

## OTvest, weighted vest Protocol for Use

### Purpose of Protocol:

Recognizing that individuals have unique strengths and areas of needs, and response to interventions such as a deep pressure can vary, *this protocol is only a guideline, with each student's program individualized*. The OTvest, weighted vest is not intended to stop movement, as many students need movement to learn effectively. Current research and “best practice” guidelines have been referenced in the creation of this protocol.

The OTvest, applying deep pressure directly to the wearer, with weights across the shoulder-girdle (upper chest and upper back), can be beneficial for:

- Increasing calm, focus, and attention-to-task, self-organization or regulation (such as those with autism, ADHD, Tourette’s Syndrome, lead poisoning, opioid addiction, TBI, PTSD, and central nervous system disorders).
- Decreasing anxiousness, anxiety, and/or agitation.
- Increasing body awareness for improvement in motor skills/coordination (dyspraxia)
- Increasing attention for improvement in fine motor skills such as handwriting, coloring, cutting, keyboarding, self-care skills.
- Increasing trunk stability for improvement in balance, gross motor skills or those with movement disorders of the CNS (ataxia, athetoid movements, spasms).
- Increasing trunk stability for improved proximal control for promoting improved distal control of upper extremity movements (holding cup, writing, coloring, self-care skills, carrying a lunch tray, etc.).
- Promoting trunk stability for oral-motor/feeding difficulties and providing a calming effect when feeding is stressful, or the lunchroom is overwhelming.
- Helping to decrease stuttering, increasing attention, body awareness during speech/language activities, and providing stability for oral motor structure.

### Guidelines:

1. Those working with the student (team) should discuss the specific observations, difficulties, and behaviors that the individual is exhibiting that may warrant the OTvest being used as an intervention.

The team should get input from *the student* when possible, to determine when he/she feels is the most difficult time during the school day. Observations from the parents and teachers—including specials teachers, lunchroom staff, bus drivers, and playground personnel--should be taken into account. Samples of classroom work from different subjects should be gathered to see when work is not complete or shows poor motor control, to see if there is a pattern as to the subject, time of day, skills required, etc. The OTvest, weighted vest is non-invasive and will not cause harm utilized according to size indications based upon wearer’s body weight (approx. 5%). Less weight is needed when all the weight is placed directly on the wearer, (than in weighted garments that place weights in pockets, and not directly on the body). For larger persons, less weight is necessary than 5% (when using 4-6 lbs.)—as the amount of weight makes it more difficult to lift and place upon the body, and has been demonstrated to be effective as calibrated for each OTvest size.

(NOTE: Recognizing individuality, the 3 lb., 4 lb. and 6 lb. weights are interchangeable in Small, Medium, Large and XL/XXL OTvests for unusual situations of need).

*Considerations for wearing schedule:*

- Time of day (first arriving at school, after recess, struggles with changes in routine) or times when the student has particular difficulty in participation as described on p. 1.
- Particular activities (types of classroom subjects, group activities, specials classes, transition activities)
- When motor skills are a particular struggle, when increased trunk stability is needed ( Note: For ataxia and other motor movement disorders, increased wearing time may be indicated for motor performance).
- Activities where *the student* feels he /she struggles the most

2. If the OTvest, weighted vest is determined by the team as something to be trialed, a parent consent form will be obtained from the student’s parent or guardian prior to trialing the OTvest with the student.

3. If deemed useful, a trained observer (such as the OT) could observe the student to *establish baseline data without use of the OTvest during the activity/time of day chosen for the trial*—IF the observer’s presence will not alter the student’s behavior due to the knowledge that they are being observed and alter the baseline behavior, for at least a week. The same observation data sheet should be used to gather a baseline of observations without the OTvest as when trialing the OTvest. Those who will input observations should agree on what descriptive terms will be rated (calming, off-task, attention-to-task, self-removal, active in participation, etc., increased motor control, better able to control impulses during group activities, etc.). –based upon the discussion in no. 1 as areas of difficulty and indication for the OTvest.

If a baseline of behavior without the OTvest is not determined, than it should be agreed upon that the person making the observations and supplying the data would be able to fill out the data sheet and help in the determination of whether the trial using the OTvest was beneficial to the student and should be continued.

4. Using the information gathered in step 1, a schedule of wearing times will be determined. The student should wear the OTvest for the *length of the entire activity chosen so as not to disrupt attention by removing the OTvest*, or for a period of about 20- 30 minutes if possible (when they first arrive at school, following recess—if those are targeted activities—etc.). If the student takes the OTvest off, this should be recorded, and they should be encouraged to try it again with reminders like, “Remember, we wanted to see if wearing this helps you”. (SEE STEP 5) If the student *requests to wear the OTvest*, this should ALSO be recorded along with the other student’s reactions.

