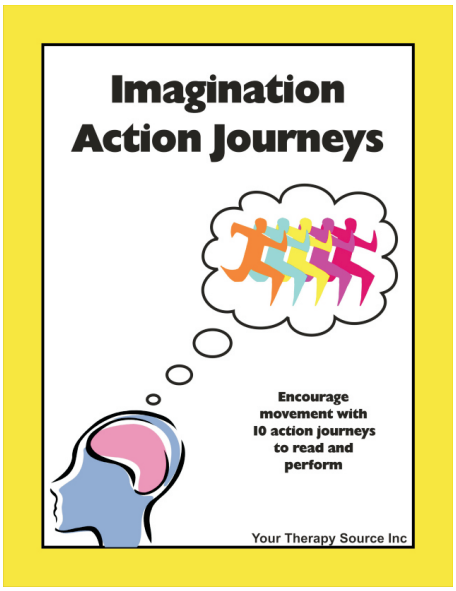
Your Therapy Source News

Digital magazine for pediatric occupational and physical therapists.

Issue 12 - April 2010

www.YourTherapySource.com

New and Popular Products

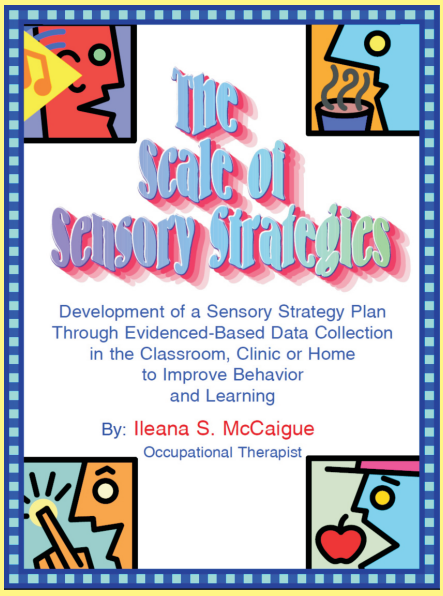


Imagination Action Journeys

Encourage literacy, body awareness, motor planning, range of motion, gross motor skills and more with this download of 10 imagination action journeys.

SALE PRICE until 4/14/10: $0.99

www.YourTherapySource.com/imagine



The Scale of Sensory Strategies (SOSS Toolkit™) provides an evidenced-based plan of care with sensory strategies that will optimize a child's behavior in the school, home and community.

Enables automatic data entry within minutes using the Sensory Strategy Software program to generate a SENSORY STRATEGY SUMMARY, a narrative report that summarizes the data taken during sensory trials.

Creates a SENSORY STRATEGY PLAN with only the sensory strategies that elicited a positive response on the desired targeted behavior.

The Tool Kit includes:

- The Scale of Sensory Strategies manual
- Sensory Strategy Software CD
- 10 sets of Long Form A for Data Collection
- 10 sets of Short Form B for Data Collection

www.YourTherapySource.com/soss

Chronic Fatigue Syndrome in Children

Chronic fatigue syndrome is rare in children with estimates of approximately 0.05% have this diagnosis. The day to day lives of children with this diagnosis are greatly affected. Pediatric therapists should be aware of this disorder and how it effects the activities of daily living of children.

Chronic fatigue syndrome (CFS) is characterized by: debilitating fatigue, exhaustion, flu like symptoms, muscle/ joint pain, inability to concentrate, sleep disturbances and changes in mental and physical functioning. Symptoms must be present for 50% of the time for more than 3 months. The average age of onset is between 11-15 years of age with girls more affected than boys. Based on these symptoms, children may have a high rate of absenteeism from school. Due to inactivity, the children with CFS can lose muscle mass, muscle strength, lower basal metabolic rate and more. These are areas that an occupational and physical therapist can address.

