








**COMMUNITY PAEDIATRIC OCCUPATIONAL THERAPY AND
PHYSIOTHERAPY SERVICES**

Gravitational Insecurity

This is when the brain over reacts to information from the vestibular (balance) system, which also gives our internal sense of gravity. It causes anxiety or distress when the feet lose contact with floor or are on an unstable surface or when the head changes position.

DIFFICULTY	IDEAS TO TRY
<p>Child is afraid to walk on uneven surfaces such as grass, mud, mud or gravel.</p>   	<ul style="list-style-type: none"> • This can prevent children from learning new skills and stops them from exploring their environment particularly outdoors • Use deep pressure massage such as rolling with a gym ball or a foot ball. • Rolling with a Big Ball Use a gym ball. Ask the child to lie face down on a firm comfortable surface such as a carpeted floor or gym mat. Roll the ball over the back, shoulders and legs apply a small amount of pressure to the ball, ask the young person is this nice? If no stop. With smaller children use the smaller ball below. Children will usually say if they want more or less pressure, but check they are OK. • Smaller ball Massage Use a smaller football sized ball. Again ask the child facedown on a comfortable firm surface, use the ball on the back. Use the ball with your hand flat on top of it and rotate it in small circles over the surface of the back and shoulders, work around the sides of the hips and, up and down each leg focus the pressure on the big muscles. • A tennis ball can be used in this way to massage the soles of the feet or as shown. • Deep pressure techniques should never be used on the front of the

	<p>abdomen, only arms, legs and back.</p> <ul style="list-style-type: none"> • Use a weighted toy, belt or rucksack filled with books or milk containers full of sand or water equivalent to 10% of the child's body weight to help them feel more secure. • Give emotional and physical support too as they genuinely feel afraid.
<p>My child will not sleep in bed at night</p> 	<ul style="list-style-type: none"> • Give them a sleeping bag and allow them to sleep on the floor in a safe corner. • Some children are OK with a mattress on the floor • Some children like a mattress in a tent on the floor • Using a sleeping bag and a tent can help them feel more secure because it gives a sense of containment. When lying down they are not getting the feedback from their feet which helps them to feel safe. • A weighted blanket, lap pad or toy placed can be used to help your child feel calm ready to go to bed but should not be used whilst in bed.
<p>My child is scared of the toilet, starting to use an adult toilet is very scary for children with gravitational insecurity.</p> 	<ul style="list-style-type: none"> • Use a reducer seat to make the hole smaller, put a pillow or something behind your child to support them • Make sure they have a step or solid box under their feet. • Let them climb up to the seat rather than lift them • Give them emotional and physical support • It is important that the above is applied to every toilet the child is asked to use. • When out take a potty, or reducer seat and step with you.
<p>Child is afraid of heights and bridges</p>	<ul style="list-style-type: none"> • Fear is a neurological response to the incorrect information your child is receiving from their body and is not bad behaviour. • Avoid these situations if you can until your child's system has become less over responsive • If not give lots of reassurance and physical support such as hold their

	<p>hand or put your arm around them hold them tightly the deep pressure will help.</p> <ul style="list-style-type: none"> • Be encouraging give lots of emotional support, don't tease or laugh at them.
<p>Child is afraid screams or cries if picked up and laid on a changing mat or picked up in rough and tumble play. Children with gravitational insecurity will often avoid anything which puts their head out of the vertical.</p>	<ul style="list-style-type: none"> • Hold child close to you and support the head when tipping them backwards and allow them to push their feet against you whilst changing them. Pressure through the feet will reassure them. • In play follow the advice below
<p>My child is afraid of swings</p>  	<p>If little:</p> <ul style="list-style-type: none"> • When you sit your child in the swing be reassuring tell them what you are going to do. • Allow them to put their feet on your legs whilst you get them secure in a baby swing. • Then take hold of their feet and put pressure through the soles and ankles. When they are comfortable just to sit there, start to move the swing just a little keeping hold of the feet • Gradually build this up until you can let go of the feet for just a few seconds then use the feet to push the child so that they always come back to the pressure through soles. • If bigger : Use an ordinary swing that they can touch the floor on and encourage them to start to rock the swing Then gradually get them to allow you to push them using their feet and work through the stages above.
<p>Things that help to develop gravitational security.</p>	<ul style="list-style-type: none"> • Log rolling – rolling across a bed or down a grassy slope can be arms by the side or like a pencil with arms over the head. • Roll your child up in a rug then pull the rug or duvet to roll them out it again. • Both of you sit on the floor with the child between your legs so you are astride the child and sing the Row the boat song. Rocking the child



