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Your Therapy Source Inc

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Letter from the Editor

Welcome to the premiere issue of our digital magazine for pediatric therapists. I am really excited about it. I recently realized that the current newsletter format seemed so inefficient. Newsletter subscribers had to click back and forth so many times to get to all the information. If you deleted the newsletter from your inbox the information is lost because we do not archive our newsletters. The objective of the digital magazine is to provide a summary of research for the month, activity ideas, review diagnoses and update you on popular products.



If you want to get all the news daily follow our blog at www.YourTherapySource.blogspot.com. We also frequently post videos of activity ideas on the blog which will not be included in the digital magazine. Join our Pediatric Therapy Team Blog - we would love to hear from you at www.YourTherapySourceTeam.blogspot.com. Follow us all day at www.Twitter.com/YTherapySource to hear about pediatric therapy news, activity ideas, great websites and assistive technology.

There are several benefits to the new digital magazine:

1. It looks like a regular magazine, making it a little more interactive and eye pleasing compared to a regular pdf document. Keep in mind that after the month is over, the issue will only be available as a basic pdf document but you can still view and print it.
2. You can print out all the articles and information to read offline.
3. You can click on any website address directly from the digital magazine for more information.
4. Expanded articles and information.

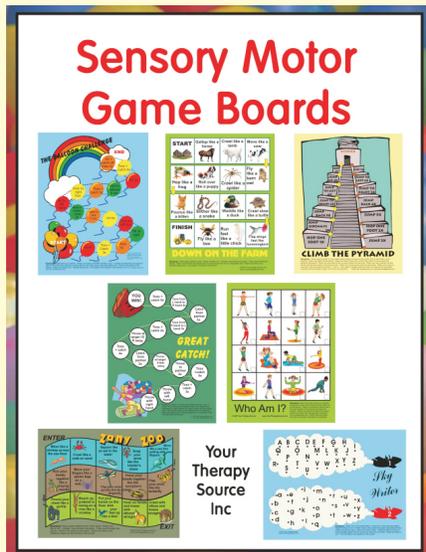
There is constantly new information and research on pediatric occupational and physical therapy. Our goal is to keep therapists informed about new research, assistive technology and more. And of course to provide our customers with economical, creative activity ideas for children with special needs.

We would love to hear your feedback. We are looking for therapists to contribute articles as well. Let us know what else you would like to see added. Thanks for subscribing.

Margaret Rice PT, editor

These pages are not intended to provide medical advice or physician/therapist instruction. Information provided should not be used for diagnostic or training purposes. Consult a therapist or physician regarding specific diagnoses or medical advice.

New Products



LIST PRICE: \$9.95

Shipping: FREE - once payment is made you will receive an email with a link to download the book.

Sensory Motor Game Boards - a collection of 7 game boards (size 8 1/2 by 11") that promote muscle strengthening, eye-hand/foot coordination, gross motor skills, fine motor skills, body awareness and motor planning.

The seven games include:

Zany Zoo - promotes upper extremity muscle strengthening, proprioceptive input, body awareness, fine motor skills, gross motor skills and motor planning. Great warm up game prior to handwriting tasks.

Sky Writer - practice kinesthetic handwriting, body awareness and fine motor skills. Great warm up game prior to handwriting tasks.

Great Catch - using the bean bags, practice eye hand coordination skills, fine motor skills and bilateral coordination skills.

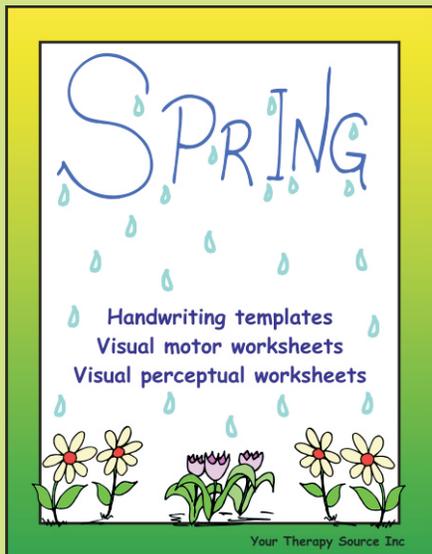
The Balloon Challenge - using the balloons, practice fine motor skills, eye hand and eye foot coordination skills. Preview game board above.

