

Understanding sensory processing

- Understanding sensory processing difficulties and strengths
- How could sensory processing issues show in a child?
- Recognizing behaviours linked to each sense
- Ideas you can enjoy with a child that seeks certain sensory input

Sensory Processing

Understanding Sensory Processing difficulties and strengths

With the help of our senses our body perceives, analyses, and responds to signs in the environment. Some of us, have difficulty processing certain types of sensory input, e.g., visual, touch or olfactory. This can cause confusion, stress, or anger.

Children with special needs, often present difficulties processing some types of sensory input. It can be helpful for parents, carers and other significant adults, to recognize which environment information might overwhelm them, and which they are drawn to.

How could sensory processing issues show in a child?

A child that has trouble processing auditory information may get overwhelmed with background noises, making them scream, cry and want to leave the room. This same child might prefer to understand things through visual information. Therefore, visual aids might support communication, learning, emotional regulation and other areas of development.

What is sensory overload?

Happens when someone receives too much sensory information. The brain can't process all the information, causing the person to feel overwhelmed. It may produce a meltdown, try to hide or get out of the space, or shutdown/unresponsiveness.

This link explains what to do when your child is experiencing sensory overload: <https://www.griffinot.com/what-is-sensory-overload/>

Sensory Processing - Oral

Seeks	Avoids
<ul style="list-style-type: none">-Craves certain foods and textures-Bites frequently-Chews and sucks non-food objects	<ul style="list-style-type: none">-Avoids certain foods and textures-Avoids new foods-Gags and chokes frequently

How can I help my child eat new foods?

- **Try to introduce new foods over time:** Introducing several foods at once, could be overwhelming for your child. Start with one, and once they feel comfortable move to the next.
- **Introduce a new food progressively:** you can start showing them the food raw, then cooked, then have lick or a bite, then a couple of spoons, etc.
- **Try to cook the food in different way:** see if they prefer any texture or condiments.

Sensory Processing - Oral

Why do children suck or chew things?

It can feel very calming for some children. They do it to regulate themselves when they feel tired, overwhelmed, stress or experiencing sensory overload.

When you see them doing this, it can be helpful to ask yourself what could be causing it, and then help them acquire new self-soothing strategies.

How can we help?

- 1. Identify the pattern:** usually this behaviour appears in response to certain situations. Every time it happens, ask yourself what possible factors could be causing it, and soon you'll identify a pattern. Does it happen at a certain time of the day? Does it happen more during school hours or at home? Are they reacting to something?
- 2. Try to prevent whatever is causing stress:** its understandable that not everything is under your control and sometimes stress is inevitable. But sometimes, there are small changes in their routine or environment, that can help your child feel more comfortable.
- 3. Find other things that could help self-regulation:** try to replace the behaviour with other objects that could satisfy oral sensory seeking. For example: musical instruments like a harmonica, lollipops, crunchy food or sensory chewing toys. Often children that are drawn to oral sensory seeking also enjoy movement. Body movement can help decrease the need to chew or suck. Breathing exercise can also be helpful, for example blowing bubbles.

Sensory Processing - Oral

Activities

Here are some ideas you can enjoy with a child that seeks oral sensory input



Taste together different snacks

Be sure to include snacks with different textures. You can include hard (carrots, apple), chewy (beef jerky, celery, dried fruit), crunchy (nuts, crackers, cereal). Make this a special moment for both of you, try to talk about them, organize them by preference, divide them by categories, etc.



Make an edible necklace

You can use candy, cereal or fruits. You can make the necklace for yourself, or for each other and then exchange them. You can also practice turn taking, by making the same necklace together. You can take turns to make it and to eat it.



Blow bubbles

This can be a simple and quick activity that can be useful when you are not in your home, and it can help activity transitions. Blowing bubbles can also be a calming activity for children because it requires deep breathing.



Stick your tongue out at each other

This is a very simple activity that can help you connect with your child. This can be a very enjoyable sensation for children that seek sensory input. Through this activity you can look at each other and laugh together.



Blow cotton balls

You'll just need a straw and cotton balls. Prompt your child to blow on the straw and move the cotton ball. You can put a finish line, race each other or blow the cotton balls at each other. In time you can also add other materials so that your child can experiment with the length and strength of their breath.



Play instruments

Your child might enjoy playing instruments such as the harmonica, flute or whistles.

Sensory Processing - Olfactory

Seeks	Avoids
-Smells objects -Prefers foods with strong smells	-Becomes upset around certain smells -Doesn't find eating appealing -Gags with smells or foods

*The senses of smell and taste are highly linked.
Children with olfactory sensory processing issues also avoid or seek specific foods.*

How can we help a child that avoids smells?

