

# PROPRIOCEPTION (DEEP PRESSURE)

## What Is Proprioception?

Proprioception refers to the body's ability to sense movement within joints and joint position. This ability enables us to know where our limbs are in space without having to look.

Without Proprioceptive feedback, we can often feel fearful of the world around us and choose to bang and crash around our environment in order to gain vital feedback about where our body / limbs are in space.

## Proprioception / Deep Pressure Activities:

Below is a list of activities to help children receive proprioceptive input in a safe and controlled manner. This will also help to have an overall calming effect on the child.

\*Please note activities should be completed 'little and often' throughout the day to ensure the best results.

## Gym Ball Activities:

1. Lying on tummy over the gym ball, supported by adult. Walking forward on hands to retrieve a favourite toy / object relevant to current learning. Walk back and rest on knees for a couple of seconds before repeating. (Approximately 10 repeats)
2. Lying on tummy flat on the floor, adult to roll gym ball over backs of legs and back, stopping at the neck. Pushing down on the ball as you roll the ball up and down the body slowly, will give lots of deep pressure. (Approximately 10 repeats)

## Thera-Pressure:

Thera-pressure is a very successful brushing technique that provides excellent proprioceptive feedback. However, specialist training with a qualified trainer is essential before using this technique with your child. Ask your Occupational Therapist for more information.

## Scooter Board Activities:

A scooter board is a flat board with wheels on the bottom. A child can lie on the board on their tummy and use their hands to pull themselves around a large surface area to provide proprioceptive feedback. Non-carpeted areas provide less resistance, making it easier for the child to pull themselves around to retrieve toys / objects, making the activity purposeful. Children require adult demonstration and support for this activity.

## Body Sock Activities:

A 'Body Sock' is a Lycra bag that can be bought to match the size of the child. The Lycra provides resistance and allows the child to engage to push, pull exercises when inside the bag. The bag is made of breathable material, but should be introduced gradually. Feet first in a sitting position, with confidence the child can then completely close the bag and enjoy the brilliant calming effects offered from this activity.

### **Lycra / Material Tunnels:**

Children are encouraged to crawl through the tunnel and will receive a fantastic amount of proprioceptive feedback as a result. Adult support and encouragement required when first introducing the activity.

### **Trampoline:**

Calm and controlled regular periods of bouncing on a trampoline can offer lots of deep pressure and proprioceptive feedback. Bouncing can be achieved in lying, sitting, kneeling with support progressing to jumping whilst standing with / without support. Short bursts only are recommended to avoid a child becoming to 'high' from the movement involved in this activity. Using a visual cue to indicate time remaining will help transition.

### **Weighted Walks:**

Encouraging children to walk with a slightly weighted back-pack will offer great proprioceptive feedback when out and about. Simply pop a couple of books into their backpack, enough to ensure they can feel slight pressure through the straps of the back pack but not too much that looks to be weighing the child down. No more than 5% of a child's body weight should be offered when using weight as a calming method.

### **Lycra / Weighted Garments:**

Lycra and weighted garments are a brilliant calming method for use with those who have decreased body awareness and proprioceptive feedback as they hug (Lycra) or pull down (weight) on the body, helping reassure the child as to where their body is in space. Such garments should be assessed for by an Occupational Therapist or alternate Health Care professional, and should not exceed 5% of the child's body weight. If issued with a Lycra or weighted garment, please ensure that your child has regular periods throughout the day when they are NOT wearing the garment. This will prevent the child from 'habituating' / getting too used to the feel of the garment and potentially decreasing the impact and success of the garment in the future.

### **Thera-Band / Resistance Band:**

Thera / Resistance Bands can be purchased in most sports shops and comes in a roll. The band can be cut to size easily and can be used by the child to either pull between hands or tie to a fixed object to allow the child to pull against. (Ensure object can NOT be moved with force to ensure safety). Children can also loop the band over their feet (when seated) and pull towards their body.

### **Sports Wrist Bands:**

Sport wrist bands can be used to provide deep pressure to the wrists and can be easily hidden under jumper sleeves etc. Once again it is important to state that regular periods without the bands are encouraged to prevent habituation (children getting used to sensation).

### **Lycra Sports Top:**

Lycra sports tops can be purchased in most sports / outdoor shops and can be worn underneath a child's clothes to provide proprioceptive feedback. Long sleeved and turtle necked garments have proven to be the most successful.

### **Push / Pull Activities:**

Pushing or pulling boxes of toys, supermarket trolleys or children's toy trucks with weight can also be a quick and easy idea to increase proprioceptive input.

### **Massage / Squeezes:**

Massage and squeezes to fingertips, toes, arms, legs and head can help provide valuable proprioceptive feedback as well as desensitising specific areas prior to grooming activities such as finger-nail cutting, hair cutting etc.

### **Vigorous Towel Rub:**

This is an activity that is easily completed at home that provides very good results. Vigorously rubbing the head and body before grooming / light touch activities such as showering etc. will help desensitise the child and help induce a calm state prior to undertaking activities often disliked by sensory sensitive children.

### **Weighted Blankets / Bedding to aid sleep:**

Weighted blankets are often used by parents looking for ways to get their child to go to sleep. However, unless recommended and monitored by professionals on a regular basis we tend not to advise of their use. Instead we recommend close fitting PJ's with cuffed ankles and sleeves, bedsheets tucked in to provide resistance, and a heavier duvet (e.g. feather instead of hollow fibre etc.). Sleeping bags and bed tents have also provided a 'safe space' / 'Cocoon' that children tend to seek when their body awareness has been compromised.

### **Tooth-Brushing:**

Children that are orally sensory sensitive tend to respond better to mouth exercises (making different shapes with their mouths by stretching etc.) and facial massage before tooth-brushing and then the use of an electric toothbrush instead of a normal toothbrush, as the vibration offers much better proprioceptive feedback.

### **Shoes:**

Proprioceptive-seeking children often stomp instead of walking in an attempt to receive vital feedback through the soles of their feet. Other children will remove socks and shoes in an attempt to come into direct contact with the ground. Therefore, thin soled shoes are preferable to chunkier soles as they allow the child to receive more feedback through the soles of their feet.

### **Head-banging, biting, pushing, hitting:**

Any form of self-injurious / injurious behaviour should be investigated further by a professional. Children may also use self-injurious behaviours as a means of communicating their level of frustration or upset. However, some children may use these types of behaviours as a means to getting high levels of proprioceptive input. Whilst we cannot rule out behavioural reasons until a complete assessment has been undertaken, there may be a sensory element to their behaviour as stated above. With this in mind offering regular and varied types of deep pressure activities throughout the day will help to provide essential feedback and help the child to self-regulate.

**NB:** Please note that some of the above activities will take time as the children have already learnt a fight or flight response to most light touch activities, therefore perseverance and consistency is required.

Some children may prefer some activities over others and these are the ones that will work best for your child. Introducing your child to a picture board with their favourite activities on a removable picture will enable the child to begin to recognise when and what they need to help themselves self-regulate.

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