

Digital magazine for pediatric occupational and physical therapists.

# **Issue 52 - July 2013**

## www.YourTherapySource.com



## **New and Popular Products**



#### **Title: Birthday Party**

By: Your Therapy Source

Summary: 10 fine motor, gross motor and visual motor challenges to complete with a birthday theme

Retail Price: \$4.99

Sale Price until 7/31/13: \$2.99

### www.YourTherapySource.com/birthday



**Title: Print and Create Fine Motor Projects - Summer** 

By: Your Therapy Source

Summary: download of 11 fine motor projects to complete with a Summer theme

Retail Price: \$4.99 Sale price until 7/31/13: \$1.99

www.YourTherapySource.com/fmsummer

### www.YourTherapySource.com

### **10 Tips for Transitions**

Do you have students who have difficulty transitioning from one activity to another? Maybe they have a hard time transitioning from the classroom to the therapy room.

Here are some tips to help make transitions easier:



1. Establish a consistent schedule or routine for the student to follow. Provide visual picture symbols if necessary for the student to follow.

2. Allow the student enough time to experience the activity before moving on to the next activity.

3. Make sure the student understands what the directions are or what is expected of him/her. Some students will need to be taught how to follow the routine. This takes practice and time.

4. Provide verbal and physical cues that a transition is approaching. There are plenty of visual timers that can be used to provide warnings for transitions.

5. Modify schedules to have the least amount of transitions possible. For example, if a student is already out of class to go to the nurse or another related service it may be a good time to schedule therapy to reduce the number of transitions in and out of the classroom. Another option would be to provide push in therapy services to avoid transitioning in and out of the room.

6. Sing songs or chants to signal transitions. Use the same songs each time so children can anticipate what is to happen next.

7. Provide feedback about transitions. If a student does a good job transitioning explain to him/her what they did correct. If changes need to be made offer suggestions of how to improve the transition the next time.

8. As the student's skills improve during transitions, encourage the student to transition independently.

9. Keep it simple with directions for the transition. One or two step motor commands should be effective and concise.

10. Provide positive reinforcement for other students who complete transitions successfully. Students will learn from each other and model other behaviors.

Check out *Cut and Paste Sensory Diet* - <u>http://yourtherapysource.com/sensorydiet.html</u> to use picture symbols for sensory diet activities during transitions.

### **10 Benefits of Physical Activity for Children**

Here are 10 benefits of physical activity for children:

- 10. Improves children's overall physical fitness
- 9. Practice motor skills
- 8. Healthy competition when active in sports
- 7. Improves self confidence
- 6. Encourages socialization when physically active with friends
- 5. Reduces obesity
- 4. Improves the mood
- 3. Helps with self regulation
- 2. Encourages setting and acheiving goals

1. BRAIN BOOSTER!!!!!!! The positive benefits of physical activity include cognitive skills (executive functioning, attention span, memory and verbal comprehension), higher academic test scores, motor planning and impulse control.

Need ideas to get kids moving?

Check out the following:

freebie page for gross motor activities - http://yourtherapysource.com/freestuff.html 50 Sensory Motor Activities for Kids - http://yourtherapysource.com/50book.html Mini Movement Breaks - http://yourtherapysource.com/minimove.html Play Move Develop - http://yourtherapysource.com/playmove.html



### Long Term Benefits of SDR



The *Journal of Neurosurgery* published research on the long term benefits of selective dorsal rhizotomy (SDR) in children with cerebral palsy. The participants in the study included 102 children with spastic CP who underwent SDR between the ages of 3 and 10 years and were evaluated by a multidisciplinary team before surgery and periodically afterward. After evaluating the data the following results were seen:

- statistically significant improvements in lower-limb muscle tone, gross motor function, and the ability to perform activities of daily living in the majority of patients.
- the improvements lasted throughout adolescence and into early adulthood
- children performed better who had better preoperative gross motor function (GMFCS Groups I through III), spasticity involved only two limbs, rather than three or four and spasticity involved the adductor muscles of the hip only moderately (Ashworth score lower than 3)
- following SDR children were less likely to need adjunct orthopedic surgeries or Botox injections to control spasticity

