



# Deep Touch Pressure.

This article outlines the underlying premises of deep touch pressure and how this can benefit children to help them be calmer, so they can participate in daily activities that they need to. This research applies to typical children, as well as children with diagnoses such as autism, ADHD and learning difficulties.

Helping kids  
concentrate  
and being  
calm.

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Every working day I meet children who struggle at home and at school to meet the expectations of their teachers and parents: to behave in an acceptable way and to do things the way those adults seem to favour. These children have good parents — parents who are doing everything they can to help their children become the best they can be. By the time I see them, they are often almost at their wits' end and don't know where else to go. Quite often, they are also being pressured to look at medication as an option to help their child. (A note on this: I am not against medication — I know that this does help many children to cope better in life— but I often give parents another option to try, or to use in tandem with medication).



So, how does deep touch pressure help children (and adults) to calm themselves (their nervous systems) and improve their concentration and learning?

The basis of using deep touch pressure as a mode of therapy/intervention is sensory processing, and focuses on improving a *sensory modulation*. Sensory modulation is a term used in relation to a person who “over-responds, under-responds, or fluctuates in response to sensory input in a manner disproportional to that input” (Koomer & Bundy 1991 p 1991).

OK, so what does this mean? Some children struggle to sit still or focus on the task at hand, are always on the move, cannot stay sitting on their chair, or cannot stay in the same place for story time. These children may be over-responding to the different stimuli in the room (noises in and outside the room, visual input – kids moving around the room, the feel of the carpet or chair). You get the idea; they can be distracted by almost anything. This child may be moving or fluctuating in



*Octopod weighted lap pad is great for those who like to fiddle, and also vibrates, which is also calming!*

reaction to the different sensations in their environment. Their nervous system is over-active, and they need to move in order to listen and take in information.

Another child in the same class may be struggling with similar behaviours, but may be doing so because her body and nervous system is under-responding, and she is moving and wiggling in an effort to stay awake and stay on task. So even though similar behaviours are being observed, there may be different or even opposing origins of this behaviour.

For this reason, a full sensory processing assessment by an Occupational Therapist who is experienced in sensory processing is highly recommended.

The use of deep pressure as a form of tactile sensory input is believed to have a calming effect on adults and children with pervasive developmental disorders / autism (Edelson et al 1999, Grandin 1992, McClure & Holtz-Yotz 1991, cited in Fertel-Daly et al, 2001), children with ADHD (Joe 1998, Maslow & Olson 1999 cited in VandenBerg 2001).

This use of deep touch pressure therapy is based on the neurophysiological principles of Rood, as cited below by Huss 1983 p 116 (in McClure & Holtz-Yotz 1991):

- *Motor output is dependent upon sensory input. Thus sensory stimuli are utilised to activate and/or inhibit motor responses.*
- *Since there is interaction within the nervous system between somatic, psychic, and automatic functions, stimuli can be used to influence one or more directly or indirectly.*

So basically, how our body feels is impacted directly by what our senses pick up from the environment, and deep pressure input is the most calming of sensory inputs. It can last in the nervous system for up to a couple of hours, or even longer, depending on the intensity. Think of the teacher standing behind a child who struggles to focus, and putting gentle weight through the child's shoulders. Or think of the last time you had a massage. A massage is an intense session of deep touch pressure. Did you feel calmer and more relaxed afterwards? I know a good massage makes me feel so relaxed I don't feel like moving at all for some time! The same principle works with kids, helping them calm down when they need to sit still to do a task, or at times when they become worked up, or have meltdowns.



*The Roll Ease Rolling Pin is a fun tool to deliver good quality deep pressure input.*

*Kids can even use it on each other (under supervision of course).*

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Deep touch pressure is very calming, and there are a number of resources available for children and adults to help in applying this pressure successfully. These include:

- weighted lap pads (plain or in animal shapes) used on the lap either at the desk or on their lap on the floor, say in story time
- pressure vests which can be worn all day, as the body doesn't retain or accumulate the pressure
- weighted blankets
- weighted vests
- pea pods
- Rollease rolling pin. This is one of my favourites. It's an oversized foam-covered rolling pin you can use to apply deep touch pressure to a child's back for a great massage feeling. (Adults love it too!) Do not use on front of body.

And new resources using the principles of deep touch pressure are constantly being created.

Most of the research on deep touch pressure comes from the use of wearing weighted vests to help



*The Pea Pod is a great resource for giving deep pressure input for all kids to help them relax and chill out, or to recover from meltdowns or times of being upset.*

calm children and keep their focus (Koomer & Bundy, 2002). It is believed that the use of deep touch pressure in the form of weighted vests assists in:

- Decreasing purposeless hyperactivity and increasing functional attention to purposeful activity (Miller et al 1999 cited in VandenBerg 2001).
- Reducing self-stimulatory behaviours in children with autism (Edelson et al 1999; Joe 1998; McClure & Holtz-Yotz 1991; Zisserman 1992).
- Reducing negative behaviour and increasing positive behaviours (attention, staying on task, following instructions) and
- Markedly increasing balance and stability in children with sensory integrative dysfunction (Olson & Moulton 2004).



*Pressure vests are an excellent alternative to weighted vests and give deep touch pressure (hug) all day long!*

### **How much weight to use to create deep touch pressure?**

Research suggests using approximately 5% of a child's body weight to gain the therapeutic results of increased attention, staying on task and following instructions (Honacker and Rossie, 2005b). Of course, weighted vests or other weighted therapy modalities should be used under adult supervision.

If you have any queries about how to use weighted therapy modalities, please contact your local Occupational Therapist (OT). For optimal results in increasing concentration and attention, weighted therapy should be a part of a balanced "sensory diet", in conjunction with other behavioural strategies. The information in this article should be used with a dose of common sense, and if you have any concerns, please contact your local OT.



*These options for weighted pets are so cute and loveable. They can be used on the lap while seated in class, or during floor time. Helps to calm and focus. In a variety of weights to suit all children*

*(if you can get them off the adults' laps!)*

*Clockwise – Teachers Pet Chloe, Hound Puppy, Dude – Turtle, Teachers Pet Dot.*



## References and Further Reading.

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This article is written as a general guide and summary of the research available. It is not meant as a prescriptive guide, and for the best outcome, a full assessment of sensory processing by a qualified Occupational Therapist is recommended. Life Skills 4 Kids is not responsible for any outcome from the ideas in this article. It is recommended that children use all resources described in this article under adult supervision.