or the brain is unable to organize or respond to them appropriately.

This leads to the person experiencing a variety of hyper-sensitivities (oversensitive) or hypo-sensitivities (under-sensitive) to the environment around them. As we will look at, the brain's response will often enter fight, flight, or freeze as a protective response to what it deems as a dangerous situation, even if it is not warranted.

SENSORY PREFERENCES & DIFFERENCES VS. SENSORY PROCESSING DISORDER



Have you wondered if your child, or a child you work with, might have sensory processing difficulties or sensory processing disorder? When is the appropriate time to be concerned and seek help?

It is important to remember that we all have sensory preferences. Heather can't stand eating oranges because of the pith, or white part between the orange peel and the orange. Drinking orange juice with pulp in it makes her want to gag. Sharla has a hard time thinking when there is a lot of noise.

For the most part, we all know our sensory preferences without really thinking about it. They have developed over time as we grew from a baby to an adult. Activities we avoid, things we dislike to eat, or noises we try to avoid become a natural part of our day. Many of these sensitivities can be mild with others being more severe.

We all have sensory-based responses that occur when we are placed in a new experience or environment. We get nervous or anxious if we don't understand what is going on or as we learn a new task. For most of us, as our bodies learn to interpret and recognize this new input, we find ways to adapt and respond appropriately.

Heather's daughter is learning how to ride a two-wheeled bike right now. There have been tears and a few refusals to get on the bike because it is a new skill for her and she is feeling scared and anxious about it all. Riding a bike takes focus on looking where you are going, controlling your balance and trying not to fall, all while peddling and steering. It is completely natural to feel scared, anxious, and even downright fearful in this type of scenario.

Most children naturally develop sensory processing skills. As something new is presented or experienced, their sensory system learns to recognize it and respond appropriately. It may take several times or months for an appropriate response to develop.

This is why typical development charts always show an age-range for when skills are expected to be learned. Each child will master skills at different times, depending on their own unique experiences.

For a child struggling with sensory processing disorder (previously known as sensory processing dysfunction), many times they are unable to adapt their behavior in order to continue to function without having a negative response. Their brains are unable to organize or respond appropriately to the incoming sensory information. These responses impact their ability to progress in typical sensory processing development and mastering skills.

This leads to sensory avoiding and seeking behaviors which we will discuss in the chapter on the eight sensory systems. These avoiding and seeking behaviors interfere so much that a child is not able to function in their environment. This can lead to self-care tasks becoming impossible to complete such as brushing teeth, combing hair, taking a bath, or academic learning unable to take place because the brain is not in a state where it can focus.

Sensory processing disorder (SPD) is considered a neurological disorder in which sensory information that a person receives from their senses is not recognized or organized correctly by the brain and results in an abnormal response.

The cause of sensory processing disorder is still largely unknown, though there is thought to be both a hereditary/genetic and environmental component. Those with a diagnosis of prematurity, Autism Spectrum Disorders, and other developmental disorders have an increased likelihood of sensory processing disorder.

In a recent study done by researchers at University of California San Francisco (2016), it was suggested that there is a biological basis for sensory processing disorder. The study found that the subjects with sensory processing disorder had abnormal white matter tracts in the brain, including the connection between the left and right sides of the brain, compared to their typically developing peers.

A 2006 study also found that twins who are hypersensitive to light and sound had a strong genetic component for the cause of these sensitivities.

It should be noted that Sensory Processing Disorder is not a recognized diagnosis in the Diagnostic and Statistical Manual of Mental Disorders (or DSM-5). This manual is considered the most comprehensive, current, and important resource by health professionals, social workers, and legal specialists to classify and diagnose mental disorders. It is also the same manual used to diagnose Autism Spectrum Disorder (ASD) and many other common childhood mental and developmental disabilities.

Because of this, Sensory Processing Disorder is not often “diagnosed” by the medical community. You may see it described as “sensory processing difficulties” or “sensory processing issues” in the medical setting. Doctors will often refer to Occupational Therapy to evaluate for any sensory processing concerns related to SPD. Diagnoses such as Autism, ADHD, Anxiety, and other mental health disorders can also have similar sensory processing symptoms.

Critics of sensory processing disorder believe that many children on the spectrum and other disabilities do have sensory processing difficulties. However, they feel that there is not enough research to show sensory processing disorder needs to be a stand alone diagnosis. They also feel that sensory integration therapy (SIT) does not have enough research behind it to prove it has a lasting effect as a form of treatment.

Even without its inclusion in the DSM-5, there are many experts who believe it should be added, based on the research mentioned above and continued research. If you talk to any parent, educator or therapist who works with children with sensory processing disorder they can assure you that the problems and issues facing many young children with this disorder are more than real.

If you do suspect your child has sensory processing disorder, you will need a referral to an Occupational Therapist who can evaluate for sensory processing disorder using a variety of assessments and then make recommendations for treatment. There is not one evaluation or test that can tell definitively if a child or person has sensory processing disorder. Many of the assessments used will rely on clinical observation and parent questionnaires to help guide treatment.

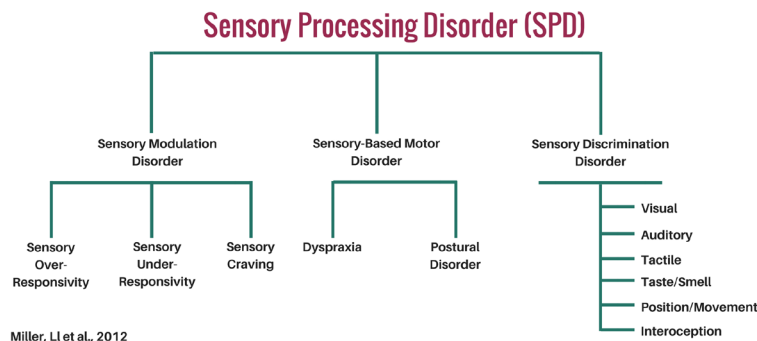
TYPES OF SENSORY PROCESSING DISORDERS



Sensory Processing Disorder (SPD) has three different classifications that were created to make “diagnosing” and treating SPD easier. These three classifications are Sensory Modulation Disorder (SMD), Sensory Based Motor Disorder, and Sensory Discrimination Disorder.

Sensory Modulation Disorder is when a person has difficulty regulating the intensity and nature of their response to incoming sensory stimuli. This response may be emotional, behavioral,

negative responses that others do not typically show, or other negative responses worsened by stress. This can lead to avoidance of different sensory inputs such as unexpected touch, food textures, brushing teeth, hair washing, messy textures, clothing, and sound or visual stimuli.



Miller, LI et al., 2012

Sensory Based Motor Disorder (Postural-Ocular Disorder or

Dyspraxia) is when a person has difficulties controlling and stabilizing their body movements. It can also include poor vision and oculomotor (movement of the eye) control. This can show as poor posture and core strength, poor balance, poor tracking of visual stimuli, poor fine motor control, poor playing skills, poor articulation, clumsiness, and difficulty with many activities of daily living (hygiene and self-care, eating, bathroom, etc).

Sensory Discrimination Disorder is when a person has difficulty understanding incoming sensory input and interpreting it appropriately. This results in poor recognition and interpretation of sensory stimuli and detection of different or similar sensations. You may see poor balance, using too much or too little force on a object, difficulty following directions, manipulating objects when out of sight, or distinguishing between similar sounds.

SENSORY PROCESSING RED-FLAGS AND QUESTIONS



You might be expecting a list of behaviors here that you can quickly look through and check-off, but I want to encourage you to think a little deeper into your child's troubling behaviors or sensory processing difficulties first. So instead of just a list of symptoms or red-flags, I want you to consider these questions.

Is there a strong sensory element to this task (such as smell, touch/feeling, taste, sound, visual distraction, balance, or proprioceptive input)? Would adapting the environment change the behavior?

When was the last time this behavior occurred? Yesterday? Last week? Last month? Last year? Is there a common theme around the behavior's occurrence? Same time of day? Is there some-thing about the environment that is different or the same during the behavior?

Has the child experienced a different routine, schedule, or had a traumatic experience lately?

Is there a lack of predictability in the child's life?

Are they able to participate in school and family outings, or do certain situations or environments cause negative responses?

Are they getting enough sleep and have a healthy diet?

Is this response still developmentally appropriate for the child's age?

Keep all of this in mind as you look over some common sensory processing red-flags.

Gustatory System (taste)

- sensitivity to brushing teeth (taste of the toothpaste, bristles on the toothbrush)
- sensitivity to food textures (limited variety of foods they will eat or has anxiety about trying new foods)
- frequent drooling
- loves or has a strong fear of going to the dentist
- mouthing non-food objects and exploring textures such as chewing on pencils or clothing

Auditory System (hearing/sound)

- sensitive to loud, sudden sounds
- distracted by background noises
- does not speak as well as others their age
- has a significant history of ear infections
- covers their ears often to block sound
- asks others to repeat what they said
- has trouble with phonics and learning to read
- unusually high volume or low volume in their voice
- often seems to ignore parents or teachers

Visual System (sight)

- sensitive to sunlight or fluorescent lights
- overly distracted by classroom or home wall decorations
- poor hand-eye coordination
- difficulty tracking across a page while reading
- difficulty copying from a board
- often complains of headaches
- skips words or lines or loses their place while reading
- poor handwriting and drawing skills

Tactile System (touch)

- avoids messy hands, face, or just mess in general
- unaware if hands or face are messy
- has difficulty with certain clothing items such as tags
- May avoid getting dressed or only wear certain types of clothing
- needs to touch everything (brushing along walls while walking, picking up everything)
- seeks out physical contact and touch
- avoids hugs or physical contact with others
- the need to fidget in order to focus or when bored
- highly sensitive to temperature changes or may avoid or crave certain temperatures (hot or cold)
- highly sensitive to small cuts or scrapes (low or high pain tolerance)
- avoids self-care tasks such as brushing teeth, brushing hair, getting a haircut, or having nails trimmed

Olfactory System (smell)

- overly sensitive to certain smells and avoids them
- limited diet (gagging or avoiding)
- explores objects by smelling
- craves certain smells or textures

- holds their nose to avoid smells, even if you don't smell anything
- avoids foods most children their age enjoy

Proprioceptive System (body in space)

- poor body awareness - knowing where their body or body parts are in space
- poor coordination - they move awkwardly or stiffly
- difficulty grading amount of pressure - using excessive force on an object (such as breaking a pencil or crayon when writing or coloring or not enough pressure)
- may push, hit, bite, or bang into other children
- avoid or crave jumping, crashing, pushing, pulling, bouncing or hanging
- chew on clothing or objects more than other children
- have to look at what they are doing (staring at their feet while walking or running)

Vestibular System (balance)

- gravitational insecurities - exaggerated emotional responses to anti-gravity movements, will become very upset when movement is forced on them
- movement intolerance - uncomfortable with fast movement or spinning
- craves spinning or swinging
- does not like feet off the ground - fearful of heights, fear of falling, or craves this input
- hesitates or is afraid of climbing and going down steps or playground equipment
- has difficulty standing still, is constantly moving (fidgets)
- easily prone to being carsick or motion sick (this can also manifest as falling asleep immediately in a car, bus, boat, or airplane)
- becomes dizzy easily, or never becomes dizzy

Interoception System (internal body senses)

- difficulty with toileting (bed wetting and accidents)
- unable to track hydration or food intake (never feel thirsty or hungry, or may always feel thirsty or hungry)
- difficulty in recognizing and communicating internal body states or sensations (feeling hot/cold, pain, etc)
- difficulty regulating emotions and feelings (not feeling they are angry before they verbally or physically lash out)
- distracted by internal sensory input such as hearing their heartbeat
- unable to tell how loud their voice is in an environment (may use sound to cover up unwanted sensory stimuli)

Just because you, someone you know, or a child seems to meet some or even all of these red-flags, it does not mean they have sensory processing disorder. A complete sensory profile evaluation needs to be completed by an Occupational Therapist in order to assess if a child has sensory processing difficulties related to SPD.

SENSORY PROCESSING DISORDER VS. AUTISM SPECTRUM DISORDER



Children who are diagnosed with Autism Spectrum Disorder (ASD) often show sensory processing symptoms and often times ASD and Sensory Processing Disorder are mistaken for one another.

It is important to remember that while three-quarters of children with ASD have corresponding sensory symptoms, “most children with SPD do not have Autism Spectrum Disorder.”(Star Institute for Sensory Processing).

Researchers at University of California San Francisco also found that children with autism spectrum disorder and sensory processing disorder both have decreased structural brain connections, but each one affects different regions of the brain. This suggests that while autism and sensory processing disorder are often confused as one in the same, they have brain wiring differences.

The biggest difference between ASD and SPD is that those with ASD often present with considerable difficulties in social skills and language. While those with SPD can also have these same difficulties, they stem from different causes - ASD is typically brain based (neurological) while SPD presents as sensory based (modulation and discrimination).

In the United States, currently 1 in 68 children are estimated to have autism spectrum disorder (CDC March 2014). It is much more common in boys with 1 in 48 boys, and 1 in 189 girls struggle with ASD.

Autism is also reported in all racial, ethnic, and socioeconomic groups. There is a strong genetic tie with ASD occurring more in people who have certain genetic chromosomal conditions such as Down Syndrome, Fragile X and other disorders. It also commonly occurs with other developmental, psychiatric and neurological conditions.

Although Autism can be diagnosed as early as 2 years old, most children are around 4 years old when diagnosed. Most parents of children with autism report that they started noticing developmental problems around their child’s first birthday.

Autism is usually diagnosed by a team of specialists including a neurologist, neurophysiologist, or developmental pediatrician. Sensory Processing Disorder is typically evaluated and assessed by an Occupational Therapist.

SENSORY PROCESSING DISORDER VS. ADHD



Children who have a diagnosis of Attention-Deficit Hyperactivity Disorder (ADHD), are more likely to also have sensory processing difficulty or sensory processing disorder. These two

diagnoses are very similar looking, so let's take a look at each.

ADHD is a biological condition that makes it very difficult for children to concentrate and focus. This neurological condition results from a chemical imbalance in the brain. It affects their self-control, the ability to focus, organize, use working memory, and many other executive function skills, which are higher level critical thinking skills in the brain.

There is no single test that can be used to diagnose ADHD, much like sensory processing disorder. Often a physician or specialist will interview the parents and ask a series of questions to figure out if certain behaviors have been happening on a regular basis for more than 6 months along with evaluating other criteria that needs to be met before a formal diagnosis can be given.

ADHD is a recognized diagnosis in the Diagnostic and Statistical Manual of Mental Disorders (or DSM-5).

As we have already seen, looking at sensory processing disorder, SPD is a response or non-response to incoming sensory stimuli. The cause of sensory processing disorder is largely unknown, though there may be biological differences in the brain.

ADHD and Sensory Processing Disorder do overlap and often can be confused. Some experts argue that ADHD is often misdiagnosed, when it is actually a sensory processing disorder, learning disability, anxiety or depression that is causing the inability to focus (Silver, *The Misunderstood Child*, p. 77).

WHY ARE ADOPTED CHILDREN MORE AT RISK OF SENSORY PROCESSING DISORDER?



In Sharla's family, our two biological children do not have Sensory Processing Disorder (SPD), whereas all five of our adopted children have either sensory struggles or an official Sensory Processing Disorder diagnosis. While that may not be completely representative of the statistics, adopted children are more likely to have SPD than children who were not adopted.

I often get asked why so many adopted children seem to also have sensory issues. Here is a list of some of the things that put a child at higher risk for Sensory Processing Disorder:

- a stressful pregnancy
- a difficult delivery
- prenatal exposure to drugs or alcohol
- prematurity (which is more likely in younger mothers and with prenatal exposure to drugs or alcohol)
- maternal malnutrition
- being institutionalized or under-stimulated during critical periods of development (in simple terms, time spent in an orphanage or a long hospital stay)
- having Autism

- not receiving proper stimulation or enough stimulation to the senses during development
- having Fetal Alcohol Spectrum Disorder (FASD), ADD or ADHD, Fragile X or Down Syndrome
- other factors such as family history

Reading through that list, it is easy to see why so many adopted children fall into this category. In many cases, it becomes a secondary diagnosis to something such as Fetal Alcohol Spectrum Disorder (FASD), Reactive Attachment Disorder (RAD) or (Post Traumatic Stress Disorder (PTSD).

TRAUMA AND THE CONNECTION TO SENSORY PROCESSING



Research in the area of early childhood trauma and its connection with a higher rate of Sensory Processing Disorder is relatively new. Parents and therapists are reporting an anecdotal correlation and it is thought that trauma disrupts normal development of a person's mechanisms for sensory integration.

Trauma greatly alters survivors' responses to sensory experiences, regardless of the age when the trauma was experienced. They can have emotional reactions they did not have prior to their trauma to certain sensory stimuli. Some of these are related to the traumatic event or traumatic time in their lives, such as when a particular smell or noise brings on a memory. Other reactions have nothing to do with the particular trauma but can still impact their ability to cope. Things such as loud noises or too much or too little sensory input may trigger a meltdown or cause them to go into fight, flight or freeze mode.

It is important for all professionals working with a child who has both experienced early childhood trauma and struggles with sensory integration issues to be aware of the history. This allows them to treat the child as a whole without excluding an important piece of the puzzle.

SENSORY PROCESSING AND FIGHT, FLIGHT OR FREEZE



The body's built-in alarm system is located in the brain. The amygdala, part of the limbic system, is designed to recognize danger and prepare our body to react to it. When it's working properly, it should send signals only when there is real danger present. For some kids, the system is faulty and transmits false alarms, sending them into full blown fight, flight or freeze mode weekly, daily or even multiple times a day. Sensory triggers can cause alarm sensors to sound when no real danger is present.

To make matters even more complicated, your brain sees higher functioning tasks such as logic and planning as nonessential in a crisis, so it effectively shuts down that part of your

brain once the fight, flight, freeze response is triggered. This is good if you're in mortal danger and need all your energy to run away, but bad if your amygdala is triggered by everyday occurrences such as loud noises or the smell of vanilla.

Some children with sensory processing disorder go into fight, flight or freeze states more often than other children do. This may be partly because they are more hyper-vigilant as they scan their surroundings for potential sensory triggers.

A common frustration for parents whose children are losing control of their emotions is not understanding what the cause is. It's complicated, but there are some commonalities that can help you play detective and determine what your child's triggers may be.

Keeping a record of your child's fight, flight or freeze responses along with notes on possible sensory triggers can help you to see patterns emerging.

Fight can look like:

- kicking
- screaming
- spitting
- pushing
- throwing anything he can get his hands on
- his hands clasped in fists, ready to punch
- glaring
- clawing at the air
- gasping for breath

Flight can look like:

- darting eyes
- restlessness
- excessive fidgeting
- doing anything to get away
- running without concern for his own safety

Freeze can look like:

- holding his breath
- heart pounding and/or decreased heart rate
- shutting down
- feeling unable to move
- escaping into his own mind
- feeling numb
- whining
- daydreaming

Did you do a double-take when you read “whining” on the list of flight and freeze responses? When I first learned that whining can be a flight or freeze response, I was surprised too. When I thought more about it though, I realized that whining could be an effective stalling tactic, therefore could be a learned freeze response or could be used to escape from something unpleasant.

Having your body going into fight, flight or freeze response often and unnecessarily can be debilitating. It is no wonder that some of our kids with Sensory Processing Disorder struggle with regulation!

Earlier, we spoke about keeping a record of sensory triggers. Figuring out your child’s triggers will help you not only avoid those triggers, but anticipate them and be able to help your child navigate through those situations because they will be prepared for them.

While your child is in fight, flight or freeze mode, help them to focus on their breathing. Regulating their breathing can help bring their “upstairs brain” back on board.

Avoid using the words “calm down”. Instead, use “let’s breathe” or “in through the nose, out through the mouth” or “you’re okay, just breathe”. Keep your words simple. Remember that they are only accessing their base brain right now, so lecturing or trying to reason with them is point-less.

Having them do crossing the midline exercises can also help re-set their brain, as it encourages the right and left hemispheres of the brain to talk to each other which can help stimulate the “up-stairs” brain to get engaged.

Once their breathing is regulated, you can try other calming techniques. Squeezing a stress ball, spending time in a sensory room or calm down area, blowing bubbles, coloring, yoga poses, chewing bubble gum, doing sensory activities (particularly heavy work ones), and calm down bottles are all good strategies to use. Some will work better for your child than others, which is something else to keep track of for future purposes.

After the incident has passed completely and they are no longer triggered, you can start a discussion about what factors may have contributed to the fight, flight, freeze response, what they felt in their body just before it happened, and what techniques worked for calming them.

PRIMITIVE REFLEXES AND SENSORY PROCESSING



If you’ve done a Google search on Sensory Integration or anything related to sensory processing treatments, you have probably seen an article on or read the term “retained primitive reflexes”.

Primitive reflexes are automatic movements or actions that originate in the central nervous system and are present at birth through the first years of life. These reflexes are present for survival and development. They are designed to integrate, or combine to form a more natural

response that allows for more coordination and refined movement as a baby develops.

You might have noticed that when you stroke a baby's cheek, they begin to turn and root to suck. Or when a baby is startled, their arms immediately move away from their body to try and catch themselves. These are all primitive reflexes, each designed for a certain survival function.

Let's take a look at each of these primitive reflexes.

The Rooting Reflex, or sucking reflex, helps to encourage breastfeeding. You will notice that a baby will turn and begin to open their mouth as you stroke their cheek and they begin to suck. This allows the baby to breastfeed appropriately because it helps the baby to turn its head and suck at the breast. This reflex should integrate at around 4 months old.

If this reflex does not integrate, you may notice difficulty with going to solids, poor articulation in speech, and thumb sucking.

The Moro Reflex, or Startle Reflex, is a primitive fight or flight response for a baby. It is noticeable when a baby thinks it is falling or feels a sudden lack of support. It involves three distinct movements which include the arms spreading out (abduction), bringing the arms back in (adduction) and crying. It typically integrates around four months old.

If this reflex is retained, you may notice a child becoming oversensitive to incoming sensory input, sensory overload, poor impulse control, motion sickness, easily distracted, poor balance, poor coordination, unable to adapt to change and mood swings.

The Palmar Reflex (or grasping reflex) is when a baby's fingers automatically grasp an object (such as your finger). This reflex should integrate by six months.

You may notice difficulty with fine motor skills, sticking the tongue out while writing, or messy handwriting if this reflex is not integrated.

The Asymmetrical Tonic Neck Reflex (ATNR) is when a baby is lying on their back and as the head turns, the hand and leg on the side they are looking towards extends out, while the opposite side is pulled in. This reflex is the beginning of eye-hand coordination and should disappear by six months old.

If this reflex does not integrate, the child may develop poor eye-hand coordination. This could affect posture during handwriting and other seated copying tasks in the classroom.

The Symmetrical tonic neck reflex (STNR) or the crawling reflex, is a transitional reflex, which helps a baby to go from laying on the floor to creeping and crawling. The STNR reflex divides the body in half at the midline. As the baby's head is brought to the chest, the arms and legs extend or push out. You will notice this reflex briefly at birth, and then again before a child learns to crawl. It should disappear by eleven months old.

If this reflex is not integrated, a child could have poor muscle tone, slouching as they sit, and the inability to sit still and concentrate.

The Tonic Laborinthine Reflex (TLR) helps to prepare a baby for rolling over, crawling, standing and walking. When a baby's head is tilted backward (while laying on their back), their feet will stiffen and straighten and their toes will be pointed. Their hands will also become fistled and their elbows bent. This reflex can be present for up to 3 1/2 years.

If this reflex is retained, a child may have decreased muscle tone, toe-walking, motions sickness or poor balance.

It is important to note that correlation does not mean causation. This means many children with sensory processing difficulties may present with "retained reflexes", but this does not mean this was the cause of their sensory processing difficulties. There are too many factors to consider when looking at how a child responds to sensory input.

Since reflex patterns are triggered by sensations, then an infant with difficulty in processing sensations will not react appropriately or may not receive enough information from their vestibular and proprioceptive systems. If they are receiving inadequate sensations or processing this information incorrectly than these movement patterns will not develop correctly, be incomplete, or be absent altogether (Frick, OTR/L, Vital Links).

When these movement patterns are interrupted or non-existent, a child may have difficulty in developing healthy movement patterns, which affect their quality of movement for starting and completing a task, whether in self-care or academic.

As with many areas of sensory processing and sensory integration, more research needs to be done. What makes researching this topic so difficult is that, as we have already discussed, no two persons or children with sensory processing difficulties will act, or react to protocols, the same.

This makes controlled studies with defined protocols and testing very difficult to create and also recreating outdated studies even harder. Often times this leads to small sample sizes, which critics will be sure to point out as not indicative of the population as a whole.

In regards to primitive reflexes, it is important to remember, as with anything, the science still needs to catch up to disprove or prove the effects of this type of treatment. And while some correlation may be present, it is certainly not the main cause of sensory processing difficulties or Sensory Processing Disorder.

"Ultimately, I view the role of the primitive reflexes as movement patterns that serve as the early foundation for our survival and the basis for the development of higher-level skills. Essentially, as a pattern appears, it serves a specific developmental appointment, meeting a certain need, and fulfilling a specific function. Once the function has been established, it then recedes to the back-ground; much like waves in the ocean that crest and recede. Each of the patterns has an opposite pattern that modulates it. These patterns then dynamically interact, creating more varied patterns of movement. Although our primitive reflexes do not always stay in the foreground for our whole life, they never quite completely disappear; which you may be thankful for the next time you attempt that game-winning slam dunk."

Sheila Frick, OTR/L - Vital Links

Heather has personally taken continuing education courses on primitive reflexes from Vital

Links and Ready Bodies, Learning Minds with different treatment strategies taught during these courses. If you are interested in learning more on this topic, I encourage you to research reputable sources (refer to the resources section of this book) and also talk to your Occupational Therapist or physician if you have concerns about your child and retained primitive reflexes.

ENGAGING THE SENSES HELPS EVERYONE



“By providing students with materials that they can physically manipulate, play with and explore, teachers help them learn more about the world and develop crucial skills that they will utilize later in life,” - Caitrin Blake of Concordia University Nebraska.

Sensory exploration is important for any child to build the cognitive skills needed for life. Through exploring the world with their senses, children begin to observe and draw conclusions and they experiment and predict the outcomes of those experiments.

Providing all children with rich, multi-sensory experiences is crucial for their development. Children under the age of six particularly, need to use their whole body to experience the world around them. This help to build those neuro-pathways in the brain with experiences they can draw upon at a later time when needed. This is often referred to as “sensory memory” or “muscle memory” when it comes to exploring through movement.

Many of the strategies and activities we are sharing in this book will be helpful for any child, regardless of a sensory processing disorder or other related diagnosis. We all benefit from considering the whole child, including sensory processing, when providing support at home, in the classroom, or the clinical setting.

Let’s all strive to provide all children with these rich, multi-sensory experiences and help to shape the young minds of the future.



Chapter 2

THE 8 SENSORY SYSTEMS

We've all heard of the five senses: touch, hearing, sight, taste, and smell, but there are really eight main senses in the body.

These include:

- tactile/touch
- auditory/hearing
- visual/sight
- gustatory/taste
- olfactory/smell
- proprioception
- vestibular
- interoception

What is the Sensory System?

The sensory system is comprised of the brain, spinal cord, and neurons. It is the neurological wiring by which we perceive and process sensory information coming from outside, and inside, our bodies.

All the systems working together provide you with the "optimal level of arousal" which means you are able to perceive, process, and react to sensory stimuli and information in a timely manner.

When a person or child has sensory overload or low arousal, this is often referred to as sensory processing difficulties or sensory processing disorder. It means that their brains are "wired" differently and they have difficulty processing incoming sensory information.

The Eight Senses

We are going to take a closer look at each sensory system so you can understand how each one works and how it relates to sensory processing.

You will also see some terms such as hyper-responsive or hypo-responsive, or under-responsive. Here are definitions of those terms.

Hyper-responsive (also known as over-responsive or hypersensitivity) - "Sensory Avoiders"
- These children excessively responsive to sensory input. The slightest movement, touch, or

sound could send you or a child into a negative behavior response.

Hypo-responsive (also known as hyposensitivity) - "Sensory Seekers" - This child does not receive enough sensory input and is constantly looking for it to get to that "just-right" level of arousal. These behaviors can impact their day because they are not able to focus or attend to task until they are at that just-right level.

Under-responsive - These children exhibit diminished response to sensory input. More sensory input is needed than average in order to get a response. They can look like they are "lazy" or "tired".

Each system has a "hyper" or "hypo" or "under" type of response that you will see in children. You might notice both responses for the same sensory system depending on the activity (especially if it is a new "novel" experience, versus something the child has experienced before). It is also common to be hyper-responsive to some of the sensory systems and hypo-responsive or under-responsive to others.

THE VESTIBULAR SYSTEM



The vestibular system is located in the inner ear and helps you to detect changes in gravity as it affects your body. Are you sitting, standing, lying down, upside down, spinning, standing still, etc.? It is often referred to as the internal GPS system of your body.

It is also very closely linked to the proprioception, auditory, and visual senses of the body. This is why when a person has sensory processing challenges, the Occupational Therapist will often start by addressing any issues they have with their vestibular system.