Down on the Farm - promotes muscle strengthening, proprioceptive input, gross motor and fine motor skills.

Climb the Pyramid - practice gross and fine motor skills, motor planning and motor memory.

Who Am I? - facilitates gross motor skills, proprioceptive input, body awareness and motor planning.

www.YourTherapySource.com/sensoryboards



LIST PRICE: \$4.99

Shipping: FREE - once payment is made you will receive an email with a link to download the book.

Spring Handwriting Activities - great collection of handwriting templates, visual motor worksheets, visual closure and visual perceptual activities. The handwriting templates are spaced 1", 1 1/2" and 2 inches apart with an added color blocks to mark writing spaces. This packet has a spring theme including easter. This download is great for push in therapy, therapy homework or consultation services in the classroom.

Spring Handwriting Activities encourage:

- handwriting practice
- visual motor skills
- visual closure
- visual perceptual skills
- fine motor skills

As with all our products, the activities are reproducible to use over and over again with all the children that you teach.

www.YourTherapySource.com/springhandwriting

Motor Skills and Autism Spectrum Disorders

Here are two interesting research studies on autism and motor skills both from Developmental Medicine and Child Neurology. One study reports that out of 101 children with ASD (wide range of ASD and IQ), 79% exhibit movement impairments as reported on the Movement Assessment Battery for Children. Children with childhood autism and IQ of less than 70 exhibits more movement impairments than children with IQ's over 70 and broader autism.(1)



The second study appears to further explain the increased movement impairments in children with childhood autism. Using electroencephalography, researchers compared movement related potentials (MRP's) between children with high functioning autism, children with Asperger's and a healthy control group. The results showed abnormal MRP's in the children with autism but not Asperger's. The researchers concluded that this study supports a "neurobiological separateness" of autism and Asperger's. (2)

Most therapists who work with children on the autism spectrum would have experienced these results in day to day practice with regards to motor skill abilities in children with autism and Asperger's. The interesting part of the research is the movement related potentials. These abnormal responses can indicate an interruption at the basal ganglia, thalamus, and supplementary motor area. Remember what the basal ganglia and the thalamus do? The basal ganglia helps to determine the intensity of motor activity. The thalamus prioritizes sensory information and maintains alertness. So the next question is can we infer anything from this study regarding sensory differences in children with autism? Something to think about.

References:

1. DIDO GREEN, TONY CHARMAN, ANDREW PICKLES, SUSIE CHANDLER, TOM LOUCAS, EMILY SIMONOFF, GILLIAN BAIRD (2009) Impairment in movement skills of children with autistic spectrum disorders *Developmental Medicine & Child Neurology* 51:4 (311-316) DOI: 10.1111/j.1469-8749.2008.03242.x
2. PETER G ENTICOTT, JOHN L BRADSHAW, ROBERT IANSEK, BRUCE J TONGE, NICOLE J RINEHART (2009) Electrophysiological signs of supplementary-motor-area deficits in high-functioning autism but not Asperger syndrome: an examination of internally cued movement-related potentials *Developmental Medicine & Child Neurology* Published online on March 11, 2009. DOI: 10.1111/j.1469-8749.2009.03270.x
<http://dx.doi.org/10.1111/j.1469-8749.2009.03270.x>

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Preschoolers and Physical Activity Time

Child Development reports on a study indicating that preschoolers spent most of their time performing sedentary activities (89%). They spent 8% of the day performing light physical activity and only 3% of the day doing moderately vigorous physical activity. These statistics are alarming. This is a significant amount of sedentary time for such young children. As pediatric therapists, we should be leading the crusade on this topic. What a great opportunity to advocate for what we



practice every day with our clients. The information we hold as therapists is vital to the general population of children, not just the clients who receive our direct services. We need to share our information with the school staff and parents in order to encourage more physical activity in children. It could be as complex as providing an in-service to school staff and parents on the importance of physical activity. On the other hand, it could be as simple as offering teachers and parents some easy ways to sneak in physical activity throughout the day.

