Sensory Processing in Young Children: Part 2
Strategies and Activities For Classrooms and Individuals
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STRATEGIES
● Our bodies are like engines and can stay tuned up to run more efficiently with ongoing doses of “fuel.”
● Understanding modulation.
● You can help a child to listen and transition easier using a bottom-up (body) versus top-down (brain) system.

ACTIVITIES
● Understanding the same activity can be either calming or alerting.
● A list of activities to help calm the nervous system.

OUR BODIES ARE LIKE ENGINES

Our bodies need “fuel” (food) to keep our “engine” running evenly and efficiently. The recommendation is to eat small meals every couple hours to keep energy and blood sugar levels on an even keel, keeping us from a feeling of being revved up or idling. If we wait too long and feel starved, first we feel very low energy and then we are so ravenous we eat way too much, too fast, and still do not find ourselves in an optimal state.

We can apply the same principle to our nervous system which regulates our alertness level. If our nervous system seems to always be in a revved up “survival” state (which is typical with children with inefficient sensory processing systems), we can feed the brain little doses of calming activities throughout the day. Keeping the nervous system in a calm state will help children interact appropriately with typical daily events. Calming approaches (or techniques) will help your child accept or adjust, to the normal events, transitions and “bumps” which occur every day.

Being in a high state of arousal is linked with the flight or fight system. Think about a time you were fearful (i.e. you think you hear someone trying to break into your house). Your muscles become tense, all your senses (vision, hearing and touch) are on hyper alert and your breathing is faster. You may become too aroused or frightened to be able to listen, function, or plan. A child can experience the classroom environment as a similar scary place eliciting the same high state of arousal of the nervous system.

Calming activities bring the body down to a more relaxed state rather than being in a survival mode.
UNDERSTANDING MODULATION

Good sensory processing means our nervous system modulates, or regulates, our senses as they are bombarded with environmental sensory stimuli. “Good sensory processing,” allows our nervous system to maintain some harmony with in our bodies.

Modulation is keeping homeostasis (a balance) between all the constant sensory information we receive every minute from internal bodily and external environmental cues.

With good sensory processing our nervous system filters important and unimportant information from moment to moment. This helps us stay in a fairly harmonious state to function in this stimulating world.

As adults, we use a variety of strategies to calm our nervous system and state of arousal to promote a sense of well being. When we feel overwhelmed, scared or hyped up we use strategies we have acquired over time by trial and error: drinking a hot drink, exercising, deep breathing, going to a quiet corner, or munching on something. These activities can help us calm ourselves. However, if we need to heighten our attention, such as at a meeting, we may drink coffee, bounce our legs up and down or chew on a pencil.

When a child is unable to modulate sensations she can appear over aroused, under aroused or have a fluctuating arousal level. She has not had enough experiences to know how to develop calming, or alerting strategies. Fortunately, there are techniques which can help a child cope when they are experiencing difficulties due to an inefficient sensory system. This article will review strategies to help children with sensitive sensory systems become calmer and ready to experience and learn about themselves, others and the world.

USING A BOTTOM UP (BODY) VERSUS TOP-DOWN (BRAIN) STRATEGY

When communicating with a child, we often rely only on verbal language. We ask children questions or tell them to do something without necessarily having physical contact with them. Adding physical touch or movements can increase a child’s attention and calm the nervous system.

If a child is having trouble following directions, has trouble transitioning easily, or is upset when something is out of routine, hearing a raised voice, or being singled out can contribute to his distress. These situations may heighten his already aroused nervous system. He may well hear the requests, but the part of his brain that controls his body's reactions is not able to respond appropriately when he is in an over-aroused state.

Deep pressure to the system (body) can assist the child to reorganize and calm down enough where he can achieve a more focused and relaxed state to allow for an easier transition. Placing your hand on a child’s head or your hands on their shoulders while simultaneously talking with the child is an easily done deep pressure technique. You can also accomplish this with out physically touching the child by handing him a large heavy book or some other weighted item to carry across the room.

A strategy is to have all the children hop or march over to the next task which is often helpful to everyone the group. Strong input, such as hopping or stomping, when done every one to two hours, is optimum.

Once you understand what “heavy work” is, i.e. activities that give strong input into the joints and muscles, you can get very creative within your
routines and environment to plug in heavy work throughout your day.

