

The Proprioception System

Ask yourself how do you know when you are jumping? How do you know just how hard to press when writing with a pencil? How do you know not to bump into people when you are in a crowded space? How do you know just how hard you need to push when there's a heavy box lying on the floor?

Try closing your eyes and then touch your nose, or try and make both your index fingers meet in front of you.

You are able to do all of these actions because of your proprioceptive system. It is basically your sense of body awareness, knowing where your arms, hand, legs and feet are in relation to your body and in space. Your body is full receptors that send messages to your brain telling you how much pressure you need to exert to make things happen.

Sometimes however this system can be under developed or disordered and can cause some difficulties for our children. It can be under responsive or over responsive.

Over-Responsive (Proprioceptive Defensiveness/Avoidance)

- Prefers to sit still
- Avoids touching others
- Dislikes sports and active activities
- Uncoordinated
- Trouble walking up and down the stairs
- Unable to climb structures at the playground. For example, ladders, steps, ropes, etc.
- Poor posture
- Low energy

Under-Responsive (Proprioceptive Input Seeking)

- Constantly moving, unable to sit still
- Very boisterous Rough and tumble play - for example, bumps into other people, walls, accidentally hurts others when playing as if they "don't know their own strength"
- Aggressive behavior. For example, hits, kicks, bites, pushes tables, etc.
- Walks in a stomping manner.
- Enjoys deep pressure massage
- Enjoys lots of movements, For example, jumping, swinging, running, etc.
- High energy
- Chews on clothing and objects
- Likes to "hide" under blankets, inside clothing, under tables, etc.

Some simple activities to help you child know where his body is in space

Lest start with some familiar action songs that you can make up countless actions of your own.

Activity 1

To the tune of "here we go round the mulberry bush"

This is the way we clap our hands, clap our hands, clap our hands, this is the way we clap our hands on a cold and frosty morning

This is the way we stamp our feet

This is the way we reach up high

This is the way we roll around

This is the way we jump up high

Like I say there are countless actions you can do with this song, make it fun and remember you need to model the action for you child! Release your inner child!!! Have fun!

Activity 2

Row your boat

Sit on the floor opposite your child, holding hands and rowing back and forth. Getting that push and pull feeling, giving that proprioceptive feedback in your child's arms and hands.

Words

Row row row your boat Gently down the stream

Merrily merrily merrily merrily

Life is but a dream

Row row row your boat gently down the stream

If you see a crocodile

Don't forget to scream

"Ahhhhhhhhhhhhhhhhhhhhhh!"

Activity 3

If your happy and you know it

Again there are endless opportunity for actions for this song, use your imagination and get silly.

Dance around,

Hop on one leg

Touch your nose

Swing your arms

Wiggle your hips

All body awareness actions

Ok the next lot of activities are for those of you that have a gym ball in your possession, if your are anything like me and have tried all sorts of ways to exercise to lose weight or I know my daughter got one to use during her pregnancies for comfort or gentle exercise.

Activity 1

This one is all give proprioceptive feedback both one your child's tummy and through their hands, wrists and arms.

Place some random toys, cars, figures, or bricks on the floor in front of the ball, then get a box/container, then gently place your child face down on the ball as in the picture below and take him/her by the waist and gently roll him/her forward so that they can reach the floor to pick up the toys and place them in the box

Your can allow them to choose which ever one they want or take turns as choosing which one he/she picks up.



Activity 2

Lie your child on the floor face down on a mat and with gentle pressure roll the ball up and down his/her back



Activity 3

I'm sure you all know Humpty Dumpty! This is a very simple activity, just sit your child on top of the ball, holding him/her round the waist bouncing him gently in rhythm to the rhyme, when humpty falls gently roll the ball off to the side (still holding your child!!) just so that he/she experiences the off balance feeling (helping with Vestibular sense, but we'll talk more about that later) and then bring him/her back up to the top of the ball and return to the gentle bouncing to finish the last of the rhyme.

Finally this section is called "Heavy Work"

How many times have your kids tried to lift something and you say "no, no, that's too heavy, mummy do it" or if your kid is pushing or pulling something that seems too big and heavy for them you say "oh don't do that it's too big, or too heavy"

If it's safe let them have a go! Pushing and pulling and lifting and carrying is all good for reinforcing where their arms and legs are in relation to their bodies and gives them this stimulation that they need to develop the proprioception system.



The majority of kids we work with are at the filling and emptying stage, allow them to do it as often as they need, make the objects just heavy enough to challenge them slightly and safely. Use their toy box then when it's full you can encourage them to push it round the room, as I've said before the key to keeping your child engaged is to keep it fun.



So this is some activities to have a go at for now, I will add more sensory activities in the coming weeks. I hope this explanation and activities makes sense and gives you a bit of understanding why your child needs to do some of the things they do.