Symptoms of vestibular sensitivity (hyper and hypo or under responses) include:

- gravitational insecurities - exaggerated emotional responses to antigravity movements, will become very upset when movement is forced on them
- movement intolerance - uncomfortable with fast movement or spinning
- does not like feet off the ground - fearful of heights, fear of falling
- hesitates or is afraid of climbing and going down steps, playground equipment etc
- has difficulty standing still (fidgets)
- easily prone to being carsick or motion sick (this can also manifest as falling asleep immediately in a car, bus, boat, or airplane)
- craves spinning or swinging

The Vestibular System and Behavior

The vestibular system should be where we look first when addressing any behavior or sensory processing concerns.

The vestibular system begins to develop in utero as a baby is growing inside the womb. It is one of those basic systems needed for survival. Information from the eyes, ears, and vestibular system (balance & movement) combine to give an awareness of yourself in relation to the space around you.

Your eyes tell you where you are in the room, your ears tell you what is going on in the room, the vestibular system recognizes if your body is standing still, moving, if it is balanced, etc.

All of this information is then filtered through your brain and then your brain provides a response. This affects your arousal, motor and language responses.

When someone has a typical or well-developed vestibular system, all of this information is taken in by the brain (central nervous system) and responded to appropriately through movement and behavior.

When you think of someone like an Olympic athlete or people who are constantly moving or putting their body and senses through new experiences, they will have the best developed vestibular systems.

Kids do not move or experience things like they use to. If your child is in school, their recess and free time to move and explore has been cut down to a bare minimum.

They may come home and go straight to the TV, video games, movies, etc. or homework. They are not outside and moving like kids in past generations.

A few developmental activities that are important to building a strong vestibular system include rolling, crawling, tummy time or stomach time, climbing, jumping, swinging (upright, upside down, side to side, spinning), and moving and putting their bodies, in particular their head, in as many different positions or movements as possible.

When your child has an under-developed vestibular system, their brain is not getting the correct information from their eyes, ears, the sense of gravity, or movement in their bodies. This causes their brain and body to feel unsafe. When they do not feel safe, their survival mode responses kick in. This affects their level of arousal and attention.

Remember the fight, flight, or freeze response we talked about in the previous chapter? This is the reaction their body has when it does not feel safe. When the body does not feel safe, it shuts down all unnecessary brain functions and focuses on keeping the body safe.

Every child has a different thresh-hold or limit of what their vestibular system can handle. Some may have a low thresh-hold, which means the slightest movement or situation could send their vestibular system into fight or flight responses.

Some have a very high thresh-hold, which means it takes a lot of input to their brain for the vestibular system to recognize it. This child may crave spinning, crashing, climbing and other big movements.

THE PROPRIOCEPTIVE SYSTEM



The proprioceptive system or proprioception is one of the internal senses of the body that comes from the joints, muscles, ligaments, and other connective tissue. The proprioception system allows you to know where your body parts are and what they are doing without necessarily looking at them.

The receptors are in the joints, muscles and tendons and perceive contraction, stretching, and compression.

Why is proprioception so important for development? It helps to promote a sense of self, encourages self-regulation, and also promotes both fine motor and gross motor activities. It also allows children to be aware of their “personal space” and how to engage appropriately with those around them.

We all know of a child, maybe they sat in front of you in school, or maybe it was you that the teacher was always telling to sit down or slow down. At play, this child may be literally “bouncing off the walls” or falling down. These children are seeking sensory input into their joints or muscles.

Symptoms of proprioceptive sensitivity (hyper, hypo, and under-responses) include:

- poor body awareness - knowing where their body or body parts are in space
- poor coordination - they move awkwardly or stiffly
- difficulty grading amount of pressure - using excessive force on an object (such as breaking a pencil or crayon with writing or coloring)
- may push, hit, bite, or bang into other children
- avoid or crave jumping, crashing, pushing, pulling, bouncing or hanging
- chew on clothing or objects more than other children (remember this is age appropriate at certain times in development of younger children, typically age 3 and under)
- have to look at what they are doing (such as when writing, walking, or running)

The Proprioceptive System and Behavior

In the book, *Sensory Integration and the Child*, Dr. Jean Ayres says this:

“If the proprioception from your hands were not sufficient to tell you what your hands were doing, it would be very difficult to button clothes, take something out of a pocket, screw a lid on a jar, or remember which way to turn a water faucet. Without adequate proprioception from the trunk and legs, you would have a very hard time getting in or out of an automobile, walking down steep stairs, or playing a sport.”

Children who have under developed proprioception systems may become easily frustrated, especially when they are asked to complete a new skill. They may want to give up or lose self-confidence in their ability to complete a task.

They may also avoid certain situations or experiences because they are not able to navigate or figure out the space. They might not be aware of their personal space or others'. Personal boundaries are not something they recognize. It may be hard for them to realize they need to ask someone for a hug first or that people may not like them to be in their face (crossing that personal bubble boundary line).

THE TACTILE SYSTEM (TOUCH)



The tactile system is often the most commonly recognized sensory system of the body. It is also the one people notice most often if a child has an overactive or under-active tactile system. Anything you touch or feel is part of this system.

The sensory receptors in our skin send messages to our central nervous system so that we are able to process and interpret that incoming information. This includes temperature, texture, pain, pressure, and traction. Is the item safe to touch? What does it feel like?

Touch can fall under protective or discriminatory categories of sensations. Protective sensations allow you to realize when something is sharp or hot and not to touch it. Discriminatory sensations allow you to tell the difference between objects based on how they feel. This includes being able to reach into a bag and find your phone based solely on how it feels. Your past tactile sensory experiences allow your brain to figure out what you are feeling without seeing it.

Symptoms of tactile sensitivity (hyper, hypo, and under-responses) include:

- avoids messy hands, face, or just mess in general
- has difficulty with certain clothing items such as tags
- needs to touch everything (brushing along walls while walking, picking up everything)
- the need to fidget in order to focus or when bored
- avoids hugs or physical contact with others
- may crave being close to people or need to be touching something constantly
- seem unaware of dangerous items that may cause pain or injury
- may be unaware if something hurts (high pain threshold)

The Tactile System and Behavior

One study (Baranek, Foster, Berkson, 1997 AJOT) suggests that children with higher levels of tactile defensiveness show more signs of stereotypical behaviors such as rituals (all food must be a certain color or they will only wear certain colors of clothing), behavioral rigidities (must have predictability, nothing can change), repetitive motor patterns (body rocking and

flapping), unusual object manipulation (spinning objects, fidgeting).

A person or child with tactile sensitivities may often avoid or withdraw from tactile input or have negative emotional and behavioral reactions in that input.

It is also important to note that there are different types of touch and your child may react differently to different kinds.

Light touch is sensed by the displacement of hairs on the skin and is one of the more common upsetting types of touch. This includes feeling grass on the feet, certain clothing textures, sand or dirt on the skin, having hair brushed or face washed, and even specific textures of food in the mouth.

Deep pressure can typically be more appealing and often times a child may seek this type of input. This type of pressure is also closely tied into proprioception as it gives important sensory information into the joints and muscles.

Vibration can often be very alarming to a child. They may often hear or feel vibrations that you and I do not notice, such as appliances vibrating through the floor or from cars or trucks nearby. You may also find a child craves this type of input and seeks it out.

Temperature is highly subjective and will look different with each child. Heather's daughter, for example, cannot stand anything above lukewarm (food, shower/bath etc). She prefers almost cold temperatures in many instances. I specifically remember a time we were swimming with friends and all of the other children got out of the pool because they were too cold. Her lips were starting to turn purple and I insisted she get out, but instead she had a meltdown over getting out of the pool because she wanted to keep swimming. The cold did not seem to phase her one bit.

Pain sensations can also look very differently based on the child. A small scrape may send a child into a howling, crying mess while another may not even realize they are seriously hurt or even have a broken bone.

THE AUDITORY SYSTEM (HEARING)



The auditory system includes hearing, listening, interpreting, localizing sounds, and being able to filter and selectively attend to auditory stimuli. This also includes processing these sounds by intensity, frequency and pitch, duration, and where the sounds are coming from.

Symptoms of auditory sensitivity (hyper, hypo, and under-responses) include:

- sensitive to loud, sudden sounds
- distracted by background noises
- does not speak as well as others their age

- has a significant history of ear infections
- covers their ears often to block sound
- often asks for others to repeat what they said
- has trouble with phonics and learning to read
- unusual high volume or low volume in their voice
- seems to ignore others when their name is called

The Auditory System and Behavior

A child who is sensitive to sound may not only be sensitive to loud noises but also certain frequencies. They may also notice frequencies that our brains tune out, but to them, it is very distracting. They also may hear sounds that are below or above the typical range for volume.

This would be why the hum of a florescent light, that many of us would not even hear, can be very distracting for a child with hypersensitivity to auditory input. A loud truck or car may send a child into a state of fight or flight because they cannot process where the noise is coming from, so their brain tells them there is danger.

On the other hand, you may have a child who needs louder volume or animated movement in order to get a reaction. They simply aren't getting enough auditory input to register a response.

The auditory system and the vestibular system are also closely connected. Quite literally, the vestibular system and the cochlea (the part of the ear responsible for auditory input) are connected.

Every time your auditory system receives input, the receptors for your vestibular system receive the same input. And when the vestibular system receives input, your auditory receptors receive that same input.

This explains why when we hear a sound, such as a catchy song, we immediately begin to move to the music. Or when you hear a loud sound, you literally jump! How many mothers out there hear a baby cry and immediately begin a swaying motion for calming the baby? You might even sing or play soft music for a calming response while you move.

Movement during auditory learning can greatly improve a child's focus. And movement can also influence their speech. It is vital that we encourage movement in our children to help develop their auditory systems.

THE VISUAL SYSTEM (SIGHT)



The visual system includes using our eyes to see what is far or close to us. A typical person is able to use smooth and precise eye movements to scan and visually assess their environment.

Difficulties with the visual system can prevent a child from focusing and completing tasks. Visual sensitivities can affect acuity (sharpness of vision), ocular motor (motion of the eye), eye-teaming (using both eyes together), visual motor (eye-hand coordination), and visual perception (ability interpret the surrounding environment).

Symptoms of visual sensitivity (hyper, hypo, and under-responses) include:

- light sensitivity to sunlight, glare, or fluorescent lights
- overly distracted by classroom or home wall decorations
- poor hand-eye coordination
- difficulty tracking across a page while reading
- difficulty copying from a board
- often complains of headaches
- skips words or lines and loses their place while reading
- poor handwriting and drawing skills

The Visual System and Behavior

Movement skills are heavily reliant on the visual system. We use our eyes to see where we are going and that input tells our body how to move.

When we are learning a new skill, the body relies heavily on the visual system in order to learn and master that new skill. Learning how to type for instance, you may need to look at where your fingers are on the keyboard for a while, until you can visualize the keyboard in your head (mental maps). Then muscle memory takes over, and you begin typing without looking at where your fingers are on the keyboard. At this point your proprioceptive and vestibular system have taken over and you can complete the task without looking down.

Imagine going through the world in this constant state of having to pay attention like you were learning a new skill, getting a constant barrage of visual input, and not being able to process it properly so that the proprioception and vestibular system can take over.

This is how many children with visual sensitivities function. It can be a very frustrating and often times children may not even realize they are seeing and processing visual input differently than others. Those with light sensitivities may feel fatigue, anxiety, dizziness, headaches, and other physical problems related to visual sensitivities.

It is also important to rule out any physical problems with the eye with regular vision screenings. Looking for a developmental optometrist (also known as a behavioral optometrist) who has experience with sensory processing difficulties would also be advantageous. They can provide more detailed tests and assessments for visual development and can also give recommendations for vision therapy, if needed.

THE GUSTATORY SYSTEM (TASTE)



You may recognize the gustatory system more by the word taste or oral sensory system. Taste and smell (the olfactory system) are very closely related.

We can taste five different flavors: sweet, salty, bitter, sour, and umami (savory). All the other flavors you taste are actually related to smell. Texture and temperature are related to touch (through the receptors in the mouth).

Symptoms of gustatory sensitivity (hyper, hypo, and under-responses) include:

- sensitivity to brushing teeth (taste of the toothpaste, bristles on the toothbrush)
- sensitivity to food textures (limited variety of foods they will eat or has anxiety about trying new foods)
- frequent drooling
- loves or has a strong fear of going to the dentist
- mouthing non-food objects and exploring textures such as chewing on pencils, clothing, etc (remember this is developmentally appropriate for babies and toddlers)

The Gustatory System and Behavior

Ever wonder why a child won't try a new food without smelling it first? They are most likely smelling it (or even seeing textures) and refuse to try it based on that input to their brain.

Picky eating and food battles are common among toddlers and young children. But when you add taste sensitivities to the mix, it adds another layer of problems for a child.

Often a child who refuses certain foods, bases this off of textures. This is actually a tactile system issue and why therapists often treat food sensitivities with lots of exposure to messy play and various textures through touch. Gradually increasing the variety of textures a child is exposed to, and can tolerate, will be beneficial.

All children, whether they have sensitivities or not, benefit from a variety of food experiences. Even if they don't want to try it the first time, reintroducing foods and exposure to new foods is important.

Others may crave excessive flavors such as extremely hot, spicy, or other strong-flavored foods.

An excellent resource for picky eaters and food sensitivities is the website, yourkidstable.com. Alisha is an Occupational Therapist and a mom with picky eaters who shares her experience and expertise in this area through her articles and courses.

Some children with oral sensitivities may seek out and chew on a variety of items to fulfill this sensory seeking need. This can become disruptive and distracting to themselves or those around them if they are not given appropriate items or outlets in which to chew.

A child who is seeking sensory input in the mouth, is often not just craving the oral sensory input, but proprioceptive input. The jaw and muscles of the mouth are full of proprioceptive receptors (through the joints and ligaments) and chewing helps to fulfill this need.

Think about some ways we as adults often use the gustatory system to focus. Do you chew gum often? Do you suck on a hard candy or mint in order to stay awake during a meeting or class? Do you bite the tip of your pen or pencil while you are thinking? Many of us have ways that we use the gustatory system to manage our day.

Children with these oral sensory seeking behaviors need to be given ways to get that input that are safe and also sanitary for themselves and those around them.

Providing a child with appropriate items to chew, or providing them with a variety of crunchy snacks, or age appropriate activities like chewing gum, can be beneficial in fulfilling this need. We will be discussing this in further detail in the Parent's Companion Guide for Sensory Processing.

THE OLFACTORY SYSTEM (SMELL)



When we eat, we smell it first. If it smells good we are more likely to try it. If it smells bad that sends a warning that we may not like it or that it is dangerous for us to eat. Smell travels through chemical receptors with direct neuronal connections to the limbic system (responsible for emotional memory). This is why our emotions are often tied to smells and food.

Symptoms of olfactory sensitivity (hyper, hypo, and under-responses) include:

- overly sensitive to certain smells and avoids them
- limited diet (gagging or avoiding)
- explores objects by smelling
- craves certain smells or textures
- holds their nose to avoid smells, even if you don't smell anything
- avoids foods most children their age enjoy

The Olfactory System and Behavior

When you smell something awful, do you make a face, cover your nose and say something like "Eew, that stinks!"? After you get over the initial smell, it often goes away or you move away to get away from it.

For a child with smell sensitivities, obnoxious smells can overtake them and they are not able to process how to focus around it or how to reset. This can interfere with all activities of daily living, learning activities, or just hanging out with family and friends.

They may also smell things that most of us don't even notice. Brushing their teeth may be

difficult because of the smell of the toothpaste. A public bathroom may be unbearable for them to go in.

Some children may not be able to distinguish if a smell means something is safe or dangerous. If their olfactory system is under-developed, they may not even recognize a strong odor could mean the food is not safe to eat, or that strong smell of gasoline or smoke means danger.

A Note on Essential Oils

In the last few years, essential oils have become very popular in the general population, including the special needs and sensory communities. If you do a search on essential oils and “calming” or “Autism”, you will find many sites or posts with oil suggestions that have different wanted behavior effects.

It is important to remember that while many may report positive responses to essential oil use with special needs or sensory processing, there are those who may not be able to tolerate their use. This also includes the use of air fresheners such as melting wax or mists.

A perfect example of this is my mother in-law, who has Asthma. She works as an Occupational Therapy Assistant in the school system and she has told me about the classrooms she has to leave because of adverse reactions to a diffuser or scent that is being used in the space.

For a child with heightened olfactory senses or a child with a medical respiratory condition, this could be a potentially dangerous situation.

While it is easier to monitor home use of essential oils and look for any adverse reactions or allergies, using oils in a public setting can get tricky. I highly encourage you to be aware of how essential oils could cause adverse reactions to those around you. While some children may benefit from their use, others may not.

Essential oils should never be used as blanket “treatment” for any symptoms and should only be considered on a child-by-child basis, along with parental consent.

THE INTEROCEPTION SYSTEM



Interoception is the sense of knowing what is going on inside our bodies. This includes input such as feeling, hunger, thirst, fatigue, pain, temperature, needing to use the bathroom, and any other internal sensations.

Your body is filled with sensory receptors that tell you where your body parts are. These receptors are located in your muscles and joints. This helps you to understand what is going on around you and how your body moves within that environment.

Something similar goes on with Interoception, except that the receptors are inside your body’s

organs and skin. All of these receptors report to your brain with information about what is going on inside your body.

This all helps to regulate your body functions such as hunger, thirst, bathroom needs, heart rate, digestion, etc.

Interoception sensitivities (hypo, hyper, and under responses) include:

- difficulty with toileting (bedwetting and accidents)
- unable to track hydration or food intake (never feel thirsty or hungry, or may always feel thirsty or hungry)
- difficulty in recognizing and communicating internal body states or sensations (feeling hot/cold, pain etc)
- difficulty regulating emotions and feelings (not feeling they are angry before they verbally or physically lash out)
- distracted by internal sensory input such as hearing their heartbeat
- unable to tell how loud their voice is in an environment (may use sound to cover up unwanted sensory stimuli)

Interoception and Behavior

Often times we have an emotional response to what we are feeling inside our bodies. Some people may become angry or moody when they are hungry. When you begin to feel this way, most of the time you know you need to get something to eat and your mood improves.

Imagine you have to go to the bathroom but you can't find a place to go. You most likely become anxious, frantically looking for the nearest options out of fear that you may not make it in time.

You can thank your interoception system for all these feelings and reactions to what is going on inside.

Just like the other seven sensory systems, children can be hyper-responsive or hypo-responsive to interoception sensory input.

Hyper-responsive, also known as over-responsive or hypersensitive means a child is extremely sensitive to this input. The slightest sensation of hunger, thirst, or bathroom needs can cause them to become extremely anxious. The slightest change in temperature or even hearing their own heartbeat can be extremely distracting. Some of the sensations they feel could even be extremely painful.

Hypo-responsive, also known as under-responsive or hyposensitive means a child often needs a large amount of input in order to recognize the type of sensory information their brain is receiving. This means they may not realize the need to use the restroom until it is an emergency, or they may not realize they are hungry until they are completely starving. They might not realize they are in pain or the sensation of pain feels completely different to them, like a tickle.

Interoception sensitivities may affect those who have been diagnosed with ADHD, Autism, SPD (Sensory Processing Disorder), Anxiety, eating disorders, depression, and even obesity.

Those who struggle with interoception input can also have difficulties with “feeling” emotion. They may not be as aware or tuned into their body’s cues that can help to interpret that emotion. This makes it difficult for them to identify emotions. For example, a child may not “feel” fear because he doesn’t recognize that his muscles are tense, his breathing is shallow and his heart is racing.

All of these can result in safety issues and difficulty functioning in a typical environment.

Interoception difficulties can also make self-regulation a challenge. When you are able to tell that you’re thirsty, you know to get a drink. When you can feel that your bladder is full, you know to use the bathroom. When you feel a sense of frustration, you know to explain what’s troubling you.

For some children with interoception difficulties, they can’t regulate certain responses. Some kids may experience bedwetting. Or they may not know why they’re feeling off and can have meltdowns. Kids who struggle with these things may not be able to identify the real source of their discomfort.



Chapter 3

BEHAVIOR VS. SENSORY

Have you heard the phrase: *all behavior is communication*? Whether we like it or not, every time a child “acts out” or has a tantrum or meltdown, they are really communicating to us. They may not even realize it themselves. It can be difficult to understand what they are trying to express, so that is what we are going to explore in this chapter.

“The function of a behavior refers to the source of environmental reinforcement for it.” Tarbox et al (2009, p. 494).

Types of Behavior

The definition of behavior is: “the way in which one acts or conducts oneself, especially toward others” or “the way in which a person acts in response to a particular situation or stimulus.”

There are four main categories of behavior.

Social Attention - Behaviors engaged into gain some form of response or social attention. For example, a child may engage in a behavior in order to get people to look at them, play with them, etc.

Tangibles or Activities - Behaviors engaged into obtain a tangible item or gain access to a specific activity. For example, a child may scream and shout in order to get their parents to buy a specific toy or treat.

Escape or Avoidance - Behaviors that occur in order to get away or avoid something. For example, a child may engage in aggressive behavior to avoid academic activities. Or another child may engage in self-injury to avoid having to go outside.

Sensory Stimulation - Behaviors that are internally motivated. They are “self-stimulating” behaviors and they occur only to give the child or person some type of internal sensation that is either pleasing or displeasing (such as pain). For example, a child may rock back and forth because they enjoy it.

Development and Behavior

When looking at the developmental pyramid, it is important to note that at the bottom, physiological and biochemical balance must be addressed first, followed closely by sensory processing and reflexes. All of the other systems, including gross motor, fine motor, perceptual, cognitive, and social are built on this foundation.

You can search “central nervous system pyramid of learning” on Google to see a nice graphic of this pyramid.

All of our tools and tricks to help with a child’s behaviors need to keep this developmental pyramid in mind. Our activities and treatments need to look at behaviors from this bottom-up approach. Otherwise we are only scratching at the surface of what is causing the behavior.

If your sensory processing system is not regulated, all the other systems are affected. And with the recent studies on interoception, even the senses inside our bodies (physiological and biochemical) have a huge part to play in this balance.

Behaviors are a result of current biochemical status, current neurological status, hard wiring of the brain and our perception of a situation (which are based on past experiences and how our brain interprets the situation).

Our responses to this may or may not be intentional. This means that some of our children’s behaviors could be their body or brain’s automatic response.

Our brains are made of millions upon millions of neurons, including grey and white matter. These neurons develop in a bottom-up approach, meaning that the neurons needed for basic survival are built first. When a baby is born, the neurons in the brainstem area are well developed. If they were not developed, the baby would not survive. These functions include heart rate, breathing, and reflexes.

After a baby is born, the brain begins to develop the rest of the neurons responsible for academics, emotions, and language. These require time and a lot of different experiences so the baby can develop as many different neuro-pathways as possible.

This is also why it is important for children to explore as much of the world around them as they can. As these neurons continue to form and grow, the brain also discards unused or what it deems as unneeded pathways, based on experiences and what is currently being used by the brain.

It is when these crucial pathways are not formed correctly, or do not form at all, that we begin to see problems in a child’s development or behavior.

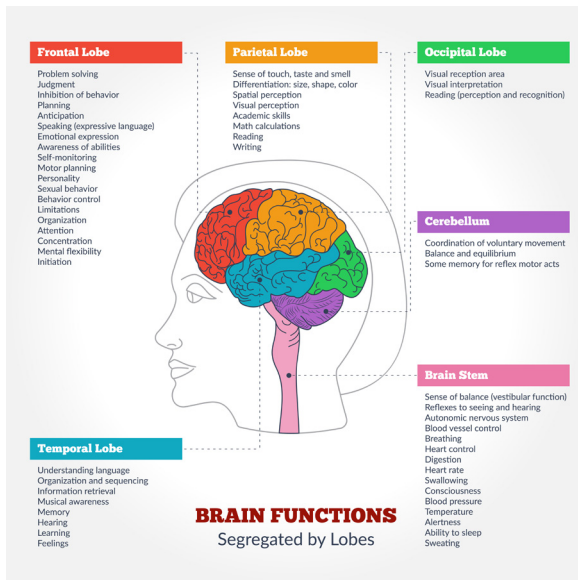
Brain Development and Sensory Processing

This leads us to some basic brain development information that we need to understand before moving forward.

The brain is comprised of the brainstem, the midbrain, the limbic system, and cortex. Each of these sections are responsible for very important functions.

The brain stem is responsible for the vital functions of arousal and consciousness. Any vital brain function such as pain, temperature, breathing, swallowing, coughing, and gagging are

all based in the brain stem. Your sense of proprioception, which involves the sense of where your body is in space, is housed in the brain stem.



These important brain messages are sent through the central nervous system by way of our spinal cord and the twelve cranial nerves that connect from the spinal cord to your brain.

The midbrain is responsible for functions such as communication, control of our motor systems, hearing, vision, and reflexes for hearing and eyesight. The sensory systems involved are the auditory and visual systems.

The limbic system is the center of emotion. This includes short term and long term memory. This also affects our response to danger, especially responding to aggression and fear. In a child who has an overactive response to this stimuli, their body will view this input as a constant threat.

The cortex is the largest area of the brain and is responsible for higher functions such as thought and action. It is divided into lobes: the frontal lobe, the parietal lobe, the occipital lobe, and temporal lobe.

These higher functions include intelligence, personality, motor functions, planning and organization, touch (tactile sensory system), processing sensory information and language processing. These sensory areas receive input from the senses and process that information in the brain.

Behavior and Sensory Processing

Is a child's behavior a behavioral issue or sensory? The short answer, you may not like is: yes and yes.

If sensory is the sensation of physical senses and a definition of behavior is the way in which a person acts in response to a particular "stimulus"(or sensation), then yes, behaviors can happen because of sensory problems. This is why addressing sensory processing is crucial when we are looking at a behavior.

No two people have identical biochemical, neurological, or hard wiring make up. We don't perceive situations the same. So what one person may be able to handle without "flipping out" someone else may struggle with.

A good example is motion sickness. Some people become motion sick at the slightest unnatural movement or sensation to their bodies. Plane rides, boat rides, and car rides are not

a fun thing for them. They need to take medicine to change the biochemical makeup of their brain to be able to make it through that experience without getting sick.

For children who are having sensory processing problems, their brains are wired differently than the average person. Sensory information is hitting their brains and they don't know how to process this information correctly.

It is often misinterpreted. This puts their body into a huge amount of stress. When your body is under stress, it puts you into a very primal response: fight or flight. Do you need to stand up and fight against this situation or do you need to run away from it? It is all about self-preservation.

An example of fight would be the mother who suddenly has super power strength in order to save a child from a dangerous situation. An example of flight would be realizing someone is following you and running for your life.

For a child who is not processing the incoming sensory information correctly, their body could be in a state of constant fight or flight mode. When their body is telling them that this situation is not safe they either need to "fight" or "flight". They are going to react with a behavior (emotional response with movement).

The problem for many children is that their bodies are in this constant state of fight or flight for unnatural reasons. Some of these could include, allergies, sleep, nutrition, environmental factors, and brain function. All of these play a factor into how a child is going to react to a situation.

That means no two treatment options are alike either. Each person comes with their own experience, hard wiring, brain function, and reaction to stimulus. Just because one treatment idea worked for one child, does not mean it works for all children.



Chapter 4

SENSORY MELTDOWNS VS. TANTRUMS

Sensory meltdowns may not be a term that you are familiar with, but they may be something that your child is experiencing. If that's the case, as you read more about them, you may find yourself recognizing the symptoms and recalling times when you may have witnessed your child having a sensory meltdown.

Sharla has witnessed many sensory meltdowns over the years.

Sharla's Story:

I recall one particular episode my son was having. All the kids and I were at the convenience store waiting in line to pay for our gas fill-up and the Slurpees we had in our hands and he was having what appeared to everyone around us to be a tantrum. He was on the floor of the store, kicking and screaming and I wasn't sure what to do with the Slurpees we were holding. I knew I had to get him out of that crowded store, but there were people ahead of us and people behind us and then, it happened...

"Isn't your son too old to be having a tantrum? I never would have let my kids get away with that at his age." a lady who was a few people behind us in line piped up loudly to no one in particular.

I wished the floor would open beneath me and swallow me up. I wish I could tell you that I turned to her assertively and told her that my ten year old was most certainly not having a tantrum and that his response was neither a reflection on him or on my parenting, but my response was to turn beet red and stare straight ahead while I prayed for the line to move more quickly. After we paid, I got my son and other kids out of there as fast as I possibly could.

I wish that back then I had had the language and confidence to be able to turn to that lady and tell her that my son was not having a tantrum. That he was having a neurological response that caused a fight or flight reaction in his brain. That he needed compassion and help instead of judgment and condemnation.

What is a sensory meltdown?

A sensory meltdown is a fight, flight or freeze response to sensory overload. Due to this, it is helpful for parents to have a good understanding of the fight, flight or freeze response and its connection to sensory.

Sensory meltdowns are often mistaken for a tantrum or misbehavior. When we understand the WHY of our children's behavior, it is so much easier to have empathy for them and to respond in a loving manner.

The main way to tell the difference between a tantrum and a sensory meltdown is that tantrums have a purpose. They are designed to elicit a certain response or outcome.

Sensory meltdowns are a reaction to stimuli or something in the environment and are usually beyond the child's control. A child will stop a tantrum when they get the desired response or out-come, but a sensory meltdown will not end just by "giving in" to the child.