- Find patterns: keep track on how they react to food and smells and try to find common factors. Do they reject certain textures or flavours? What types of smells they don't like? Does it happen more at home or school?
- Try to keep areas where your child spends a lot of time free of air fresheners or other strong smells.
- Try cooking in advance so that your child doesn't eat when your home still has strong food scents.
- Buy fragrance free toiletries

Sensory Processing - Olfactory

Activities

Here are some ideas you can enjoy with a child that seeks olfactory sensory input



Scent bottles

Fill small bottles with different spices, foods, or other objects that have distinct scents. This activity gives you a chance to explore different smells together.



Explore nature

Edinburgh has several parks and gardens. Go around smelling different flowers and plants and see which one your child prefers.



Sensory Cooking

When cooking or baking ask your child to join you. In the kitchen you can find many smells. Invite them to explore different products and their smells. You can even ask them to close their eyes and guess the product just by smelling it.



Homemade Herb and Spice playdough

Ingredients

½ cup of plain flour

½ cup of water

2 tablespoons of salt

1 teaspoon of cream of tartar

Herbs and spices

Instructions

Mix all ingredients together in a saucepan

Place over low-medium heat and cook stirring contently, until the dough forms into a ball.

Place into wax paper and let cool

Knead until cool

Ideas for herbs and spices: turmeric, mustard powder, paprika, cinnamon, cocoa powder

Sensory Processing - Auditory

Seeks	Avoids
<ul style="list-style-type: none">-Enjoys music-Enjoys testing how things sound-Isn't bothered by background noise	<ul style="list-style-type: none">-Covers ears in social situations-Gets upset with loud noises-Difficulties cancelling out background noise

How can we help a child that gets overwhelmed by noise?

- Reduce sound distractions at your home, be aware of background noise, for example a ticking clock.
- Warn your child when a predictable noise is coming.
- Give them noise cancelling headphones to use whenever they feel overwhelmed.
- Try to speak in simple sentences and wait some time before you repeat any question or instruction, to avoid sensory overload.
- Rugs and curtains can improve the acoustics of a room.
- Some children calm down when they have something in their hands, for example stress balls.

Sensory Processing - Auditory

Activities

Here are some ideas you can enjoy with a child that seeks auditory input



Play music

You can use real or toy musical instruments. If you don't have you can use boxes, cans, bottles or a table surface to create some melodies.



Play with Autumn leaves

During this time of the year, you can go out and find some leaves. You can use your feet or your hands to crush them.



Recognizing things by their sound

Show your child two objects at a time. Then make them close their eyes and then tap on them. Let your child try to guess which of the two items made that noise.



Recognizing animals by their sound

Show your child several animals (you can use animal figures or photos). Then imitate how an animal sounds (you can also find them on YouTube), and ask your child to match the sound with the animal.



Create sound sensory bottles

With your child collect small bottles and fill them with different materials. You can use rice, beans, beads, buttons, pasta, seeds or anything you can find in your house. It's advisable to hot glue the lids, just to avoid some mess. When you have several bottles, your child can compare different sounds.

Sensory Processing - Tactile

Seeks	Avoids
<ul style="list-style-type: none">-Prefers tight clothes-Not aware of being touched-High pain tolerance-Doesn't mind being dirty	<ul style="list-style-type: none">-Avoids certain clothes.-Sensitive to clothes' tags and seams.-Avoids being touched-Dislikes baths-Dislikes messy play

Warn your child from possible dangers

When children seek more touch its because they are under-responsive to it. Sometimes they don't realize their skin is in contact with something else.

For these children, is important to help them set boundaries and explain certain dangers, for example getting burned or heavy weight.

How can we help children that dislike being touch?

- Warn them before touching them.
- Find other ways to express love. For parents, it can be hard to not hug their child, but you should not feel rejected, you just need to find other way to express love to each other.
- Use firm pressure, rather than light touch.
- If the child must be touched (haircut, visit to the doctor), other objects or activities may help with regulation (e.g., listening to music, chewing toys).
- Let your child choose their towels, clothes, bedsheets, because certain fabrics might feel better for them.

Sensory Processing - Tactile

Activities

Here are some ideas you can enjoy with a child that seeks tactile input



Find a treasure in a sensory processing bin

Fill a box with sand, beans, rice or any small material, then hide inside small toys or objects. Ask your child to close their eyes and find them. You can choose your materials and decorate the box according to your child's interests, for example space or cars.



Arts and Crafts

Usually, children that seek tactile input don't mind getting messy. Your child might enjoy finger painting, creating figures with clay and experimenting with new materials.



Explore different textures

Let your child move around your home and touch different things. They can have fun exploring different sensations and see which textures they prefer.



Massage

This is an activity you can do to connect with your child. You can massage their shoulders and back, and afterwards they can massage you in return. Generally, children prefer firm touch rather than soft, but you can try different ways and see what feels better for them.



