Advice sheet

Sensory Processing

Why have I been directed to this booklet?

You have been directed to this booklet because someone who knows your child has expressed some concerns about their sensory processing. It may well be that you are the one who has raised these concerns yourself. Usually, a suggestion is made that the child is referred to the Children's Occupational Therapy service for assessment.

The Occupational Therapy service is receiving a constantly increasing number of requests for this type of assessment resulting in lengthening delays in accessing support. We have reviewed our current model of support and investigated how to achieve the most productive outcomes for children and families. Research indicates that early intervention, and parents working in partnership with therapists, facilitates positive outcomes and reduces stress in the family (McConchie and Diggle 2007, Keen et al 2010).

We have therefore produced this booklet to support you and your child. We anticipate this will enable you to begin to understand sensory processing difficulties and offer some strategies to implement with your child. The information also includes resources to explore, e-videos, books and support groups.

How do I use this booklet?

Please read through the booklet and access the suggested videos and websites. Identify the specific challenges your child has and implement the suggested activities.

The next step is to complete the attached observation sheets for 12 weeks (3 months) to monitor the strategies you have tried and any improvements or changes you see. Many parents find that having more understanding of sensory processing and trying out some strategies is enough to make the changes their child needs.

If your child's difficulties are also impacting on their schoolwork, please share this information booklet with their school and discuss with them any strategies that they are currently finding successful in helping your child in school. As you go along, you can also share with them the activities that you have tried at home. Consistency of approach in different places really helps children who have sensory processing challenges. If Team Around the Family (TAF) or One Plan meetings are set up for your child, this is an ideal place to discuss these matters and agree a shared plan.

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What Next?

Sensory processing refers to how we use the information provided by all of the sensations from within our body and from our environment. All of the information is integrated to give us an understanding of who we are, where we are and what is happening around us. When our senses are integrated correctly, we are able to respond appropriately to the sensation i.e. we take off an itchy woollen jumper or we take a deep breath to smell a flower.

Children with possible sensory processing difficulties may struggle to understand what is happening inside and outside their bodies. They may struggle to communicate how they feel, they may be disorganised in a world they can't make sense of and need to learn strategies to enable them to cope and function.

Now we will look at each of the sensory systems in a bit more detail, with some things you may see in your child and some strategies that you can try. Your child is unlikely to display all the traits in every section, so it is important just to focus on the difficulties that are most frequent or that give you and your child the most concern.

Sense of touch (The tactile system)

Our sense of touch (tactile sense) comes from receptors in our skin all over our bodies and within our mouth.

There are two tactile pathways, a protective pathway and a discriminative pathway.

The protective system responds to light or unexpected touch and helps to alert us to potential danger. The discriminative pathway helps us to interpret what we are touching and where on our body we are in contact, for example, locating an item in your pocket.

Information is sent to the brain about the type of touch we are experiencing e.g. Light touch, texture, pain, which assists us to make an appropriate response. If the brain does not process the touch sensation accurately then we may be described as over responsive or under-responsive to touch sensation and this will affect our behaviour.

Signs of a possible over-responsive tactile system

What you may observe	Possible solutions to try
• Child avoids messy play. • Avoidance of touch. • Dislike of hugs. • Child becomes very disorganised, over emotional and/or out of control when brushed past or touched lightly • Child prefers to wear long sleeves even though it is a very hot day. • Child dislikes the textures of certain clothes or material on the skin e.g. labels, seams. • Child dislikes walking barefoot on certain surfaces (grass, sand). • A greater than normal resistance to having teeth brushed, hair combed or face washed	• Do not force the child to join in. Offer any new tactile experiences in small amounts at first e.g. place their hand over yours rather than putting their hand in yours until they gain confidence, move towards holding their index finger and wiping afterwards • **Avoid** 'light touch' activities e.g. patting on the head or tickling particularly unexpectedly • **Avoid** touch from behind. • Use firm rather than light touch, deep pressure - massage rather than tickling • Combine tactile activities with opportunities to experience changes in body position (proprioception) – See advice sheet below • Allow space around the child in class. • Position the child at the end of a line of children. • Encourage the use of hand held fidget toys. These are toys or objects easily played with in the hand. They are quite often squeezy objects. They are often particularly effective in circle time, carpet time and getting to sleep at night. Try attaching or tying a small object to a child's mat for circle time or to be kept in a pocket. • Deep pressure squeezing along their hands and arms. • Avoid going to places at busier and more crowded times of the day • Avoid dressing the child in certain textures of clothing that cause irritation i.e. wool • Whilst trying tactile activities always use a calm, quiet and encouraging voice in a calm environment • Empathise – what is tolerable for one person is unpleasant for another