THE SAME ACTIVITY CAN BE EITHER CALMING OR ALERTING

There are different qualities that can make a sensation, or activity, either calming or alerting depending on how it’s done. Here are some examples of activities:

- Vestibular (movement) input can be calming. A common way to calm babies is to bundle them up and hold them tightly while slowly rocking them in a rhythmical linear fashion.
- Or, movement can be alerting. Think about being on a roller coaster. The movement is more erratic. It starts slowly then becomes faster, then slow and jerky. The wild ride of a roller coaster is certainly alerting.
- Tactile (touch) input can be calming. Firm pressure such as massage is relaxing when given slowly with long strokes, stroking a very soft, warm, fuzzy material or holding a hot water bottle (warmth) for a soothing effect.
- Or, touch can be alerting. Light touch such as tickles or a fly on your arm, an unexpected touch from behind, touching sandpaper or an ice cube (cold) is startling to the system.
- Auditory (listening) can be calming such as soft, slow rhythmical music, a soft voice singing, hearing a story (like at bedtime) or water gently lapping.
- Or, listening can be alerting. Fast loud music, high pitched sounds, exciting stories with different pitched voices, calling back and forth games.

The next two categories, odors and tastes, have very individual preferences for us all. They incorporate strong, emotional components and prior experiences, such as your father’s cologne. Keep this in mind when considering these strategies.

- Olfactory (odor). Some odors can be calming; lavender, cookies or bread baking, smelling roses. Other odors are highly altering such as peppermint, skunk or lemon.
- Taste. Food can be calming if crunchy is involved giving a strong proprioceptive experience. Smooth and warm can be soothing, and cold food, such as ice cream, can be alerting. Sour and hot flavors, such as salsa, are alerting as well.
- Additionally, the texture of food has an impact.

We know that fast and erratic movements alert the brain while smooth rhythmic movement is calming, and this idea applies to all aspects of the sensory system. It is important to remember that every child is unique and what works for one may not work for another.

One system in particular, the proprioceptive system, can usually calm the nervous system no matter how you provide the input. Heavy work, proprioceptive input (strong input into your muscles and joints) is always more likely to calm the system in both adults and children over other types of sensation. This input can be effective when done for a just minute or two every one or two hours throughout the day, rather than longer periods of time.

PROPrioCEPTIVE INPUT IDEAS

- Squeezing something in the hand. Offer small objects kept in a pocket, on a belt or on a necklace, which can be readily available to the child.
- Jumping up and down or marching in place, going up and down stairs a number of times.
- Dancing or marching to music.
- Oral input or biting on a special chewing fidget.
- Eating crunchy or chewy items like pretzels, bagels, jerky, or carrots.
● Pushing or pulling also gives input into this system.
  ● A child can pull her own hands apart, push on a wall or pull another child in a wagon, move
    furniture, carry heavy books, or open heavy doors.
  ● Bouncing on small balls or rolling over the ball on your tummy.
  ● Placing large bean bags on your head or carrying them to circle time.
  ● Laying on a scooter board and pushing yourself around with your arms.
  ● Holding a vibrating toy sometimes helps.
  ● Brushing with a wash cloth or small soft brush and brush on arms, backs and legs using deep
    pressure.
  ● Beating rhythmically on drums, or have the child use her hands on her knees to beat out
    rhythms

BREATHEING ACTIVITIES

When we are in a high alert state we often hold
our breath. This contributes to staying in that
tense state. A really great way to add in calming
input is by deep breathing, blowing or sucking.
Sucking to calm begins in utero.

Activities which are typically calming (rather than
alerting) on a consistent basis are:
  ● Blowing on whistles, bubbles, ping pong balls
    or feathers across tables.
  ● Practice blowing up balloons.
  ● Sucking on a straw to drink thickened foods
    such as thinned applesauce or milkshake, or
    sucking on a lollipop.

SUMMARY

Over stimulated children may be disruptive
to a group. Alternately, an under aroused
child may easily get lost in the crowd and not
“making trouble”. Either way, when the sensory
system has just the right amount of arousal,
quality learning can take place. When a child can
experience how it feels to focus and learn, she
will also experience the feeling of fitting in with
her classmates, an important step toward positive
self esteem. Children with inefficient sensory
processing systems can have difficulty with
modulating their behavior. They may seek strong
(and calming) sensory input in order to calm down
their nervous system if they feel overwhelmed.

It can be puzzling to observe an under aroused
child trying to stay alert and awake, using the
same strategies as the over stimulated child to self
calm. Many of these children often appear unable
to stay still and “are bouncing off the walls” which
can lead to disciplinary action. Or they may be the
ones who have difficulty transitioning to different
activities. Changing from one activity to another
requires a rather flexible and fluid sensory system.

Some children may present more as sensory
avoiders. These children may seem very well
behaved and be sitting quietly on the outskirts of
the group.

Some children may even be a combination of all
the behaviors mentioned above. If a child is having
a difficult time functioning in the classroom some
of this information may be helpful. Some children
may benefit from the activities and others may
need more individual attending and assistance
with a referral to the local school district.

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