Another difference between tantrums and sensory meltdowns is that tantrums are often for attention, whereas the last thing a child having a sensory meltdown wants is more attention.

Common causes of sensory meltdowns:

- sensory overload
- seeking sensory input
- being in a new or challenging situation
- change in routine
- difficulty with transitions
- inability to accurately communicate
- lack of sleep
- hunger or poor nutrition
- thirst
- dysregulation

What does a sensory meltdown look like?

Each child is different and no two meltdowns will look exactly the same even from the same child. Much of the sensory meltdown is due to a fight, flight or freeze response, so that will determine some of what you see.

Here are some of the things you might see in a sensory meltdown:

- running away
- whining
- hiding
- avoiding eye contact
- curling up in the fetal position
- covering their eyes or ears
- screaming
- crying
- hitting
- punching
- pushing
- biting
- spitting
- yawning
- shutting down, not speaking, not moving

How to respond to a sensory meltdown:

1. Control your own response - remember that your child is having a neurological response. You cannot help your child calm down if you are not calm yourself.
2. Talk as little as possible. Once your child is having a fight, flight, freeze response, their ability to access the part of the brain that processes language is essentially shut down. What works best is to speak repetitively in a very calm, soft voice with a simple phrase like "let's breathe".
3. Remove the child from the environment to a place with very little sensory stimuli.
4. If possible, provide a sensory area for your child to go to with calming music, a soft or weighted blanket, noise canceling headphones, chewelry (chewable jewelry), fidgets, a vibrating palm massager, and low lighting.
5. Use a calm down kit. Be sure to have practiced how to use the kit while your child is calm, so that the items and techniques will be familiar to them.
6. Help them focus on regulating their breathing. Blowing bubbles, blowing a pinwheel or placing their hand on their stomach to feel it rise and fall are good techniques to try.

Preventing Sensory Meltdowns Before They Start:

While certainly not all sensory meltdowns can be prevented, there are things you can do to re-duce the intensity and frequency of them.

Ensure that your child is always well hydrated by keeping your child's water bottle filled and reminding them to drink from it often.

Provide healthy snacks often throughout the day.

Identify your child's sensory triggers. You can do this by keeping a Sensory Triggers Log which will help you to see patterns in what distresses your child. You'll find a Sensory Triggers Log in the Printable Resources.

Once you have identified what your child's sensory triggers are, avoid them or make adaptations to their environment as much as possible. As an example, if you know that your child is triggered by loud noises, use noise canceling headphones for places that might be an issue or avoid times or locations where it may be too noisy or where sudden, loud sounds may occur.

Be sure that your child is getting sufficient sleep. Being overtired contributes to meltdowns. If they are having a hard time falling asleep or staying asleep, there are suggestions for sleep solutions in the Parent Companion Guide.

Teach your child techniques for calming and for self-regulation. I find that having an anti-anxiety kit made specifically for your child, and helping them practice with it, is very effective for this.

Work on giving them an emotional vocabulary so that they can express their feelings more easily.

Ensure that your child is regularly accessing sensory activities that give them sensory input for all sensory systems. Heavy work activities are especially important.

Carry a small sensory toolkit with you that includes items such as sensory balls and small fidgets.

Teach calming breathing techniques.

Use social stories.

Be sure to include some routines each day that your child can count on.

Give lots of lead-up and warning before transition times. Transition times are particularly difficult and are often the source of meltdowns if not properly handled.

CALM DOWN STRATEGIES FOR MELTDOWNS



Regulating emotional responses, particularly during times of stress or anxiety can be difficult. It is a skill that many adults have yet to master. It is a learned skill and something that requires practice.

One of the ways to teach this skill to children is by teaching calm down techniques. It is important for calm down activities and strategies to be practiced regularly, not just in times of high anxiety. This ensures that they become second nature and can be accessed during times when big emotions come into play.

Some of these techniques include:

1. Hum. Humming regulates breathing which lowers your heart rate. It helps to activate the para-sympathetic nervous system which also lowers heart rate. It helps you to feel more peaceful as your thoughts become clearer. Humming also releases endorphins, which makes you feel happier.
2. Trampoline time. This idea may sound counter-intuitive since jumping may not exactly seem like a calming activity, but calming down and settling down are different things. Some kids need to get that proprioception sensory input in order to help themselves regulate and jumping can be a good way to achieve this.

3. Listen to calming music or soothing sounds. We use a sound therapy machine that has many options for soothing sounds such as tropical forest, white noise, heartbeat, ocean waves, and waterfall.

4. Spend some quiet time in a sensory room or sensory space. If you don't have access to a dedicated sensory space, you can easily create a temporary one by placing a sheet over a table and throwing a few items in there. Things you can include in this temporary calm down area are a soft blanket or weighted blanket depending on your child's preference, twinkle lights or a lava lamp, a bean bag chair, fidgets, and a stress ball.

5. Have a warm bath with epsom salts. All children should be supervised in the bath of course. You can make this experience more calming by using flameless candles in the bathroom or dimming the lights.

6. Inversion. Inversion is a fancy way of basically saying to get your head below the level of your heart. It has an almost instant calming effect. Inversion can be achieved by bending and touching your toes, doing a headstand or handstand, hang upside down on monkey bars, or hanging with your head off the couch.

7. Knead, press and pull play dough. The kneading, pressing and pulling provides good sensory feedback.

8. Heavy work activities. Heavy work can be calming, organizing and regulating for kids. Find a list of heavy work activity ideas in the Printable Resources section.

9. Calm Down Breathing

Deep breathing has been scientifically proven to combat stress and anxiety. It is used in meditation and yoga. With children, calm down breathing is an essential technique to learn to help with self-regulation.

When a child goes into their fight, flight or freeze response, their heart rate increases and their breathing becomes rapid and shallow. This decreases the oxygen to their cells, which obviously does not improve brain function in the moment. This makes it all the more important to practice good breathing technique and get that oxygen flowing well again.

Some simple calm down breathing techniques you can teach children:

- Have your child put their hand on their stomach and feel the rise and fall while they breathe.
- Have them inhale for 4 seconds, trying to fill their "belly balloon" with air, hold the breath for 2 seconds and then exhale.
- Teach them to breathe slowly in through their nose, out through their mouth. The best way to teach this method is to have them make eye contact with you and do it at the same time as you while you give them the verbal cues of "in through your nose" and "out through your mouth".
- Blowing softly to spin a pinwheel is another good way to practice calm down breathing.

10. Calm Down Kits

Calm down kits help kids feel more in control of their emotions and reactions. It's best to clarify how the kit works and explain all the tools when your child is already calm. Introduce them to their calm down kit and explain how each item can be used when they start to feel anxious. Reassure them that if one item doesn't work, they can try another until they find the one that's right for them at that time.

Offer encouragement and praise, but avoid the temptation to suggest which coping strategy they should use unless you see an escalation in their anxiety or it becomes obvious that they need your direction.

Calm down kits can be customized for each child based on their interests, what they find calming and what their sensory needs are. You can find a list of ideas of items to include in a calm down kit in the Printable Resources.

Other calm down strategies:

- stress balls/squeeze balls
- calm down bottles
- blowing bubbles
- calming yoga poses



Chapter 5

SENSORY DIETS AND SENSORY BREAKS

If you have a child who has special needs, particularly with sensory processing disorder or Autism, or you suspect your child may have a sensory processing challenge, the words “sensory diet” and “sensory integration therapy” may be familiar to you.

What is a sensory diet?

In laymen’s terms that basically means whatever sensory input a person needs (auditory, visual, taste, touch, smell, proprioceptive, or vestibular input) in order to go about their day at their highest potential.

The term “sensory diet” was coined by Patricia Wilbarger, OTR/L, who you may recognize through the Wilbarger Brushing Protocol.

For children who have a hard time processing sensory input, they may need a “schedule” of sensory activities or input placed into their day to help them do this. This is what a sensory diet or sensory schedule is intended to do for a child.

“The optimum sensorimotor input a person needs to feel alert, exert effortless control, and per-form at peak.”

-Biel & Peske

The key to a sensory diet is to find that “optimum sensorimotor input” a child needs before, during, or after an activity to keep them going. And for each child this is going to be different. You will not find a one size fits all sensory diet. Each one should be based on that individual child and situation.

Children who have a hard time coping with sensory input based on a variety of diagnoses or behaviors can benefit from a sensory diet. These types of diagnoses could include Autism Spectrum Disorders, Sensory Processing Disorder, ADD/ADHD, sensory modulation disorders including learning disabilities, fragile X, developmental delays, etc.

Ideally, a licensed Occupational Therapist, who has experience in sensory processing, should be the one to evaluate and determine the set-up of your child’s sensory diet. In order for a sensory diet to work though, the entire team (teachers, family, professionals, doctors etc.) must be on board and follow through with the activities, or the benefits will be greatly diminished.

Typically a therapist will begin by evaluating your child for sensory processing concerns. This is when you need to have very detailed information for the therapist on how your child reacts and responds to different things throughout their day.

The therapist will often do their own observation, as well as give you a sensory screening tool to fill out for your child. All of this information is then put together and the therapist will give their opinion based on all the information.

Once the therapist has an idea of what sensory processing issues your child is facing they can begin to develop strategies and a sensory diet to help your child focus and function throughout their day.

Remember the goal of a sensory diet is to help find that optimal level of arousal for your child. So whether your child has a sensory overload or low arousal, there are many different sensory activities that can help.

Vestibular and proprioceptive input is typically the first two sensory systems a therapist will address when creating a sensory diet. These two systems are the primary organizers for your child's brain and body. Think big, gross motor movements, lots of pushing, pulling, spinning, bouncing, changing head positions, etc.

After addressing these two systems, your therapist will look at all the other sensory systems including tactile, auditory, sight, smell and taste. They may also incorporate seating and floor time issues, writing and fine motor skills, meals and snacks, transitions, etc. All of these may be addressed depending on your child's individual sensory processing difficulties and behaviors.

As I said earlier, you will not find a one size fits all sensory diet. However, there are some basic ideas on how to use and set up a sensory diet.

Ideally, a sensory diet will include a visual schedule of breaks and activities for a child every 45 minutes to 2 hours. Typically a therapist will start out on the shorter end of that time frame and work up to every 2 hours, again depending on the child. Some may need shorter periods of time, like every 15 minutes.

The break can typically last from 10-20 minutes, again depending on the child and situation. When the child gets to their break time, they are usually given visual picture options of sensory activities to choose from.

Typically these activities begin with some type of vestibular or proprioceptive input (think heavy work, gross motor activities). Tactile activities usually follow the gross motor work. These three sensory systems are typically the big three that affect most children with sensory processing difficulties, so that is why a therapist will typically start there.

Once the child finishes their break they return to the activity or task they were working on, with hopefully better focus and attention to task.

For parents and teachers, it is important to follow through with all the sensory diet protocols your therapist sets up for you. They need to be implemented in the home and school to achieve the best outcomes. Consistency is key! Without it, you won't know if the sensory diet is really working or not.

It is also important to remember that sensory diets are not a one-time fix-all solution and will

change over time. You will need to work closely with your therapist to continue to tweak and add or take away items from your child's sensory diet until you find the right combination.

Creating a sensory area or room in your home or school is a great way to get started. Having a variety of sensory toys such as fidgets, chewing items, dim lighting, etc. are important parts of a sensory room.

Planning ahead and having an idea of what types of input or transitions set off your child's sensory processing behavior will help you prepare. Have ways to help them cope and transition. Implementing a routine, so your child knows what to expect for the day, is definitely helpful.

What is Sensory Integration Therapy?

A sensory diet is often used as part of sensory integration therapy, a frame of reference for treatment developed by Dr. A Jean Ayres, OTR, Occupational Therapist and educational psychologist. She developed a set of standardized tests, known as Sensory Integration and Praxis Tests and the theoretical framework for the clinical approach to identifying and treating children with sensory integration problems.

Sensory integration therapy (SIT) is a specialty area within Occupational Therapy. In order to be trained in providing SIT, a therapist must complete an extra three months of training in order to evaluate, identify, and treat using the SIT protocols.

This certainly doesn't mean that a therapist must be trained in SIT in order to treat children with sensory processing disorder or any other sensory processing concerns. All Occupational Therapists and Occupational Therapy Assistants receive training in sensory processing and its importance in child development. They also learn about SIT theories as a frame of reference for assessment and treatment for a variety of developmental and learning disabilities, behavior and attention disorders, and developmental coordination disorders.

Before We Continue

We have covered a lot of information so far in this book and it can get overwhelming at times. One thing we heard from readers over and over again was how painstaking it can be to research and find ideas that were relevant to their situation.

That is why we decided to break this book into 3 different parts. If you are new to sensory processing and how it affects child development, then what you just read will give you a great basis of understanding for moving forward.

If you are a parent, it can be hard looking for information to help make your life at home easier. It can be challenging to sift through all the activity ideas and find something that will work for you at home, right now. That is why we created the Parent Companion Guide for Sensory Processing. This is your next step in figuring out how to support your child at home, who may be struggling with behaviors and other sensory processing difficulties. We want to provide

you with ideas that you can take and implement immediately in your home and begin seeing a difference.

Educators have a whole new set of challenges when it comes to sensory processing difficulties in the classroom. Not only are you trying to provide support to that child with special needs and sensory processing concerns, you also have between 25-30 other children you are responsible for. Finding solutions that you can do in a small space, on a limited budget, with limited time, is an overwhelming question we have both seen in talking to readers. That is why we created the Educator Companion Guide for Sensory Processing. If you are an educator (or therapist working in the school-based or pediatric setting), this is your next step in implementing all of the sensory processing strategies you have learned in this book.

We'll see you in either the Parent Companion Guide or the Educator Companion Guide with specific tips and tricks for where you are right now.

Parent
COMPANION GUIDE
to Sensory Processing

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INTRODUCTION



Welcome parents! We hope that you find this guide invaluable in supporting your child through their sensory journey.

A note from Sharla to other parents

Back in the day (think Barney the purple dinosaur was popular on TV and pre-Facebook!), Sensory Processing Disorder was not something the average person had heard of. In fact, in my University courses on Special Education, sensory was never discussed.

I was the mom of two sons who were typical when it came to the sensory spectrum. We had been foster parents for about five years by that point, but since we mostly cared for babies and young toddlers, sensory hadn't popped onto my radar. But there was this one little girl...

Gracelyn came to us when she was just three days old, weighing 4 pounds and 14 ounces. It was love at first sight! My husband and I were completely head over heels in love with this new little bundle.

As a baby, she cried a lot and hated to be swaddled. She preferred facing out to facing in. She crawled early and was walking by 8 months. Even then, she only walked for a week or so and anything after that point could only be described as a run.

Fast forward a few years and we were starting to wonder what was going on with her behavior and choices. She would spin around and around and around and never seemed to get dizzy. She would strip off her clothes in winter to put on a bathing suit just as we were about to walk out the door to get groceries. When we finally did get out the door to go shopping, she would reach out and touch everything on the shelves and even sometimes touch people as we walked past.

Gracelyn had a freakishly high pain tolerance and it would sometimes lead to injury as she also seemed to have no concept of danger. She broke things by accident because she wasn't aware of her own strength. One of the many things she broke was the necklace I had worn at my wedding. I knew it was just a "thing" but I did cry at that one.

She would have meltdowns for what seemed to be no reason. She pulled down all the decorations in her room and started to pick holes in her walls.

She was the pickiest eater I had ever met. To this day, the only fruit she has ever eaten is a banana. She didn't seem to have any attention span and would flit from one activity to another, leaving a huge mess behind her everywhere she went.

She preferred to be upside down to being right side up. And upside down is how I was starting to feel my life was while I tried to figure out how to parent her!

It wasn't until I got a phone call from her preschool teacher asking me what her diagnosis was

INTRODUCTION



that I realized that these things were not typical behavior for a child her age. That began my entry into the world of Sensory Processing Disorder (SPD), though at that time it was called Sensory Integration Disorder. We began working with an Occupational Therapist. In using her suggestions and adjusting things in our home, the changes in our daughter were significant and immediate.

I learned everything I could about sensory, including reading books, taking courses, attending seminars, and most importantly, studying my child.

It's a good thing that SPD was something we were used to because over the next years, as we continued to adopt, more children were diagnosed with Sensory Processing Disorder. Because SPD is often a secondary diagnosis to things such as Autism Spectrum Disorder (ASD), Fetal Alcohol Spectrum Disorder (FASD), ADHD, Reactive Attachment Disorder (RAD), and early childhood trauma, five out of our seven children have sensory differences.

The good news is that there is hope. Sensory strategies really can have a huge influence on behavior. Your child can feel safer, calmer and more in control.

While I have learned a lot about the needs of my children and grown so much in my skills as I've added to my own parenting toolbox, you are the expert on your own child. I can offer tips because of what I've found that has worked in our home, but ultimately, you are the best person to determine what your child needs.

I am just a parent like you, on a journey to try to help my kids navigate the world around them as best they can. I hope that in sharing with you what has worked for us, as well as by bringing in Heather to share her professional expertise with you, so you can better help your kids navigate the world around them too.



Chapter 1

AFTER YOU REALIZE YOUR CHILD HAS SENSORY DIFFERENCES

Once you suspect that your child may have sensory differences that are affecting their day-to-day life, you may decide to try to pursue a diagnosis of Sensory Processing Disorder for your child. Not all parents decide to go down the road of getting a diagnosis. Some choose just to arm themselves with knowledge about sensory preferences and techniques in order to help their child themselves. Others contact professionals in an effort to get answers and treatment for their child.

A diagnosis is not necessary in order for you to help your child, but it can be beneficial when it comes to things such as IEP meetings in school, getting funding for programs or respite, and helping others to better understand your child and be able to meet their needs.

Sensory Processing Disorder is often a secondary diagnosis to things such as autism, FASD (Fetal Alcohol Spectrum Disorder), ADHD (Attention Deficit Hyperactivity Disorder), or Down Syndrome.

Getting a diagnosis of Sensory Processing Disorder varies depending on where you live. In some States and provinces, you can get the diagnosis through an assessment with an OT (Occupational Therapist) while other areas require a pediatrician or even a multi-disciplinary team of professionals to determine the diagnosis.

As a parent, as much as you may be expecting the diagnosis, sometimes seeing the words written in black and white can bring up a mix of emotions. It's normal to have a wide range of feelings from relief for finally having some answers, to worry about what your child's future will be like and how others will treat them, to sadness over the loss of the dreams you had for your child. It's okay to give yourself time and permission to grieve.

If the diagnosis of Sensory Processing Disorder comes as a secondary diagnosis, you may find that it helps fill in some of the blanks. It can be an important piece of the puzzle towards helping your child reach their fullest possible potential.

The SPD diagnosis came as a secondary diagnosis for our oldest daughter and having that piece of the puzzle put us on the path to positive change. By changing our home environment to better meet her sensory needs, we were able to start addressing some of her other challenges.

Before we addressed her sensory needs, she was in an almost constant state of dysregulation, so we weren't able to address some of the learning and behavioral needs that came along with her primary diagnosis. Once we got a handle on the sensory side of things, we were able to restore peace in our home and better help her navigate her world.

PARENTING DIFFERENTLY



After you come to accept your child's sensory differences, you will find that you have to parent differently. Not only will you have to make changes to the home environment, you will have to make changes to your own mindset and reactions to your child. Changing your thought process does not happen overnight.

You have been conditioned by the way you were raised, things you have read and seen, your parenting beliefs, and the influences of those around you. This conditioning did not happen in one day, therefore, it cannot be undone in one day.

There will be moments when you revert to your default responses because of your conditioning. There will be times when you won't recognize that your child is having a sensory meltdown because you've always thought of them as tantrums up until now. There will be times when you feel frustrated with your child's inability to manage certain situations. You may even see it as them being unwilling instead of them being unable.

Have grace with yourself. Take good care of yourself. Be patient with yourself. You are on the right path. There will be setbacks, but you've got this!

While your child will encounter situations that are more challenging for them because of their sensory differences, they can still lead a full life and be successful.

In previous chapters, you learned about things such as sensory meltdowns and the fight, flight or freeze response and how those affect your child. You also learned what sensory processing is, how it affects behavior and how to incorporate sensory diets and sensory breaks into your child's life.

In this Parent Companion Guide, you will build on that foundation of knowledge and understanding in order to be equipped with the information you need to make changes to your home and parenting that will enable your child to thrive.

KNOWING YOUR CHILD



One of your most important jobs as the parent of a child with sensory differences is going to be learning how sensory affects your child and how to best help them.

In the world of sensory processing, knowing what works for another child won't necessarily help your child. You are going to have to become a detective specializing in uncovering your child's unique sensory preferences and needs.

Keeping a sensory triggers log for your child can help you uncover their specific sensory sensitivities. There is one included in the Printable Resources section of this book.

An example of why this type of detective work is helpful would be if your child does not like writing. It would be easy to assume that they are being difficult or even lazy, but when you begin to play Sensory Detective, you may decide to ask your child questions or make observations about what the issue may be.

In this case, the issue may be the smell of the paper, the feel of the paper, visual sensory issues causing difficulty in forming the letters or keeping them straight on the page, or the sound of the pencil on the paper.

Sharla's Story:

One of our sons would cry when he was asked to write anything. I thought he hated writing. I would try to convince him and he would grow increasingly frustrated, as would I. No writing would happen. It wasn't until I played Sensory Detective that I was able to uncover that it wasn't the thought process of writing that was a problem for him. It was the sound of the pencil on the paper that was unbearable for him. He now types instead and the problem has been solved!

Once you have been tracking your child's sensory triggers for a month or so, you may begin to notice patterns emerging. You can then work with your child to find solutions that work best for them and make changes that your family can accommodate.

MEETING YOUR OWN NEEDS

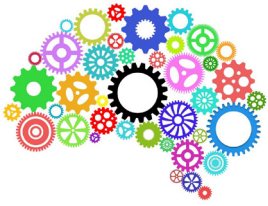


Taking care of a child who has sensory differences can be exhausting. It can also feel isolating. It is important that you take care of your own needs so that you can better meet the needs of your child.

We know that self-care can sound selfish or unrealistic, but it is critical. The reason that you are supposed to put on your own oxygen mask first on an airplane in case of emergency is that if you aren't breathing, you can't meet anyone else's needs.

While self-care may seem like a daunting task, it can be as simple as sitting down with a book and a cup of tea, going for a walk outside with a friend or going to the doctor for your annual physical. A critical part of taking care of your child is also taking care of yourself, both to enable you to better care for them and to model good self-care for them.

Another thing that is so important for parents of children with any type of special need is to find a support system that gets it. Ask around in your community to see if a support group for parents of kids with SPD is available. If you can't find one in your community, there are excellent ones available online. There is something inexplicable about having that "me too" moment where someone else shares something you can relate to and you know that you are not alone.



Chapter 2

ADVOCATING FOR YOUR CHILD

One of your most important jobs as the parent of a child with special needs is going to be advocating for them. Your goal however, should ultimately be to teach your child to advocate for themselves.

You can accomplish this goal by modeling advocacy for them in the beginning. This then moves to talking with them about ways that they can advocate for themselves, first with friends and peers and then with adults.

It is time to seek outside help for your child when you are feeling like things are too much for you to manage on your own, or when your child is struggling with everyday tasks, or when they are not in control of their emotions and reactions.

One of the roles as your child's advocate is in choosing professionals to work with them. As Sensory Processing Disorder (SPD) is often a secondary diagnosis, depending on the primary diagnosis of your child or how severely the SPD is impacting their day-to-day, you may need to involve a team of professionals for your child.

Most children with SPD are helped by seeing an Occupational Therapist (OT). Other professionals that may be involved include Speech and Language Pathologist (SLP), Pediatrician, Community Aid Worker or case workers, Psychologist, Psychiatrist, Physical Therapist (PT), or Special Education Teacher.

CHOOSING AN OCCUPATIONAL THERAPIST



As we've seen, seeking help is one of the first steps in the process of advocating for your child. Knowing where to ask for that help can be a daunting task if you aren't sure where to start.

As mentioned in the previous section, you should always mention your concerns to your pediatrician and also ask about an Occupational Therapy evaluation for sensory processing concerns.

In the United States, if your child is under the age of three, you can get a free evaluation through your state's early intervention program (or birth to 3 program). Each state will have its own chapter and you will have access to all the professionals needed to help evaluate and determine if your child qualifies for services.

This is the best option to start with if your child is under the age of three. Early intervention services are vital in determining the need at an early age and providing those services while your child is still developing in those first crucial years.

When your child reaches their third birthday, early intervention will help with the transition of your child's service to begin in the school setting. These services will often happen at a local preschool and may be an Occupational Therapist who is contracted to provide services or is hired directly by the school system.

Remember to ask and confirm that the Occupational Therapist working with your child in the school system has experience with sensory processing. Many do, but others are more experienced with fine motor, gross motor, or visual motor concerns. This does not mean the therapist must be trained in Sensory Integration Therapy, but it should mean that they have experience in the assessment and treatment of children with sensory processing difficulties.

It is also important that you and your child feel comfortable with the professionals. Don't be afraid to look for someone else if the person your child is seeing is not a good fit.

If your child is above the age of three, you can either ask for a private Occupational Therapy evaluation through your physician or talk to your child's school about school-based services. If your child is having significant difficulties at school, this will be the best option to start with.

Your child will most likely be evaluated by an interdisciplinary team including but not limited to a school psychologist, special education teacher, speech and language pathologist and any other services such as Occupational Therapy or Physical Therapy.

Depending on the state, Occupational Therapy services cannot be a stand-alone service in the school-based setting. This means your child must qualify for either Speech and Language or Specialized Instruction services in order to qualify for any school-based services.

It is important to remember that school based services look at how your child's behavior is impacted by school environment. All of the Occupational Therapist's goals need to be relevant to education goals as decided upon by the interdisciplinary team.

Also, just because your child may qualify for services outside of the school-setting, does not mean they will automatically qualify for school-based services. The interdisciplinary team's input has to be considered and how your child's difficulties are impacting their time at school.

You can also seek services through private practice or clinic based. You will want to check with your insurance provider to see what costs they cover and if you have to see someone on their plan or if you can pick your own therapist.

If you are having problems finding a therapist in your area who specializes in sensory processing, consider reaching out to a nearby university that provides an Occupational Therapy or Occupational Therapy Assistant program and ask who they would recommend.

Sometimes you may find yourself in a situation where your child no longer qualifies for services

in the school-based setting. This can be very upsetting for parents, especially if you feel your child still requires services. You always have the right as a parent to question evaluation outcomes and ask for second opinions.

If you live outside the United States, start by talking to your child's doctor about how to get an Occupational Therapy evaluation. Each country will be different, but this is a good starting point in most cases.

ADVOCATING FOR YOUR CHILD'S EDUCATION



Teachers, school administration and support staff are becoming increasingly aware of sensory needs and how they affect learning in the classroom. Thankfully, this makes your advocacy job much easier.

However, while some schools are implementing changes in the classroom, school yard and hall-ways to better accommodate sensory issues, not all schools have reached that point. If your child's school is not aware of, or not interested in accommodating your child's needs, it becomes your job to educate them.

You will need to educate them on sensory processing, how it affects your child's ability to learn and socialize, and what can be done to help your child reach their fullest possible potential.

I find that when approaching the school, it is best to come at it from a team approach and use language such as "I know we all want Ethan to succeed. Can we brainstorm some ideas together for how we can best make that happen?"

Another strategy I find effective when speaking with teachers or the principal from the school is to assume that their intentions are good even when perhaps there is an issue present. An approach I sometimes take is, "I know that you work so hard and have so many kids in your classroom, it must be challenging on the best of days. I know that the meltdowns that Emma is having in the class aren't making your job any easier. Do you think we could set up a time to talk about strategies to help prevent that from happening as often?"

Keep in mind that the school may be limited in its resources due to time or expense and that the teacher has many students in their classroom and your child may not be the only one with additional needs.

IEP MEETINGS



Individualized Education Plan (IEP) meetings are an excellent chance for you to sharpen your

advocacy skills! I find that it is always best to go into the meetings prepared with notes and questions. I tend to get flustered during the meetings and forget things that I meant to bring up. Going in there well prepared with my list alleviates this issue.

I also take notes while in the meeting so that I don't forget anything that is said. This is also something you can refer to later if things that were agreed upon at the meeting are not taking place.

IEP meetings can sometimes feel intimidating as there are often many people representing the school present and just you on the other side of the table. It can therefore be helpful to bring someone else in with you, whether that be your spouse or a friend or a professional who is working with your child or your family.

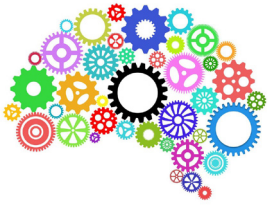
IDEAS FOR ADVOCACY AT SCHOOL



Please note that it is unlikely that you will get all of these things, so consider getting even some of them as a win and a positive sign that the school is willing to make efforts. If they see positive changes in your child's behavior, learning and ability to handle the daily routine after implementing some of the suggestions, they are more likely to consider other suggestions in the future.

- a full time or part time aide for your child
- a dedicated sensory space in the classroom
- a dedicated sensory room at the school
- sensory stations in the classroom
- regular sensory breaks throughout the day
- more movement opportunities
- different seating options such as standing, sitting on an exercise ball or wedge cushion
- allowing fidgets
- allowing chewing gum

Movement opportunities can be as simple as having your child deliver a note to the office. A dedicated sensory space in the class can be as little as a bean bag chair in one corner with noise canceling headphones.