A recent issue of *Pediatrics* reports that children in preschools with high quality scores, less fixed playground equipment, more portable playground equipment, less media time and larger playgrounds experienced more moderate/vigorous physical activity per hour and fewer sedentary minutes compared to other preschool children. That seems like a simple way to increase physical activity time in any preschoolers we may be working with to develop gross motor skills. Perhaps suggest to the preschool director more portable playground equipment i.e. balls, jump ropes, etc rather than always relying on fixed playground equipment for gross motor time. This would help all children in the class. With our extensive problems with childhood obesity in this country, this simple addition to play time may encourage more moderate/vigorous activity in children which is a huge plus.

References:

William H. Brown, Karin A. Pfeiffer, Kerry L. McIver, Marsha Dowda, Cheryl L. Addy, Russell R. Pate **Social and Environmental Factors Associated With Preschoolers' Nonsedentary Physical Activity** *Child Development* 80:1 (45-58) 2009. DOI: 10.1111/j.1467-8624.2008.01245.x

Dowda, Marsha, Brown, William H., McIver, Kerry L., Pfeiffer, Karin A., O'Neill, Jennifer R., Addy, Cheryl L., Pate, Russell R. **Policies and Characteristics of the Preschool Environment and Physical Activity of Young Children** *Pediatrics* 2009 123: e261-e266

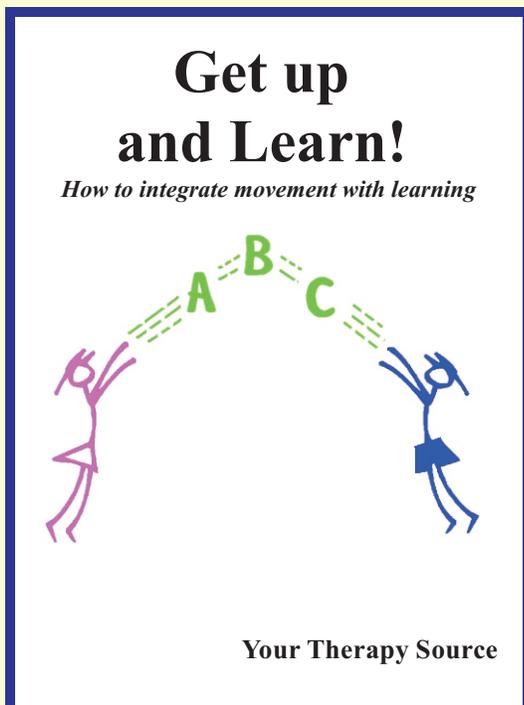
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Purposeful Hyperactivity, ADHD and Sensory Diet

Recent research in *Abnormal Child Psychology* reports on a study of 12 boys with ADHD who were compared to 11 typically developing boys. All of the boys ages 8-12 years old wore actigraphs on their wrists and ankles during working memory tasks. The research indicated that all children moved more during working memory tasks but the boys with ADHD moved significantly more than the typically developing children. The researchers concluded that excessive movement in boys with ADHD may have a functional purpose during working memory tasks.

This is some great research to support sensory diet activities in the classroom. You can explain to teachers that movement may help the children accomplish working memory tasks. Here is where theraband around desk chairs, chewing gum, swinging foot rests, therapy balls, and other movement ideas can be helpful additions to the classroom. Reinforce the idea with teachers that by forcing any child to sit perfectly still during certain tasks may actually inhibit working memory.

Reference: Rapport, M, Bolden, J, Kofler, M et al (2008) **Hyperactivity in Boys with Attention-Deficit/Hyperactivity Disorder (ADHD): A Ubiquitous Core Symptom or Manifestation of Working Memory Deficits?** *J Abnorm Child Psychol*
DOI 10.1007/s10802-008-9287-8



Get Up and Learn! is an electronic book of 48 pages with over 35 activities that incorporate movement and learning. The activities allow teachers and therapists to work on acquiring motor skills while promoting language arts, math, science and social studies. These are great activities for children who are kinesthetic learners (children who learn best by doing and touching rather than looking or listening).