Once a diagnosis of CFS is made, the next step is to manage the symptoms. A good rapport should be established between the child, the family and the school in order to address all issues. Explain the disorder and how many of the symptoms are a result of a spiraling effect of inactivity and rest. When an exercise program is warranted, here are several tips:

1. Educate the child, family and school on the importance of exercise and how it can help combat the symptoms of chronic fatigue syndrome.

2. Get the child involved in establishing the exercise program. What type of exercises do they enjoy?

3. Begin the exercise program slowly avoiding large changes in duration and frequency of exercise. Gradually increase the duration and frequency of sessions.

4. Ask the child to keep a record of the exercises to encourage ownership and independence with the exercise program.

5. Provide verbal reminders to perform stretching and strengthening exercises slowly and controlled.

6. Educate the child and the family on mild muscle soreness or delayed onset muscle soreness. Explain to them that these are common symptoms when you return to normal physical activity levels.

7. Educate the child and family on returning to normal eating and sleeping patterns.

8. When a child has been out of school for a long period of time, returning to school may have to be done on a gradual basis.

Chronic fatigue syndrome needs to be addressed with open lines of communication throughout the medical team, family and school. Occupational and physical therapist can play a significant role in getting children with chronic fatigue syndrome back to doing what they do best, learning, socializing and playing.

Reference: Wright, Barry, Partridge, Ian, Williams, Christine Management of chronic fatigue syndrome in children Adv Psychiatr Treat 2000 6: 145-152

Outdoor Imagination Games

Finally, the weather appears to be getting a little nicer. After winter time, children seem to relish in the sunshine and fresh air of the outdoors. Spring is a great time to encourage your children to spend more time outdoors. Of course, you can do the obvious, bike rides, spring plantings, mud pies and puddles. Here are five outdoor imagination games that may spark some interest with children.

1. Outdoor Tea Party: Search the park or yard for smooth rocks to be the plates. Find some circular rocks to be the tea cups. How about a fat stick for the tea pot. Serve up some acorn snacks as pretend food. Lay out a blanket and get the outdoor tea party started.

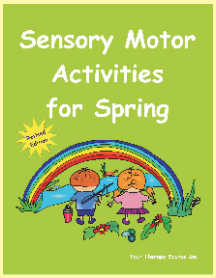
2. Nature Restaurant: Set up a pretend restaurant serving mud pies, pine cones stew, rock soup, grass delight and more. Use your beach buckets for pots. Sticks can stir up all the special recipes.

3. Wilderness Family: Pretend that you live in the woods year round. Create a small fort outdoors in the woods or just drape a sheet on in between some bushes. Search for rocks, pine cones and grass to be your pretend food. Collect sticks to make a pretend fire to cook over and keep warm by. Make a bed of leaves to sleep on. Find a pine branch to be your broom. Pretend to go hunting for animals. Remember to stay in the fort during "storms" or if "dangerous animals" are lurking about.

4. Parade: Create instruments using items from nature - bang two rocks together, hit sticks together and grass blade whistles (personally never could do that but I know kids who can). March around the yard playing your homemade instruments.

5. Circus: Pretend to put on a circus show outdoors. Put jump ropes on the ground as tight ropes. Hang hula hoops from the trees to throw old stuffed animals through for the animal acts. Practice bike riding tricks i.e. ride with one hand, ride only pedaling with one foot, etc. Hula hoop or jump rope for long periods of time.

Children will not only benefit from the outdoor time but imagination fuels creativity and learning.



Sensory Motor Activities for Spring

Revised edition of a fun, creative electronic book with over 30 ideas for sensory motor activities relating to Spring. There are 6 new activities with updated printables.