Chapter 3

CREATING A SENSORY FRIENDLY HOME

As you continue to support your child and their sensory processing at home, it's important to look at all the areas of your home and how you can create a calming and supportive environment.

HOW TO “SENSORY PROOF” YOUR HOME



As you begin to pick up on cues and understand your child's sensory struggles, you can begin to adapt the environment to set them up for as much success as possible.

There is really no one fits all scenario, it takes some detective work on your part to figure out what may be setting off your child's behaviors in the home environment.

Some questions to ask yourself:

1. Does my child seem to hold it together at school or other public environments, but then fall apart at home?
2. Are there certain times of day that seem to aggravate these behaviors?
3. What noises, smells, sights, tastes, or touch seem trigger negative responses?
4. Have you talked to your child about things in the environment at home that bother him/her (if they are able to communicate this)?

After you have thought through these questions, take a look at each room in your house and ask the following questions.

Bathroom

Does the lighting need to be addressed for visual sensitivity? Consider adding soft lighting, or use Christmas lights or a small lamp instead of overhead lighting.

Does it echo? (auditory sensitivity) Adding soft objects to the room like towels and other sound absorbing objects help deflect the noise. Leaving the door open also helps.

Is your child able to reach all the surfaces needed safely such as the sink, toilet, tub, etc? Consider a step stool with anti-skid on the top and bottom (IKEA has a great option for this).

Bedroom

Is the color of the room calming? Pale colors such as pink, blue, green, or purple are great options. Stay away from anything that could become visually overstimulating such as stripes or patterns.

Does the mattress need to be on the floor? Some children who are sensitive to heights may need to have their mattress directly on the floor.

Is the lighting calming? You may need to switch light bulbs to something not as bright or use a dimmer switch. Twinkle lights or a lava lamp can also be great options.

Is the room dark enough for sleep? Consider adding black out curtains or blinds in order to cut down on outside light during the nighttime hours.

Are the sheets, blankets, pillows, etc. that your child sleeps on scratchy to them? Or maybe they need something heavier to sleep under like a thicker comforter? Some may like using a sleeping bag or lycra sheets in order to feel that snug feeling.

Other Areas of the Home

Are there certain smells that seem to set your child on edge?

Are there some rooms that are too visually distracting for your child? Try using some storage solutions that hide items to be less visually stimulating.

Consider the lighting in each room and consider changing out lighting or using dimmer switches based on your child's needs.

Have a calming space or area of the home that your child can retreat to (see the next section for ideas on this).

SETTING UP A SENSORY ROOM OR DEDICATED SENSORY SPACE



A sensory room is basically a safe place in the home for your child to go when they either need a break or to calm themselves if they are starting to unravel. Once there, they can work on self-regulating their behaviors.

Creating a sensory space can be as simple as placing some soft blankets in a corner along with a few favorite books and noise reducing headphones.

The first thing you need to do is make sure the area that you pick is completely safe for your child. No sharp corners, cords and other objects that could cause harm if your child is having a

particularly bad day. There are times when children may be so upset that they will throw themselves into things or throw things at other people. So just make sure that this area is free from any objects that could cause harm to them or to others.

The next step would be to make sure there are no fluorescent lights in the specific area. Many times fluorescent lights can be irritating for children with visual sensitivities. If you don't have an option to change the lighting, simply cover the fluorescent lights with heat safe paper or fabric to cut down on the glare, or just don't turn them on. You can include soft lighting such as Christmas lights along the ceiling, dim lights, twinkle lights, a lava lamp etc.

For the walls, choose a soothing color. Soft purple with blue undertones is a safe bet. Ask your child what colors help them to feel calm and base your color choices off their suggestions. Pale or natural colors often work best: tans, blues, greens, or light yellow for example.

If your child is seeing an Occupational Therapist, definitely talk to them and see what they recommend for your child to use in a sensory room at home. They will be able to advise you what products would be beneficial based on your child's unique reactions and behaviors.

Fill the room with items to engage all the different sensory systems. Consider textures, lighting, smells, and sounds. Some items that may work in your space are:

- bean bag chair
- rocking chair
- egg chair
- strings of white lights
- lava lamp
- soft area rug
- sound therapy or white noise machine
- basket of fidgets
- mirror
- climbing wall
- indoor swing such as a net swing or therapy swing
- punching bag
- hanging bar
- pop up tent
- weighted blanket
- calm down bottles
- palm massager
- board with various textures
- noise reducing headphones
- light table
- large pillows or mats
- sensory break cards

Remember that including too many items could be overwhelming for your child. Use this list to choose items that you think would work best for your child based on their sensory preferences.

Sensory Stations

As an alternative to, or in addition to, setting up a sensory area in your home, you can create sensory stations for your child. Setting up sensory stations is one way to allow children to easily meet their sensory needs in the home. You do not need a lot of money or hard to acquire supplies to put these together. While some of the suggested ideas are more complicated or expensive, others are things you likely already have in your house.

There are many ways that you can provide your child access to these stations. You can have them rotate through the stations in between other activities, have them rotate through the stations at a set time, or you can simply provide the stations and let the kids know what they are and that they are welcome to use them when they need to.

Having the stations clearly labeled makes it straightforward. If your child does well with visual cues, you can also create a picture diagram of where the stations are in addition to having each one marked.

You can set up the sensory stations all in the same room or in different rooms around the house and yard. You can choose to have the stations set up like a circuit and have them numbered or ordered in a very organized way or you can have them be more of a fluid concept.

I would suggest that if you have children with autism or children who just need more structure, you have some type of chart or way for them to keep track of the stations if you don't have them laid out in a circuit.

When the weather is nice, we are able to incorporate some outdoor stations into our rotation which makes things even easier and often the fresh air and change of pace helps the kids almost as much as the actual activity.

A consideration when setting up your stations is to have a variety so that different sensory systems are represented.

SENSORY STATION IDEAS



- sensory bin or sensory table
- play dough, cloud dough or slime
- climbing wall
- jungle gym
- indoor swing
- rocking chair or bean bag chair with a picture book
- a tunnel to crawl through
- spinning chair
- auditory station - set out a pair of headphones and a CD player with different audio

- books and music options
- a basket of musical instruments (these can be homemade ones such as a can filled with dry rice)
- water or sand table
- sandbox
- ball pit (this can be made easily by filling a kiddie pool with balls or pieces of cut up pool noodles)
- water wall
- mats for summersaults, rolling, wrestling, flips
- crash pad
- setting up an area for a sensory activity like shaving cream painting or finger painting
- light table
- jello, goop, gak, or silly putty
- heavy work activities such as carrying books, a laundry basket push, pulling a wagon filled with rocks, carrying pails of water
- hanging area such as a chin up bar or monkey bars
- large hopping ball or exercise ball
- couch cushions or blankets for rolling up in or sandwiching between
- body socks or body tubes
- trampoline or mini trampoline
- square or circle made with masking tape on the floor for jumping on one foot
- dancing station with music and a large area to move in
- pouring and scooping activity
- bike riding
- bubble wrap for popping
- salt tray
- texture cards or squares
- scent bottles
- sound therapy machine
- bin with soapy water for washing play dishes (or real dishes), cars or toys
- dress up station
- cooking station for older kids, particularly recipes that create dough that requires kneading or a lot of mixing

The great thing about being able to create your own sensory stations is that you can customize them to meet the sensory needs of your child. You can also change them to fit weather or seasonal themes. Changing them from time to time also helps keep children interested and engaged.

VISUAL SUPPORTS



Using visual schedules is helpful for children who struggle with transitions, staying on task, or struggle with auditory directions.

Visual supports can include visual schedules, activity and task cards, objects, picture symbols, choice boards, first/then boards, etc. Let's take a look at each one and how you can incorporate them into your home.

Visual Schedules

This can include writing out your daily schedule on a whiteboard so your child can see what is coming during that day or using visuals for important tasks they need to complete throughout the day.

Pictures can include getting dressed, going to the bathroom, brushing their teeth, going to school, any appointments they may have that day, any outings planned for the day, and any people they may see. It's always best to use pictures of either your child completing these tasks or taking pictures of all the places and people you come into contact with.

Using general photos to convey the activity can work well too. A new site I recently started using is [lessonpix.com](https://www.lessonpix.com). It is technically for classrooms, but works well for the home too. There is a small yearly fee, but you can also create your own visual schedules or activity and task schedules, save them and print them as needed.

Consider using a second schedule and hang it on the back of the seat in front of where your child sits in the car. This can help with transitions from the car and give your child the support they need to know what is coming next.

Activity and Task Cards

Do you find yourself repeating the same directions for a task, over and over again? Or maybe your child struggles with auditory processing? Breaking down a common task or activity into a visual activity or task card can help decrease the frustration of your child trying to process what to do next and your frustration in trying to give verbal directions.

Let's look at washing hands for example.

- push up sleeves
- turn on the water
- get soap
- wash hands
- turn off water
- dry hands

By breaking down these tasks into step-by-step directions with pictures, your child may be able to complete this activity a lot more independently than with just verbal or even written directions.

First/Then Schedules

First/Then schedules can be used to help a child finish a non-preferred task and letting them

know that after they finish that non-preferred task, they can move onto something they prefer. It is often used in the classroom, but can be adapted for home use as well.

Using a file folder, write the word "First", then draw a thick black line down the middle of the file folder. In the second column, write "Then". You can use the same pictures you would use for a visual schedule and keep them inside the file folder. Use a piece of velcro that is sticky on the back and place one in each column. You can use velcro dots on the back of each picture so you can place the pictures on the file folder.

Visual Timers

Visual timers are a great thing to use for transitions. The clock is analog and includes a red or other color section that disappears as the time winds down on the clock. For children who struggle with understanding what "5 more minutes" or "2 minute warning" means, this can be very helpful.

Other Visual Supports

You can consider labeling items in your home with pictures or the corresponding word for that object. If your child is using sign language, consider using a picture of the sign to label items.

Wait cards, red stop signs, and green go cards can also provide visual support when you need your child to "wait" for directions, or "wait" to begin an activity or for assistance. Red stop signs also provide a visual cue to items or places in your house that are not safe for your child to be around or in (such as the top of the stove, cleaning supply drawer or closet, etc.). If you do use red stop signs, be sure to include green go signs for where your child can be independently. You could also include an "Ask for help" sign so a child knows to ask for assistance before trying something on their own.



Chapter 4

SENSORY TIPS FOR EVERYDAY

What does supporting sensory processing look like in everyday life? We are going to take a look at a few areas that are often a concern for many parents.

SLEEP SOLUTIONS



When it comes to sleep, many children who have sensory processing issues struggle to fall asleep and some struggle to stay asleep. Not only do parents need the break that their child's sleep provides, sleep is also essential to growth and development and helps prevent sensory meltdowns and cognitive fatigue.

If your child is not capable of expressing what their sleep issues are, play detective. Try lying in their bed in the dark and using your senses to troubleshoot what issues there may be. Is there any type of noise that may be bothering them? Are the sheets scratchy? Are the walls painted a bright color or is there too much clutter in the room? How is the temperature in the room? Is there a smell? Children with Sensory Processing Disorder are extra sensitive to these types of things, so putting yourself in their shoes may help you to pinpoint some of the problems and begin to find solutions.

The sensory systems impact sleep in different ways. There are strategies you can put in place to help your child get a better night's sleep, so let's look at each area a little more closely.

Auditory

One of Sharla's sons' sleep was affected because of his extreme auditory sensitivity, which made it difficult for him to fall asleep if there was any noise (such as his parents watching TV) in the house. We found that the simplest solution was for him to use a pair of noise canceling headphones. He is now able to fall asleep much more quickly.

One of our other kids isn't quite as sensitive, but does need to have white noise to sleep. We have tried different things over the years such as fans, but have found that a sound machine is what works best for him. For your child, you may have to experiment with different white noise sounds to find the right one for them.

Proprioception

One of Sharla's daughters used to have a hard time settling her body down at bedtime. We

found that sleeping with a weighted blanket changed that for her. She is able to settle herself more easily now. Two of our kids have weighted blankets and like them, while our other sensory kids do not. I have heard many reports from other parents whose kids fall on either side of that line as well.

Weighted blankets can be costly, but there are tutorials online for making your own, which cuts down on the price significantly. Check out the DIY Sensory Tools section to visit a link to our favorite DIY options.

You can also try stretchy sheets which will provide a similar effect to a weighted blanket. You can purchase them or make your own out of a cotton-spandex blend or lycra. If your child does not like deep pressure, they may not like the sensation of a weighted blanket.

Deep pressure hugs or massages before bedtime can also help with proprioception input.

Calming yoga before bedtime gives both proprioception and vestibular input and helps their bodies and brains to relax.

Visual

Some children need it to be completely dark in order to fall asleep while others need to have a night light. It's a good idea to use a dimmable night light so they can adjust the amount of light they are comfortable with.

Other Suggestions

Be sure to offer a variety of sensory activities throughout the day. Meeting your child's sensory needs during the day will positively impact your child's ability to fall asleep at night.

Track patterns and see if you are able to pinpoint things that may be impacting your child's sleep. Seeing their sleep patterns on a calendar can help you determine if their insomnia may be tied to something like anxiety over school or peers. Seeing their sleep tracked in relation to food or behavior or sensory triggers can also help you see the patterns that are emerging.

Limit screen time during the day and cut it off completely in the hour or two before bedtime. This will improve their ability to fall asleep.

Have a consistent bedtime routine and bedtime. This structure and predictability around bedtime is especially important for kids with sensory processing disorder.

Nutrition is an important piece of the sleep puzzle. Ensure that your child has a well-balanced diet, with limited sugar and no caffeine.

Some parents swear by putting lavender oil or another calming essential oil in a diffuser. You can also use lavender oil and epsom salts in a warm bath before bedtime, which many children find soothing.

The key to finding sleep solutions that work for your child is to find the answers that are specific to your own child and their needs. This will take some detective work on your part, but it will pay off in the end when both of you are enjoying better sleep and not having to contend with bedtime battles.

If you have tried everything else and your child is still not able to fall asleep and this problem persists for months, talk to your child's doctor about other options. They may suggest that it is time to try Melatonin or prescription sleep medications. Choosing to medicate your child is a difficult decision for any parent and not to be taken lightly, but sleep is an important part of your child's health and all options need to be considered if nothing else is working.

PUBLIC BATHROOMS



For the parents of a child with sensory needs, a trip to a public restroom is like walking into a minefield. I'm guessing that whoever designed these places did not have a child with sensory issues!

For children who are sensory avoidant (sensory defensive), these bathrooms are a nightmare. With the hand dryers that sound like jet engines and emit a wind strong enough to literally move the skin, the unexpected surprises thanks to so many things being automated including the loud flush toilets, the potpourri of smells, and the glare of the lights, it's no wonder some kids think it is a very scary place.

For children who are sensory seeking, these bathrooms have the opposite effect. They are like a playground of sensory stimulation with their sights and sounds and smells! In these cases, the trips to the bathroom are more of a nightmare for the parents than for the child.

Sharla happens to have kids with both types of issues, so those trips to restrooms in malls, airports, restaurants, recreation centers, theaters, grocery stores, museums, and other locations are something I used to dread. These tricks and secrets make this less challenging.

Avoid Them When Possible

This may seem like an obvious solution, but it is a highly effective one. Whenever possible, avoid using the restroom in public buildings. This means not only reminding all of your children to use the washroom before you leave home, but also being sure to use it yourself just before leaving. There is no way to ensure that you will never have to use a public restroom, but using the "facilities" at home before going out will at the very least cut back on the amount of times you have to face the public ones.

Covering the Automatic Flush Sensor

Carry small stickers or post it notes in your purse to cover the automatic flush sensor. This way,

your child can pee in peace!

Familiarity Helps

Whenever possible, visit public restrooms that are familiar to you and your child. This will make it easier both because it is familiar and because you can be better prepared and know what to expect. It's not always a possibility, but if you can always shop at the same grocery store and park near the same entrance to the mall, you can increase the chances that the restrooms will be ones your child is more comfortable with.

Give Them Advanced Warning

Talk to your child ahead of time about what they can expect in a public washroom. Let them know that you will be there with them, supporting them and helping them in any way you can. Encourage them to talk openly with you about which parts they find the most challenging. Address their fears. Brainstorm ideas together to find ways to avoid or minimize those challenges.

For sensory seekers, lay out the expectations before you go in. Having expectations laid out beforehand will lessen problems while there. One suggestion would be for kids to keep their hands in their pockets or hold a fidget.

Come Prepared

Other than bringing small stickers or post it notes for covering the automatic flush sensors (which are also good for covering the sensors on the taps and hand dryers as well), you can also bring sound dampening earmuffs or noise blocking headphones to keep out the loud and sudden noises that can occur. Even if you are able to cover the sensor on the toilet your child is using, you can't cover the sensors on the toilets other people are using! Bring hand sanitizer or antibacterial wipes to wash up with so that you can avoid the sink area entirely. This not only allows you to avoid the water, but the powerful dryers as well.

Acknowledge the Challenges and Give Praise

Surviving that minefield is a praise-worthy accomplishment for both you and your kiddo. Acknowledge that you know that it wasn't easy for them and are proud of them for their efforts.

Thankfully, the terror that public washrooms used to hold for my kids is losing its grip as they get older and as they have better skills for dealing with their sensory needs.

TOILET TRAINING



Potty training (or toileting) can be a huge challenge for children who struggle with sensory

processing. The smells of the bathroom, the echo, the lights, the noise of the toilet, can all play a factor in their toilet training experience.

Let's review some of the things to ask yourself before beginning potty training to set your child up for success.

1. Does the bathroom lighting need to be addressed for visual sensitivity? Can you dim the lights in the bathroom or use battery operated candles?
2. Does the room echo (auditory sensitivity)? Adding soft objects to the room like towels and other sound absorbing type objects helps deflect the noise.
3. Is your child able to reach all the surfaces safely such as the sink, toilet, tub, etc? Consider a step stool with anti-skid on the top and bottom (IKEA has a great option for this).
4. Does the toilet noise cause your child to be startled or avoid? Keep the door of the bathroom open so that the sounds are not contained to one room. Also using noise-canceling headphones can help to cut down on some of the noise. You can also try headphones with calming or rhythmic music.
5. Does the bathroom smell bother your child? Use non-chemical air freshener or use smelling bottles while in the bathroom to help mask the smell with a pleasant, stronger smell.

For children who do not sense the need to use the bathroom, this adds another layer of frustration for many parents.

Here are some things to consider.

Allow your child to walk naked around the house or wear regular underwear so that they can feel when they need to go. Diapers and pull-ups often keep them from feeling the wetness on their skin.

Calming techniques such as deep breathing and child yoga can encourage them to listen to their bodies. This can be helpful for children who don't realize when they need to go.

Have bathroom time built into your routine and visual schedules at specific times during the day (such as right after waking up, half an hour after drinking, before mealtimes, after nap or quiet times, before bed, etc.).

If you have concerns about your child's potty training and toileting, definitely talk to your physician and also mention any concerns to an Occupational Therapist who can give you a more detailed plan based on your child's sensory processing needs.

CLOTHING



Sensory Processing Disorder can create some pretty interesting choices and behaviors in

Sharla's Story:

When our daughter Gracelyn was younger, I used to get frustrated because I would get all the kids dressed and ready to go out and when I went to get them in the van, I would turn around and she had taken off her clothes and put on a bathing suit. It would be a cold winter day with two feet of snow on the ground and my little girl wanted to wear her bathing suit to the mall!

This happened day after day and my frustration grew. When I hid the bathing suits, she wore gymnastics suits! I had five kids under the age of 10 at the time and it was a lot of work to try to get anywhere on time, let alone when I had one child who was seemingly working against me.

I asked her why she wanted to wear a bathing suit in the winter instead of the lovely clothes she and I had picked out for the day and she couldn't articulate an answer. I tried giving her choices, "would you like to wear the green dress or the blue dress today?", but inevitably, it ended in her wearing something as tight fitting as she could find.

It wasn't until after her diagnosis of Sensory Processing Disorder, when we were working with an Occupational Therapist, that I finally began to understand why she wanted to wear bathing suits in the winter (and summer, spring and fall!). What had previously seemed like a behavior issue, actually turned out to be a sensory need of hers that wasn't being met.

The reason for Gracelyn's choice in clothing and my subsequent frustration can be explained in one word: proprioception.

children. Some of those choices can seem like they don't make sense but when you have a better understanding of the "why" behind them, you will find some clarity.

Proprioception is the body's awareness of where it is in space. For most of us, it is as natural as breathing, but when there are sensory issues, it can require additional input (or less input) to keep that person regulated and keep that sensory system functioning in the way that it should.

Whereas some children with Sensory Processing Disorder avoid hugs, tight fitting clothing or being wrapped in a blanket, others seek out snug fitting garments and love to be wrapped like a sausage in a blanket or hugged tightly. When it comes to proprioception, Sharla has some children (including Gracelyn) who are seekers and some who are avoiders. It makes for an interesting household!

The solution:

We were able to easily fix the issue by purchasing several tight gymnastics leotards and suggesting that she wear them UNDER her clothing every day. This one tiny change enabled us to finally get out to the vehicle with her wearing clothing suitable for the weather. She wore the suits underneath her other clothing for a number of years and can now wear "regular" clothing most of the time. At times of stress though, she does still prefer to wear things that are tight such as leggings or fitted tank tops.

Another tip is to buy the leotard a size or two too small to create the snugness that your child is seeking.

When it comes to clothing, this is far from the only issue that kids with SPD complain about. You may be used to hearing descriptions such as “itchy”, “scratchy”, “too tight”, “too loose”, Whether it’s the tags in tops or bottoms, the texture of a fabric, the weight of a garment, or the seams in socks, clothing can create a variety of issues for children with sensory sensitivities.

My first bit of advice here is not to die on this mountain. The image you may have had of your kids wearing nicely put together outfits or being one of those families who wear coordinating clothing for the annual family picture is no longer realistic. When it comes to clothing and kids with sensory processing disorder, consider it a win if they are dressed.

Remember that your child is not refusing to wear certain articles of clothing because of a style preference. It’s because of how that clothing feels, not how it looks. Your child doesn’t care how much money you spent on that piece of clothing or that they begged for it when they saw it online, they care that now that they have tried it on, it feels unbearable to them for some reason.

While you may not understand the sensitivity they are describing, it is very real to them. For them, these sensitivities may go as far as actually feeling painful. As parents, we need to show compassion and sharpen our listening skills. We then need to work with our child to find a solution we can both live with.

Obviously, some things are non-negotiable. Going outside when it’s -40° without a coat isn’t up for discussion, but buying a coat without tags or made of a different fabric can be. Each child is different, so what bothers one child, won’t bother another. If your child is refusing to wear certain clothing, consider things such as buttons, snaps and zippers. Think about the texture and weight of the fabric. Look for tags or a seam that may be causing trouble.

You can find sensory friendly clothing choices such as compression undershirts or weighted vests, seamless socks and tagless shirts.

In a pinch, turning socks inside out will reduce the feeling of the seam.

As you begin to incorporate more sensory activities into your child’s days, you may find that their clothing sensitivities become less intense. This is because when they get more exposure to sensory play with different textures, their tactile system can greatly improve.

EATING



Sensory preferences can have a profound impact on a child’s diet. Smell, texture, temperature and taste may affect a child’s willingness to eat and it is not uncommon for kids with sensory

Sharla's Story:

One of my sons would gag on certain textures and would even throw up at the thought of some foods. Between the sensory issues of some of the kids, the preferences of others and the allergies in our house, mealtimes were not a pleasant experience. But as I learned more, I was able to help them and meals became less stressful.

processing issues to be very picky eaters.

If you are parenting a child who is a picky eater, mealtimes can be very frustrating. Your child is not trying to be difficult. Food aversions are usually based on a very real sensory displeasure.

A lot of parents struggle because they don't know how or where to begin making changes that will help their kid eat more foods. Force feeding will increase your child's anxiety about food, so never resort to that. What can you do as a parent to help your picky eater?

Here are some suggestions:

Have your child use a vibrating toothbrush. This oral sensory work will help them decrease their oral sensitivities.

Celebrate the victories with the foods they will eat and then build on that repertoire by introducing similar foods or by slightly changing the texture of the foods they will eat. For example, if your child will only eat raw carrots, try cooking them for only a minute or two so that they are almost the texture of a raw carrot.

Encourage them to play with food. This may sound counterintuitive, but by using food in sensory play, your child will familiarize themselves with different foods and textures. This may help them be less nervous about trying new foods. Try cooked spaghetti in a sensory bin or painting with pudding or mashed potatoes.

Explore textures through activities such as sensory bins, bags, and other sensory play type activities. We have a section coming later with more ideas on how to create these.

Allow your child to help prepare food. This obviously needs to be done in an age appropriate way. Having your child handle the food, and help with cooking, makes the food less intimidating.

Change the environment where you typically eat. Will eating on the floor like a picnic encourage your child to try something new? Of course this will not be possible for every meal. Also, if you have a child who is use to having meals in the same place and has difficulty with change or transitions, this may not be helpful for them at all.

GROOMING SKILLS (BATHING, HAIR BRUSHING, TOOTH BRUSHING)



For kids with sensory difficulties, some of the most basic grooming skills can be a challenge. Daily tasks such as hair combing, bathing, and brushing teeth can become a battle.

Using a visual schedule is an excellent way to create a daily routine and cut down on anxiety because your child will know what to expect.

For some kids, hair brushing can feel excruciatingly painful, even without many knots. Sharla's son Josiah was this way for years. He would cry at even the sight of a brush or comb.

Suggestions for Hair Brushing:

- keep their hair very short
- use a good conditioner and leave-in conditioner to make it easier to work with knots
- when combing, start at the bottom and work your way up
- allow them to comb their own hair
- use a satin pillowcase to reduce hair breakage and tangles
- use a brush such as the Tangle Teaser or Wet Brush
- massage the scalp
- have your child do a heavy work activity before combing their hair

A note about hair cuts: Some children find hair cuts to be a difficult experience. Choose a hair stylist who is willing to be patient and even possibly come to your home or cut your child's hair while they play on the floor. Visit the hair salon with your child a day or two before their hair cut to let them get familiar with things. Ask the salon to schedule extra time so that nothing is rushed. Go in a bit early to allow your child to become comfortable. Make the experience feel as safe for them as possible.

Suggestions for Bathing:

- limit bath toys and other visual clutter
- be aware of scents from shampoos, bubble bath, soap and conditioners and buy unscented if your child is sensitive to smells
- always check the water temperature yourself
- if your child refuses to shower, try baths. If they refuse to bathe, try showers.
- use dim lighting
- turn the bathroom fan on for white noise
- laminate visual cues for what to do in the bath or shower
- provide a foam visor or swim goggles so that hair washing is easier
- install a rain shower head to cut down on noise and lessen the intensity of the water

Remember to choose your battles. Daily showers or baths are not necessary. On in-between days, dry shampoo and washing with a washcloth will do.

Suggestions for Tooth Brushing:

- experiment with different toothpastes to find one that your child can tolerate
- spinning, vibrating toothbrushes offer good sensory feedback and can help picky eaters
- avoid flavored dental floss for sensory avoiders
- offer flavored dental floss for sensory seekers
- for kids who can't tolerate a toothbrush, try soft bristles or a baby toothbrush
- try a singing toothbrush
- brush your teeth alongside your child
- use a timer
- be mindful of water temperature



Chapter 5

SENSORY TOOLS FOR THE HOME

We are so thankful that sensory tools are becoming more common, more affordable and more accessible. When Sharla first started on this sensory journey with her oldest daughter almost two decades ago, even the word “sensory” was not prevalent. It was hard to find information and re-sources, and even harder to find sensory tools.

Weighted Blankets

Weighted blankets are not effective for all children with sensory issues. According to Cara Koscinski, OTR/L and co-author of *The Weighted Blanket Guide*, they work well for those who respond to pressure and tactile input and don’t work at all for others.

I have found this to be true for my children. Some of my kids can hardly sleep without their weighted blankets while others have tried them and did not like them at all.

With weighted blankets, there are many excellent ones on the market. You can also find tutorials online for making your own at home. The key is to use them safely. A weighted blanket should never be used with children younger than 3 years old or anyone who cannot remove it on their own.

Weighted Vests, Shoulder Wraps, Lap Pads, Stuffed Animals

Weighted vests provide children with pressure and tactile input. They offer a feeling similar to a hug which some kids find comforting. As with weighted blankets and all the other weighted items in this category, they will work well for some kids and not at all with others.

We have directions for a DIY weighted lap pad in the sensory activities for home section of this parent companion guide.

You can purchase weighted vests in regular sizes or have them custom made to fit your child.

Weighted shoulder wraps provide sensory input similar to if someone were putting a reassuring hand on the child’s shoulders. Some children find this calming. You can also use shoulder wraps that can be heated, which some kids love, while others, not surprisingly, do not enjoy. As with everything when it comes to sensory, each child has their own preferences.

Some shoulder wraps that can be heated have a scent to them which again, some kids hate and others like. If your child does not like the shoulder wrap but does like other weighted items, you may want to play detective to determine if it’s the feeling or the temperature or the scent that they don’t like, so that you can try another kind and find a good fit.

