

SENSATIONAL KIDS

Sensory Processing Education



Occupational Therapy

Child Development Service
Rachel Fletcher



Session Overview



- Introduction to presenter : Sonya Bates, Courtney Carr, Occupational Therapists
- What is Sensory Processing?
- Why is it so important?
- Strategies for managing and developing your sensory preferences
- Shared discussion, brain storming!
- Some more ideas for day to day activities.

What is Occupational Therapy?



A child's main job (mahi) is playing and learning.





This education session is intended as an overview. All children are different so some suggestions will work for one child and not necessarily another.

What are our senses??

“Sensory integration is the ability to take in information through the senses, to pull it together with prior information, memories and knowledge stored in the brain, to make a meaningful response

(Stevens, 1997).”



Visual-What I See. Helps to determine what to pay attention to, and what to ignore, as well as help direct your actions and movements.

Auditory-What I Hear. It's not just about volume, consider tone, pitch, rhythm, and sequence.



Tactile-What I Feel. Light touch, deep pressure, hard or soft, sharp or dull, vibration temperature and pain.

Vestibular-How I deal with gravity and movement. Sense of balance whether moving or sitting still especially for posture and muscle tone.



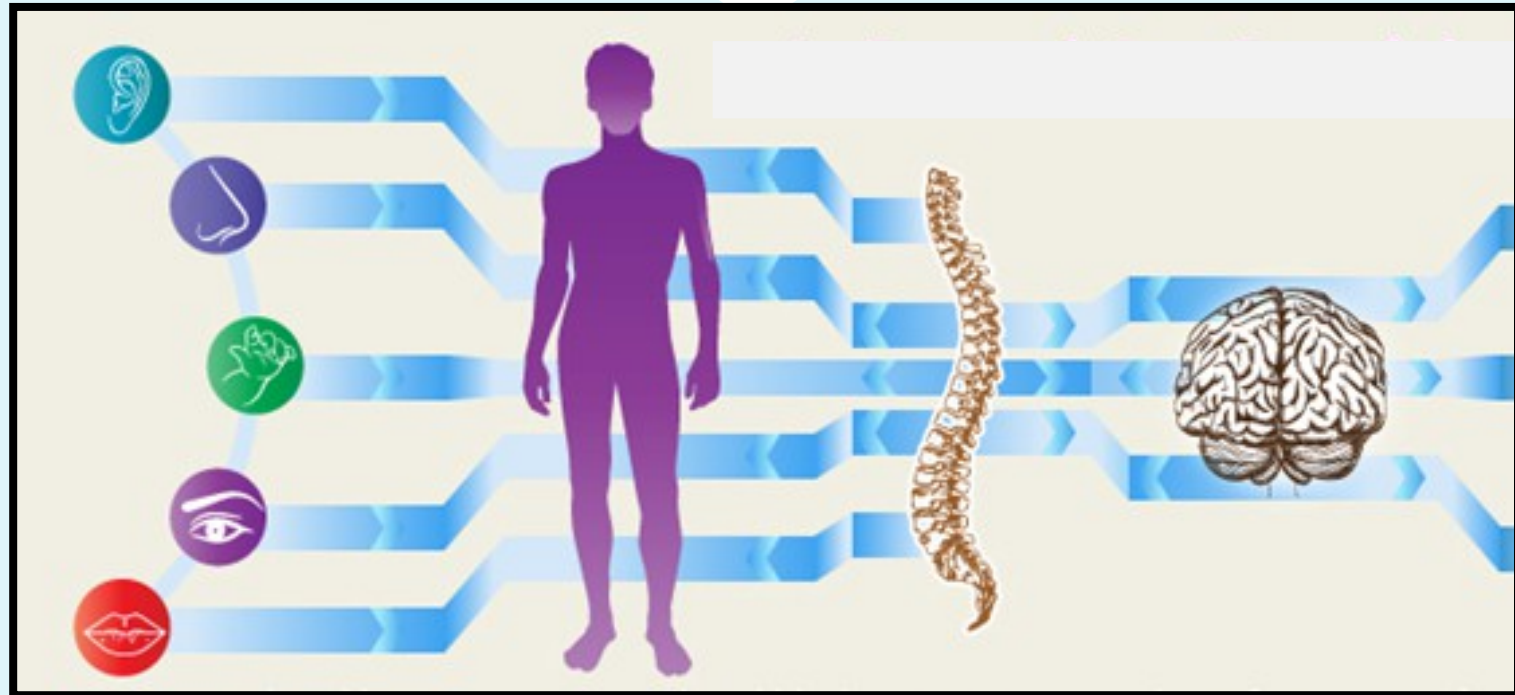
Proprioception-What information my joints, muscle and tendons tell me. Help to adjust body position for smooth pressure and motor planning.