The student is allowed to remove the OTvest and keep it off if they do not want to put it back on with a verbal reminder or assistance putting it back on. **The period of introduction in no. 5 is important.**

5. The student should be told that the OTvest is going to be tried out with them, having them try on the OTvest for the right size and fit. The student can be weighed, if necessary, to determine the best size for them according to the OTvest size/weight chart. Taking into account the times of day or activities *that the student indicated* were particularly difficult, they can be told that the OTvest is going to be trialed to see if the OTvest helps them to .....(Fill in the blank---complete their work, help improve their handwriting, make them

“feel better” if anxious, etc.). *Involving the student is a GOOD idea, as he/she can better learn to help regulate his own behavior, arousal level, etc. by increasing their level of self-awareness.* The student should wear the OTvest for a period of introductory time, 10-30 minutes; involving them *in an activity* they particularly enjoy (bouncing a ball, coloring, playing a game), to accustom them to the sensation of deep pressure applied by the weights inside of the OTvest.

6. The student is allowed to remove the OTvest at anytime during the trial (or later, when provided for daily use). During the trial period, they can be encouraged to put it back on by verbal prompt or physical assistance if appropriate, noting removal on the data form, and recording if they resist putting it back on or remove it again—being allowed to keep it off. NOTE: The OTvest, weighted vest is NOT a restraint, and inhibiting movement is not the purpose of the OTvest. Some wearers benefit from also sitting on a movement cushion placed in their desk chair, use of a rocking chair, etc. in *addition* to wearing the OTvest, to *encourage some movement* to help them better attend/focus and perform classwork, for example—as many individuals perform better with *some movement*.

7. Data will be recorded for two weeks during the trial wearing of the OTvest, weighted vest, recording the time of day the OTvest is put on and taken if off, the activity, and the student’s response.

8. Following the two-week trial period, the members of the designated team will review the data, and it will be determined whether to proceed with daily wearing or discontinued. The schedule for wearing will be determined, also deciding on how to prompt the student to put on the OTvest.

Some students are able to have the OTvest hung on the back of their chair, putting it on when they feel they need to wear it. A verbal prompt from an adult at the targeted times might be appropriate, or a schedule taped onto their desk as a reminder, perhaps with a picture of the OTvest next to the appropriate time in the day’s schedule. Student involvement and independence is encouraged whenever appropriate, but may need to build up to if continued after the trial period.

9. Wearing the OTvest for the duration of an activity is most beneficial, so as not to interrupt the student’s level of attention or involvement. Wearing the OTvest to the library, for example, wearing it for the entire library period, and wearing it back to the classroom, is the most functional use, so the OTvest does not get left/lost, and unavailable for the next needed wearing time. The amount of time the OTvest is worn is not crucial, but 15 mins. to 60 minutes is the recommended amount of time before taking it off. It is ideal to leave it off for about 30-60 minutes before scheduling another wearing time, but this is not crucial *as anxiousness about the schedule should not be a factor for the student or the staff*, who are working with a classroom of students. If the student chooses to wear the OTvest differently, such as for longer period of times and/or with shorter breaks between wearing, observations should be made to see if any benefits that were previously seen are diminishing, so that the student doesn’t become accustomed to the weight and the benefits or effectiveness possibly diminish. Observation of the student’s response to the OTvest should be recorded, and discussion of those observations with the OT is highly recommended.

10. The parent's need to be notified of the decision to either continue or discontinue daily use of the OTvest, and a consent form signed acknowledging their consent.

11. The OTvest will be ordered and given to the classroom teacher after the OT checks proper size and fit, and put a label inside the OTvest with the student's name.

12. The person to care for the OTvest should be determined, laundering when necessary by removing the weight insert that is held in place with hook/loop tapes. The weight insert should be wiped down or sprayed with a disinfectant or cleaner, and the denim vest laundered and dried (low heat or hung to dry).

13. The OT will consult with the classroom staff as needed to assist in adjustment of the wearing schedule, fit of the weighted vest over time, and observations of the targeted behaviors/motor skills and goals.

14. NOTE: An OTvest weighted vest could be utilized with several children within a classroom, as the insert does not absorb perspiration and the insert can be wiped down between wearers, using disinfectant spray if necessary and laundered when needed. It could be placed in front of the room and utilized by children when they choose to wear it, as a Level 1 Mental Health Intervention. (Level 1 Universal Programs are provided to all students in individual classrooms. They are presented to every student in the class simply because the child is in the class (Wilson & Lipsey, 2007). Programs delivered to all students are proactive, preventive, and reduce the risk of stigma for students who are served (Domitrovich et al., 2010).

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