www.YourTherapySource.com/springactivities

Recent Research on Sensory Processing

Sensory Overresponsivity and ADHD

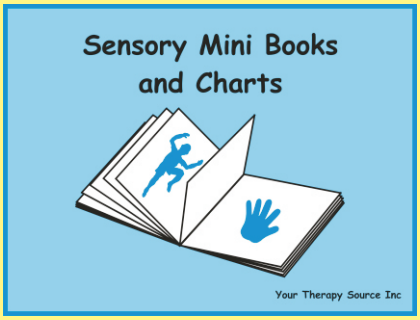
Research was published in the *Journal of Attention Disorders* to determine if sensory overresponsivity (SOR) impacts the hypothalamic pituitary adrenal axis in children with ADHD. Twenty four children with ADHD were divided into two groups (SOR and nonSOR) based on the Sensory Overresponsivity Inventory. The control group was 24 children without ADHD. Salivary cortisol samples were measured in all children twice before a sensory challenge protocol and 7 times after the sensory challenge. The results indicated a borderline significant difference found between the ADHD/SOR and ADHD/nonSOR group and a significant difference between ADHD/SOR and the typical group. The researchers concluded that perhaps SOR may be a variable in determining different subtypes of ADHD.

Reference: Reynolds, Stacey, Lane, Shelly J., Gennings, Chris The Moderating Role of Sensory Overresponsivity in HPA Activity: A Pilot Study With Children Diagnosed With ADHD J Atten Disord 2010 13: 468-478

Sensory System and Predictability

Exciting research from the *Journal of Neuroscience* was published which indicates that it takes less effort for the brain to register predictable images than unpredictable images. Using functional magnetic resonance imaging, the researchers determined that the brain is not static waiting to process visual information, but attempts to predict visual information. When the brain is correct with the prediction, it is more efficient. If the brain is incorrect with the visual prediction "massive responses are required to find out what is wrong to come up with better predictions". The researchers stated than an important implication of this study is how "visual perception depends on an active generation of predictions".

Reference: Medical News Today The Human Brain Processes Predictable Sensory Input In A Particularly Efficient Manner Retrieved from the web on 3/13/2010 from http://www.medicalnewstoday.com/articles/182055.php



Sensory Mini Books and Charts - Download the materials to create 7 sensory mini books, 7 charts, 7 four square strips and over 100 picture word cards.

www.YourTherapySource.com/minisensory

Predicting Motor Skill Abilities

Predicting Motor Skills In Children with ASD, ADHD and DCD

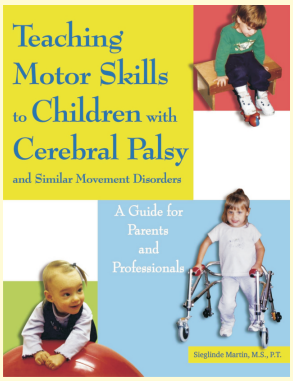
In a recent study published in Developmental Medicine and Child Neurology, 49 children with a mean age of 5 yrs 6 months were evaluated with the Movement Assessment Battery for Children (M-ABC). The children were diagnosed or at risk for developing ADHD, autism spectrum disorder (ASD), developmental coordination disorder (DCD) or no diagnosis. All the children scored on or below the 15th percentile on the M-ABC and had an IQ of 70 or more. Two to three years later the children were re-evaluated using the M-ABC. At a mean age of 7 years, 11 months the scores on the M-ABC significantly increased with 22 children no longer below the 15th percentile. The group of children with ASD's showed less improvements in M-ABC scores. The researchers concluded that motor deficits may not always be static in young children, except in the case of ASD's.

Reference: HILDE VAN WAELVELDE, ANN OOSTRA, GRIET DEWITTE, CHRISTINE VAN DEN BROECK, MARIAN J JONGMANS Stability of motor problems in young children with or at risk of autism spectrum disorders, ADHD, and or developmental coordination disorder (p) Dev Med Child Neur Published Online: Jan 28 2010 10:06AM DOI: 10.1111/j.1469-8749.2009.03606.x

Early Prediction of Cerebral Palsy Using Video Analysis

Thirty high risk infants (mean gestational age 31 weeks) movements were recorded using video at 10-15 weeks post term. The video was analyzed and the children were re-evaluated at 5 years of age. Using the video analysis, predicting cerebral palsy had an 88% specificity rate. Thirteen infants had cerebral palsy at age 5. Predictions were correct regarding ambulatory and non ambulatory status in nine out of ten children.