Smell-What I smell. Strong memories can be associated with smell. The nose knows.



Taste-What I taste. Sweet, bitter, salty, spicy etc can all be great sensory contributions.

Sensory Processing



The 7 senses receive sensory information.

That information travels from the outside of the body up the spinal cord to the brain.

The brain organises the information so we can then respond appropriately.

Why is Sensory Processing so important?



- Our sensory preferences impact what we notice, are bothered by, avoid, tolerate and love.
- Our sensory preferences shape how we feel and respond in different situations.



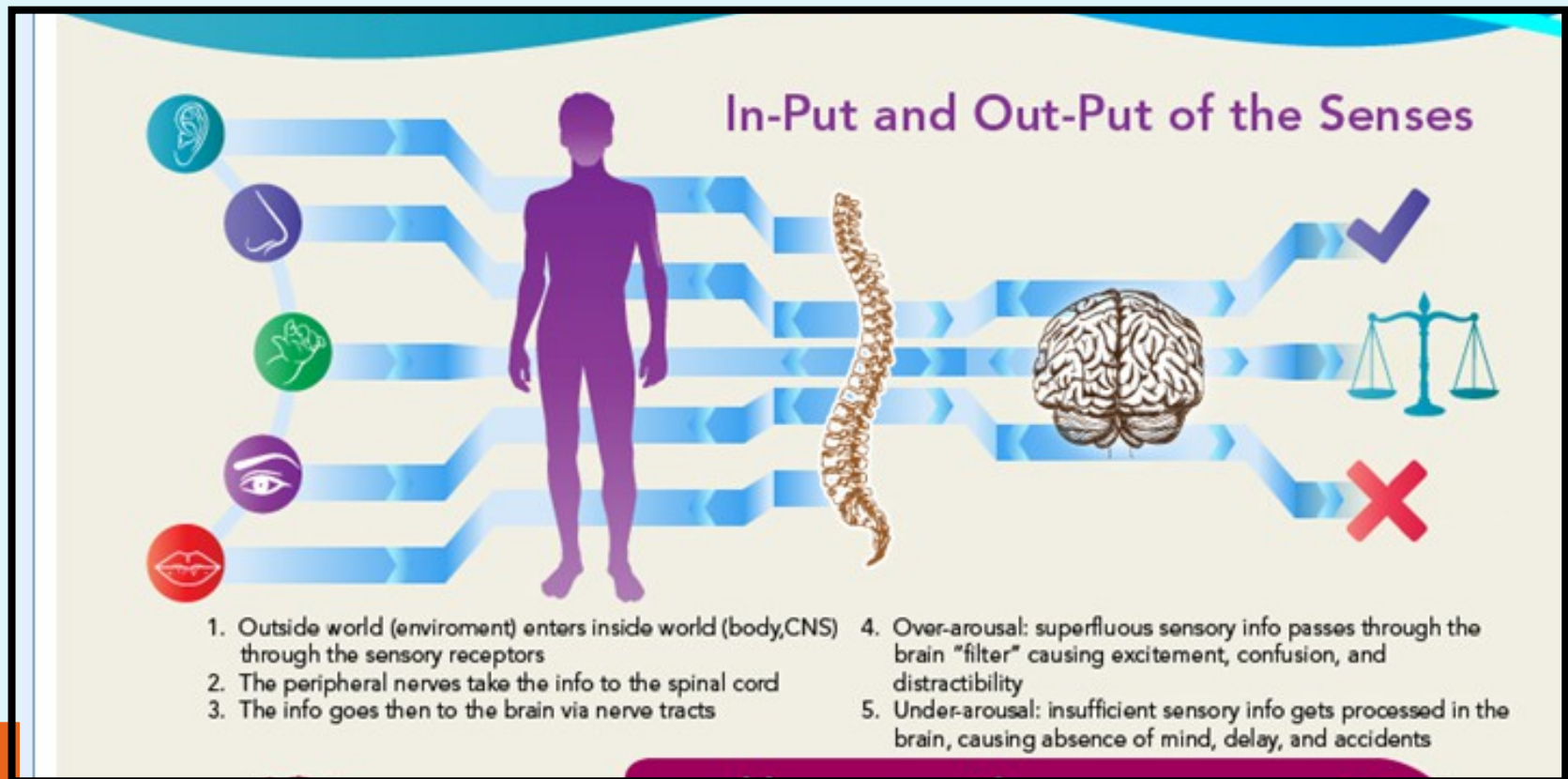
Habituation – getting used to it



- **Habituation**: process of recognising familiar stimuli that do not require additional attention (Dunn, 1998).
- Maintaining a balance between over & under stimulation allows an individual to notice just enough things to be aware and attentive, but not so many things that they become overloaded with information and feel distracted.
 - For young children, habituation is essential so they focus their attention on the activity and are not distracted by what is going on in the background (e.g. a plane in the sky or wind in their hair)

Sensory Processing DISORDER

- A dysfunction in the way the nervous system receives messages from the senses
 - too much or too little sensory information.



Under arousal vs. Over arousal



Hypo-reactive nervous system is one where the child has decreased arousal and it takes longer for the child to "feel" the sensation.

Hypo-reactive nervous system

- Under-reactive to touch and may prefer heavy touch to light touch
- Under-reactive to sounds such as a mom or teacher calling his name
- Under-arousal resulting in looking lazy, open mouthed posture, may look mushy (low tone) like a teddy bear, may often appear tired
- Speaks loudly due to modulation issues with lack of proper sensory feedback system
- May appear clumsy or disorganized as body awareness may be lower