The weight of a lap pad provides additional input to help calm the body. They can be placed on a child's lap while they are sitting doing homework or at mealtimes. They can also be placed on a child's feet while they are sitting on the couch watching TV or doing an activity at the table.

Weighted stuffed animals allow the child to control where they place the weight. They may want to have it resting on their stomach or the back of their neck or they may just want to hold it. Some children don't want the conspicuous look of a weighted lap pad or vest and prefer the stuffed animal as it looks like a regular stuffed animal and helps them to blend in with their peers.

Pressure Vests

Children who have decreased body awareness and a reduced ability to focus may find the gentle squeeze of a pressure vest provides the proprioceptive feedback needed to reduce anxiety and increase body awareness and focus.

Fidgets

While it may seem like fidgets are a trendy fad, for kids (or adults) who need to fidget, they are anything but. For those who need them, fidgets are a way to calm anxiety and nerves, settle the body, focus attention, and improve concentration. Fidgets can be anything from a purchased fidget spinner or fidget cube, to a squeeze toy, to a zipper pull, or a paper clip. In short, they are anything tactile that a child can use to help them maintain focus.

Chewelry

While fidgets help with tactile sensory needs, chewelry (chewable jewelry) helps with oral sensory needs. If you are finding that your child chews on pencils, their clothing, or are constantly putting things in their mouth, this solution may be the right one. Chewable pencil toppers, eating crunchy food, or chewing gum, can also provide the input that they are craving.

Noise Reducing Headphones

One of Sharla's favorite tools is noise reducing headphones. They allow kids who are sensitive to sound to have a break. They work well at home, in the vehicle, and out in crowded, loud places. Older kids sometimes prefer earplugs when out in public as they are less conspicuous.

Sound Therapy Machine

This is another favorite sensory tool. Using a sound therapy machine or white noise machine or fan gives kids the auditory input they crave but in a controlled and soothing way.

Palm Massager

Palm massagers are inexpensive and portable. They can be kept in your purse or in your

child's calm down kit. The vibration can be effective at providing sensory input and assisting in de-escalation of a child nearing the point of a meltdown. Use them on a child's head, palm, shoulders, or back.

Essential Oils

Certain scents are calming while others are alerting. Using essential oils for the purpose of calming an agitated or dysregulated child, or engaging a sluggish one, is a strategy that some parents swear by. We use lavender for calming and lemon or peppermint for alerting. I add them to play dough or sensory bins to create a more complete sensory experience. Always use caution when using essential oils. Always research the different brands of essential oils and look for the purest forms possible before trying them with your child.

Tools for Sitting

For many kids who struggle with sensory processing, sitting can be a challenge. Having them sit on an exercise ball, wedge cushion, textured disk or rocking chair can be helpful. Placing a theraband around the legs of a chair to give a child who is swinging their legs tactile input can also be helpful. Again, it varies from child to child, so you may have to try several of these options before you find the right fit.

Sensory Activities

We will talk more about this in the chapter Sensory Activities You Can Do at Home. Having sensory activities available for your child to access daily is so important and they can be another tool for you and for your child.

Swings

Having a cocoon like swing that hangs from the ceiling can be a great option for home, especially in your child's special sensory space. Amazon and IKEA have very reasonably priced options.

Having a crash pad or padded surface under the swing is also a great idea. Check and follow the safety standards and guides with any swing you purchase.

Crash Pad

Having a space where your child can safely throw their bodies into the floor can help calm and organize (or alert, depending on the child). Large bean bag chairs, or even a small ball pit area, are also great options. For a ball pit you can use a small plastic swimming pool and fill it with medium sized plastic balls. Create your own crash pad by filling a duvet cover with large foam pieces or stuffed animals.

Trampoline

Large trampolines are amazing for vestibular and proprioceptive input. If your family does not feel comfortable with a large trampoline for safety reasons, consider getting a small mini-trampoline. They even have options with a bar across for the child to hold onto if falling is a concern. Amazon is a great place to find these.



Chapter 6

SENSORY ACTIVITIES YOU CAN DO AT HOME

Sensory activities do not need to be complicated or Pinterest-worthy. The point isn't to create a work of art, it's to give your child the opportunity to have their sensory needs met.

Sensory play impacts many areas of development including:

Language skills - a child will expand and develop their vocabulary and grammar as they describe the senses they are experiencing.

Sensory input - providing sensory input to meet a child's needs. Fine motor skills -through manipulating small objects, a child's fine motor skills are improved.

Social skills - by communicating what they are experiencing and sharing sensory play with others, a child will naturally improve their social skills.

AVOIDING SENSORY OVERLOAD



It's easy to get excited about providing different sensory experiences for our children. It is also just as important to remember to look for signs of sensory overload when we are introducing a new activity or experience to a child.

Before we look at different sensory activities for home, I want you to keep these signs of sensory overload in mind:

- child appears to have a higher level of activity or sensitivity than normal during or following an activity
- child becomes increasingly distracted, disoriented, or confused
- may feel nauseous or vomit
- sudden paleness or flushed skin - sweaty or clammy skin
- rapid breathing or slower shallow breathing
- decrease or increase in muscle tone
- drowsiness
- tremors, glazed-over look in the eyes or signs of a possible seizure

It is important that if you notice any of these signs to stop the activity immediately and provide deep pressure or proprioceptive input in order to normalize the brain's arousal center. Also document any reactions and seek medical attention if needed.

Tactile System

- sensory bins with various textures
- use weighted blankets or lap pads
- play dough or finger painting
- deep pressure either by rolling an exercise ball across the back or squeezing the hands
- using a stress ball for hand squeezes or hand fidgets
- put finger paint in a plastic bag and have them paint from outside the bag by moving the paint around the bag with their fingers
- use tag-less clothing
- massage their scalp before haircuts (deep pressure scalp massage)
- weighted vest at dentist or other anxiety inducing outings that include tactile input
- cutting nails-soak in warm water first, press on nail bed before cutting
- t-shirt sheets on bed and snug pajamas
- having a special animal to hold, pet and touch
- shaving cream finger paint (write their names, copy shapes or letters/numbers)
- play in the mud
- make slime (see recipe at the end of this section)
- play with water beads
- make or play with kinetic sand
- make cloud dough
- jump into a pile of leaves
- gardening (planting flowers, vegetables, digging in the dirt)

Auditory System

- use headphones or ear plugs to block out background noises
- simplify language when giving instructions to your child (1-2 steps at a time and use concise wording)
- give a verbal or visual warning before loud sounds to cover ears (if possible)
- try Therapeutic Listening programs (this involves specialized training and an Occupational Therapist to assess)
- include a rain stick in your sensory space or room
- musical instruments such as shakers or learning to play an instrument
- calming, soft music to encourage regulation and self-calming
- use a white noise machine, fan, etc.
- play clapping games
- read books with rhyming or repetitive patterns
- play a sound discrimination game (near, far, loud, soft, high, low)
- listen to audiobooks
- play a listening or quiet game (how many different sounds or noises can you hear?)
- use the steady tick of a metronome as a calming technique
- pop bubble wrap (for those seeking input)
- play a sound guessing game (ripping paper, grinding coffee, beans, popping popcorn)

The Gustatory System

- chewing gum
- chewable jewelry or chewable tool/toy
- vibrating toothbrush
- drinking from a straw (sucking can be focusing and help with attention, especially thicker items like a smoothie or milkshake)
- creating tasting bottles of various safe items with scent or flavors (sweet, salty, sour etc)
- blowing bubbles
- exploring textures through sensory bins or messy sensory play
- whistling a song or favorite tune
- blowing up balloons
- blowing out candles
- drinking through a sports bottle
- blowing a pinwheel

The Visual System

- decrease wall decorations or distracting designs and patterns
- adjust lighting in the home (cover florescent lights or turn them off and use natural light or lamps)
- use a table easel to bring the work surface into a more upright position
- use a window guide and/or colored overlays for reading
- copy from a page or book at close range rather than from farther away
- make sure screen and monitors are at a proper height
- focus on eye-hand coordination activities such as playing catch
- tossing bean bags at a target
- use visual schedules
- i-spy books or pages
- complete mazes and puzzles
- create a photo scavenger hunt
- color mixing activities
- make shadow puppets on the wall
- road trip bingo games
- play with glow sticks
- use lava lamps for a calming space
- spray a target with a water gun
- create or purchase a light table
- find and copy shapes and patterns in a journal or paper

The Olfactory System

- scented play dough, finger paints, or sensory bins
- use scented markers or stickers
- scented bubbles

- scented chewable items
- scented bath soaps or lotions
- create smelling bottles with various spices or items to introduce new smells
- aromatherapy options with essential oils
- use unscented lotions, soaps, or hair products for hyper-sensitivities
- take a walk and explore smells in nature
- visit a herb garden
- match pictures of food to their smells
- chew bubble gum or other flavored gum

The Proprioceptive System

- weighted lap pads
- bean bag chair to sit in
- heavy work activities
- use a weighted or lycra vest
- swimming
- karate
- climbing
- play in a sandbox
- house cleaning chores
- carry groceries
- using a lycra body sock
- chair push-ups or sit-ups
- participate in sports activities if interested
- dance party with lively music
- wash the car
- tight hugs (like a bear hug)
- roll a ball
- yoga stretches
- pillow fights
- stacking books, wood, or bricks
- pretend to be different animals and move like the animal (hop like a rabbit, slither like a snake, etc)
- chew bubble gum or other scented gum
- use chewable items like a necklace or fidgets
- hang from the monkey bars on a playground

The Vestibular System

If your child has a severe reaction to a particular movement (such as spinning, swinging, or any big motor movement), please stop that movement immediately.

Many children who have an under developed vestibular systems may feel sick, throw up, feel faint, etc. Also, if your child has a history of seizures, please talk to your physician or doctor before doing any new physical movements with your child. Some movements can cause

seizure activity.

- using a ball chair or wiggle cushion for seated activities
- using movement breaks
- jumping on a trampoline
- swinging
- riding a bike
- yoga poses
- using a scooter board
- dancing
- jumping rope
- sit and spin chairs
- rolling down a hill
- somersaults
- cartwheels
- wheel-barrow walking (the child walks on their hands while another child or adult holds their feet like a wheel-barrow)
- gymnastics
- walking on a tree log or balance beam
- walking the line (use painters tape on the floor in a straight or zig-zag lines)
- hang upside down
- play Twister
- swing in a hammock
- climbing and sliding at the playground
- do a handstand
- set up an obstacle course

The Interception System

- mindfulness activities
- yoga
- bellows breathing techniques (to promote quiet and listening to the body)
- heavy work activities
- alerting activities
- repetitive and rhythmic vestibular input (such as swinging or controlled spinning)
- visual prompts and cues to identify and communicate emotions
- emotional regulation station or corner (like a sensory corner or space)
- social stories

Alerting Activities

- bouncing on a therapy ball
- upbeat music with a strong beat
- vibrations on the arms, hand, or back
- swinging
- jumping on a mini-trampoline

- going outside
- heavy work activities
- controlled spinning (do not do this if there is any known heart or seizure history)
- jumping jacks
- push-ups or wall push-ups
- skipping
- running (relay races, obstacle courses etc)
- playing hot potato with a weighted ball
- scooter board activities
- chewing bubble gum
- sucking on sour candy
- chewing crunchy snacks
- swimming
- dancing break
- songs with hand motions
- yoga poses
- wheelbarrow walking
- crawling through tunnels
- completing obstacle course
- playing with messy textures
- bouncing on a therapy or exercise ball
- using bright lights
- crashing into a ball pit or large pillows
- sliding down the slide
- playing tug-of-war
- drinking a cold drink
- taking a shower
- playing sports
- playing a musical instrument
- popping bubble wrap

Calming Activities

- rocking slowly over a ball on the stomach
- turning off the lights or dimming lights
- swinging in a large circle with the child facing an adult (no spinning)
- laying under a heavy blanket (should not be done with children under 3 or those who can't remove the blanket themselves)
- listening to soft music •bean bag squeezes with the hands
- laying on the floor while an adult rolls a ball over top giving some deep pressure
- use a body sock/lycra material to wrap up in
- light touch/heavy touch (depending on the child) – have the child brush a feather over their arms, or squeeze their arms with their hands for deep pressure
- squeezing hand fidgets
- rolling out play dough
- using modeling clay
- heavy work activities

- chewing gum
- eating crunchy snacks
- using white noise
- noise canceling headphones
- deep breathing techniques (smell the flower, blow out the candle)
- taking a walk
- doodling or drawing
- coloring
- painting
- yoga poses
- blowing bubbles
- shaking a calm down bottle or jar
- asking for a hug
- giving themselves a bear hug
- squishing putty or play dough
- rocking in a rocking chair
- doing push-ups
- exercise warm-up stretches
- sucking on a piece of candy
- chewing a chewable necklace or chewable sensory tool
- using a visual schedule
- rocking in a rocking chair
- playing with a sensory bin or bag
- deep pressure massage
- carrying a weighted backpack
- using a weighted vest or lap pad

Heavy Work Activities

The idea of heavy work activities is to provide high levels of proprioceptive input into the muscles and joints. They can be alerting, organizing, or calming depending on the child, which is why you will see them suggested for all three types of activities.

- moving furniture
- washing windows
- carrying a stack of heavy books
- pushing a shopping cart
- carrying groceries
- pulling or pushing a weighted rolling cart
- wearing a weighted backpack or vest
- raking leaves
- shoveling snow
- gardening
- pushing a wheelbarrow
- mowing the grass (safely, for older children)
- carrying a large bottle of water
- pushing or pulling laundry baskets full of clothes or other weighted items

- emptying garbage cans
- loading or unloading the dishwasher
- wall or floor push-ups
- jumping rope
- climbing a rock wall
- playing soccer
- participating in open gym time
- participating in gymnastics lessons/classes
- rolling out bread or play dough with a rolling pin
- chewing crunchy foods or snacks
- using hole punches for a craft activity
- rolling in a lycra body sock or in a blanket (make sure the head is visible)
- playing at a nature playscape
- visit the local playground
- riding a bicycle or scooter or skateboard
- holding the door open for others
- drinking a thick milkshake or smoothie through a straw
- kneading clay or play dough
- cleaning windows or mirrors
- having a pillow fight
- washing the car
- moving logs or bricks
- using a watering can for houseplants or garden
- wiping or painting walls
- building something with hammer and nails
- helping with laundry (loading, carrying baskets, folding)
- doing an obstacle course
- potato sack or three legged races
- using a weighted lap pad
- using a pogo stick
- using a hopping ball
- swimming
- vacuuming the floor
- jumping on a trampoline
- horseback riding
- jumping into a crash pad or on an old mattress

Crossing Midline Activities

Crossing midline is an important part of development in a child. They need it for reading, writing, and many other important school activities, as well as play activities.

What is midline? If you were to draw a line down the middle of your body, starting at the head, that is your midline. Every time you cross that line with either side of your body that is crossing midline. Crossing midline is a skill that children can learn from infancy.

So what does it look like if your child is having difficulty crossing midline?

Your child may actually “get stuck” in mid-reach and have to switch hands to continue. Or they may compensate by moving their whole trunk to reach toward the opposite side.

Poor mid-line crossing will affect how your child reads (tracking with the eye from left to right), and writes (using their dominant hand across the writing page).

Activity ideas include:

- playing with rhythm scarves
- playing with blocks (stacking)
- dancing to music
- using a washcloth to bathe
- dusting or sweeping the house
- playing patty-cake
- playing with cars
- playing flashlight tag
- washing the car
- painting with a large paint roller
- cross crawls (touching hand to opposite foot, knee, hip, or elbow)
- wiping off the table with a towel or washcloth using one hand
- drawing a large, horizontal figure 8 on a chalk board or sidewalk
- squirt/water gun target practice
- watering flowers with a garden hose using both hands
- ball pass relay races
- bean bag toss while sitting criss-cross applesauce (legs crossed in-front of them)
- playing tennis
- playing a game of Simon Says

Sensory Bins

All children can benefit from further exploration and a purposeful approach to their sensory learning. Sensory bins are a wonderful way to achieve this right in your home. They are easy and inexpensive to create, can be stored and reused, and can benefit any child. Children from babies to as old as teens enjoy playing and discovery through sensory bins or tubs.

Children learn best by doing and sensory bins give them that chance. These bins provide excellent opportunities for children to practice their fine motor skills and eye-hand coordination in such a way that they are not even aware that they are working on improving a skill.

They are also an excellent activity for language development in a very natural way. As an example, imagine trying to explain the concept of hot and cold to a child without them actually being able to experience the sensations in a hands-on manner. The nature of sensory bins allows children to experience things in ways that they will remember and understand.

A sensory bin is simply an area designated for exploring through the senses. There are many things from small portable containers to an entire garden or bathtub that can be transformed into a sensory bin.

Sensory bins are designed to encourage discovery and exploration through the senses, so

when creating a bin, you want to keep in mind things that encourage:

- squeezing
- pinching
- tasting
- smelling
- organizing
- exploring
- scooping
- creating
- trying
- pouring
- spooning
- grasping
- pounding
- measuring
- stirring
- manipulating materials
- listening
- imagining
- separating
- adding
- learning
- guessing
- touching
- and having fun

The actual play that takes place in a sensory bin should be completely child-directed. For younger children, you may want to provide ideas by demonstrating some things such as scooping and pouring or burying and finding, but for the most part, sensory bins should be about discovery and imagination and should not have set rules (other than practical rules such as keeping the items in the container).

The contents of a sensory bin vary even more than the possible containers do. Typically, a sensory bin would have a base such as sand, rice, or water and then other items would be added into the base. You can tailor the contents of the bins to meet your child's needs and interests.

When considering what to add to a sensory bin, think about all the senses, touch, sight, sound, smell, and even taste. Not every bin will incorporate every sense, but challenge yourself to expand your own ideas and to make your bins as sensory rich as possible.

Sensory Bottles

Sensory bags allow children to explore, discover, imagine, create, and learn while engaging many of their senses. They are a great mess free sensory play. Sensory bags are portable so they can be used in waiting rooms or on road trips.

Sensory bags can even be used with toddlers and babies, with adult supervision of course. Sensory bags are great for tummy time. For younger children, you may want to tape the sensory bag to a table or to the window which will allow your child to still explore through touch but be less tempted to bite the bag or put it in their mouth.

The instructions for creating a sensory bag are simple. Fill a good quality resealable bag with one or more fillers. Remove the excess air from the bag and seal. If you will be using the sensory bag with younger children or if you want to mitigate the risk of mess, you can seal the entire bag with duct tape on all sides. There are many varieties of fun and colorful duct tape available to go along with the theme of your sensory bag.

Filler suggestions for sensory bags:

- water beads
- hair gel
- hand sanitizer
- glass beads
- erasers
- stickers
- beads
- buttons
- food coloring
- plastic letters
- magnets
- shaving cream
- baby oil
- pompoms
- googly eyes
- paint•play dough
- glitter
- rice
- leaves
- flowers
- seashells
- foam shapes or foam stickers
- felt shapes or felt scraps
- coconut
- feathers
- small plastic toys, animals or shapes
- cereal
- oatmeal
- dry noodles
- beans
- marbles
- small rocks
- confetti
- decorative rocks

- aloe vera gel
- popcorn seeds
- salt
- Kidfetti®
- ribbon
- birdseed
- mini ornaments
- elastic bands
- paper shreds
- pieces of string or wool
- plastic letters or letter beads

Sensory Balls

Sensory balls, sometimes known as stress balls, are simple and inexpensive to make at home. Sharla always keep one in her purse, one in the van, one in the sensory room and one in the kids' bedrooms.

Fill a helium quality balloon with flour using a funnel. As you fill it, press the flour further in. When it has reached the desired firmness, tie the top of the balloon as you would for a regular balloon. It's that simple!

Play Dough

We've always made homemade play dough, as it's so much softer than store bought and keeps for longer. Play dough is a wonderful sensory tool. These are our favorite tried and true play dough recipes:

Sharla's Play Dough

*1 cup flour
1/2 cup salt
2 Tbsp. cream of tartar
1 Tbsp. oil
8-12 drops of food coloring (optional)
3-5 drops of essential oil (optional - remember that scents such as peppermint are alerting and scents like lavender are calming)
1 cup boiling water glitter (optional)*

I find that the easiest way to make play dough is to use a counter top mixer. Add the flour, salt, cream of tartar to the counter top mixer. With the dough beater (the flat one), begin mixing on low and add the oil, food coloring, and the drops of essential oil. As it mixes, pour in the boiling water and continue to mix on low until it resembles play dough texture.

Remove the dough from the mixer and knead it for 30 seconds to a minute. If you want to add glitter, add it in at this point and mix it through by kneading.

Heather's Play Dough

*1/2 cup of hair conditioner (I try to find one with no added scent)
1 1/4 cup of cornstarch (you will need more to get the right consistency,
so keep it on hand)
glitter (optional)
essential oil of choice (optional)*

*Measure the hair conditioner and add to a mixing bowl. Then mix
in the essential oil and the glitter.*

*You will most likely need more than 1 1/4 cup of cornstarch, but 1 1/4 cup is a good
measurement to start with. You are looking for a smooth and soft texture that does not
break away or crumble when you knead it like bread. It should not be sticky or stick to the
counter when you knead it.*

Store your homemade play dough in a resealable bag or airtight plastic container.

Slime

Slime may be all the rage with kids and teens lately, but trend or no trend, it is a great sensory material.

Basic Slime Recipe

*1/2 cup unscented shampoo
1/4 cup cornstarch
3 drops of food coloring
6 Tbsp. water
glitter, mini styrofoam balls or confetti (optional)*

*Mix together the shampoo and cornstarch. Stir in the food coloring. One tablespoon at a
time, add the water. Knead for about five minutes or until desired consistency. If you want,
add in one or more of the optional materials.*

DIY Weighted Lap Pad - Created by Miss Jaime OT, used with permission.

Slime may be all the rage with kids and teens lately, but trend or no trend, it is a great sensory material.

You will need:

2 washcloths or microfiber hand towels.

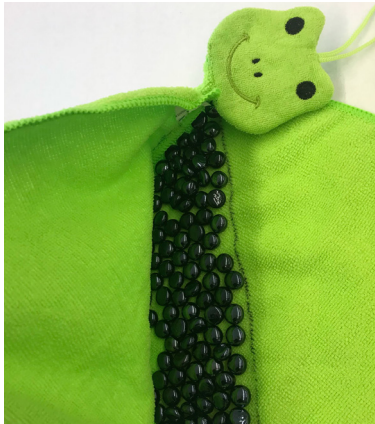
1 bag of beans or 1 bag of flower decorating glass beads.

Directions (Option 1)

- 1) Line the two washcloths up with the seams together. Face the outsides (pretty sides) so they are touching. This way when you sew the first three sides together, they will be sewed neatly like a pillowcase.
- 2) Sew the first three sides together with a quick "loop around" stitch.
- 3) Tie off your third side with a strong knot. Flip your cloths inside out so the pretty sides are facing out.
- 4) Pour the bag of beans into a plastic bag and zip shut. Push the plastic bag of beans into the slot and sew the fourth side shut.

Directions (Option 2):

- 1) Start with the two pretty sides together, sew around three sides (like above).
- 2) Measure halfway across the middle and mark it with a straight line.
- 3) Sew a line straight down, separating your towel into two long sections. Make sure your bags of beans will fit.
- 4) Open the bags and fill each section with beans. Sew the top closed.



Educator
COMPANION GUIDE
to Sensory Processing

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INTRODUCTION



Welcome educators! We are so glad you have joined us on this journey to understanding the sensory needs of kids, so that all kids can reach their fullest potential both inside and outside of your classroom. As parents of kids who struggle with sensory issues, we are so thankful for educators like you.

We know that you work hard to meet the needs of all the students in your care. We want to arm you with information and tips that will help make this part of your job easier.

The sensory experience in the classroom can be overwhelming for many students, particularly those with Sensory Processing Disorder. For those students, the classroom can challenge them daily, but things such as Phys. Ed., music class, assemblies, school concerts, the cafeteria or lunch room can be downright unbearable. Times when routines are disrupted such as class parties, holidays and end of the year, can also present challenges. Field trips are another thing that can cause students with sensory issues significant struggle.

Our goal is provide you with helpful strategies you can take back to your classrooms and begin to implement right away.



Chapter 1

WHEN SHOULD YOU BE CONCERNED?

You've noticed a behavior with one of your students, but you're not sure when you should bring up the behavior to a parent or someone else in your school.

Some behaviors are noticeable and it's apparent the child needs some extra help at school. Others may not be as easy to distinguish.

Two of the most common concerns teachers have are children who lack the ability to focus and those who cannot sit or stand for a given period of time. You are probably thinking of a student(s) right now in your class that fits either one or both of these.

So when should you be concerned about a child's behavior and ask for an outside evaluation or referral to either special education or an Occupational Therapist?

Some classroom and school sensory processing red-flags can include:

- inability to perform self-care tasks independently
- not able to take care of personal belongings (easily loses or breaks items)
- becomes easily tired throughout the school day
- not able to organize and sequence information appropriately
- not able to read social or environmental cues
- easily distractible
- avoids or is fearful of particular activities such as messy play, movement, playground equipment, the lunchroom, certain sounds, smells, or tastes
- difficulty with transitions
- difficulty with social interactions
- struggles with maintaining optimal level of arousal (energy level that is too high or too low).

It's important to remember that all children will struggle with these skills from time-to-time, they are kids after all. They are still learning and exploring. Depending on how old the children are that you work with, some of these may not even be age appropriate to some extent.

It is when these behaviors, compared to their same-age peers, begin to affect their daily life at school, and make it almost impossible for them to function in the school setting, that accommodations and assistance need to be given.

We also want to point out, all children can benefit from the ideas and suggestions we will be giving for classroom accommodations. All children (and adults) have their own sensory processing preferences and many of the tools and tips we will be sharing are great for all

children, regardless of a diagnosis or special education services.

WORKING WITH THE SPECIAL EDUCATION TEAM



When asking for additional accommodations for a student, you will most likely start with the special education team. This can include a school psychologist, special education teacher, Speech and Language Pathologist, Physical Therapist, Occupational Therapist, etc.

The special education teacher will work to provide interventions and accommodations to the general curriculum in order for the child to have the best possible chance of academic learning and skills.

A school psychologist will be looking at the child's ability to learn and addressing things like mental health, learning, and behavior, in order to help the child succeed academically as well as behaviorally and emotionally.

A speech and language pathologist will be looking at how the child communicates and how that affects their classroom abilities, social interactions, literacy, and learning. This can include speaking, thinking, reading, writing and learning.

An Occupational Therapist (OT) will be looking at how a child functions in their environment at school in different activities or "occupations". An Occupational Therapist can provide support and interventions for behavior management, recess, sports, self-help skills, transportation, and more. Their goal is to provide the student with everything necessary for them to access the general education curriculum in a functional way. This can include accommodations for the environment in order to improve the access, progress and participation of the student, adaptive equipment, alternate educational assessments and learning.

Occupational Therapists often work with students who have fine motor, gross motor, visual motor, sensory processing, behavioral, handwriting, attention and focus, or other executive function challenges within the school environment.

Physical Therapists focus on the movement and function of a student within the educational setting. Their goal is to promote motor development that will allow the student to access all areas of their education in a safe and efficient way. They can address any impact of developmental, medical, or sensorimotor impairments, as well as safe lifting, positioning, ambulation, gross motor programs, vocational tasks, leisure activities and adaptive equipment that would help the student to access the general education curriculum.

WORKING WITH AN OCCUPATIONAL THERAPIST



Asking for an Occupational Therapy evaluation usually means more than one area of deficit

needs to be identified in order for the Occupational Therapist to provide services. This will depend on the state and even the district you are in. In the school in Ohio where Heather practiced, Occupational Therapy could not be a standalone service. This means that in order for an OT to evaluate and treat a student, another area such as Speech and Language or a Special Education Teacher must also provide services or be evaluating.

Talk to your special education staff or school principle and find out what the proper procedures are for identifying and evaluating possible services.

It is also important to remember that an Occupational Therapist must find a significant delay, or above average of 2 standard deviations compared to typical age peers, in order to provide services. Again, this does not mean that they can't offer ideas or suggestions for a student or give you some classroom suggestions.

Occupational Therapists can be a wealth of knowledge and information when dealing with sensory processing concerns in the classroom. It is important to include them in any type of evaluation that includes sensory concerns, as well as attention and focus, transitions, environmental and behavior concerns, fine motor, gross motor, visual motor, or handwriting concerns.

RESPONSE TO INTERVENTION



When you are in the beginning stages of identification and intervention in the United States, you will probably hear the phrase RTI Process, or Response to Intervention Process. This is a 3-tiered process that accommodates children who are struggling in the general classroom setting.

Tier 1 includes general classroom instruction, where the student is in a typical classroom and accommodations are given to see if they are able to function within that setting without any additional interventions.

Tier 2 is small group instruction, where the student may be pulled out into a small group setting in order to provide instruction, accommodations or interventions, to see if these are enough for them to function within the school setting.

Tier 3 is individual intervention where a student is pulled out into a one-on-one setting with either the teacher or specialist in order to provide accommodations and interventions.

With all three tiers, progress is monitored with great detail in order to assess if these interventions will be sufficient or if the child may be able to qualify for further special education services.

After this time period, the initial Eligibility for Determination evaluations and meeting with faculty and parents will take place, if warranted. The RTI Process should always come first, before deciding if the Eligibility for Determination is needed.