Price: \$6.99 for electronic download

For more information go to:

www.YourTherapySource.com/getuplearn

Stimulus Package for IDEA

The American Recovery and Reinvestment Act of 2009 will provide millions of dollars to help fund IDEA Part B and Part C. Therapists need to be informed regarding the distribution and purpose of this money. The goals of the IDEA Recovery Funds for Services to Children and Youths (early intervention through high school students) with Disabilities are four fold:

1. Spend funds quickly to save and create jobs
2. Improve student achievement through school improvement and reform.
3. Ensure transparency, reporting and accountability
4. Invest one-time ARRA funds thoughtfully to minimize the "funding cliff" (must be able to sustain projects after the funding expires)

Here is an excerpt from the ED.gov fact sheet on the American Recovery and Reinvestment Act of 2009:

The IDEA recovery funds constitute a large one-time increment in IDEA, Part B funding that offers states and local education agencies a unique opportunity to improve teaching and learning and results for children with disabilities. Generally funds should be used for short-term investments that have the potential for long-term benefits.

Some possible uses for the funds that therapists should be aware of:

1. Obtain state of the art assistive technology devices and provide training in their use to enhance access to the general curriculum for students with disabilities.
2. Provide intensive district-wide professional development for special education and regular education teachers that focuses on scaling-up, through replication, proven and innovative evidence based school wide strategies

Keep in mind what the definition of assistive technology (Public Law 100-407) is: "Assistive technology is defined as an item of piece of equipment or product system either acquired commercially, off the shelf, modified, or customized and used to increase, maintain or improve functional capability for an individual with disabilities".

Therefore, therapists should be thinking about and advocating for students with disabilities who may need adaptive equipment or assistive technology. Maybe now is the time to suggest to your administrator to purchase that Hoyer lift, gait trainer or some other large piece of equipment that has always been on your wish list. Perhaps there are many students on your caseload that would benefit from assistive technology software such as word prediction, text to speech or voice recognition. Maybe a smart board would help your students to be more involved in the lessons. These are simply suggestions to get your ideas flowing. Now is the time to think and request.

Regarding professional development again get your ideas flowing. Maybe now is the time to get teachers on board for a specific handwriting program for the entire district to follow. All children would benefit. Perhaps suggest professional development on universal design resulting in less modifications being necessary for all students.

Take a proactive approach and provide your school administrator with a letter of justification for the equipment now. This may allow for your requests to be first on the list. Get moving though, some of the money is scheduled to be available within the upcoming months. And as our government states "spend funds quickly..."

Take our vote at the right side of our blog at www.YourTherapySource.blogspot.com - What would you spend the IDEA stimulus money on???

References:

American Recovery and Reinvestment Act of 2009: IDEA Recovery Funds for Services to Children and Youths with Disabilities. Retrieved from the web on 3/25/09 at www.ed.gov/print/policy/gen/leg/recovery/factsheet/idea.html

Definition of Assistive Technology. Retrieved from the web on 3/26/09 at <http://idea.ed.gov/explore/view/p/%2Croot%2Cstatute%2CI%2CA%2C602%2C1%2C>

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Assistive Technology Tips

Stretch Break for Kids: This is a free download to put on computers to remind children to take a break from computer time and stretch. There are a few great things about this program:

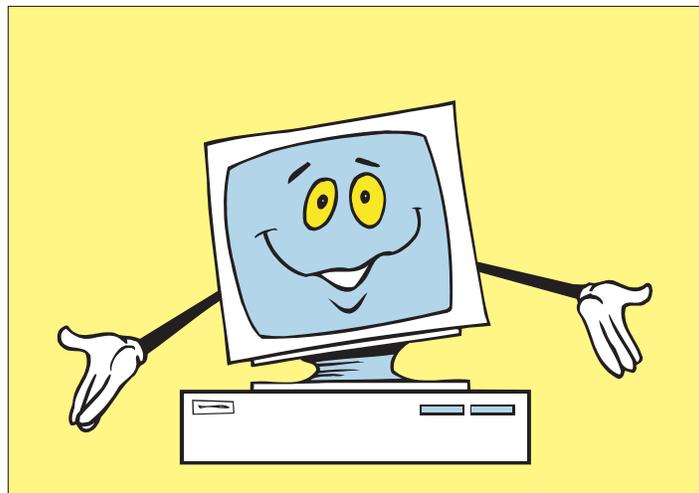
- It's free!
- You can program the sequence and frequency of the stretches.
- There are a few stretches that are great proprioceptive warm-ups for children.
- It can be done with no adult assistance.
- Did I mention it is free!