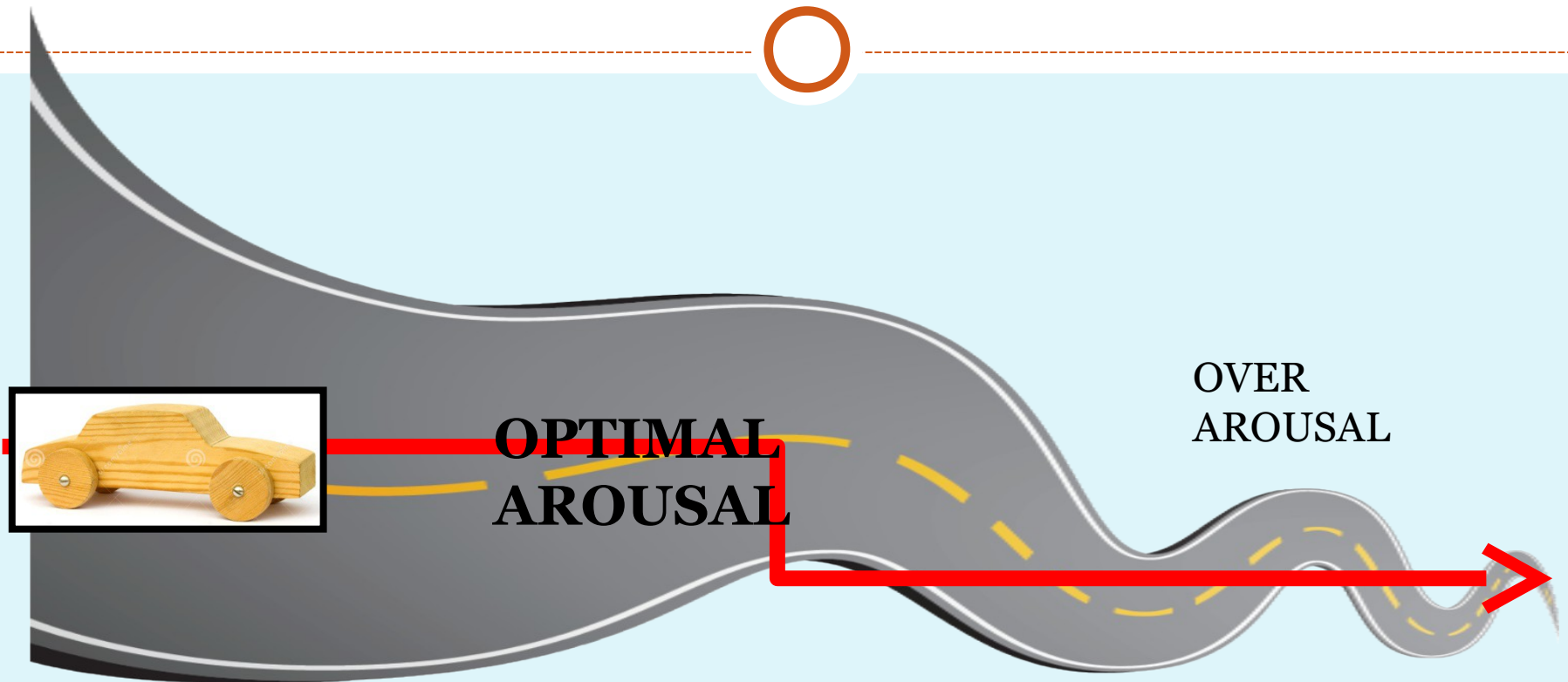


Hyper-reactive nervous system is one where the child has increased arousal and it is difficult for the child to tune out sensory input and provide proper output.

Hyper-reactive nervous system

- Overly sensitive to touch
- Gets too close to people
- Hyper-reactive to smells
- Notices sounds that others tune out (seems easily distracted)
- Able to tolerate vestibular input like spinning and running around for long periods of time