Reference: Dudley RWR, Parolin M, Gagnon B, Saluja R, Yap R, Montpetit K, Ruck J, Poulin C, Cantin MA, Benaroch, TE, Farmer JP. Long-term functional benefits of selective dorsal rhizotomy for spastic cerebral palsy. Clinical article. Journal of Neurosurgery: Pediatrics, published online, ahead of print, May 28, 2013; DOI: 10.3171/2013.4.PEDS12539

### **Postural Control and Repetitive Behaviors**



Recent research was published on postural control and repetitive behaviors in children with autism. The participants including children with autism spectrum disorder (ASD) and typically developing controls ages 3-16. The center of pressure sway area during quiet, comfortable stance were compared to scores on the Repetitive Behavior Scale-Revised. The results indicated the following:

- increased postural sway in children with ASD
- greater frequency and intensity of restricted, repetitive behaviors were present in the children with ASD
- a positive correlation between postural sway area and presence of restricted, repetitive behaviors
- postural sway area for about half of the ASD subjects scored comparable to TD controls, but the other half scored > 2 SD worse
- motor impaired children were younger and had more repetitive behaviors

The researchers speculate that motor control impairments may characterize a subset of individuals with ASD and that further research is needed.

Reference: Radonovich KJ, et al. Relationship between postural control and restricted, repetitive behaviors in autism spectrum disorders. Front Integr Neurosci. 2013 May 7;7:28. doi: 10.3389/fnint.2013.00028. Print 2013.

### **StartDOT Handwriting App**



Here is a new handwriting app for the iPad, StartDOT, that is worth checking out. According to the website it was developed by an occupational therapist with 20 years experience and it shows. There is a variety of handwriting instruction methods incorporated into this app. I only tested the lite version of 6 letters but I was impressed.

Here is what it offers:

- 1. Written and verbal instructions of how to form the letters
- 2. Kinesthetic order or alphabetical order to learn the letters (you can choose either order but you must go in order, you can not choose a specific letter on the lite version)
- 3. Uses sky grass dirt method and visual cues
- 4. Offers different levels of cues gradually decreased the cues each practice time
- 5. Can do rainbow writing using repetition to practice letter formation
- 6. Keeps track of what letters a student has practiced (tracks up to 6 students)

7. Offers free, printable worksheets to compliment the app. This is my favorite feature. To help with carry over to pencil and paper, you can download worksheets that compliment the app to practice on actual paper!

Has anyone else checked out this latest handwriting app?

Uppercase Letters	Name
	· · · · · · · · · · · · · · · · · · ·
A C C C C C C C C C C C C C C C C C C C	
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### **Cerebral Palsy Research**

Recently a retrospective study was completed of 536 children with cerebral palsy to examine the risk of fractures in this population. The results indicated the following:

- the risk of fracture for all of the children in this study was the same as the general population
- for children with GMFCS levels I-III there was no association between fractures and the risk factors studied (ie sex, gastrostomy, height, weight, type of CP, use of standing frame or antiepileptic drugs)
- there was a two fold increase in risk of fractures for children GMFCS levels IV-V on antiepileptic drugs
- fracture risk was increased in children with stunted growth who were more than 3 standard deviations below the norm for height
- fracture risk had a four fold reduction in risk for children who used standing frames

The researchers concluded that regular loading through the use of standing frames and adequate nutritional intake to prevent stunted growth may help to reduce the risk of fractures in children with cerebral palsy.

Always nice to have more research to add to letters of justification for the use of standing frames for children with cerebral palsy.

Reference: Uddenfeldt Wort U, Nordmark E, Wagner P, Düppe H, Westbom L. Fractures in children with cerebral palsy: a total population study. Dev Med Child Neurol. 2013 Jun 11. doi: 10.1111/dmcn.12178. [Epub ahead of print]



Placement of Pedometers for Children with Cerebral Palsy Occasionally I will use a pedometer during a therapy session to measure the number of steps versus trying to estimate the number of feet that a child walks.