EVALUATION TEAM REPORT



The Evaluation Team Report (Or MFE - Multi-Factored Evaluation) is a meeting that happens every 3 years when a child qualifies for special education services. It is a time for everyone (staff and family) to come together and look at what progress has been made, lack of progress, and what the plan should be for the next 3 years.

This meeting is often run by the school psychologist and will include reports from all the staff who are providing accommodations and interventions with the student. This could include the general education teacher, special education teacher, school psychologist, Speech and Language Pathologist, Occupational Therapist or Physical Therapist.

A complete picture of the child will be included in this report including health and background, vision, hearing, social and emotional development, general intelligence, academic performance, communication, fine and gross motor skills, aptitude and achievement and progress towards the general education curriculum.

This includes any additional testing and assessments in order to provide this whole-child picture. After everyone has presented their findings, it will be determined by the team if the child continues to need special education services or not. This can also include determining whether related services such as Occupational Therapy or Physical Therapy need to be added or discontinued.

Your district may have a different name for this type of report

INDIVIDUALIZED EDUCATION PLAN



Once it is determined that a child qualifies for special education services or specialized instruction, the team will create an IEP for that child. This includes all goals and accommodations that will be given to the student in order to help them succeed in the least restricted environment possible. The goal is for the student to be functioning with their peers in the general education class-room as much as possible.

An IEP will include demographic information, class sizes, current levels of function (social/emotional, physical, academic, etc.), medical alerts, standardized test scores, and goals that the child will be working on during the following year.

All of the goals and accommodations must look back to the ETR (Evaluation Team Report) and be in line with what is included and decided on for eligibility of services in that document.

504 PLANS



504 plans are a plan developed to ensure that a child who has an identified disability is able to receive accommodations that will allow them to access the general education curriculum. 504 plans are not specialized instruction or services, just accommodations.

For students who do not qualify for specialized services, but still need accommodations to access the curriculum and succeed in the classroom setting, a 504 plan is helpful. 504 plans still require documentation to make sure they are being followed and yearly meetings to assess if the accommodations are working and effective.

WORKING WITH PARENTS



Having the parents on board with what you are doing at the school and providing complementary activities and tools for their child at home will go a long way in advancing the child's potential.

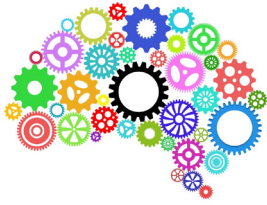
While sensory sensitivities and even Sensory Processing Disorder have been topics that are increasingly spoken about in seminars, conferences and continuing education for teachers in recent years, this concept may be new for parents.

Some parents may not realize that their child has sensory differences and may even be defensive at someone broaching the subject with them.

The best weapon you have against any opposition from parents is education. Point them to resources that will enable them to learn about how sensory issues may be affecting their child. Help them to understand that you are on the same team, both sharing the goal of helping their child reach his or her fullest possible potential.

Regular ongoing communication with parents regarding their child's progress, struggles and successes both in the classroom and with schoolmates will help to build a bridge. Once you have a good relationship established with them and have built trust through regular communication, they will be more receptive to your suggestions regarding things they can be doing at home that will enhance what you are doing at school.

IEP meetings are a good opportunity to bring forth ideas that you have and to get the parents on board.



Chapter 2

WHAT DO SENSORY ISSUES LOOK LIKE IN THE CLASSROOM?

You might be familiar with the eight sensory systems and what dis-regulation looks like within these systems. Carrying that over into how each system affects your student in the classroom or school environment can look completely different to what a parent is seeing at home.

It's important to know what to look for in your students, so that you know when you might need to make a change in your classroom environment or setup.

Remember that each child can be hypersensitive (avoider), hypo-sensitive (seeker) or under-responsive (not enough sensory input) to any of the sensory systems. They may have a combination of all three depending on the trigger or activity.

AVOIDING SENSORY OVERLOAD



It's easy to get excited about providing different sensory experiences for our students. It is also just as important to remember to look for signs of sensory overload when we are introducing a new activity or experience to a student.

Before we look at different accommodations for the classroom, I want you to keep these signs of sensory overload in mind:

- student appears to have a higher level of activity or sensitivity than normal during or following an activity
- student becomes increasingly distracted, disoriented, or confused
- may feel nauseous or vomit
- sudden paleness or flushed skin - sweaty or clammy skin
- rapid breathing or slower shallow breathing
- decrease or increase in muscle tone
- drowsiness
- tremors, glazed-over look in the eyes or signs of a possible seizure

It is important that if you notice any of these signs to stop the activity immediately and provide deep pressure or proprioceptive input in order to normalize the brain's arousal center. Also document any reactions and seek medical attention if needed.

VISUAL SYSTEM



Typically, a person is able to use smooth and precise eye movements to scan and visually assess their environment.

Difficulties with the visual system can prevent a child from focusing and completing tasks. Visual sensitivities can affect acuity, ocular motor, eye-teaming, visual motor, and visual perception.

What does it look like in the classroom?

- difficulty tracking with the eyes when reading
- loses place while reading
- squinting
- sensitive to light
- omits numbers, letters or words
- number, letter or word reversal
- difficulties with handwriting, cutting, and fine motor activities
- challenges with math, particularly in aligning numbers and symbols in math problems
- difficulty with prepositional relationships

Visual Accommodations for Students

- provide colored overlays for reading
- allow student to wear sunglasses if bothered by light
- reduce visual clutter in the classroom
- use a visual schedule
- use a visual timer
- limit the amount of information on each page
- give additional time for written tests or offer an oral test option
- use study carols or room dividers
- limit the amount of items on a page if able to (homework pages etc).
- text to speech software
- have a dimmer for the lights in the classroom so that they can be adjusted
- cut out a "window" (rectangle in an index card) for the child to use to keep words and sentences in focus while blocking other material that can be distracting on the page
- use a slant board (or three-ringed binder) for reading or writing work
- use wide-ruled paper or adaptive paper to help students form letters in the right space
- highlight the lines on writing paper (yellow, or green top and red bottom lines work well)
- use colored glue sticks instead of white
- write directions in different colors
- ask for oral reports instead of written reports
- have students highlight important information while reading

AUDITORY SYSTEM



The auditory system is responsible for hearing, listening, interpreting, localizing sounds, and being able to filter and selectively attend to auditory stimuli. This also includes processing these sounds by intensity, frequency and pitch, duration, and where the sounds are coming from.

What does it look like in the classroom?

- unable to discriminate voices or sounds in a loud room
- has difficulty with noises that don't bother others in the classroom
- trouble discriminating or identifying sounds (such as letter sounds)
- difficulty discriminating letter sounds
- difficulty following directions
- talks off topic
- looks to others before responding
- trouble communicating and articulating
- trouble following oral directions
- easily distracted by noise
- avoiding group work
- excessive chatter
- making loud noises either with their voice or feet
- upset by very soft noises that others may not even hear

Auditory Accommodations for Students

- keep the classroom door closed
- keep sound distractions to a minimum
- play calming music
- play a soft/slow metronome
- preferential seating to place student away from noise sources (the hallway, peers)
- gain attention before giving directions
- use visual prompts and cues for directions or common tasks
- provide noise reducing headphones
- give warning of any known loud noises such as an upcoming fire drill or bell
- use a sound machine or a fan to provide white noise
- use a noise meter to regulate an optimal noise level in the classroom
- simplify verbal directions to 1-2 words or steps at a time
- give a signal to the students when you are going to make an important point
- provide quiet spaces for independent work
- break down test or classwork instructions into short, written steps
- provide written homework instructions or a homework list

OLFACTORY SYSTEM



Smell travels through chemical receptors with direct neural connections to the limbic system (responsible for emotional memory). If it smells bad, that sends a warning that we may not like it or that it is dangerous for us to eat.

In a classroom, smells can become so overpowering that a child may not be able to focus on the teacher. They may be oversensitive to smells like the cafeteria, the bathroom, or other children close to them (sweat or body odors). Or they may seek out smells and it becomes distracting and hinders their ability to focus.

What does it look like in the classroom?

- gags or throws up from smells
- complains about or comments on smells, even those that others don't notice
- extremely sensitive to scents
- smells everything
- avoids the cafeteria or lunchroom
- dislike of riding the bus
- difficulty at some field trips such as to a farm or recycling center

Olfactory Accommodations for Students

- do not wear perfume, scented lotions or care products
- offer a scent-free classroom if student is scent sensitive
- do not use essential oils if student is scent sensitive
- offer scented play materials if student is seeking (stickers, play dough, markers etc)

GUSTATORY SYSTEM



You may recognize the gustatory system more by the word taste or oral sensory system. Taste and smell (the olfactory system) are very closely related.

We can taste five different flavors: sweet, salty, bitter, sour, and umami (savory). All the other flavors you taste are actually related to smell. And texture and temperature are related to touch (through the receptors are in the mouth).

What does it look like in the classroom?

- chews pencils, clothing, objects
- licks, sucks on or chews fingers
- picky eater

- refusal to try new foods
- avoids the cafeteria or lunchroom

Gustatory Accommodations for Students

- never force student to eat something
- allow chewing of gum or crunchy snacks
- provide chewelry or chewable pencil toppers

TACTILE SYSTEM



The tactile system is often the most commonly recognized sensory system of the body. It is also the one people notice most often if a child has an overactive or under-active tactile system. Anything you touch or feel is part of this system.

What does it look like in the classroom?

- delayed fine motor and/or gross motor skills
- excessive exploration with student's hands
- challenges with buttoning, snapping, tying, zipping, cutting
- difficulty with art, math, writing
- aversion to art or science supplies
- difficulty participating in group activities
- pushing or hitting those in their personal space
- difficulty focusing
- hard time following directions
- difficulty remaining seated

Tactile Accommodations for Students

- present alternatives to hands-on material that students may not want to touch
- provide tactile sensory opportunities (fidgets, sensory play, hands-on activities)
- teach with tactile materials such as using play dough and play dough mats
- provide fidgets (have some rules set around fidgets, they are tools to help with focus and attention and should not be used as toys or to distract others)
- offer student a place to put their hands such as in their pockets if they touch things excessively
- allow student to touch materials with a pencil or popsicle stick rather than their hand
- never force touching a material or art supply

VESTIBULAR SYSTEM



The vestibular system is located in the inner ear and helps you to detect changes in regards to gravity. Are you sitting, standing, lying down, upside down, spinning, standing still etc? It is often referred to as the internal GPS system of your body. It is also very closely linked to the proprioception, auditory, and visual senses of the body.

What does it look like in the classroom?

- cautious, fearful particularly on the playground and in the gym
- extremely active
- always in motion
- does not get dizzy
- easily dizzy or prone to motion sickness
- appearance of adrenalin seeking behavior
- fidgeting
- clumsy, uncoordinated
- shaking, rocking, spinning
- playing alone on the playground or during indoor recess times
- fearful of the stairs
- jumping or bouncing

Vestibular Accommodations for Students

- build movement breaks into the day for the entire class
- offer alternative seating options
- use a tall desk or counter to stand and work if possible
- have an exercise ball, mini trampoline or rocking chair in the classroom or sensory space in your school
- do not force things when it comes to fear of movement or heights
- provide a basket of fidgets
- heavy work tasks (see a detailed list in the Creating a Sensory Room In Your School chapter)
- classroom dancing break
- chair push-ups or wall push-ups

PROPRIOCEPTION SYSTEM



The proprioceptive system or proprioception is one of the internal senses of the body that comes from the joints, muscles, ligaments, and other connective tissue. The proprioception system allows you to know where your body parts are and what they are doing without necessarily looking at them. The receptors are in the joints, muscles and tendons and perceive

contraction, stretching, and compression.

What does it look like in the classroom?

- deliberately bumping into things or people
- toe walking
- drumming on their desk or other hard surfaces
- chews on objects or items in the classroom
- falling, tripping, bumping into furniture
- stomping
- tapping pencils or fingers on surfaces
- cracking knuckles
- sucking or chewing on fingers, clothing, pencils
- poor body awareness
- poor posture
- crumpled or messy papers
- accidentally breaking pencils and objects due to not realizing pressure/strength

Proprioception Accommodations

- allow chewing of gum or crunchy snacks
- provide chewelry or chewable pencil toppers
- always provide recess (removal of recess time should never be considered, especially for a child with sensory processing problems. These children are the ones who need to move the most and benefit from even more recess time. Taking away recess will only escalate behaviors)
- build movement breaks into the day
- give frequent heavy work opportunities, especially during transitions such as in the hallway or on the way to lunch, recess, specials or the bus
- crossing the midline activities (see detailed suggestions in the Creating a Sensory Space in Your School chapter)
- use of weighted vest or lap pad
- frequent position changes during work: standing, sitting, on bean bag chair, leaning over

INTEROCEPTION SYSTEM



Interoception is the sense of knowing what is going on inside our bodies. All of these receptors report to your brain with information about what is going on inside your body. This all helps to regulate your body functions such as hunger, thirst, bathroom needs, heart rate, and digestion.

Emotional regulation is also closely tied to interoception. In order to cognitively be able to regulate their emotions, a student needs to understand their body's signals. The ability to

recognize emotions and react appropriately can be difficult for students whose interoception system is not firing or sending out the correct signals to the brain.

What does it look like in the classroom?

- frequently hungry
- not feeling cold or hot when the temperature is cold or hot
- going outside for recess with clothing that is not weather appropriate
- having a high or low pain tolerance
- bathroom accidents
- difficulty recognizing emotional responses (not aware they feel upset until they are yelling or throwing something)
- difficulty regulating their emotions

Interoception Accommodations

- provide a visual reminder of weather appropriate clothing
- have regular bathroom breaks for student
- use a regulation station to encourage self-regulation of emotions (see the Sensory Friendly Classroom chapter for suggestions)
- decide on behavior rules and rewards together as a class
- talk about behaviors and emotional responses together as a class. Play an emotions game, read books on emotions, include an emotions visual chart on your wall
- describe emotions and label those emotions when talking to your student (not during an actual meltdown, wait until the child is calm and able to listen and focus). "I can see you are (insert emotional word)" "I know you are (insert emotional word here)"



Chapter 3

CREATING A SENSORY FRIENDLY CLASSROOM

As you continue to support your students and sensory processing in the classroom, it's important to look at all the aspects of your space and how you can create a calming and supportive environment.

HOW TO “SENSORY PROOF” YOUR CLASSROOM



All children can benefit from a multi-sensory experience in the classroom. Many of these tips and suggestions will work with all your students, not just those who have defined sensory processing problems.

When looking at your classroom, keep some of these questions in mind:

Does my classroom have florescent lighting? Consider using fire-safe florescent light covers, or not using the overhead lights and bringing in lamps or different lighting options.

What are the seating options in my room? Are tables/desks at the proper height for each child?

Are the child's feet on the floor? Do I need foot rests to create the optimal seating position? (Use the 3 90's for seating, feet flat on the floor (ankles at 90 degrees), knees at 90 degrees, and hips at 90 degrees).

Do you need to use an individual desk to define personal space? Or can you use group table are-as? Is personal space an issue during transitions to and from the classroom?

Do noises or smells inside the classroom seem to affect the students? How can I safely eliminate or decrease these smells or noises? Do I need to have certain students placed away from the door during seated work? Would visual barriers like a cubical or room partitions help?

Is the classroom visually distracting? Do I need to take things off the walls to make it less distracting and a calmer environment?

Are students able to access other areas of the school like the lunchroom, recess and playground equipment, bathrooms, specials, gym, or field trips? How can I help them do this?

Consider the needs of each child in creating individualized sensory plans. It is also important to have the sensory plans in writing in case you ever have a substitute teacher.

AUDITORY ACCOMMODATIONS AND SUPPORTS



Avoid auditory overstimulation by using a quiet voice when addressing the class and trying to keep the classroom volume as low as possible. This is easier said than done in a room full of many students!

White noise such as a sound machine or a fan can block out some of the more distracting sounds in the class. Quiet, calming music can also have this same effect, though it is best to choose music that has no base, and slow rhythm.

Only use upbeat music when you are trying to “wake up” your students for learning. All alerting type activities should always be followed by a cool down time in order to bring heart rates down and allow children to reach that just right level of alertness.

VISUAL ACCOMMODATIONS AND SUPPORTS



Avoid too many visual distractions in the class. The goal should be to create a simple, well organized room that is not overly stimulating. Remove the visual clutter. Use labeled bins for storage.

One idea for cutting down on visual distractions within the classroom while still decorating for themes and celebrations is to decorate the outside of the classroom door instead of the inside.

Use a large timer as a visual cue so that the student will know how much longer they are expected to focus on a given task or expected to stay seated or quiet. Make sure the clocks are placed at eye-level and not high up on the wall.

If your school will allow it, paint your classroom a calming color. Pale or natural colors often work best: tans, blues, greens, pinks, purples, or light yellow for example. Avoid red or any color with a red undertone.

Visual supports can also include things like visual schedules, calendars, labels, or picture communication cards. Visual supports are helpful for many children who have trouble with auditory processing.

Ask yourself, what do you hear yourself saying over and over again to either your entire class or a specific student? What do you hear your students asking you over and over again? Where is the possible breakdown in communication happening? Visual supports are a great answer for these common communication problems.

Visual Schedules are a great way to help with transitions throughout the school day. You can have a class visual schedule so students know when to expect things like recess, lunch, or specials. Student specific visual schedules can also help students transition from one activity

into another. Consider adding things like group time, individual work times, or choice time.

You can include times of day with your visual schedule, or just have a list of pictures placed in a sequential order.

To create your visual schedule, file folders work best. Divide the front of the file folder into two columns with a marker and then write "Schedule" in the first column and "Done" in the second column. Place a strip of sticky backed Velcro down the middle of each column. You can keep all your visual schedule pictures on strips of Velcro inside the file folder.

Pull out which pictures you need for the day and place them in order on the first column. As the student finishes each part of the visual schedule, they can move them to the "done" column.

Choice Boards would be helpful to have in your sensory space area for sensory breaks, during a snack, individual work time, or free time. Choice boards let the student know what is accessible for the day and gives them some independence in making a choice.

First/Then visual boards are helpful when a student does not want to complete a non-preferred task. You can also use them to help teach a specific sequence for activities or an event. To create a First/Then board, you can use a piece of paper or a file folder. Draw a line down the middle of the paper or file folder and write "First" in the first column and "Then" in the second column. Place a strip of Velcro with a sticky back down the middle of each column. Use the same pictures you create for your visual schedules.

FLEXIBLE SEATING



Offer flexible seating options such as exercise balls, adjustable tables or desks that allow kids to stand or sit while working, or stationary bikes. If these are not a possibility at your school, consider offering textured mats or wedge cushions for the seats and wrapping therabands around the legs of chairs or desks to give sensory feedback when students swing their legs.

Using partially inflated beach balls or bathtub pillows on chairs is a cost effective option as they can often be purchased at a dollar store. Another option is to place partially sliced tennis balls on the bottom of the chair legs so that it can rock.

Use hula hoops or painters tape on the floor to define a space. This is helpful for children who don't recognize personal boundaries and always seem to be crawling over or on top of other students during circle or group times. Giving everyone their own circle or square to sit in helps to define that space with a visual prompt.

Some children benefit from having an enclosed space around them while sitting like using a beanbag or a shallow plastic bin that is big enough for them to sit inside. Having something that seems to be "hugging" their body while they sit can often be calming and allows them to focus and concentrate.

ACCOMMODATIONS FOR WRITING



It's important to ask your school's Occupational Therapist or Occupational Therapy Assistant for specific suggestions for students when it comes to writing. Here are a few common suggestions to get you started.

- slant boards (you can use the side of a 3-ring binder also)
- adaptive paper (you can purchase this or use a yellow, or green and red marker to highlight lines, green for the top, red for the bottom, or you can fill in the bottom section of the writing line with yellow)
- finger spacers (you can use small wood craft sticks or just have the student use their finger between words for spacing in sentences)
- weighted pencil or pens (provides needed proprioceptive input if a student is not putting enough pressure or too much pressure through their pencil)
- vibrating pencil or pen (this also adds tactile and proprioceptive input for children who have difficulty grasping writing utensils)
- colored backgrounds for writing or color overlays for reading
- text to speech software

Your school Occupational Therapist will be able to help you access accommodations and teach you how to use them appropriately with your students.

SENSORY BREAKS



Sensory breaks can be simple and short, but should be regularly interspersed throughout the school day. For younger kids, sensory breaks should happen ideally every 15 or 20 minutes and for students in upper elementary and above, every 30-45 minutes.

Come up with a special signal or code word for the student to tell you when they need a sensory break or time in the sensory space or room. You could also use a visual schedule picture or symbol that a student could hand you.

Sensory break ideas for the classroom:

- send the student to take a note to the office or retrieve a book from the library. You can add a heavy work element to this by having them wear a backpack with old books or weighted materials.
- movement breaks during a lesson such as standing up and reaching high and then touching the floor
- wall pushes
- jumping jacks
- heavy work activities (see heavy work activities in the Creating a Sensory Space in Your School Chapter)

- simple obstacle course (walk a narrow duct tape line on floor, crawl through a tunnel, crab walk around a desk)
- singing and doing an action song
- playing a simple movement game like Simon Says
- yoga or stretches
- marching around the classroom
- skipping in place or side to side

Heavy work offers proprioceptive input and has a calming effect. You can create heavy work opportunities by asking for a student's help with moving books from one location to another, transporting a heavy backpack, holding open a heavy door, or moving desks or tables. These tasks should of course be age and ability appropriate for the child.

Incorporate breathing activities into the school day. Take a few minutes in the middle of an activity or before the start of a test. Examples of breathing activities include having students put a hand on their stomach and feel the rise and fall of their stomach, pretending to smell a flower and then blow out a candle, blowing bubbles, or blowing on a pinwheel.

SENSORY STATIONS



Setting up sensory stations is a way to allow children to easily meet their sensory needs in the classroom. This can be an especially effective way to address the issue of having some students who need more sensory stimulation while others need less. It allows you to create areas within the classroom that either provide more stimuli or block sensory stimuli.

Creating a chart to demonstrate or clearly labeling each station makes it easier for students to navigate through the stations if you want them set up as a series. It is important the students are not required to complete each station because their sensory preferences may make some stations ineffective or even difficult for them.

There are many ways you can provide access to these stations. You can have children rotate through the stations in between other activities, have them rotate through the stations at a set time, or you can simply provide the stations and let the kids know what they are and that they are welcome to use them when they need to.

Having the stations clearly labeled makes it straightforward. To provide visual cues, you can also create a picture diagram of where the stations are in the classroom or school, in addition to having each one marked.

If you are teaching children with autism or children who need more structure, you should provide some type of chart or way for them to keep track of the stations or lay them out in a circuit.

When the weather is appropriate for it, you can also add outdoor sensory stations into your

rotation. When setting up your stations ensure that different sensory systems are represented with a good balance of seeking and avoiding sensory activities.

Sensory Station Ideas:

- sensory bin or sensory table
- play dough, cloud dough or slime
- rocking chair or bean bag chair with a picture book
- spinning chair
- auditory station - set out a pair of headphones and a CD player with different audio books and music options
- a basket of musical instruments (these can be homemade ones such as a can filled with dry rice)
- water or sand table (use plastic bins for a small space)
- a sensory activity like shaving cream painting or finger painting
- crab walk, crawl, frog jump, bunny hop, jumping jacks
- light table
- jello, goop, gak, or silly putty
- heavy work activity such as carrying books or moving chairs in the classroom
- large hopping ball or exercise ball
- couch cushions or blankets for rolling up in or sandwiching between
- body socks or body tubes
- trampoline or mini trampoline
- square or circle made with masking tape on the floor for jumping on one foot
- dancing station with music and a large area to move in
- pouring and scooping activity
- bubble wrap for popping
- salt tray
- texture cards or squares
- scent bottles
- sound therapy machine
- bin with soapy water for washing play dishes (or real dishes), cars or toys

The great thing about being able to create your own sensory stations is that you can customize them to meet the sensory needs of your students. You can also change them to fit weather or seasonal needs. Changing them from time to time also helps keep children interested and engaged.

Be very aware that some sensory activities that will be helpful for some will be triggering for others. An example would be that stomping on bubble wrap would be great for tactile and auditory sensory seekers but hearing the sound in the classroom would be unpleasant for auditory avoiders in the room. In this example, you could provide noise canceling headphones and do the activity outside where the loud noise will be less bothersome.

CREATING A SENSORY SPACE IN THE CLASSROOM



Designating a special area of the classroom or school for kids to go when they are needing help to regulate themselves can be a great help for all students. A sensory space in a classroom can be as simple as a bean bag chair in a corner with noise reducing headphones.

In the sensory area, create a visual breathing reminder. This can be a picture of a flower and a birthday candle to remind them to breathe in and blow out. The most important part about this strategy is to teach the breathing beforehand when the students are calm.

You can also use a pop up tent to create a more enclosed sensory area. Inside, place a bean bag chair or blankets, as well as a basket with a sensory ball and a few quiet fidgets in it.

Other suggestions for separating a sensory area are to hang a curtain or shower curtain, use fabric hung from the ceiling, or a room divider. The back of shelving units can also be used to define a sensory space as long as they are the low type or are properly secure.

If you don't have a tent, take a giant box such as a refrigerator box and cut a large round or square opening on one side near the bottom. Use duct tape to seal off the sharp edges of the cardboard opening. Place a bean bag chair, cushions or blankets inside. On the "walls" inside the box, put up visual emotion charts or calm down or breathing prompts.

You can also provide shallow plastic bins that children can use to sit inside in their sensory space. This provides proprioceptive and visual input for the designated sensory space, but does not take up as much room in the classroom. A simple bean bag chair or rocking chair is also a great alternative for smaller spaces.

Create a tactile wall or tactile board in or near the sensory space by attaching different textures to the wall or to a cork board. This is so inexpensive to create as you can use what you have available or have parents donate items to use.

Suggestions for what to use for a tactile wall:

- old CDs
- sandpaper
- bubble wrap
- cotton balls or cotton batting
- textured foam
- string glued into patterns
- feathers
- tin foil
- buttons
- dry pasta
- ribbon
- Velcro

- dry beans or lentils
- fabric
- sponges
- pompoms
- pipe cleaners
- rocks
- sequined fabric (mermaid)
- carpet or floor samples
- wallpaper samples
- paint swatches
- mop head
- corrugated cardboard
- contact paper (sticky)
- artificial turf
- cork
- mesh

If you don't have space for a texture wall, use a colored folder and glue some of the textures inside the folder. These folders can be placed near your sensory space for students with tactile seeking behaviors to use during their breaks.

EMOTIONAL REGULATION



Emotional regulation is something children must be taught. Encouraging emotional regulation in your classroom can be done in a variety of ways.

Talk about emotions as often as you can so children can understand the difference between feeling happy or sad or angry. This is often easiest to do during reading time and asking children about how a character felt in a book.

Have an emotions chart in the classroom and spend time equipping your students with an emotional vocabulary.

Common emotions include:

- joy/happy
- anger
- anxiety
- surprise
- fear
- sadness/grief)
- love

Once you have identified these emotions, come up with a list of activities or ways the children in your class can self-regulate when they are feeling certain ways.

This can include taking slow, deep breaths (tell the children to imagine smelling a flower and blowing out a candle). Practice this deep breathing together as a class and bring it into your day when you need to gain attention or focus of your students.

Talk about having calm thoughts and positive self-talk. You can include a board of positive words so the child can remember to say these to themselves. Things like “I am okay”, “I can cope”, “I am safe”, are great ones to start with.

Regulation Station

We already talked about sensory stations, but you can also include a regulation station in your classroom (or sensory room in your school) as a way for children to take control of their own emotional regulation.

Some things you can include are:

- bean bag
- picture of smelling a flower and blowing out a candle to encourage breathing techniques
- rocking chair (find a rocking chair from a thrift store or ask for a donation of a used rocking chair to defer costs)
- calming bottle
- crash pads
- fidgets
- calming dough, silly putty, or thinking putty
- headphones with soft, calming music

Noticing, Acknowledging and Communicating About Emotions

It is important to remember that before offering a solution for emotional regulation that you notice the emotion, name it, acknowledge it, and emphasize it with the child.

Examples of this could be:

“I can see you are feeling frustrated right now. I’m sorry you are feeling that way. How can we work through this together?”

“I know you are very angry right now. It’s not fun to feel that way.”

“I’m sorry you are feeling worried.”

After you have noticed and acknowledged the emotion, you can work together to find ways to help the child manage their emotions. “Do you need to take a break?” “Do you need to take a deep breath?” “Do you need to talk about it?” “What can you do to feel better about the situation?”

It is important to also offer praise and recognize when a child is able to emotionally regulate and calm themselves, even if they need help to do it. Saying something like, "I noticed you took some deep breaths instead of screaming. I am really proud of you!"



Chapter 4

CREATING A SENSORY ROOM IN YOUR SCHOOL

A designated sensory room in a school is basically a safe place for students to go when they either need a break or to calm themselves if they are starting to unravel. Once there, they can work on self-regulating their behaviors.

Work with your school administration, special education staff and Occupational Therapist to design a space that would be useful for your student population. There are many different ways you can set up this space and it's always helpful to incorporate an OT's recommendations.

Money and space are almost always factors when setting up sensory spaces. You may need to come up with some creative solutions like shopping at local thrift stores, asking for donations, or using DIY options for some items.