- Hyper-sensitive to other people's touch and clothes which may feel very uncomfortable

How does my engine run?



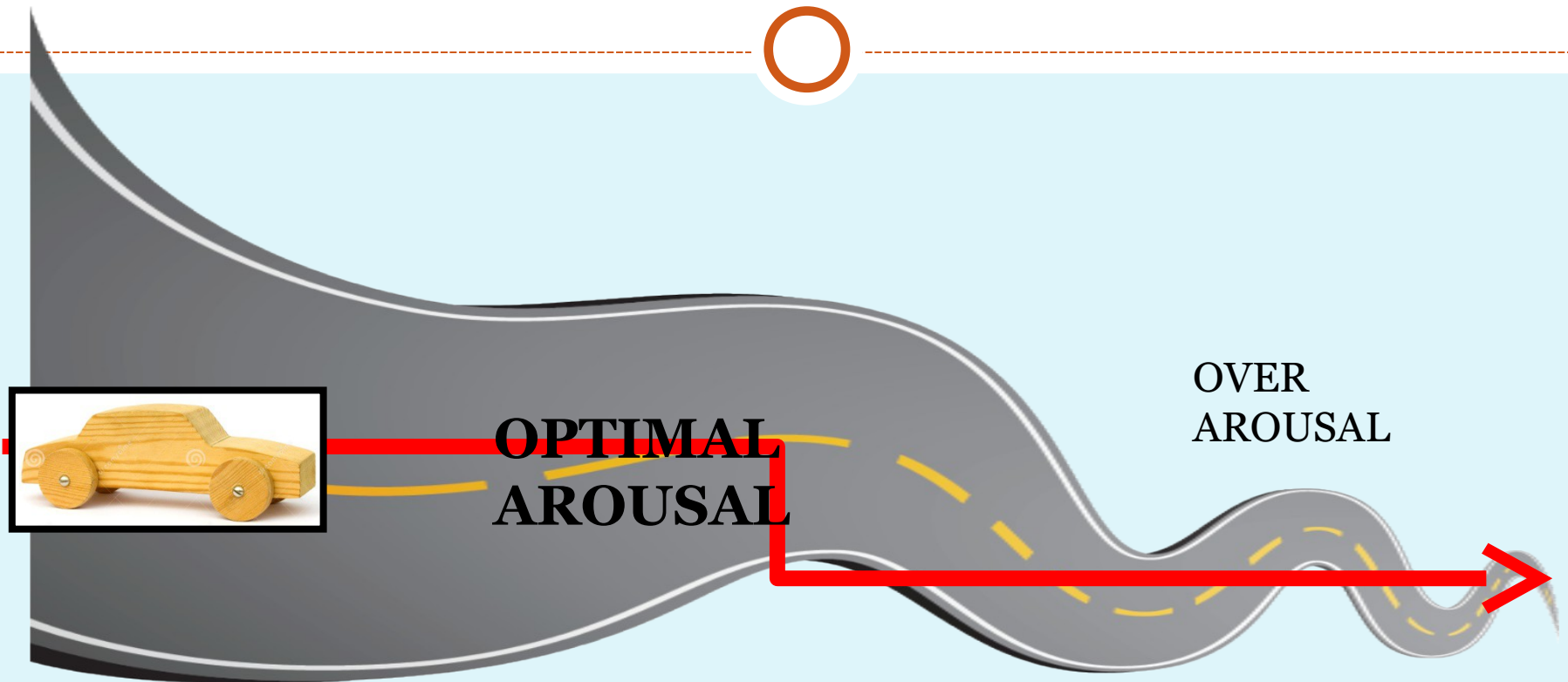
**OPTIMAL
AROUSAL**

OVER
AROUSAL

UNDER
AROUSAL

- The goal of sensory work is to help the individual find ways to stay in the **Optimal Arousal zone**
- **Optimal Arousal zone** = participation in activities that are important and meaningful for them!