Recent research on 17 children with cerebral palsy who walk without aids was conducted to determine the reliability and validity of pedometers and proper pedometer placement. Video analysis was conducted to confirm the number of steps recorded on the pedometers. The results indicated that the pedometers with reliable and valid. In addition, there was no significant difference between the dominant or non dominant hip while wearing the pedometer on an elastic waistband.

Reference: Maher C, Kenyon A, McEvoy M, Sprod J. The reliability and validity of a research-grade pedometer for children and adolescents with cerebral palsy. Dev Med Child Neurol. 2013 Jun 13. doi: 10.1111/dmcn.12181. [Epub ahead of print]



### **Hot Topics**

#### **Understanding Sensory Preferences**

The *Australian Occupational Therapy Journal* published research on three adolescent males with autism using a semi-structured interview protocol supplemented with visual cues to enhance the understanding of the way people with autism spectrum disorder experience sensory input.

The results indicated the following:

- preferences for expected, predictable and controllable sensory input
- unexpected, unpredictable and uncontrollable sensations were perceived as unpleasant
- a heightened awareness of and difficulty filtering extraneous sensory input, high levels of movement seeking and an over-focus on salient sensory input were also described
- strategies used to manage sensory challenges included avoiding, increasing predictability and control and meta-cognitive adaptations.

Check out *Mini Sensory Books* - http://yourtherapysource.com/minisensory.html to help understand your client's sensory preferences and needs.

Reference: Jill Ashburner PhD et al. Understanding the sensory experiences of young people with autism spectrum disorder: A preliminary investigation. Australian Occupational Therapy Journal Volume 60, Issue 3, pages 171–180, June 2013 DOI: 10.1111/1440-1630.12025

#### Handwriting and Literacy

The *International Journal of Disability, Development and Education* published research 284 elementary school children to explore possible factors that contribute to poor handwriting.

The results indicated the following: correlations were found between poor handwriting, lower cognitive and literacy scores, and a longer duration for handwriting tasks.

The researchers concluded that if children are given handwriting practice time to increase the level of automaticity this may release working memory. In turn this working memory can be applied to the cognitive demands of the task therefore potentially raise a student's level of attainment.

Check out http://yourtherapysource.com/handwriting.html for various electronic titles for handwriting practice.

Reference: Debra McCarney, Lynne Peters, Sarah Jackson, Marie Thomas, Amanda Kirby. Does Poor Handwriting Conceal Literacy Potential in Primary School Children? International Journal of Disability, Development and Education Vol. 60, Iss. 2, 2013



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### **Geo-Chalkboard**



Here is an activity that encourage fine motor skills, muscle strengthening and visual perceptual skills. Watch the video on how to make and use this geochalkboard to review academic material.

http://yourtherapysource.com/videogeochalk.html

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## **Fine Motor Charades**



Here is a fun game to play - Fine Motor Charades. Can you guess what was created in the pictures above? Head to YourTherapySource for how to play Fine Motor Charades and the answers.

http://yourtherapysource.com/freefinemotorcharades.html



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## **Collaborative Exercise Poster**



Make this collaborative exercise poster during a pediatric group therapy session or on going over a few months.

For more information go to http://www.yourtherapysource.com/freeposter



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## **Name or Word Exercises**



# NAME EXERCISES

Create these name or word exercises to warm up before handwriting practice or to reinforce academic material.

For more information go to http://yourtherapysource.com/freenameexercise.html



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## **Happy Birthday Brain Break**



Get your students moving with a birthday theme.

To get this free printable go to http://yourtherapysource.com/birthdayfree.html



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## **July 4th Game**



Practice reaction time, visual perceptual skills and physical activity with this free printable to play Red, White, Blue, Flag to celebrate July 4th.

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To get this free printable go to http://yourtherapysource.com/july4free.html



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- documentation forms
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