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CHILD & PARENT
RESOURCE INSTITUTE



The Brake Shop Clinic Putting the Brakes On Sensory Integration Issues



“Making sense” of the world is a critical part of our daily activities. If a child’s ability to pick up and process information from any one of their 7 sensory systems is challenged they will have difficulty interacting with their environment, whether it is at home, school, or in the community. We usually think of five senses: sight, sound, taste, touch, and smell. Information is also received from our **body position sense (proprioception)**, and **balance and movement sense (vestibular)**. The messages from our senses are constant, and to be successful we need to be able to: quickly take in the information in a “just right” manner; organize this information from multiple senses at one time; and use the sensory information for success in everyday activities.

Fortunately most people have a ‘brake in their brain’ that helps them to ignore the sensory information that they do not need to pay attention to; only the critical sensations that are important for that moment or task are let through. If the brain is not processing the sensory information correctly a child might overreact, or underreact to the input. Sensory modulation issues can present themselves in many different forms and no 2 children with sensory integration issues will be exactly the same. If a child is over reactive to input (the brakes aren’t working and too much information is let through) they may have difficulty tolerating self-care activities, the touch input of clothing, food textures, or the accidental touch of others in a busy school hallway. If processing is challenged in the balance and movement system (vestibular input), a child may resist activities where their feet are off the ground, or if they are required to move backwards in space (i.e. swinging; being tipped back for a diaper change). Accommodation strategies made to the environment or task demand can assist a child in managing the overwhelming sensory input that they are experiencing. A child who is under reactive to input (not enough information is being picked up by a particular sensory system) may not notice when they are touched, or may never seem to get dizzy with spinning movement when other children normally do.

Children can also present with sensorimotor integration difficulties and this presents in one of 2 ways, postural issues or motor planning (or praxis) issues. Clear or accurate sensory information is not being received by the brain in turn to support motor skill development. Once again, no 2 children present in exactly the same way

and this type of sensory integration difficulty may present as any of the following: not being able to coordinate both sides of their body for leisure or play activities such as riding a bike; unable to learn self-care activities despite repeated attempts such as tying shoelaces; trouble following along with movement games or songs with actions; trouble coordinating eye and head movement for reading from a blackboard and simultaneously copying written material; or doesn't complete a task in the correct sequence of steps. These are just a few examples of how daily activities can be impacted.

Whether a child is challenged by an over responsive / under responsive sensory system, or weak motor planning skills they **MIGHT NOT BE ABLE TO TAKE IT ANYMORE!**

So let's,



- **Accommodate.** By recognizing how overloading certain situations can be for these kids, it is possible to **avoid the rages by avoiding the 'set-up'**. For example, simply exposing a child with sound sensitivities to an echoing gymnasium full of yelling children and bouncing balls is unfair. In school, maybe another class can be substituted (at least when gym is indoors), or maybe the child only stays for part of the class until signs of overload begin to appear, or maybe earplugs are provided. In the classroom, earphones that cover the student's ears are a good option; even allowing (appropriate) music of the student's choice to play over those headphones is permissible provided that the work is still getting done. In the home, maybe a different after-school club or quieter sport is chosen. **DON'T FORCE EYE CONTACT** – this creates more stimulation and may actually result in the child being LESS able to attend to you. Allow them to avoid this extra load, and find other ways of ensuring they have heard you (e.g. having them repeat the instructions).
- **Predictability.** Just knowing what's coming may help these kids to handle more stimulation before becoming overloaded; think about how different your reactions are to the sound of a door closing when YOU are closing it versus when you are sitting in a chair alone in the house. In both cases the sound is the same, but because in the second situation the sound is unexpected it automatically gets your attention more and 'feels' more threatening. It is helpful, therefore, to prepare these kids for environments you are about to enter: whether there will be a lot of people or not, whether they will be all sitting quietly or moving around doing independent work, etc. Doing so helps the child to accomplish the next strategy:
- **Mental Preparation.** Once you have an idea about what's coming, you can get ready for it (much like a swimmer takes a deep breath before diving so she can stay

underwater longer). This might involve simply 'psyching' yourself up for the experience. It might involve developing contingency plans with other people ("**how am I going to know when I'm starting to lose it, and what will I say to cue others I've had enough**"). It might involve ways to make the situation more tolerable (e.g., "**as soon as I go into the room I'm going to find the most interesting thing to look at and just stare at that one thing**"). Finally, it might involve ways to 'make more room' in your head for what's coming ("**if I put my shoes on before I walk onto that concrete floor, the feel of the floor on my feet won't drive me nuts while I'm trying to put up with all of that noise**").

- **Talking Through.** Developing 'self-talk' to reassure yourself ("**you can handle this; no big deal**") helps – think of the television show "Fear Factor" and how contestants talk to themselves to get through something that is very overloading for THEM! You can also use 'self-talk' to make yourself laugh and deal with an uncomfortable situation.
- **Develop a balanced 'sensory diet'.** This needs to be done with a registered and qualified Occupational Therapist following a thorough occupational therapy assessment.



- **Use SAFE activities (Sensory-motor, Appropriate, Fun, Easy).** Carol Stock Kranowitz's book, "the Out-of-Sync Child Has Fun" gives many suggestions for games and activities that provide for the sensory needs of people with sensory integration difficulties. Choose activities based on your child's interests, and what (s)he is showing you that (s)he needs. Allow the child to be in charge and to do it his /her way as much as possible (stopping if it becomes apparent that the activity is actually distressing to the child and having the opposite intended effect). Use outdoor activities as much as possible. These activities when used properly create 'buffer room' in the brain – your child can now handle more stimulation before they will become overloaded! It is a good idea, then, to use these activities to help prepare for a high-sensory situation the child must participate in that is unavoidable. Take immediate advantage of this 'buffer room' you have created!
- **Sometimes more is better.** People who get awakened easily by soft, irregular noises in their bedrooms can often sleep soundly when a constant, loud "white noise" is present. In a similar way, people with sensory sensitivities can tolerate certain sensations better at stronger levels. A light touch might send shivers down their spine, but a deep touch feels good. An overpowering taste in his mouth (like sucking on a sour candy) can help to 'drown' out other things in the classroom that are

overloading and making it hard for him to concentrate on the lesson. Allowing for continual movement (e.g. a device to allow her to rock in a stationary desk chair, having something of an interesting texture to roll around between her fingers) can also improve focus tremendously.

- **Don't overflow the beaker!** When people are overloaded beyond their capacity to cope, things get ugly! This is like a beaker that is filled with too much water, and so starts to overflow and make a mess. Sensory integration issues can add to a full beaker. An overflowing beaker can cause someone to rage: it can also cause them to feel very, very anxious and even to have stomach-aches and headaches. If you are carrying a beaker filled with water almost to the brim, you have to be very careful with it so you don't spill any. It is the same with a person who is overloaded by their sensory difficulties. Approach from the side rather than square-on, move a little bit slower around them, and warn them before you do anything. Crouch down to their level when speaking to them, and talk a little bit softer. Don't worry about what others might think – you know the situation, and they don't. Do what you need to do to not add even MORE stimulation to this poor overloaded brain!!

Finally, parents, be sure you request that any relevant accommodations found on this hand-out are added to a formalized **I**ndividualized **E**ducation **P**lan (IEP). An informal IEP may not be implemented or transitioned, whereas a formal IEP is a legislated process that also includes the **I**dentification **P**lacement and **R**evision **C**ommittee (I.P.R.C.) that **must** be adhered to. Under the Education Act, (Education Act, Regulation 181/98). Any child with identified special needs has access to this process.



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