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Giftedness and Sensory Sensitivities



- Sensory sensitivities of Gifted children (Gere, Capps, Mitchell, & Grubbs, 2009)
- 80 children aged 6-11
- >137 on the Full Scale IQ
- Finding: Gifted children were more sensitive to their environment and reacted with heightened emotional and behavioural responses
- Twice exceptional children (both gifted and have a disability eg Aspergers, ADHD) – Sensory sensitivity is part of the criteria for autism
-

Giftedness and Sensory Sensitivities



- Synesthesia eg seeing colours associated with musical notes
- Quote from Len Lye:

'Some nights I'd have a dream that my 5 senses were taken out of my skull, rinsed in a country stream, then stretched out to dry so that when I woke up they'd be as crisp as viola strings. But if they were put back wrongly I'd wake up seeing with my ears and hearing with my eyes – well, it has happened!'



How can we help our children stay in the optimal arousal zone?

- Know what their particular sensitivities or sensory seeking needs are
- Recognise when they are under or over aroused
- Provide compensation strategies to help them manage
 - just like we use coffee, exercise, etc.
- Recognise the difference between a behaviour and a sensory need.
- Remember to be the co-regulator for your child. You need to help your child recognise their own sensory cues at least up to the age of 8.
 - e.g. if cold, put on a top, when to eat, drink etc as kids may miss their own cues.
- Recognise your own sensory preferences can influence child's e.g. Don't like loud noise so always have a quiet house – child may then not tolerate a noisy environment well.



So if you're **over** sensitive to stimuli....

What can you do?

- Find a way to block out some of the stimuli
- Avoid it entirely
- Find a way to “get used to” the stimuli
- Reduce anxiety by reducing surprises, using clear communication, routine, time limited exposure, etc.
- Use sensory strategies that calm your nerve receptors before or during exposure to the stimuli



If you're **under** responsive to stimuli....

What can you do?

- Find a way to raise your arousal level
- Provide more stimuli in daily routines
- Teach child how to look for other signs of stimuli
 - e.g. hot temperature= red skin, sweating, thirst
- Reduce anxiety by reducing surprises, clear communication, routine, time limited exposure etc.



What is a sensory diet?



- Just as your child needs food throughout the course of the day, their need for sensory input must also be met.
 - A “sensory diet” (coined by OT Patricia Wilbarger) consists of sensory activities scheduled throughout the day that help children to feel calm and organized, which then helps them to obtain an optimal state for learning, attention and behaving appropriately.

What is a sensory diet?



- The great news is that the effects of a sensory diet are usually immediate AND cumulative. Activities that perk up your child or calm him down are not only effective in the moment; they actually help to restructure your child's nervous system over time so that he is better able to:
 - tolerate sensations and situations he finds challenging
 - regulate his alertness and increase attention span
 - limit sensory seeking and sensory avoiding behaviours
 - handle transitions with less stress

GROUP DISCUSSION- Child's behaviour



SLEEP — Building Bridges through Sensory Integration

Sensory Strategies

- ☐ Massage and/or joint compression prior to bed (you can use powder or lotion)
- ☐ Weighted blankets (horse blankets, blankets with weight sewn into them)
- ☐ Wearing wrist/ankle weights to bed
- ☐ Body pillows, sleeping bags
- ☐ Swaddling an infant
- ☐ Different types of pajamas; try tight and loose to determine which type your child prefers (silky or fleece)
- ☐ Avoiding pajamas that have lace or built-in feet (may cause irritation to the child with tactile defensiveness).
- ☐ Checking seams for threads and cover elastic
- ☐ Percale sheets with 240 threads per inch to ensure a smooth bedsheet
- ☐ Bed tent to block out distractions, light, and noise
- ☐ A small night light with a warm glow (but not bright enough to cast shadows) if your child is afraid of the dark
- ☐ Neutral color on the walls
- ☐ Dark blinds to cut down the light