Reference: Early prediction of cerebral palsy by computer-based video analysis of general movements: a feasibility study (p)LARS ADDE, JORUNN L HELBOSTAD, ALEXANDER R JENSENIUS, GUNNAR TARALDSEN, KRISTINE H GRUNEWALDT, RAGNHILD STØEN Published Online: Feb 24 2010 5:47AM DOI: 10.1111/j.1469-8749.2010.03629.



Teaching Motor Skills to Children with Cerebral Palsy and Similar Movement Disorders - A Guide for Parents and Professionals

www.YourTherapySource.com/CPmotorskills

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.

Reading and Physical Activity

Fitness and Academic Acheivement

Leslie Cotrell, PhD, a researcher from West Virginia University will be presenting her research at the American Heart Association 2010 Conference on Health, Physical Activity and Metabolism. She studied the body mass index, fitness levels and standardized academic scores of 725 fifth graders and again when they reached seventh grade. The research indicated that students who were the most physically fit at the beginning and end of the study had the highest scores in reading, math, science and social studies. The lowest scores were those who were the least fit in fifth and seventh grade. They could not establish a cause and effect relationship of fitness and academic scores.

Reference: WVU Researcher Finds Link Between's Students Fitness and Grades. Retrieved from the web on 3/11/10 at http://wvutoday.wvu.edu/n/2010/03/03/wvu-researcher-finds-link-between-students-fitness-and-grades

Reading Changes Body Mass Index in Girls

A recent study in *Pediatrics* followed 31 of 81 girls, ages 9-13, who were randomly assigned to read an intervention novel which was a story about an overweight girl who discovers improved health and self worth. Thirty three girls read a control novel and 17 girls read no novel. Follow up occurred 1-2 months later with the girls who read the intervention novel showing a significantly greater reduction in body mass index (BMI) compared to the control group. Girls in both the intervention and control group had a significantly lower BMI change than the girls who read no book. The authors concluded that more research is needed to see if this would help other overweight and obese girls.

Reference: Bravender, Terrill, Russell, Alexandra, Chung, Richard J., Armstrong, Sarah C. A "Novel" Intervention: A Pilot Study of Children's Literature and Healthy Lifestyles Pediatrics 2010 125: e513-e517

Kids Read and Ride

Here is a great idea - Kids Read and Ride at www.kidsreadandride.com. The concept is to get donated stationary bicycles for the children to ride while reading. This website walks you through every step of how to get started at your school. It also offers tips and suggestions once you do get the program up and running (or should I say riding).

Promote OT month by starting a Kids Read and Ride program at your school!

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Grant Information

Grant for Children with Special Needs

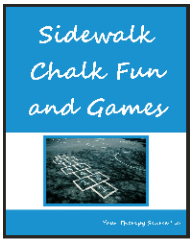
The UnitedHealthcare Children's Foundation is a non profit organization that offers grants up to $5000 for families to help pay for medical services and equipment for children with special needs. This can include physical and occupational therapy, wheelchairs, orthotics, eyeglasses and more. They will also help pay for certain services or items when insurance does not cover it completely. In 2007, they provided 1500 grants to families in need. There are eligibility requirements. The child must reside in the USA, have commercial health insurance and be younger than 16 years of age. The family must qualify financially as well. For more information visit UnitedHealthcare Children's Foundation at **http://www.uhccf.org/apply.html**

What a great opportunity. The application takes only 15-20 minutes to fill out. In addition, you will need a letter of necessity from the child's doctor.