Floating and sinking objects

Children that seek tactile input may have fun playing with water. Fill the sink or the bath with water and select a variety of objects that can safely get wet. One by one, ask them to guess if they will float or sink, and then put them in the water.



Baking

Your child may enjoy baking because they can touch different ingredients, knead the dough, roll the dough, or decorate with their fingers.

Sensory Processing - Visual

Seeks	Avoids
<ul style="list-style-type: none">-Stares at bright lights and colours.-Stares at moving objects.-Holds items close and inspects them.	<ul style="list-style-type: none">-Uncomfortable in very bright places.-Doesn't like bright colors-Avoids eye contact.

How can we help?

- Modify lighting: consider buying dimmable lamps or coloured light bulbs. Try pointing the lamps towards different directions to see which one is more comfortable for your child.
- Always have sunglasses with them in case you are on a space with too much light.
- Talk to the school to see where they can seat in the classroom, so they don't receive direct light.
- Try to keep things minimal at home: bright colours or visual clutter can overwhelm your child.
- Don't force eye contact: for some children eye contact can be overwhelming. Let them know that they don't need to look at you, but they should listen. If they need to see something, remember to let them know before and reassure them.

Sensory Processing - Visual

Activities

Here are some ideas you can enjoy with a child that seeks visual input



I spy

Simple game you can play whenever you are. You just need to describe something by their color, shape or first letter of the word. You can take turns guessing. You can also buy picture search books.



Create visual schedules

This is not only a useful tool, but children can enjoy organizing their weekly visual schedule every Sunday.



Torch play

There are several things you can do with torches. E.g., you can plan a treasure hunt in a dark room; put different kind of papers over the torch and see their level of opacity; cut shapes and project them; play with your shadows, etc.



Color matching game

With your child, choose and grab different objects around your home and organize them by color.



Make sensory bottles

Sensory bottles can help your child calm down when they are feeling stressed or overwhelmed. Children also have fun creating them and choosing the right materials. Here is how they are done:

Basic materials: a clear clean bottle, warm water, glitter, food coloring, mineral oil or soap (optional, helps slow down movement).

Add small objects: clips, small magnets, beads, sequins, googly eyes, etc.

Sensory Processing - Vestibular

Seeks	Avoids
<ul style="list-style-type: none">-Unable to sit still-Runs instead of walking.-Frequent physically risky behaviour.	<ul style="list-style-type: none">-Doesn't like abrupt movements.-Scared of heights.-Can appear clumsy

The vestibular system controls everything that has to do with our balance.

Some children try to avoid vestibular input because their brain gets too many signs. Little movements can seem much bigger.

How can we help?

- Always respect your child's timing and limits. Their difficulties with sensory processing are rooted in biological responses. Therefore, whenever possible, avoid vestibular input.
- If necessary, start with movements that keep your child's feet on the ground.
- Go for small and slow movements, for them to start getting comfortable with the activity.

Sensory Processing - Vestibular

Activities

Here are some ideas you can enjoy with a child that seeks vestibular input

- ➡ **Sitting in a rocking chair**
This can help them relax. You can also do other activities while seated in the rocking chair, like telling stories, while on the rocking chair.
- ➡ **Rolling or rocking on the floor**
Ask your child to lie on the floor and move them carefully. You can progressively increment the speed to see if they like it.
- ➡ **Yoga**
Your child may enjoy doing simple yoga poses or stretches, especially when their head is upside down.
- ➡ **Playing row row the boat with a partner**
Seat in front of your child and grab their hands. Rock back and forth while singing the song “row row the boat”. You can also simply do the movement without singing, because this can be an enjoyable sensation on its own.
- ➡ **Bouncing on a large ball**
- ➡ **Jumping rope**

Sensory Processing - Proprioceptive

Seeks	Avoids
<ul style="list-style-type: none">-Very active-Uses extreme force-Stomps or walks heavily	<ul style="list-style-type: none">-Prefers to be still-Avoids hugs-Difficulty using stairs

The Proprioceptive system gives us the ability to understand how our body interacts with its surrounding. We use it when we push, pull, stomp, squeeze, jump or bend.

Heavy Work activities that can help with sensory processing issues

These are activities that stimulate the proprioceptive system. Most children enjoy them because they can calm, distract and regulate children that feel overwhelmed by the excess of any sensory input. Heavy work activities are found in everyday play and chores, for example:

- ➡ Weightbearing and lifting activities: crawling, push-ups, moving containers or bags
- ➡ Resistance activities: pushing/pulling
- ➡ Cardiovascular activities: running, jumping rope, jumping on a trampoline, swimming
- ➡ Oral activities: chewing, blowing bubbles
- ➡ Deep pressure: tight hugs