Helping a child with tactile sensitivity

Be very gentle when introducing challenging activities - keep activities short and follow them with a favourite activity.

Don't be tempted to progress too quickly - Celebrate small achievements which may take a long time to accomplish, let the child work at their own pace.

Grade, Grade, Grade - Start with very small amounts of tactile materials to avoid over whelming the child. Start with dry textures, progress to wet and then sticky. Stop immediately if the child starts to gag.

Respect their limits and work within their tolerance - They need to trust you and build their confidence with these challenging activities. Let them clean their hands if they ask and encourage them to then carry on.

Bear in mind the environment - try and build a quiet, calm environment so their sensory systems are not being bombarded by noise or activity. Consider lighting, noise, smell, textures and space.

Sense of movement (The Vestibular system)

The vestibular system provides us with information regarding head position and movement against gravity.

Our movement receptors are located in our inner ear and send information about our head position and how we are moving. If the brain does not process the movement sensation accurately then we may be described as over responsive or under-responsive to movement sensation and this will affect our behaviour.

If the brain is over responsive, it can become easily overwhelmed by a movement experience causing fear, anxiety and avoidance i.e. hesitates walking downstairs. If under-responsive it may seek out more movement experiences to satisfy the need i.e. moving in their seat.

Signs of over-responsiveness to movement

What you may observe	Possible solutions to try
• Child is fearful of movement • Child dislikes escalators or lifts • Appears fearful when held in the air by parents. • Child does not like playing on playground equipment. • Child may be travel sick. • Dislike head tilted back e.g. hair washing, rough and tumble	• When travelling, encourage the child to look out of the window and hold a toy/object that is easy to fidget with without looking e.g. a squeezy toy. • Give the child options i.e. to use the stairs rather than a lift or escalator. • Encourage participation in the type of movement the child does enjoy and tolerates. • Never force a child to participate in an activity. • If they are not keen to jump they may jump holding your hand • Combine movement activities with opportunities to experience changes in body position (proprioception) – see advice sheet below.

Signs of under-responsiveness or difficulty processing movement information

What you may observe	Possible solutions to try
• Child is always 'on the go more than their peers. • Child appears to take excessive risks e.g. show no fear when jumping from a big height. • Has difficulty sitting still or may be observed to constantly fidget. • Runs rather than walks • The child seeks lots of movement including changes in head position. • Seeks to swing or hang upside down	• Provide the child with ample opportunities to experience movement e.g. going to the park regularly, swimming, trampolining, soft play etc. • Create a safe environment in which the child can experience movement. If purchasing a garden trampoline ensure it has a safety net • Provide more practise with certain movement related skills such as jumping, swinging, animal walks. • Split the child's day into small sections allowing for frequent movement breaks • 'Row your Boat' singing and rocking while sitting on the floor, Hokey Cokey and other nursery movement actions/ songs • Request that school consider the 'fun-fit' program.

Sense of body position (Proprioception)

Working with the vestibular sense is the sense of proprioception, which provides us with an awareness of body position in space without looking at it.

Information provided from our muscles, joints and ligaments provides us with an awareness of where our body parts are in relation to each other. This information is given when our body is squashed, stretched or pulled apart during movement.

