

USE OF A COMPRESSION GARMENT

A compression garment is a piece of clothing worn to provide proprioceptive input (**deep pressure sensory input/therapy**) (DPT). This type of input can be very calming and organizing to the nervous system. It is typically prescribed by an Occupational Therapist as part of an overall sensory program. Compression garments may be preferable to weighted vests because of the effects of weight on the growing spine. Students with lower muscle tone, in particular, may find a compression garment more beneficial than a weighted garment, as the compression garment can potentially assist in not only providing deep pressure sensory input but also may assist in providing added postural support.

What does the research tell us about compression garments?

Moderate quality evidence (from a meta-analysis of studies that measured the effect of DPT, including two studies of compression vests) shows little support for the use of DPT, including use of compression vests) among children with autism, attentional, sensory and developmental challenges to improve attention, disruptive behavior, self-injurious behavior, or stereotypical behavior. There is a lack of research and insufficient evidence on specifically use of compression garments. Although there is limited evidence to support the use of compression garments for school-aged children, the benefits are closely balanced with risks and burdens. Therefore, the following recommendations, if determined to be clinically appropriate, should be evaluated for a given student to determine their effectiveness.

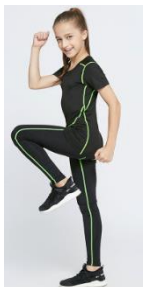
When are these garments worn?

Compression garments can be worn during the school day if desired. It is currently thought that students do not habituate to compression garments, due to chest movement from breathing and movement from daily activities. All day wear may therefore be beneficial and comfortable. Often compression garments are worn under regular clothing.

What is Available for Purchase?

Athletic compression garments

- These garments are intended for athletics so are made of breathable, moisture wicking fabric that doesn't get too hot
- These garments must be worn snugly if they are to provide enough compression to be effective (order a size smaller than typically worn)
- Popular items include the long sleeve, mock turtle neck (worn under a T shirt if desired), tank top style and running tights (worn under jeans if desired)
- Many brands are available including Champion, Nike, Adidas, Under Armour



Inflatable Vests

- These can be worn during the school day and only inflated during times of requiring calming deep pressure input.
- Allow students to pump up the vest independently if desired
- For non-verbal students, provide a picture cue of the pump so that they can communicate a desire to have the vest inflated



Prices can vary depending on size, features and provider. We do not endorse any specific providers.

Benefits/Harms

Potential Benefits include improving a students' self-stimulatory behaviors and attention to task. **Potential Harms and Risks** include skin irritation, discomfort, and overheating. Compression garments should not be used with students with poor skin integrity or children under the age of 5 years unless advised by a health care professional.

It is recommended that when wearing a compression garment that the pressure level be adjusted to the student's preference. Skin integrity should be assessed after wearing for 20 minutes. It is important to monitor for signs of discomfort and overheating. It is recommended, when using with students who have a background of trauma such as physical abuse, that caution be used when applying therapeutic compression/pressure devices.

How do I know if it is effective or beneficial?

- Document (using the attached tracking sheet*) the student's state of calmness/ ability to focus prior to using the garment and then again while wearing it, in order to evaluate changes.
- Measure in seat time with and without the vest.
- If on task behaviour is a goal, documenting productivity may also be helpful in evaluation.
- Seek feedback from the student, teachers and EAs
- Make specific goals around the use of the garment. For example, the student will tolerate continuous sitting while reading a book for 15 minutes while wearing an inflatable vest.

*See Sensory Equipment Tracking Sheet (attached).

This resource has been developed by occupational therapists at Sunny Hill Health Centre at BC Children's. The information included in this handout is based on current research and expert clinical opinion. Please contact your occupational therapist if you have any questions or concerns.

References:

Losinski, M., Sanders, S. A., & Wiseman, N. M. (2016). Examining the use of deep touch pressure to improve the educational performance of students with disabilities: A meta-analysis. *Research and Practice for Persons with Severe Disabilities*, 41(1), 3-18.

Yack, E., Sutton, S., & Aquilla, P. (2003). *Building bridges through sensory integration*. Future Horizons.

Best evidence statement (BESt). Use of a Weighted or Pressure Device to Modify Behavior in Children with a Sensory Processing Disorder. 2-09-12. Cincinnati Children's Hospital Medical Center - Hospital/Medical Center. Retrieved from: <https://www.guidelinecentral.com/summaries/best-evidence-statement-best-use-of-a-weighted-or-pressure-device-to-modify-behavior-in-children-with-a-sensory-processing-disorder/>

SENSORY EQUIPMENT TRACKING SHEET

Student: _____

School: _____

Case Manager: _____

Type of Equipment: _____

Phase1: Without Use of Sensory Equipment

Date	Time	Comment on alertness and calmness	**In-seat behavior: # of minutes student stayed seated. Time for up to 15 minutes.	Describe the activity, productivity and quality of work

Phase 2: With Sensory Equipment – circle one

(e.g.: Weighted Vest, Lap Pad, Compression garment, Inflatable cushion, Therapy ball)

Date	Time	Comment on alertness and calmness	*In-seat behavior: # of minutes student stayed seated. Time for up to 15 minutes.	Describe the activity, productivity and quality of work

*Please complete this data sheet for 10 days without the sensory equipment and then 10 days with equipment. It is recommended that recording be done during the same time and/or activity each day. **In Seat Behavior: When any portion of the student’s buttocks is in contact with the seat/cushion and four legs of the chair in contact with the floor.