It is important to make sure the area that you pick is completely safe, that there are no sharp corners, outlet covers are in place, plus no other items that could cause harm if a child is having a particularly bad day. There are times when children may be so upset that they will throw them-selves into things or throw things at other people. So ensure that this area is free from any objects that could cause harm to them or to others.

The next step would be to make sure there are no fluorescent lights. Many times, fluorescent lights can be irritating for children with visual sensitivities. Instead of calming down, the lights will only make their behavior worse.

If you don't have an option to change out the lighting, simply cover the fluorescent lights with heat safe paper to help cut down on the glare, or just don't turn them on. You can include soft lighting such as Christmas lights along the ceiling or a dim lamp. Other lighting options include battery powered candles, net lighting, lava lamps, or fiber optics.

If you are able to paint, choosing a soothing paint color. Soft purple with blue undertones is a safe bet. Pale or natural colors work well, too.

Fill the room with items to engage all the different sensory systems. Consider textures, lighting, smells, and sounds.

- bean bag chair
- rocking chair
- egg chair
- strings of white lights
- lava lamp
- soft area rug

- sound therapy or white noise machine
- basket of fidgets
- mirror
- climbing wall
- indoor swing such as a net swing or therapy swing
- punching bag
- hanging bar
- pop up tent
- weighted blanket
- calm down bottles
- palm massager
- board with various textures
- noise reducing headphones
- light table
- large pillows or mats
- sensory break cards
- crash pad area - you can fill a duvet cover with large foam pieces or use a large beanbag
- indoor jungle gym
- a tunnel to crawl through
- mats for summersaults, rolling, wrestling, flips
- sandbox
- ball pit (this can be made easily by filling a kiddie pool with balls or pieces of cut up pool noodles)
- scooter boards
- indoor obstacle course
- balance beam or stepping stones

SENSORY ACTIVITIES



A few things to keep in mind when using sensory materials in the classroom:

1. Always consider allergies before choosing sensory materials. Safety is the priority.
2. Set out expectations and rules around sensory materials with the students ahead of time.
3. Get parental permission and research before including essential oils.
4. Have students wash hands before and after handling any sensory material.

Sensory Bins, Bags, and Bottles

In the classroom, you can tailor sensory bins, bottles, and bags to go along with a particular theme, season, unit or learning opportunity.

You can find more information about how to make sensory bins, calm down bottles and sensory bags in the Parent Companion Guide section.

Some schools do not allow food to be used for play in the classroom because of allergies or policies about waste. If that is the case at your school, here are some suggestions for some non-food sensory bin fillers:

- cotton balls
- pompoms
- Kidfetti
- feathers
- foam bits
- shredded paper
- Easter grass
- beads
- Epsom salts
- confetti
- water
- ice
- snow
- sand
- dirt
- buttons
- packing peanuts
- shaving cream
- soap shavings
- mud
- rocks
- water beads
- glass beads
- seashells
- ribbon curls
- leaves (real or plastic)
- corks
- building blocks
- fabric scraps
- costume jewelry
- grass (real or fake)
- tinsel
- baby oil
- lotion or gel
- silk or plastic flowers
- streamers
- corn silk
- play coins
- toys
- aquarium rocks
- shavings
- cotton batting

Play dough and Slime

Play dough and slime are great for sensory use and can also be incorporated into learning by using it along with laminated play dough mats or using it to form letters, numbers or shapes.

You can find our tried and true play dough and slime recipes in the Parent Companion Guide section. You can also enlist the help of parents to make the recipes.

In a classroom, you'll want to change out the play dough or any sensory dough often to cut down on the spread of germs. Have students wash their hands before and after playing with it.

HEAVY WORK ACTIVITY IDEAS



Heavy work activities provide a high level of proprioceptive and vestibular input in order to organize, calm, and help a child to focus. They can be helpful as sensory breaks or during transitions (either right before a transition or during it) to and from the classroom.

Here are some heavy work ideas for the school environment:

- wall or floor push-ups
- moving furniture
- picking up a stack of heavy books
- wearing a weighted backpack
- carry a large bottle of water
- carry a fidget
- yoga poses
- squeeze putty or play dough
- animal walks (bear walk, hop like a rabbit, army crawl)
- bear hugs
- scooter board activities
- erase the chalk board or dry erase board
- wash the desk
- help rearrange furniture or desks in the classroom
- help the gym teacher move mats or equipment
- allow chewing gum breaks
- sharpen pencils with a manual sharpener
- take copy paper for the copying station
- climb on playground equipment
- run around the track at school
- jump in a mini-trampoline
- open the door for the class or other students and staff
- carry a large bottle of water
- use a hole punches for a craft activity
- chew crunchy foods or snacks

- knead clay or play dough
- clean windows or mirrors

ALERTING ACTIVITIES



- heavy work activities
- wall push-ups or chair push-ups
- jumping on a mini-trampoline
- popcorn jumps (jumping from a squat position and then landing back in a squat position)
- putting up/down chairs
- bouncing on a therapy or exercise ball during classroom activities
- passing a weighted ball
- resistance bands on the legs of chairs
- upbeat music with a strong beat
- dancing breaks
- frequent movement breaks (“brain breaks”)
- spinning in place (be aware of seizure or heart problems)
- yoga poses
- songs with hand motions
- running
- skipping
- chewing bubble gum
- sucking on sour candy
- chewing crunchy snacks
- visiting the sensory gym or space in your school
- taking a walk
- participating in gym or recess time
- sliding down the slide
- drinking a cold drink
- using bright lights

CALMING ACTIVITIES



- rocking gently on a ball
- turning off or dimming lights
- using a swing
- lying under a heavy blanket (should not be done with children under 3 or those who can't remove the blanket themselves)
- listening to soft music (spa CD, classical music, easy listening, etc. Remember no base and slow, consistent rhythm is best)
- bean bag squeezes with the hands

- lying on the floor while an adult rolls a ball over top giving some deep pressure
- using of body sock/lycra material to wrap up in
- light touch/firm touch (depending on the child) – have the child brush a feather over their arms, or squeeze their arms with their hands for deep pressure
- using hand or desk fidgets (such a play dough, Wikki Stix®, putty etc.)
- completing heavy work activity
- deep breathing techniques (smell the flower, blow out the candle)
- squeezing a stress ball
- taking a walk
- giving themselves a hug
- bouncing on a mini-trampoline
- chewing gum
- doing wall push-ups or chair push-ups
- going to a quiet area (either a space in the classroom or the sensory room)
- doodling or draw a picture or color
- writing in a journal or notebook
- sitting in a bean bag chair
- rocking in a rocking chair
- hugging a pillow or stuffed animal
- singing or humming quietly to themselves
- using weighted lap pads or vests
- air cushion seats
- vibrating pen
- playing with a sensory bin, bag, or bottle

ORGANIZING ACTIVITIES



- bouncing on a therapy ball
- upbeat music with a strong beat
- vibrations on the arms, hand or back
- swinging
- jumping on a mini-trampoline
- going outside
- heavy work activities
- controlled spinning (do not do this if there is any known heart or seizure history)
- jumping jacks
- push-ups or wall push-ups
- skipping
- running (relay races, obstacle courses, etc)
- decreased visual input in the classroom
- using visual schedules
- minimize supplies for activities
- desk or locker organization bins and trays
- using a planner
- using labels and keep items in organized bins or caddies

CROSSING MIDLINE ACTIVITIES



Crossing midline is an important part of development in a child. They need it for reading, writing, and many other important school activities as well as play activities.

What is midline? If you were to draw a line down the middle of your body, starting at the head, that is your midline. Every time you cross that line with either side of your body that is crossing midline.

So what does it look like if a child is having difficulty crossing midline?

1. The child may actually “get stuck” in mid-reach and have to switch hands to continue (you will notice this with handwriting especially)
2. They may compensate by moving their whole trunk to reach toward the opposite side.

Poor mid-line crossing will affect how a child reads (tracking with the eye from left to right) and writes (using their dominant hand across the writing page).

Crossing Midline Activity Ideas:

- playing with rhythm scarves
- playing with blocks (stacking)
- dancing to music
- dusting or sweeping the classroom
- playing patty-cake
- cross crawls (touching hand to opposite foot or knee)
- wipe off the table with a towel or washcloth using one hand
- draw a large, horizontal figure 8 on a chalk board or sidewalk
- ball pass relay races
- bean bag toss while sitting criss-cross applesauce (legs crossed in front of them).
- playing a game of Simon Says



Chapter 5

PRACTICAL TIPS FOR IMPLEMENTING SENSORY STRATEGIES IN THE CLASSROOM

Now that you have some ideas on how to include sensory activities and accommodate for sensory processing difficulties in the classroom, let's look at some practical ways you can implement these changes.

As an educator, you have so many components of learning that you have to fit into your school day. Then throw in 25-30 kids, all with different sensory processing thresholds and needs and it can be overwhelming to figure out where to start.

First, we highly encourage you to start small. Trying everything you've read in this book at once will only cause frustration for you, and also your kids. It is important to try just a couple of strategies at first and let those settle into your classroom and routine before adding more. This is also important for figuring out what strategies are working and which aren't.

Here are some questions you can ask yourself as you begin to incorporate sensory strategies.

1. Is there a time of day when you notice your class has a hard time focusing? After lunch? After recess? First thing in the morning? Right before going home?
2. Are transitions an issue when going from one activity to another or one environment to another?
3. Do I have children who seem to be on opposite ends of the sensory spectrum (those who are oversensitive, under-sensitive or under-responsive)?
4. What sensory processing strategies have I tried before in my classroom? What worked? What didn't work?

After you have thought through your classroom dynamic, pick one to two strategies that you can implement for the entire classroom. All children benefit from sensory processing strategies to help them focus and function during their school day.

Pick strategies that will be easy for you to implement and have the most impact on your classroom. Activities like "brain breaks" or movement breaks, calm down stations or toolkits, self-regulation toolkits or stations, using visual schedules or timers, fidget toolkits, sensory bins or bags, and flexible seating options are all great ones to start with.

It is important to let these changes become part of your classroom for at least two to four weeks before deciding if you need to change something.

You may find that one strategy works really well at first because it is new or novel to the kids. But once they get use to it, the effect begins to wear off. You may need to make some tweaks or try something completely different.

If this happens and you get stuck with what to try next, reach out to your school Occupational Therapist for suggestions. They can make recommendations for strategies or tweaks in order to help get the effect you are wanting in your classroom.

Additional
RESOURCES

SUGGESTED RESOURCES



There are so many great resources out there about sensory processing and strategies for the home, classroom, or clinic. We have gathered some of our favorites for you to continue to learn about sensory processing.

Suggested Reading

Raising a Sensory Smart Child: The Definitive Handbook for Helping Your Child with Sensory Processing Issues. By Lindsey Biel, OTR/L and Nancy Peske.

The Out-of-Sync Child: Recognizing and Coping with Sensory Processing Disorder. By Carol Kranowitz and Lucy Jane Miller.

Sensory Processing 101. By Dayna Abraham, Claire Heffron, Pamela Braley, and Lauren Drobnjak.

The Sensory Lifestyle Handbook - How to Create Meaningful and Motivating Sensory Enrichment for Sensory-Filled Days. By Colleen Beck, OTR/L.

Interoception - How I Feel: Sensing My World from the Inside Out. By Cara Koscinski, MOT, OTR/L.

Sensorimotor Interventions - Using Movement to Improve Overall Body Function. By Cara Koscinski, MOT, OTR/L.

The Special Needs School Survival Guide - Handbook for Autism, Sensory Processing Disorder, ADHD, Learning Disabilities and More! By Cara Koscinski, MOT, OTR/L.

The Parent's Guide to Occupational Therapy for Autism and Other Special Needs - Practical Strategies for Motor Skills, Sensory Integration, Toilet Training and More. By Cara Koscinski, MOT, OTR/L.

From Rattles to Writing - A Parent's Guide to Hand Skills. By Barbara A. Smith, MS, OTR/L

From Flapping to Function - A Parent's Guide to Autism and Hand Skills. By Barbara A. Smith, MS, OTR/L

SUGGESTED WEBSITE ON SENSORY PROCESSING



RESEARCH WEBSITES

STAR Institute - Sensory Processing Disorder. Current research on SPD. | www.spdstar.org

Sensory Processing Disorder (SPD) Resource Center -
<https://www.sensory-processing-disorder.com/index.html>

Sensory Smarts - Raising a Sensory Smart Child - <https://www.sensorysmarts.com/index.html>

Parent and Teacher Blogs

The Chaos And The Clutter - Sharla is a homeschool mom of 7 with experience in adoption, trauma, and special needs. | www.thechaosandtheclutter.com

And Next Comes L - Dyan shares information on sensory processing, Autism, and Hyperlexia.
www.andnextcomesl.com

The Sensory Spectrum - Jennifer has created an online sensory community for parents.
www.thesensoryspectrum.com

Lemon Lime Adventures - Dayna shares her perspective as a mom and educator on sensory processing. | www.lemonlimeadventures.com

My Mundane and Miraculous Life - Julie shares her experiences with sensory processing, parents, homeschooling, and natural living. | www.mundaneandmiraculouslife.com

Putting Socks on Chickens - Erin shares her experiences in parenting with SPD, ADHD, and OCD in a rural area. | www.puttingsocksonchickens.com

Wendy Bertagnole - Imperfect Mom - Wendy writes about challenging behaviors and sensory processing with her experience as a special education teacher and parent.
www.wendybertagnole.com

Sensory Mom Secrets - Sensory mom shares about parenting two children with sensory processing disorder. | www.sensorymomsecrets.com

Parenting Chaos - Stephanie shares sensory processing activities and tips from her experience as a teacher. | www.parentingchaos.com Integrated

Learning Strategies - Information on reading, writing, math, education, development, sensory processing and more. | www.ilslearningcorner.com

Autistic Mama - Kaylene shares her experience parenting with Autism and sensory processing.
www.autisticmama.com

Therapy Blogs

Growing Hands-On Kids - Heather is an Occupational Therapy Assistant with experience in school-based OT. | www.growinghandsonkids.com

The Inspired Treehouse - An Occupational Therapist and Physical Therapist team.
www.theinspiredtreehouse.com

The OT Toolbox. Colleen is an Occupational Therapist with school-based experience.
www.theottoolbox.com

The Pocket Occupational Therapist - Cara is an Occupational Therapist, author, and speaker on sensory processing and many other special needs topics. | www.pocketot.com

Miss Jaime O.T. - Jaime is an Occupational Therapist who works in the school based and private pediatric setting. | www.missjaimeot.com

Your Kids OT - Make Learning Fun. Cindy is an Occupational Therapist in Sydney Australia.
<https://www.yourkidsot.com/>

Your Therapy Source - Numerous resources for Occupational and Physical Therapists in the pediatric setting. | <https://www.yourtherapysource.com/blog1/>

Kids Play Space - Pediatric Occupational Therapist who specializes in play, life skills, and development. | <http://kidsplayspace.com.au/>

Mama OT - Pediatric Occupational Therapist sharing helpful tips and tricks for parenting.
<http://mamaot.com/>

Therapy Fun Zone - Pediatric Occupational Therapist sharing creativity, fun and play to work on developmental skills. | <https://therapyfunzone.net/>

The Recycling Occupational Therapist - Occupational Therapist and author.
<http://recyclingot.blogspot.com/>

Your Kids Table - Pediatric Occupational Therapist that specializes in feeding, sensory processing, and picky eaters. | <https://yourkidstable.com/>

Can Do Kiddo - Pediatric Occupational Therapist with experience in early intervention, specializing in all things baby. | www.candokiddo.comHonest

Occupational Therapy - Pediatric Occupational Therapist with experience in out-patient/clinic, school, and home based services. | <http://www.honestot.com/>

Sarah The O.T. - Sensation solutions and inspiration for parents, teachers, and therapists. Pediatric Occupational Therapist. | <https://www.sarahtheot.com/>

Yums Theraplay - Empowering families of children with feeding, sensory processing and special needs in their most natural environments. Pediatric Occupational Therapist.
<http://yumstheraplay.com/>

SUGGESTED COMPANIES FOR SENSORY TOOLS



Fun and Function - Empowering Different. Sensory tools for sensory regulation.
www.funandfunction.com

The Therapy Shoppe - The extraordinary little specialty shoppe for school and pediatric therapists, teachers, and parents too!
www.therapysshoppe.com

Chewigem U.S.A. - Specializes in chewable necklaces, bangles, and more.
www.chewigemusa.com

ARK Therapeutics - Sensory Oral Motor Tools.
www.arktherapeutics.com

Sensory Theraplay Box - Monthly subscription box of oral motor and sensory tools.
www.sensorytheraplaybox.com

Sensory Tools Australia - <https://sensorytools.net/>

Amazon - Search "sensory toys" or "sensory tools".
www.amazon.com

DIY Sensory Tools

For a complete list of our favorite DIY sensory tools, visit the two resource pages on our websites.

For parents visit:

<https://www.thechaosandtheclutter.com/archives/diy-sensory-tools-activities-and-resources-for-parents>

For educators and therapists visit:

<https://www.growinghandsonkids.com/SensoryToolsforEducators>

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Printables for
PARENTING
Companion Guide



THE SENSORY PROCESSING SYSTEMS AT HOME

THE VESTIBULAR SYSTEM

SENSITIVITIES

- gravitational insecurities - exaggerated emotional responses to antigravity movements, will become very upset when movement is forced on them
- movement intolerance - uncomfortable with fast movement or spinning
- does not like feet off the ground - fearful of heights, fear of falling
- hesitates or is afraid of climbing and going down steps, playground equipment etc
- has difficulty standing still (fidgets)
- easily prone to being carsick or motion sick (this can also manifest as falling asleep immediately in a car, bus, boat, or airplane)
- craves spinning or swinging

ACTIVITIES

- using a ball chair or wiggle cushion for seated activities
- taking movement breaks (brain breaks)
- jumping on a trampoline
- swinging
- riding a bike
- yoga poses
- using a scooter board
- dancing
- jumping rope
- sit and spin chairs
- rolling down a hill
- somersaults
- cartwheels
- wheel-barrow walking (the child walks on their hands while another child or adult holds their feet like a wheel-barrow)
- gymnastics
- walking on a tree log or balance beam
- walking the line (use painters tape on the floor in a straight or zig-zag lines)
- hang upside down
- play Twister
- swing in a hammock
- climbing and sliding at the playground
- do a handstand
- set up an obstacle course



THE SENSORY PROCESSING SYSTEMS AT HOME

THE PROPRIOCEPTION SYSTEM

SENSITIVITIES

- poor body awareness - knowing where their body or body parts are in space
- poor coordination - they move awkwardly or stiffly
- difficulty grading amount of pressure - using excessive force on an object (such as breaking a pencil or crayon with writing or coloring)
- may push, hit, bite, or bang into other children
- avoid or crave jumping, crashing, pushing, pulling, bouncing or hanging
- chew on clothing or objects more than other children (remember this is age appropriate at certain times in development of younger children, typically age 3 and under)
- have to look at what they are doing (such as when walking or running)

ACTIVITIES

- weighted lap pads
- bean bag chair to sit in
- heavy work activities
- weighted vest
- swimming
- karate
- climbing
- playing in a sandbox
- cleaning the house or their room
- carry groceries
- wearing a lycra vest
- using a lycra body sock
- chair push-ups or sit-ups
- participating in sports activities if interested
- dance party with lively music
- wash the car
- tight hugs (like a bear hug)
- roll a ball
- yoga stretches
- pillow fights
- stacking books, wood, or bricks
- pretend to be different animals and move like the animal (hop like a rabbit, slither like a snake, etc)
- chewing bubble gum
- use chewable items like necklace or fidgets
- use the monkey bars on a playground



THE SENSORY PROCESSING SYSTEMS AT HOME

THE TACTILE SYSTEM

SENSITIVITIES

- avoids messy hands, face, or just mess in general
- has difficulty with certain clothing items such as tags or seams
- needs to touch everything (brushing along walls while walking, picking up everything)
- the need to fidget in order to focus or when bored
- avoids hugs or physical contact with others
- unaware if hands or face are messy
- may crave being close to people or need to be touching something constantly
- seem unaware of dangerous items that may cause pain or injury
- may be unaware if something hurts (high pain threshold)

ACTIVITIES

- sensory bins with various textures
- use weighted blankets or lap pads
- play dough or finger painting
- deep pressure either by rolling an exercise ball
- across the back or squeezing the hands
- using a stress ball for hand squeezes or hand fidgets
- put finger paint in a plastic bag and have them paint from outside the bag by moving the paint around in the bag with their fingers
- wear tag-less clothing
- massage their scalp before haircuts (deep pressure
- scalp massage)
- weighted vest at the dentist or other anxiety-inducing outings that include tactile input
- cutting nails-soak in warm water first, press on nail bed before cutting
- t-shirt sheets on bed and snug pajamas
- having a special stuffed animal to hold, pet and touch
- shaving cream finger paint (write their names, copy shapes or letters/numbers)
- play in the mud
- make slime (recipe at the end of this section)
- play with water beads
- make or play with kinetic sand
- make cloud dough
- jump into a pile of leaves
- gardening (planting flowers, vegetables, digging in the dirt)



THE SENSORY PROCESSING SYSTEMS AT HOME

THE AUDITORY SYSTEM

SENSITIVITIES

- distracted by background noises
- does not speak as well as others their age
- has a significant history of ear infections
- covers their ears often to block sound
- often asks for others to repeat what they said
- has trouble with phonics and learning to read
- unusually high volume or low volume in their voice
- seems to ignore others when their name is called

ACTIVITIES

- use headphones or ear plugs to block out background noises
- simplify language when giving instructions to your child (1-2 steps at a time and use concise words)
- give a verbal or visual warning before loud sounds to cover ears (if possible)
- try Therapeutic Listening programs (this involves specialized training and an Occupational Therapist to assess)
- include a rain stick in your sensory space or room
- musical instruments such as shakers or learning to play an instrument
- calming, soft music to encourage regulation and self-calming
- use a white noise machine or fan
- play clapping games
- read books with rhyming or repetitive patterns
- play a sound discrimination game (near, far, loud, soft, high, low)
- listen to audiobooks
- play a listening or quiet game (how many different sounds or noises can you hear?)
- use the steady tick of a metronome as a calming technique
- pop bubble wrap (for those seeking input)
- play a sound guessing game (ripping paper, grinding coffee, beans, popping popcorn)



THE VISUAL SYSTEM

SENSITIVITIES

- light sensitivity to sunlight, glare, or fluorescent lights
- overly distracted by classroom or home wall decorations
- poor eye-hand coordination
- difficulty tracking across a page while reading
- often complains of headaches
- skips words or lines and loses their place
- while reading
- poor handwriting and drawing skills

ACTIVITIES

- decrease wall decorations or distracting designs and patterns
- adjust lighting in the home (cover fluorescent lights or turn them off and use natural light or lamps)
- use a table easel to bring the work surface into a more upright position
- use a window guide and/or colored overlays for reading
- copy from a page or book at close range rather than from farther away
- make sure screen and monitors are at a proper height
- focus on eye-hand coordination activities such as playing catch
- tossing bean bags at a target
- use visual schedules
- i-spy books or pages
- complete mazes and puzzles
- create a photo scavenger hunt
- color mixing activities
- make shadow puppets on the wall
- road trip bingo games
- play with glow sticks
- use lava lamps in a calming space
- spray a target with a water gun
- create or purchase a light table
- find and copy shapes and patterns in a journal or paper



THE SENSORY PROCESSING SYSTEMS AT HOME

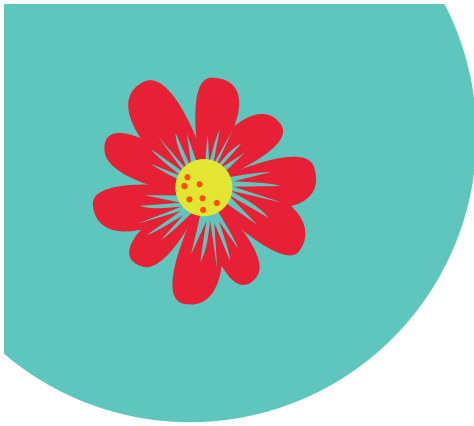
THE GUSTATORY SYSTEM

SENSITIVITIES

- sensitivity to brushing teeth (taste of the toothpaste, bristles on the toothbrush)
- sensitivity to food textures (limited variety of foods they will eat or has anxiety about trying new foods)
- frequent drooling
- loves or has a strong fear of going to the dentist
- mouthing non-food objects and exploring textures such as chewing on pencils, clothing, etc.

ACTIVITIES

- chewing gum
- chewable jewelry or chewable tool/toy
- vibrating toothbrush
- drinking from a straw (sucking can be focusing and help with attention, especially thicker items like a smoothie or milkshake)
- creating tasting bottles of various safe items with scent or flavors (sweet, salty, sour etc)
- blowing bubbles
- exploring textures through sensory bins or messy sensory play
- whistling a song or favorite tune
- blowing up balloons
- blowing out candles
- drinking through a sports bottle
- blowing a pinwheel



THE SENSORY PROCESSING SYSTEMS AT HOME

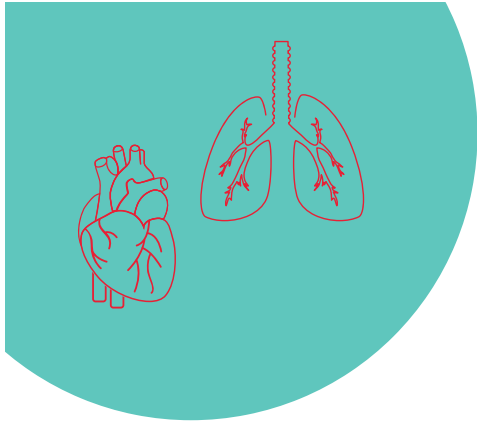
THE OLFACTORY SYSTEM

SENSITIVITIES

- overly sensitive to certain smells and avoids them
- limited diet (gagging or avoiding)
- explores objects by smelling
- craves certain smells or textures
- holds their nose to avoid smells, even if you don't smell anything
- avoids foods most children their age enjoy

ACTIVITIES

- scented play dough, finger paints, or sensory bins
- use scented markers or stickers
- scented bubbles
- scented chewable items
- scented bath soaps or lotions
- create smelling bottles with various spices or items to introduce new smells
- aromatherapy options with essential oils
- use unscented lotions, soaps, or hair products for hyper-sensitivities
- take a walk and explore smells in nature
- visit a herb garden
- match pictures of food to their smells
- chew bubble gum



THE SENSORY PROCESSING SYSTEMS AT HOME

THE INTEROCEPTION SYSTEM

SENSITIVITIES

- difficulty with toileting (bedwetting and accidents)
- unable to track hydration or food intake (never feel thirsty or hungry, or may always feel thirsty or hungry)
- difficulty in recognizing and communicating internal body states or sensations (feeling hot/cold, pain etc)
- difficulty regulating emotions and feelings (not feeling they are angry before they verbally or physically lash out)
- distracted by internal sensory input such as hearing their heartbeat
- unable to tell how loud their voice is in an environment
- may use sound to cover up unwanted sensory stimuli

ACTIVITIES

- mindfulness activities
- yoga
- bellows breathing techniques (to promote quiet and listening to the body)
- heavy work activities
- alerting activities
- repetitive and rhythmic vestibular input
- visual prompts and cues to identify and communicate emotions
- emotional regulation station or corner (like a sensory corner or space)
- social stories
- keep track of water intake using a chart with pictures

HEAVY WORK ACTIVITIES FOR HOME

The idea of heavy work activities is to provide high levels of proprioceptive input into the muscles and joints. They can be alerting, organizing, or calming depending on the child.