ING Run For Something Better is offering (50) $2000 grants to schools planning to establish a school based running program or to expand an existing running program. In order to qualify you need at least twenty five 4th to 8th graders ready to run for at least an 8 week session. At the end of the running session, you have to plan an event - i.e. 1 mile run. The running sessions and final event can be scheduled however it works best for your school and the students. More information can be found at www.orangelaces.com/site/index/get_your_school_involved

Preventive Medicine published research that found when markings were painted on the playground, moderate to vigorous physical activity increased by 37% whereas the control groups activity (no lines) decreased by 16%. For elementary students, lines consisted of ladders, letter squares, mazes, trails and more. For older primary students markings for netball, football, targets and more were created. If you are looking for permanent line markings for your playground visit the Peaceful Playgrounds website at www.PeacefulPlaygrounds.com . With school budgets tight this year, they offer plenty of advice on grant writing to get your playground markings.

Reference: STRATTON, G., & MULLAN, E. (2005). The effect of multicolor playground markings on children's physical activity level during recess Preventive Medicine, 41 (5-6), 828-833 DOI: 10.1016/j.ypmed.2005.07.009



Sidewalk Chalk Fun and Games - ebook includes 30 sidewalk chalk games that encourage physical activity.

www.YourTherapySource.com/sidewalk

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Hot Topics

Decline in Function in Adolescents with Cerebral Palsy

A recent study followed 76 males and 59 females with cerebral palsy with a mean age of 14 years, 6 months at the start of the study. The participants had quadriplegia (96), diplegia (32) and hemiplegia (1) with the majority having spasticity. For four years, data was collected consisting of: anthropometric characteristics, the Spinal Alignment and Range of Motion Measurement, the Gross Motor Function Measure, health status, pain and exercise participation. The Gross Motor Function Measure scores were compared to previous scores from childhood which indicated a decline in gross motor function. The decline in Gross Motor Function Measure was significantly associated with limitations in range of motion and spinal alignment and pain. Less decline was correlated with increased triceps skinfold, increased mid arm circumference and ratio of mid arm circumference to knee height. The researchers concluded that management of range of motion, pain and nutrition may help to prevent declines in gross motor functions in adolescents with cerebral palsy.

Reference: Correlates of decline in gross motor capacity in adolescents with cerebral palsy in Gross Motor Function Classification System levels III to V: an exploratory study (p)DOREEN J BARTLETT, STEVEN E HANNA, LISA AVERY, RICHARD D STEVENSON, BARBARA GALUPPI Devel Med Child Neur Published Online: Feb 24 2010 5:48AM DOI: 10.1111/j.1469-8749.2010.03632.x

Self Reporting of Children with Spina Bifida and Muscular Dystrophy

Most of us probably already knew this, but sometimes it is reassuring to have research to back up our opinions. In a recent study in the Journal of Children's Orthopedics, the researchers compared parents and children's reports on the difficulty of daily activities and the severity of symptoms that the children with spina bifida and muscular dystrophy experience. The correlation of responses was high for objective and subjective responses. The researchers concluded that children with spina bifida and muscular dystrophy are "capable of understanding and assessing their disability".

Always remember to ask the children who you interact with about their symptoms, opinions and goals.

Reference: Susan C. McLimont1,Janice L. Owen and James G. Wright, Can children with spina bifida and muscular dystrophy participate in their own health status evaluations? J Child Orthop March 2010 DOI: 10.1007/s11832-010-0248-

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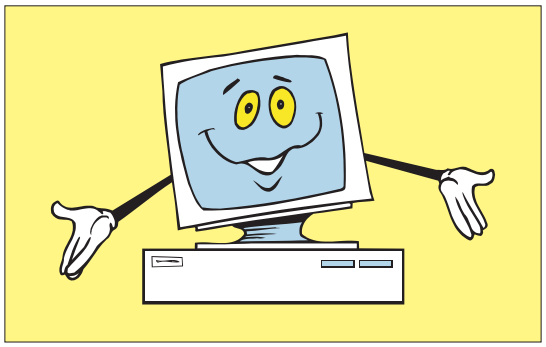
Assistive Technology

Voice Emails and Text Messages

Do any of your students have difficulties with typing emails or texting short messages? Ever find that you need to remind yourself of something but do not have your hands free to jot a note? Check out Dial2Do at www.Dial2Do.com . To use the service, call Dial2Do with a caller ID enabled phone, speak your quick reminder (20 seconds or less for free account) and it will transcribe your voice to a text email. If you want to record longer messages (30 seconds or less), send text messages, listen to and respond to emails and use social networking tools, all with your voice, you will need to pay for an account ($3.99/month).