Here is the link to get it: <http://www.paratec.com/sbform/kidsform.htm>

Another great FREE assistive technology tool. Check out WebAnywhere. This is a screen reader that the blind or auditory learners can use on any computer. You do not need to download any software to use it. Check it out at: <http://webanywhere.cs.washington.edu>

Here is a new browser for autistic children - www.zacbrowser.com. This is definitely not only beneficial for autistic children. It is so much easier for any child to negotiate the web using this browser especially for children with special needs. You can try the software out by just running it - you do not even have to download it completely onto your own computer. The choices are limited as compared to the web but for starters this is awesome. It will allow many children with disabilities to access the web more independently. Check it out at www.zacbrowser.com.

The [Wisconsin Assistive Technology Initiative \(WATI\)](http://www.wati.org) - <http://www.wati.org/?pageLoad=content/supports/free/index.php> is now offering free access to many of their superb resources. There is a free 337 page book entitled *Assessing Student's Needs for Assistive Technology*. There are numerous resource guides, forms, assessments and more all for free.





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Activity Ideas



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Activity from Sensory Motor Group Activities A to Z

Quick, Quicker and Quickest

Purpose: Promote gross motor skills, fine motor skills, coordination, balance, etc.

Materials: graph below, stopwatch

Activities: Review the meaning of the words quick, quicker and quickest. Explain to the children that you are going to see who is quick, quicker and quickest at certain tasks. Below is an example of tasks but you can create whatever tasks you would like the group to work on. Make sure you include tasks that all children in your group will be somewhat successful at. After using stopwatch, mark the child's name in the correct column.

Want more activities like this?

Check out Sensory Motor Group Activities A to Z. This electronic book includes at least 2 sensory motor group activities for each letter of the alphabet.

www.YourTherapySource.com/atoz

www.YourTherapySource.com/atoz

Quick, Quicker and Quickest

TASKS	QUICK	QUICKER	QUICKEST
Tie your shoes			
Walk to water fountain and back			
Crawl 20 feet			
10 jumping jacks			
Throw three pieces of balled up paper into garbage can			
Walk backwards to the door and back			
Get coat and backpack on			

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Diagnosis Review

Osteogenesis Imperfecta

Definition: Osteogenesis Imperfecta (OI) is a genetic disorder effecting connective tissue which results in fragile bones. There are 8 different types of OI.

Signs and Symptoms: The symptoms of OI range from mild brittle bones to very severe brittle bones. Children will experience recurring fractures. Other possible manifestations of OI are hearing loss, blue sclera, muscle weakness, easy bruising, joint laxity, scoliosis, pulmonary complications and short stature. Children with OI usually have average or above average intelligence. Life expectancy varies greatly with OI depending upon the severity of the disease.

Treatment: There is no cure for OI. Children with OI often receive therapy services. Therapy services should focus on:

1. Educating caregivers on preventing fractures through proper handling and equipment.
2. Safe mobility
3. Therapeutic exercise
4. Adaptive equipment
5. Manage bracing and splinting needs
6. **Encourage independence!**

Foster Independence in Student's with OI: School children with OI need to be encouraged to participate in safe mobility and functional activities during the school day. Children should be as independent as possible to prevent further bone loss and muscle weakness. The school based therapist should help to educate school staff on the diagnosis, proper transfer techniques and management of any adapted equipment. Other evaluations and services may be necessary such as assistive technology and wheelchair assessments.

References:

Facts About OI. Osteogenesis Imperfecta Foundation. Retrieved from web on March 23, 2009 from http://www.oif.org/site/PageServer?pagename=AOI_Facts

Campbell S. Editor, Bleakney, D. and Donohoe, M (1995) Physical Therapy for Children Philadelphia, PA: W.B. Saunders Co. pp. 279-294.



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- documentation forms
- sensory motor activity ideas
- sensory processing resources
- visual perceptual activities
- music downloads

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