When this system is working effectively it assists us to know where our body parts are in relation to each other and in relation to the immediate space around us. It also lets us know how to move our body and how much force we need to use to carry out a task.

When proprioception is processed well, an individual's body position is automatically adjusted and this helps with every aspect of our day e.g. negotiating our way around objects in a room or preventing us from falling out of a chair. Proprioception also allows objects such as pencils, buttons, spoons and combs to be used by the hand with appropriate force; to pick up a drink of water without spilling it or squeezing too hard or too softly.

The proprioceptive system also has another role – it helps us to stay calm so that we can attend and focus.

Signs of difficulty relating to the proprioceptive system

What you may observe	Possible solutions to try
• Appears over forceful perhaps damaging toys unintentionally. • The child may bump into or trip over items or people more than you would expect • Falling from chairs. • Poor fine motor skills compared to peers – difficulties with precision movements. • May have poor body awareness. • Stands close to or leans into others • Seeks to put or squash themself into small spaces or pushes against corners of the room	• Think of active activities that involve increased effort such as pushing and pulling i.e. moving furniture, pushing a full shopping trolley • Think of activities that involve a lot of moving and using effort e.g. of activities include: helping with jobs around the house, carrying objects, pushing heavy doors, gardening, pushing wheelie toys, swimming, trampolining, using playground equipment, running, cycling on a trike or bike, kneading dough or modelling with clay and tug of war. • Use praise and consider reward charts for help given. • Remember the jobs mentioned above can be very tiring so the secret is making it motivating for the child to participate little and often. • Create a 'fidget-box'. This is a box of objects such squeezy toys and allows the child to choose an object when they are finding it hard to concentrate or calm down. Make sure the child is able to use the object safely and appropriately. • Cardboard boxes – hiding, squeezing into, ripping apart, jumping on, pushing with toys in

Sense of hearing (Auditory)

Auditory processing refers to how the brain recognises and makes sense of sounds. Sounds consist of loudness, pitch, how long it lasts for and where it is coming from. We may need more or less noise in our environment in order to help us focus on a task.

Signs of difficulty relating to the auditory system

What you may observe	Possible solutions to try
• Child over-reacts to loud noise, thunder, vacuum cleaner, hairdryer, fire drills or sudden noises. • Child often places their hands over their ears. • Child appears less able to concentrate or focus in a noisy environment. • Child makes own noises more persistently than peer group. • Show frequent startle reactions to noise. • Notices or is bothered by quiet sounds that others may not notice.	• Encourage the use of body movement (proprioceptive) activities as detailed previously. • Soft, calm music played into earphones may aid concentration and calm a child. Try using classical music. Make sure the music is not played too loudly through the earphones • Allow the child to carry out activities in a quiet environment at intervals throughout the day. • Allow the child something to fidget with something and use the proprioceptive activities. • White noise can be downloaded from the internet, and this can also be useful when played quietly through ear phones. • If the response is extreme, ear defenders can be useful to reduce anxiety at noisier, busier times i.e. fireworks, busy supermarket (see equipment providers below)

Sense of seeing (Visual)

Visual processing refers to how the brain recognises and makes sense of what the eyes are seeing. This is so that we can make an appropriate response to keep ourselves safe or interact appropriately with the environment and other people. Vision is the strongest and most powerful predictor of what is going to happen.

Some children find it more difficult to concentrate in situations where there are lots of visual stimuli, and can find too much visual input overwhelming

Signs of difficulty relating to the Visual system

What you may observe	Possible solutions to try
• Behaviour of child becomes more erratic in a busier more visually stimulating environment • Is visually distracted by others • Notices everything that's happening in the room. • Child keeps head and eyes facing downwards most of the time • Startle at visual input. • Show sensitivity to light. • Be irritated by bright lights • Prefer sunglasses/peak cap	• Allow the child to carry out activities in a less visually stimulating environment at intervals throughout the day. This may mean creating a suitable environment in the Pre-school classroom such as a blank corner separated by dividers or a table covered in a sheet that the child can crawl under. • Pop up tents can provide an easily accessible calming environment. • Child may like to wear sunglasses. • Keep lighting dim. • In the classroom, try the child sat facing a blank wall • When working at a desk, seat directly in front of the teacher / whiteboard when listening to class discussion.