Hair Cutting — Building Bridges through Sensory Integration



Sensory Strategies

- ☐ Use a mirror and verbal warnings to predict touch
- ☐ Try earphones to block out the noise of the clippers
- ☐ Place downward pressure on the head, through the neck and shoulders
- ☐ Use firm strokes with the comb
- ☐ Blow away all bits of hairs prior to getting dressed
- ☐ Look for a flexible and sensitive hair stylist—it will be worth it
- ☐ Try the Wilbarger Protocol to decrease sensitivities

Other Strategies

- ☐ Use visual aids and social stories to increase understanding of the task
- ☐ Use distraction and motivators
- ☐ Wash your child's hair prior to going to the hairstylist to decrease time spent there
- ☐ Follow up with an enjoyable activity or treat

General Calming Strategies



Plan heavy work/deep touch activities throughout the day to help your child regulate their attention, especially before activities that are more stationary and require on task attention.

- Ideas are: pushing/ pulling heavy items, carrying heavy items from room to room, Child Sandwich – between two cushions with adult pushing on top, or weights in a backpack.
 - Also provide these strategies (e.g., a tight hug, or weighted blanket) before activities that your child finds stressful.

General Calming Strategies



You could use a tight t-shirt, rash top or compression wear like Jet Proof Clothing, to provide a calming deep touch feeling (<http://www.jettproof.com/shop-now/11-jettproof-shirts.htm>)

These items are especially useful for activities you know might cause your child anxiety, for example, hair cutting. The compression can also increase the child's awareness of their body positioning.

General Calming Strategies



- Try setting up a ‘Quiet Zone’ with beanbags and cushions and blankets etc, where your child can sit at home or school during ‘down time’. This may help their body relax. This could also be a way of providing an ‘escape’ zone for your child if they are overstimulated and need to regroup. You could try a weighted toy or blanket during these times.

General Calming Strategies



- You could try a lycra wrap or stretch suit that your child can pull tightly around himself/ stretch against when he is unsettled; this may also help with his sleep, or relaxing during family ‘down time’.

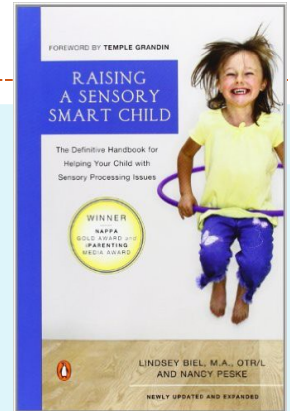
Resources



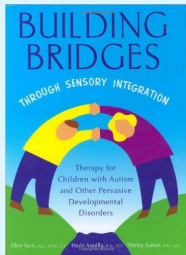
- *The Secret Agent Society* - <http://www.sst-institute.net/nz/parents/home/>
- *Educational iPad Apps* - <http://assistive.dtsl.co.nz/category/195-ipad-app-list.aspx>
- *The Alert Programme* - <http://www.alertprogram.com/>
- *Sue Larky* - http://www.suelarkey.com/Sensory_Shop.php
- *The Sensory Corner* - <http://www.sensorycorner.co.nz/>
- *The Inspired Tree House* - <http://theinspiredtreehouse.com/>
- *Zones of Regulation curriculum*

Resources cont

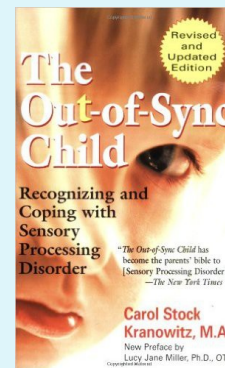
- **Raising a Sensory Smart Child,** by Lindsey Bell and Nancy Peske



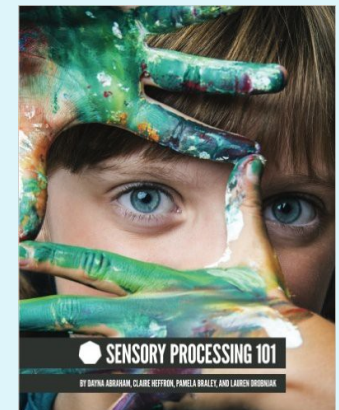
- **Building Bridges through Sensory Integration,** by Ellen Yack, Paula Aquilla, Shirley Sutton



- **The Out of Sync Child,** by Kranowitz



- **Sensory Processing 101,** by Abraham, Heffron, Braley & Drobnjak



Questions???



- Thank you for coming today!