- moving furniture
- washing windows
- carrying a stack of heavy books
- pushing a shopping cart
- carrying groceries
- pulling a weighted rolling cart
- pulling a wagon
- wearing a weighted backpack
- raking leaves
- shoveling snow
- gardening
- pushing a wheelbarrow
- mowing the grass (safely, for older children)
- carrying a large bottle of water
- pushing or pulling laundry baskets full of clothes or other weighted items
- emptying garbage cans
- loading or unloading the dishwasher
- wall or floor push-ups
- jumping rope
- climbing a rock wall
- playing soccer
- participate in open gym time
- participate in gymnastics lessons/classes
- rolling out bread or play dough with a rolling pin
- chewing crunchy foods or snacks
- using hole punches for a craft activity
- rolling in a lycra body sock or in a blanket (make sure the head is visible)
- playing at a nature playscape
- visiting the local playground
- riding a bicycle or scooter or skateboard
- holding the door open for others
- drink a thick milkshake or smoothie through a straw
- kneading clay or playdough
- having a pillow fight
- washing the car
- moving logs or bricks
- using a watering can for houseplants or garden
- wiping or painting walls
- building something with hammer and nails
- helping with laundry (loading, carrying baskets, folding)
- doing an obstacle course
- potato sack or three legged races
- using a weighted lap pad
- using a pogo stick
- using a hopping ball
- swimming
- vacuuming the floor
- jumping on a trampoline
- horseback riding
- jumping into a crash pad or on an old mattress

CALMING ACTIVITIES FOR HOME

- rocking slowly over ball on the stomach
- turning off the lights or dimming lights
- swinging in a large circle with the child facing an adult (no spinning)
- laying under a heavy blanket (should not be done with children under 3 or those who can't remove the blanket themselves)
- listening to soft music
- bean bag squeezes with the hands
- laying on the floor while an adult rolls a ball over top giving some deep pressure
- use a body sock/lycra material to wrap up in
- light touch/heavy touch (depending on the child) – have the child brush a feather over their arms, or squeeze their arms with their hands for deep pressure
- squeezing a hand fidget
- rolling out play dough
- using modeling clay
- heavy work activities
- chewing gum
- eating crunchy snacks
- using white noise
- noise canceling headphones
- deep breathing techniques (smell the flower, blow out the candle)
- taking a walk
- doodling or drawing
- playing with a sensory bin or bag
- coloring
- painting
- yoga poses
- blowing bubbles
- shaking a calm down bottle or jar
- asking for a hug
- giving themselves a bear hug
- squishing putty or play dough with their hands
- rocking in a rocking chair
- doing push-ups
- exercise warm-up stretches
- chewing a chewable necklace or chewable sensory tool
- using a visual schedule
- rocking in a rocking chair
- deep pressure massage
- carrying a weighted backpack
- using a weighted vest or lap pad



ALERTING ACTIVITIES FOR HOME

- bouncing on a therapy ball
- upbeat music with a strong beat
- vibrations on the arms, hand or back
- swinging
- jumping on a mini-trampoline
- going outside
- heavy work activities
- controlled spinning (do not do this if there is any known heart or seizure history)
- jumping jacks
- push-ups or wall push-ups
- skipping
- running (relay races, obstacle courses etc)
- playing hot potato with a weighted ball
- scooter board activities
- chewing bubble gum
- sucking on sour candy
- chewing crunchy snacks
- swimming
- dancing break
- songs with hand motions
- yoga poses
- wheelbarrow walking
- crawling through tunnels
- completing obstacle course
- playing with messy textures
- crashing into a ball bit or large pillows
- sliding down the slide
- playing tug-of-war
- taking a shower
- drinking a cold drink
- playing sports
- playing a musical instrument
- using bright lights
- popping bubble wrap



CROSSING MIDLINE ACTIVITIES FOR HOME

- playing with rhythm scarves
- playing with blocks (stacking)
- dancing to music
- using a washcloth to bathe
- dusting or sweeping the house
- playing patty-cake
- playing with cars
- playing flashlight tag
- washing the car
- painting with a large paint roller
- cross crawls (touching hand to opposite foot or knee)
- wipe off the table with a towel or washcloth using one hand
- draw a large, horizontal figure 8 on a chalkboard or sidewalk
- squirt/water gun target practice
- water flowers with a garden hose using both hands
- ball pass relay races
- bean bag toss while sitting criss-cross applesauce (legs crossed in front of them)
- playing tennis
- playing a game of Simon Says



SENSORY TRIGGERS LOG

Behavior	Duration	Possible Sensory Trigger	Time	What Helped

IEP MEETING NOTES



Child's Name: _____
Meeting Date: _____
Meeting Time: _____
School: _____

People Present:
_____ Role: _____
_____ Role: _____
_____ Role: _____
_____ Role: _____

QUESTIONS TO ASK

Large empty space for writing questions to ask.

Child's Strengths & Interests

Accommodations, Interventions, Modifications

Empty space for writing about child's strengths and interests.

Empty space for writing about accommodations, interventions, and modifications.

Progress Made

Next Steps

Empty space for writing about progress made.

Empty space for writing about next steps.

Printables for
EDUCATORS
Companion Guide



THE VESTIBULAR SYSTEM

SENSITIVITIES

- cautious and fearful of movement, particularly on the playground and in the gym
- extremely active
- always in motion
- does not get dizzy
- easily dizzy or prone to motion sickness
- appearance of adrenalin seeking behavior
- fidgeting
- clumsy, uncoordinated
- shaking, rocking, spinning
- playing alone on the playground or during indoor recess times
- fearful of the stairs
- constant or often shaking, rocking, jumping, bouncing, or spinning

ACTIVITIES/ACCOMODATIONS

- build movement breaks into the day for the entire class
- offer alternative seating options
- use a tall desk or counter to stand and work if possible
- have an exercise ball, mini trampoline or rocking chair in the classroom or sensory space in your school
- do not force things when it comes to fear of movement or heights
- provide a basket of fidgets
- heavy work activities
- classroom dancing break
- chair push-ups or wall push-ups



THE PROPRIOCEPTION SYSTEM

SENSITIVITIES

- deliberately bumping into things or people
- toe walking
- drumming on their desk or other hard surfaces
- chews on objects or items in the classroom
- falling, tripping, bumping into furniture
- stomping
- tapping pencils or fingers on surfaces
- cracking knuckles
- sucking or chewing on fingers, clothing, pencils
- poor body awareness
- poor posture
- crumpled or messy papers
- accidentally breaking pencils and objects due to not realizing pressure/strength

ACTIVITIES/ACCOMODATIONS

- allow chewing of gum or crunchy snacks
- provide chewelry or chewable pencil toppers
- always provide recess
- build movement breaks into the day
- give frequent heavy work opportunities, especially during transitions such as in the hallway or on the way to lunch, recess, specials or the bus
- crossing the midline activities
- use of weighted vest or lap pad
- frequent position changes during work: standing, sitting, on bean bag chair, leaning over



THE TACTILE SYSTEM

SENSITIVITIES

- delayed fine motor and/or gross motor skills
- excessive exploration touch
- challenges with buttoning, snapping, tying, zipping, cutting
- difficulty with art, math, writing
- aversion to art or science supplies
- difficulty participating in group activities
- pushing or hitting those in their personal space
- difficulty focusing
- hard time following directions
- difficulty remaining seated

ACTIVITIES/ACCOMODATIONS

- present alternatives to hands-on material that students may not want to touch
- provide tactile sensory opportunities (fidgets, sensory play, hands-on activities)
- teach with tactile materials such as using play dough and play dough mats
- provide fidgets (have some rules set around fidgets, they are tools to help with focus and attention and should not be used as toys or to distract others)
- offer students a place to put their hands such as in their pockets or holding a fidget if they touch things excessively
- allow students to touch materials with a pencil or popsicle stick rather than their hands
- never force touching a material or art supply



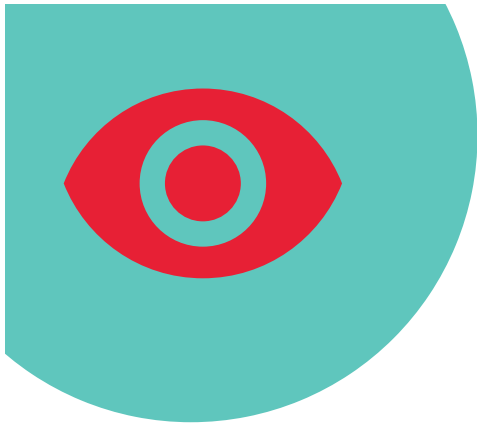
THE AUDITORY SYSTEM

SENSITIVITIES

- unable to discriminate voices or sounds in a loud room
- has difficulty with noises that don't bother others in the classroom
- trouble discriminating or identifying sounds (such as letter sounds)
- difficulty following directions
- talks off topic
- looks to others before responding
- trouble communicating and articulating
- easily distracted by noise
- avoids group work
- excessive chatter
- making loud noises either with their voice or feet
- upset by very soft noises that others may not even hear

ACTIVITIES/ACCOMMODATIONS

- keep the classroom door closed
- keep sound distractions to a minimum
- play calming music
- play a soft/slow metronome
- preferential seating to place student away from noise sources (the hallway, peers)
- gain attention before giving directions
- use visual prompts and cues for directions or common tasks
- provide noise reducing headphones
- give warning of any known loud noises such as an upcoming fire drill or bell (if possible)
- use a sound machine or a fan to provide white noise
- use a noise meter to regulate an optimal noise level in the classroom
- simplify verbal directions to 1-2 words or steps at a time
- give a signal to the students when you are going to make an important point
- provide quiet spaces for independent work
- break down test or classwork instructions into short, written steps
- provide written homework instructions or a homework list



THE VISUAL SYSTEM

SENSITIVITIES

- difficulty tracking with the eyes when reading
- loses place while reading
- squinting
- sensitive to light
- omits numbers, letters or words
- number or letter reversals
- difficulties with handwriting, cutting, and fine motor activities
- challenges with math, particularly in aligning numbers and symbols in math problems
- difficulty with prepositional relationships

ACTIVITIES/ACCOMMODATIONS

- provide colored overlays for reading
- allow student to wear sunglasses if bothered by light
- reduce visual clutter in the classroom
- use a visual schedule
- use a visual timer
- limit the amount of information on each page (if possible)
- give additional time for written tests or offer an oral test option
- use study carols or room dividers
- text to speech software
- have a dimmer for the lights in the classroom so that they can be adjusted (if possible)
- cut out a “window” (rectangle in an index card) for the child use to keep words and sentences in focus while blocking other material that can be distracting on the page
- use a slant board (or three-ringed binder) for reading or writing work
- use wide-ruled paper or adaptive paper to help students form letters in the right space
- highlight the lines of writing paper (yellow, or green top and red bottom lines work well)
- use colored glue sticks instead of white
- write directions in different colors
- ask for oral reports instead of written reports
- have students highlight important information while reading

THE GUSTATORY SYSTEM



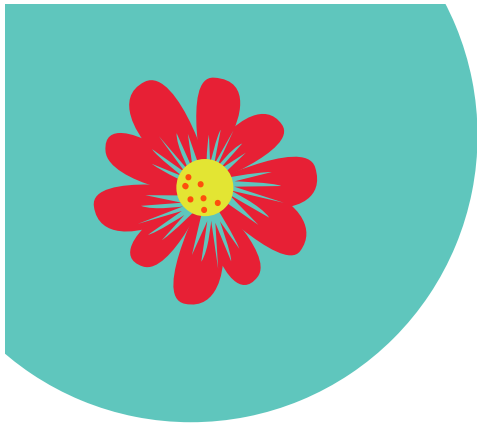
SENSITIVITIES

- chews pencils, clothing, objects
- licks, sucks on or chews fingers
- picky eater
- refusal to try new foods
- avoids the cafeteria or lunchroom

ACTIVITIES/ACCOMMODATIONS

- never force student to eat something
- allow chewing of gum or crunchy snacks
- provide chewelry or chewable pencil toppers
- include messy sensory play or textures in your classroom





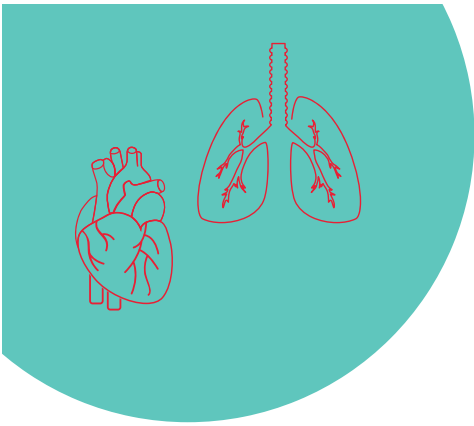
THE OLFACTORY SYSTEM

SENSITIVITIES

- gags or throws up from smells
- complains about or comments on smells, even those that others don't notice
- extremely sensitive to scents
- smells everything
- avoids the cafeteria or lunchroom
- dislikes riding the bus
- difficulty at some field trips such as to a farm or recycling center

ACTIVITIES/ACCOMMODATIONS

- do not wear perfume, scented lotions or care products
- offer a scent-free classroom if student is scent sensitive (no diffusers or air fresheners)
- do not use essential oils if student is scent sensitive
- offer scented play materials if student is seeking (stickers, play dough, markers etc)
- scented bubbles
- scented chewable items
- create smelling bottles with various spices or items to introduce new smells
- take a walk and explore smells outside
- chew bubble gum



THE INTEROCEPTION SYSTEM

SENSITIVITIES

- difficulty with toileting (frequent accidents)
- unable to track hydration or food intake (never feels thirsty or hungry, or may always feel thirsty or hungry)
- difficulty in recognizing and communicating internal body states or sensations (feeling hot/cold, pain etc)
- difficulty regulating emotions and feelings (not feeling they are angry before they verbally or physically lash out)
- distracted by internal sensory input such as hearing their heartbeat
- unable to tell how loud their voice is in an environment
- may use sound to cover up unwanted sensory stimuli

ACTIVITIES/ACCOMMODATIONS

- provide a visual reminder of weather appropriate clothing
- have regular bathroom breaks for student
- use a regulation station to encourage self-regulation of emotions
- decide on behavior rules and rewards together as a class
- talk about behaviors and emotional responses together as a class.
- play an emotions game, read books on emotions, include an emotions visual chart on your wall
- describe emotions and label those emotions when talking to your student (not during an actual meltdown, wait until the child is calm and able to listen and focus). "I can see you are (insert emotional word)" "I know you are (insert emotional word here)"
- use a water tracking chart with stickers to encourage fluid intake

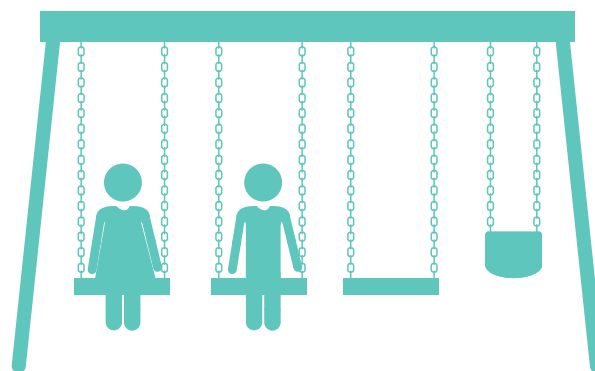
HEAVY WORK ACTIVITIES FOR THE CLASSROOM

- wall, chair, or floor push-ups
- pick up a stack of heavy books
- wearing a weighted backpack
- carry a large bottle of water
- carry a fidget
- yoga poses
- squeeze and knead putty or play dough
- animal walks (bear walk, hop like a rabbit, army crawl)
- bear hugs
- scooter board activities
- erase the chalkboard or dry erase board
- wash the desk
- help rearrange furniture or desks in the classroom
- help the gym teacher move mats or equipment
- allow chewing gum breaks
- sharpen pencils with a manual sharpener
- take copy paper for the copying station
- climb on playground equipment
- run around the track at school
- jump on a mini-trampoline
- open the door for the class or other students and staff
- use hole punches for a craft activity
- chew crunchy foods or snacks
- clean windows or mirrors



ALERTING ACTIVITIES FOR THE CLASSROOM

- heavy work activities
- wall push-ups or chair push-ups
- jump on a mini-trampoline
- popcorn jumps (jumping from a squat position and then landing back in a squat position)
- put up/take down chairs
- bounce on a therapy or exercise ball during classroom activities
- pass a weighted ball
- resistance bands on the legs of chairs
- upbeat music with a strong beat
- dance breaks
- frequent movement breaks (“brain breaks”)
- spinning in place (be aware of seizure or heart problems)
- yoga poses
- songs with hand motions
- run
- skip
- chew bubble gum
- suck on sour candy
- chew crunchy snacks
- visiting the sensory gym or space in your school
- taking a walk
- participate in gym or recess time
- slide down the slide
- drink a cold drink
- use bright lights



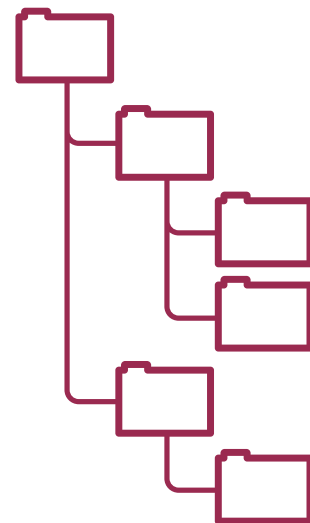
CALMING ACTIVITIES FOR THE CLASSROOM

- rocking gently on a ball
- turning off or dimming lights
- lying under a heavy blanket (should not be done with children under 3 or those who can't remove the blanket themselves)
- listening to soft music (spa CD, classical music, easy listening, etc. Remember no base and slow, consistent rhythm is best)
- bean bag squeezes with the hands
- lying on the floor while an adult rolls a ball over top giving some deep pressure
- using of body sock/lycra material to wrap up in
- light touch/firm touch (depending on the child) - have the child brush a feather over their arms, or squeeze their arms with their hands for deep pressure
- using hand or desk fidgets (such a play dough, Wikki Stix®, putty etc.)
- completing heavy work activity
- deep breathing techniques (smell the flower, blow out the candle)
- squeezing a stress ball
- taking a walk
- giving themselves a hug
- bouncing on a mini-trampoline
- chewing gum
- doing wall or chair push-ups
- going to a quiet area (either a space in the classroom or the sensory room)
- doodling or drawing a picture or coloring
- writing in a journal or notebook
- sitting in a bean bag chair
- rocking in a rocking chair
- hugging a pillow or stuffed animal
- singing or humming quietly to themselves
- using weighted lap pads or vests
- air cushion seats
- vibrating pen
- playing with a sensory bin, bag, or bottle



ORGANIZING ACTIVITIES FOR THE CLASSROOM

- bouncing on a therapy ball
- upbeat music with a strong beat
- vibrations on the arms, hand or back
- swinging
- jumping on a mini-trampoline
- going outside
- heavy work activities
- controlled spinning (do not do this if there is any known heart or seizure history)
- jumping jacks
- push-ups or wall push-ups
- skipping
- running (relay races, obstacle courses, etc)
- decreased visual input in the classroom
- using visual schedules
- minimize supplies for activities
- desk or locker organization bins and trays
- using a planner
- using labels and keep items in organized bins or caddies



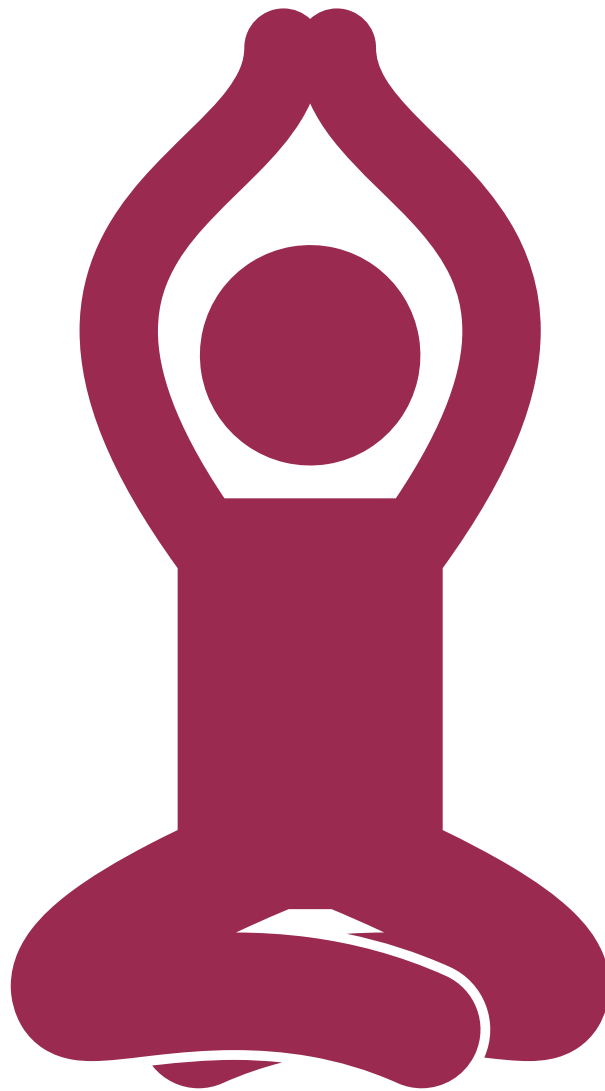
MY CALM DOWN TOOLKIT



OUR CALM DOWN STATION



MY SELF-REGULATION TOOLKIT



OUR SELF-REGULATION STATION

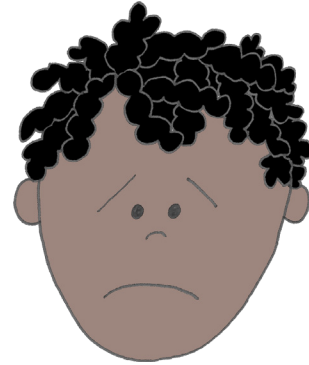


I AM FEELING

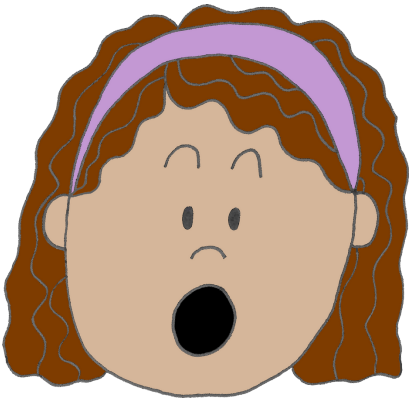
Happy



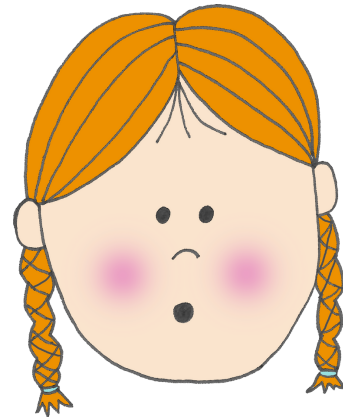
Sad



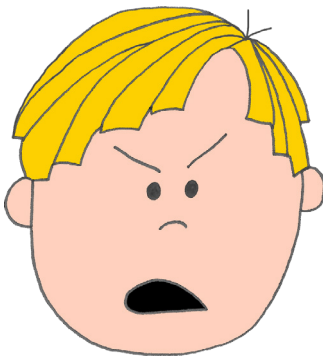
Fear



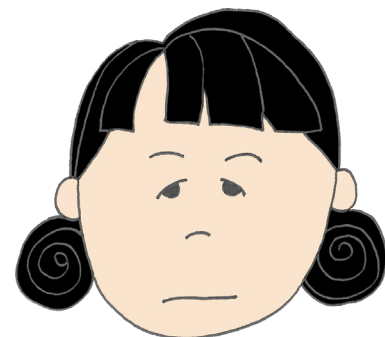
Surprise



Anger



Disgust



THIS IS HOW I BREATHE

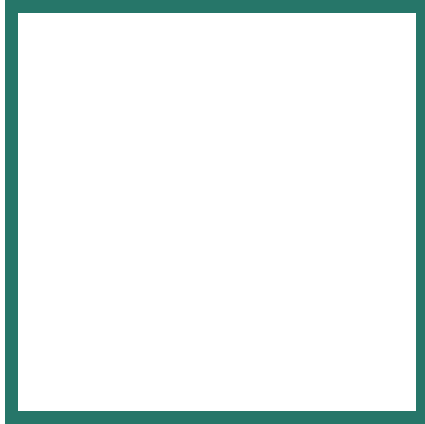
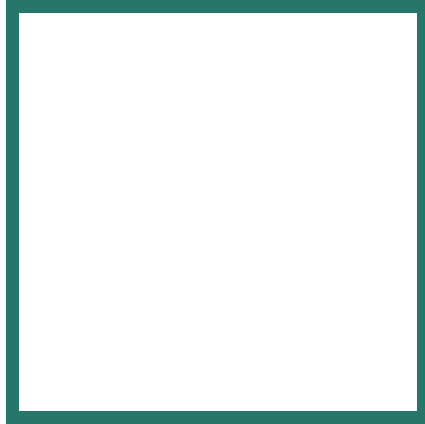
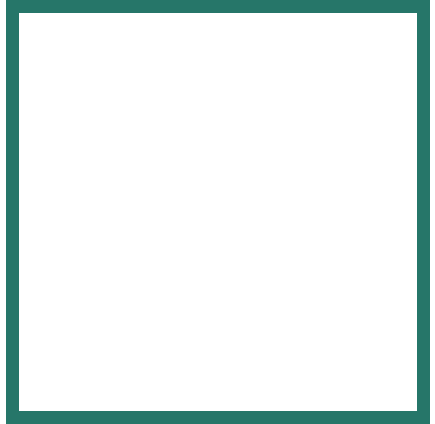
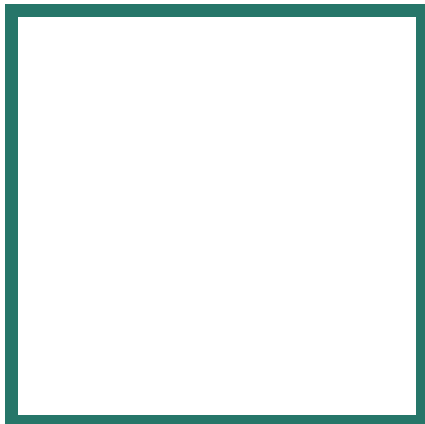
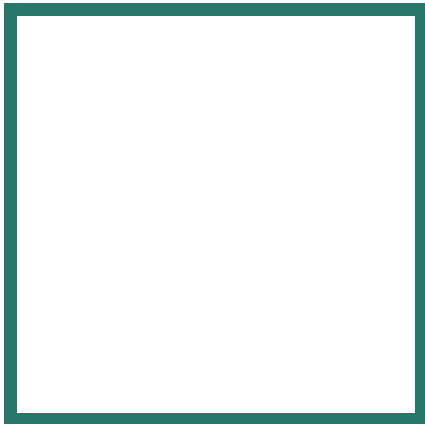

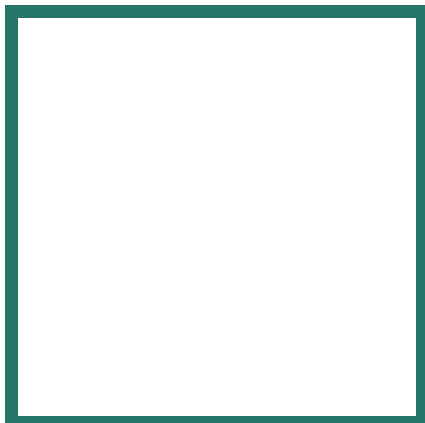
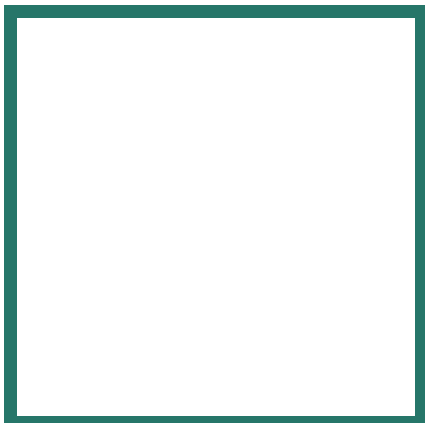
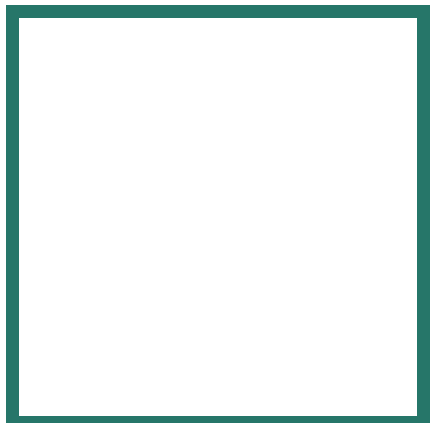
1. Smell the flower.



2. Blow out the candle.



ITEMS IN MY CALM DOWN TOOLKIT

A large, empty rectangular box with a dark green border, intended for listing an item from the calm down toolkit.A large, empty rectangular box with a dark green border, intended for listing an item from the calm down toolkit.A large, empty rectangular box with a dark green border, intended for listing an item from the calm down toolkit.A large, empty rectangular box with a dark green border, intended for listing an item from the calm down toolkit.A large, empty rectangular box with a dark green border, intended for listing an item from the calm down toolkit.A large, empty rectangular box with a dark green border, intended for listing an item from the calm down toolkit.A large, empty rectangular box with a dark green border, intended for listing an item from the calm down toolkit.A large, empty rectangular box with a dark green border, intended for listing an item from the calm down toolkit.A large, empty rectangular box with a dark green border, intended for listing an item from the calm down toolkit.

SHARLA'S ACKNOWLEDGEMENTS



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Thank you to Christie who is my cheerleader and encourager. Thank you to my friends who bring such joy into my life. So many of you are also mommas to kids with additional challenges and you help me not to feel alone. You know who you are.

This book would not have been possible without the help of my mom and Rachel who took such good care of my kids while I was writing.

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Thank you to Tanya, Shelley, and Cassondra for their help in bringing this book to completion. A big thank you also goes out to those who read the manuscript and offered their feedback and to all the brilliant bloggers who helped us get this book into the hands of those who can benefit from it.

Thank you to my amazing community of readers at The Chaos and The Clutter. Your questions and comments shaped much of what is found in this book.

Thank you to God who is the author of my life and without whom nothing else would be possible.

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A huge thank you to Tanya, Shelley, and Cassondra for taking our hard work and making it sound good and look beautiful! Your talent is amazing and thank you for putting up with all our edits and constant Facebook messages!

Jaime, thank you for your constant support and feedback on the book. Plus just being an amazing sounding board for anything Occupational Therapy related. Your help has been invaluable to me.

And to my wonderful community at Growing Hands-On Kids, thank you for your constant support through reading, commenting, and sharing my articles. I literally could not continue to do this without all of you.

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