forwards and backwards. Backwards is the scariest part, so holding your child securely will help them to feel safe and build up their confidence with going backwards.

- Eventually you will be able to take them all the way backwards.
- Encourage movement in all different directions, forward rolls, backward rolls, command rolls on a mattress or similar on the floor
- Trampolines and swimming pools are great places to build up confidence in moving the head at different angles and practising being on their backs put pressure through the soles of the feet and build their confidence before gradually stopping.
- Bike riding and horse riding can be great motivators to overcome this fear, as the pressure through the pedals or stirrups can help.
- Using climbing frames and climbing walls to move around sideways, so as they are not too high off the floor are good
- Balance beams and trim trails in the park, hold hands to start with.
- Lots of country walks with uneven ground and styles to climb
- Jumping and skipping
- Have fun and build confidence.

The Paediatric Therapy Team would like to acknowledge that some of the above ideas are based on the work of Carolyn Murray-Slutsky and Betty Paris.

NAME:

DATE:

Ideas to try	Outcome
1.	
2.	
3.	
4.	
5.	

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Provision of Weighted Blanket/lap pads etc. Guidelines for Use

Weighted blankets and lap pads are used to provide proprioceptive sensory input in a controlled way. Weight has a calming effect on the system. The use of weighted items needs to be carefully monitored to ensure they are used safely.

Please follow the guidelines below:

- The weighted blanket/pad should only be used for its intended purpose and in the way that you have been shown.
- **Supervise your child at all times when using the weighted blanket. Do not leave the weighted blanket on when unsupervised.**
- Use the weighted blanket/pad in situations where the child needs to calm i.e. when he/she is over aroused. We recommend applying the weighted blanket 10 minutes before any situation where you know your child can become over aroused. After 10 minutes, any calming effect should be apparent.
- The weighted blanket/pad could be used on the child's lap over legs, or around the child's shoulders but do not cover the head.
- We would advise using the weighted blanket/pad for no longer than 20 minutes at a time as the nervous system becomes used to the sensation. Allow at least 40 minutes break before using it again.
- The weighted blanket/pad may be used with the child as part of the bedtime routine in preparation for bed time but should not be used whilst the child is in bed.
- Allow the child to remove the weighted item at any time if they wish to. Remind the child that they can take it off if it's feeling too heavy or hot.
- The weighted blanket should never be used as a restraint.
- Ensure you can observe the child's vital signs at all times when using the weighted blanket e.g. that breathing is OK and not laboured, the airway is not restricted, the weight of the blanket is not concentrated on the chest where it might restrict breathing, that the child's colour remains constant (does not become pale, red or blue) or that they start sweating. If you observe any of these signs, stop using the weighted blanket immediately.
- If the weighted item causes any pain or discomfort, remove it immediately.
- Do not use the weighted item if it is defective in any way.
- Once you have decided on the best product for your needs, make sure you get the correct weight.

IMPORTANT the weight of the blanket/pad should be no more than 10% plus 1lb of your child's weight. Lap pads, wraparounds and small blankets come in standard weights of 2lb, 3lb and 6lb respectively. When deciding upon weight for medium and large blankets the general rule recommended by Occupational Therapists is 10% of body weight plus 1lb.

N.B It is not recommended that weighted blankets are used when there is a diagnosis of epilepsy.

Weighted Blankets are available from:-

www.bearhugblankets.co.uk

www.sensamart.co.uk

www.tts-group.co.uk

www.weight2goblankets.co.uk

www.rompa.com