Here is a FREE open source drawing software for children - **Tux Paint** www.TuxPaint.org . It is suitable for children ages 3-12. There are many drawing tools such as paintbrush, line tools, shape tools rubber stamps and magic tools. There is even sound effects. You can translate any text into many languages. If you like Kid Pix you may want to give Tux Paint a try. And, remember it is free!

Tech Tools to Encourage Writing - Came across a great article written by Helen Teague entitled *"Using Technology Tools to Encourage Reluctant Writers"*. It is especially useful for older students. It would make a great hand out to provide to teachers to add some fresh ideas to motivate students to write. You can download the article at http://cmsweb1.loudoun.k12.va.us/50910068152053/lib/50910068152053/UsingTechToolstoEncourageReluctantWriters.pdf



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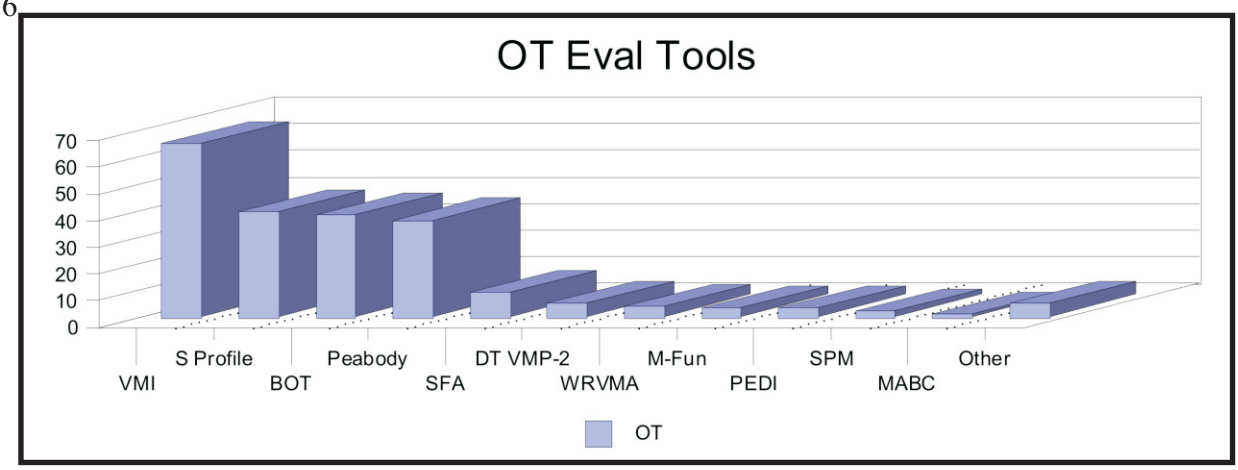
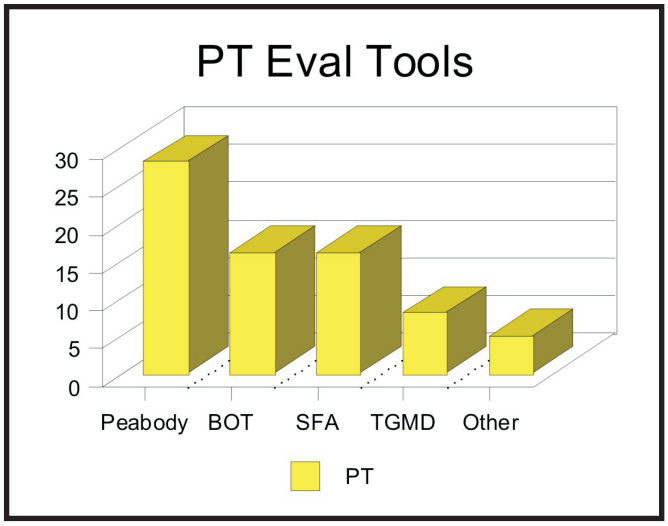
Survey Results - Evaluation Tools