Daily care activities

Sensory processing challenges may lead to difficulties being independent in daily life skills. The following strategies may help in personal tasks.

Dressing

- Use comfortable clothes; consider type of fabric and length of sleeves.
- If the young person cannot tolerate labels, cut them out.
- If the young person cannot tolerate seams, undergarments can be worn to reduce friction.
- Try washing and drying clothes in unscented products.
- Dressing can be done in front of a mirror so as to provide visual cues to assist with sequencing, motor planning and body awareness.
- Be aware of other visual or auditory noises in the room which may be off-putting.

Personal Hygiene

- Use non-perfumed soap
- Be aware of bathroom lighting levels and minimise any noises, e.g. run the bath prior to entering the bathroom
- Use pressure when shampooing or drying with a towel
- Before bath time, do activities that involve proprioception activities as detailed previously.
- Make the transition from undressing and getting into the bath as quickly and smoothly as possible
- If the young person dislikes having their face or body washed, encourage them to wash themselves. Self-initiated touch produces a less defensive reaction
- If the young person is showering, use a hand held shower nozzle. Let the young person control the direction and force of the water
- Use a large towel, and quickly and firmly wrap the young person in it. Avoid exposure of the wet skin to the air as the light touch may trigger a defensive reaction
- Provide deep-touch using a towel to the head, hands and feet to decrease defensiveness. If they will tolerate it, provide a firm massage, using lotion to avoid skin irritation

Hair care

- Seat the young person firmly on your knee and squeeze the young person firmly between your knees (deep pressure)
- Count or have the young person count as you comb, wash, rinse or cut the hair.
- Give definite time limits to the task e.g. let's count to 10, and then we will stop cutting your hair, provide deep pressure immediately after
- Break the task into small steps and eliminate any unnecessary steps or stages. Practise each step in isolation in a stress-free environment
- Gradually combine these steps and perform the task in the natural environment. Practise without scissors, lifting up sections of hair and tugging very slightly to mimic the feel of cutting

General

Some non-sensory strategies can also help:

- Where the choice is available, allow the young person to choose a bath or a shower. A larger showerhead is often more acceptable to the young person, as it distributes the water more evenly
- Try to incorporate bathing into a play activity e.g. use floating toys and bubbles and/or coloured floating soap
- Visual aids can be used in order to help the young person understand the activity.

Other helpful resources to consider

Useful Website:

http://asensorylife.com/

Equipment providers:

Suppliers of clothing for children that may find it difficult to tolerate certain textures.
http://sensorysmart.co.uk/

Suppliers of toys, clothing and a variety of equipment to support individual sensory preferences
http://www.sensorydirect.com/

Books for parents:

'Raising a sensory smart child' – Read more about this resource at
http://www.sensorysmarts.com/about_book.html

'Understanding your Childs sensory signals'
http://www.amazon.co.uk/Understanding-Your-Childs-Sensory-Signals/dp/1466263539

Videos:

A child's view of sensory processing:
https://www.youtube.com/watch?v=D1G5ssZlVUw&feature=player_embedded

Description of the Proprioceptive (body position) sense and how this can impact on behaviour and learning. **https://www.youtube.com/watch?v=b2iOliN3fAE**

Description of the vestibular (movement and balance) sense and how this can impact on motor control, attention, behaviour and learning. **https://www.youtube.com/watch?v=pEbILhUc1Pc**

Relevant Social networks:
https://www.facebook.com/SensoryIntegrationNetwork

Apps to promote self-regulation and individual sensory needs
http://otswithapps.com/2012/11/28/brainworks-app-a-sensory-diet-tool/