QUESTION #1:
Are you a pediatric OT/COTA or PT/PTA? Please click on pediatric OT or pediatric PT?
213 OT/COTA's responded
73 PT/PTA's responded

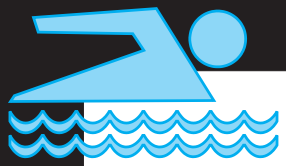
QUESTION #2: What evaluation tool do you use most often? Occupational therapy responses below:
Developmental Test of Visual Motor Integration: 60
Sensory Profile: 39
Bruininks-Oseretsky Test of Motor Proficiency: 38
Peabody Developmental Motor Scales: 36
School Function Assessment: 9
Developmental Test of Visual Perception 2: 5
Wide Range Assessment of Visual Motor Abilities: 4
Miller Functional and Participation Scales: 3
Pediatric Evaluation of Disability Inventory: 3
Sensory Processing Measure: 2
Movement Assessment Battery for Children: 1
Other: 6



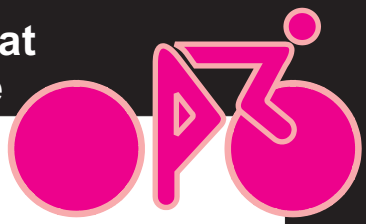
QUESTION #2: What evaluation tool do you use most often? Physical therapy responses below:
Peabody Developmental Motor Scales: 28
Bruininks-Oseretsky Test of Motor Proficiency: 16
School Function Assessment: 16
Test of Gross Motor Development: 8
Other: 5 includes customized evals (2), Gross Motor Function Measure (1), MABC (1) and Batelle (1)



Respond to the Spring 2010 Survey on caseload sizes at
www.YourTherapySource.com/survey



Get all the Imagination Action Journeys at
www.YourTherapySource.com/imagine



Triathlon Race

Imagine you are a competitor in a triathlon race. You must swim, cycle and run to complete the race.

The first part of the race is the swim. You stand on the sand waiting...Ready, set, go! You jump into the water and begin swimming the crawl stroke. Arm over head and into the water, followed by other arm, breath and kicking feet...arm, arm, flutter kicks...arm, arm, flutter kicks...arm, arm, flutter kicks..., arm, arm, flutter kicks.... You are almost to the end of the swim race. Just a few more strokes - arms moving...legs kicking, arms moving...legs kicking, arms moving...legs kicking. You completed the swim race. Drying off with your towel, you head for your bicycle.

Throwing one leg over the bike, you jump onto the seat. Quickly you begin pedaling. At first, it is level ground. You pedal at a slow, steady pace. Round and round the pedals go with your feet. You start to approach a hill. You begin to pedal harder and harder. It is a steep hill. Pedal hard and slow, pedal hard and slow, pedal hard and slow with your feet. You reach the top of the hill, now you go down the other side very fast. You pedal fast and easy, fast and easy, fast and easy. Your feet are moving in very quick circles. Back to level ground, you begin a slow, steady pace again on your bicycle. Round and round the pedals go. You reach the bicycle finish line. Parking your bike, you jump off and start running.

Again, you start off at a slow, steady pace - one foot in front of the other. Arms moving at sides, feet moving slow and steady. You see only a few racers in front of you. Picking up the pace, you run a little faster, arms pumping...feet moving...arms pumping... feet moving and arms pumping. You are so close to the finish line. You sprint as fast as you can, passing all the runners. Sprinting fast and arms pumping, you cross the finish line in first place!

Catching your breath from the long race, you take a deep breath in...deep breath out...deep breath in...deep breath out. You are the winner!

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