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- Register Today for the WCPT!

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GREETINGS to all IOPTP members! We are approaching the 16th International Congress of the World Confederation for Physical Therapy in Amsterdam June 20-23, 2011 with great excitement. This WCPT meeting will be the first time that members will be able to meet together at the information sharing sessions as well as at the first business meeting. The business meeting will be held on Tuesday, June 21st (9-11 am) and we have reserved a room for 100 people. A delegate from each of your paediatric groups will participate as a voting member at this business meeting but I encourage all paediatric physical therapists to attend this historic first formal business meeting. I also urge you to put any items forward that you wish to be discussed at our general meeting. Call for agenda items and nominations will go out to the membership in December.

In addition to the IOPTP general meeting, our members will have the opportunity to attend scientific programmes, satellite programmes and site visits. Eighteen focused symposia have been selected as a part of the scientific programmes and although not specific to paediatrics, I think the topics will be of interest to our members. The IOPTP proposal for a one-day satellite programme was combined with two other proposals for a 2 day programme on June 24-25th. The title is :[Global Perspectives on Decision-Making, Measurement, and Participation of Children with Disabilities. Interventions for Stability Aspects of Motor Control: Developmental and Neurologic Disorders Across the Lifespan](#) a ½ day programme and [Physiotherapeutic Management of Anorectal Dysfunction in Adults and Children](#) a 1 day programme may also be of interest to our members. The Call for Abstracts for research reports and special interest reports including professional resource materials has gone out. The categories of presentation are platform, poster, and poster discussion sessions. Deadline for submission is September 15, 2011

The IOPTP will also participate in a reception for subgroups of the WCPT. We hope that you will use this time as well as other networking sessions that will be held during the conference to interact with paediatric physical therapists across the world.

Registration for the WCPT will begin this fall with an early bird deadline of December 2, 2010 and advanced registration of May 20, 2011. You might consider these early deadlines in order to get the best registration rates!

I look forward to meeting you at meetings during the conference as well as at informal gatherings. I am excited by the responsiveness of our member countries during the past 3 years and by the prospect of what we collectively can accomplish now that we are maturing as a subgroup.

Best Regards!

Barbara H. Connolly DPT, EdD, FAPTA

President

Updates: Section on Pediatrics, American Physical Therapy Association

The Section on Pediatrics has been quite busy in 2010 and has planned to take on additional projects in 2011. The following educational conferences are planned:

CSM2011: Feb 9-12, New Orleans, LA

Excellent pre-conferences and programs are scheduled along with Section member meetings, forums and social activities. Programming includes research/practice platforms and courses on feeding in the NICU, neurologic and metabolic disorders, low back pain in children, autism, school-based therapy, developing clinical practice guidelines, diagnosis in pediatric PT and more.

PT2011: June 8-11, National Harbor, MD

Join us for a concentrated education series in pediatric orthopedics with orthopedic surgeons and physical therapists from across the US. Conditions will vary from injury in the typically developing to orthopedic conditions and complications in children with other diagnoses.

SoPAC11: Aug 31-Sept 2, Disneyland in Anaheim, CA

With such success at Disney World in Orlando for our first Section on Pediatrics Annual Conference in January 2010, we will take our programs to the west coast in late summer. Programming will include tracks in specialty areas of early intervention, school based therapy, adolescents/adults with developmental disabilities, hospital-based care, sports and fitness. General sessions will include leadership, teaming, reimbursement, and professional issues.

Advanced Clinical Competency Oct 15-17, Boise, ID

Research Summit III: fall 2011: Intensity of PT Interventions

Please visit our website at www.pediatricapta.org to learn more about these programs. You can also access information through the **Healthcare Consumers page** of the website including resource information for families, PTs and other providers. Fact sheets are available in English and five have been translated into Spanish.

We are pleased to announce that the Dutch Association for Pediatric Physical Therapy has selected Pediatric Physical Therapy as their official journal. We continue to work with professionals from other disciplines and associations across the US in liaison relationships. We value our

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international collaboration as well. We have created a **Partners Program** for those who are not eligible to become APTA members and welcome pediatric physical therapists from other countries in this membership category. Benefits include: electronic access to Pediatric Physical Therapy, member rates for conferences, full access to our website, participation in listservs, and involvement in one of six special interest groups as well as committees and task forces. You can access more information about the Partners Membership Program on our website under: **About the Section/Section Partners Program**. The Section is very interested in collaborative opportunities with the International Association of Physical Therapist in Paediatrics and many of our members will be attending the WCPT conference in Amsterdam. We hope to see you there!

Sheree York PT, MS, PCS

President of the Pediatric Section

UPDATES: Paediatric physiotherapy in New Zealand and Australasia

The next **Australasian Academy of Cerebral Palsy and Developmental Medicine (AusACPDM)** conference will be in Brisbane Australia in May 2012. This will tie in with World Federation of Neuro-Rehab conference in Melbourne and Child Neurology conference in Brisbane, both in May 2012. The 2014 conference may be in Perth or Sydney. Like the AACPDM conference, this brings together health professionals with an interest in children and is a good way to network more widely than in physical therapy only.

The **Paediatric Special Interest Group (PSIG)** in New Zealand has recently asked our members for their top choices for Continuing Education and they came up with: hydrotherapy for children with disabilities, home programmes incorporating goal setting, early development, and ethics of and ethical dilemmas in paediatric physical therapy practice. The PSIG strives to provide and organise Continuing Education for our members and we are always interested in collaborating and learning about issues and topics important to therapists elsewhere in the world.

Regards from New Zealand,

Hilda Mulligan

MEMBERSHIP SPOTLIGHT—Switzerland

The **Physiotherapia Paediatrica (PP)**, a member organisation of Physio Swiss, is a special interest group of over 470 dedicated and motivated paediatric physical therapists.



In Switzerland a majority of paediatric physical therapists work in private practice (65% of those therapists surveyed), 15% of the therapists work in hospitals and the remaining therapists are evenly split between special schools and developmental centres. Recently policies have changed and children with special needs are integrated into mainstream schools with fewer students educated in special schools. Therapists report feeling that there is adequate funding for them to provide effective physiotherapy input for children with special needs. However, as the cost of health care rapidly rises many families who have to pay for treatment avoid any kind of physical therapy in order to reduce their overall costs.

The PP is dedicated to furthering their influence with other organizations and through partnerships to develop policies to benefit children with special need. While not directly represented in decision-making bodies therapists in the PP are working on an ICF-Project and other members are involved in committees. Internally, Physio Swiss is working on a system for post-graduate formation which would include a paediatric formation at the university of applied studies. Not only is the PP busily working to help in terms of policy and programming but they also produce continuing education courses for all divisions in paediatrics such as SI and NDT courses (both basic and babies). As part of this dedication to education and learning the PP has signed a cooperation convention with a university of applied studies to create a formation in paediatrics. People who graduated as physiotherapists before the university formation was available will receive the university certificate as well if they take part in an NDT course.

The children of Switzerland are lucky to have such dedicated therapists who are active in adaptive skiing for children with special needs as well as involved in a prevention project “Life-start in motion” www.bewegter-lebensstart.ch. This year the PP celebrated their jubilee (10 year- Congratulations!) and are hard at work on a new homepage and new member programming. Through partnerships with SAKENT (organizer of NDT courses), NDTSWISS and Savt (Vojtatherapists) the PP makes sure that their therapists are well trained and provide the best care for their patients. The PP is also a member of a group of all different kinds of physiotherapy in Switzerland (CGS). This active organisation is responsible for a journal published twice a year that contains information about politics within physiotherapy and professional articles.

The IOPTP is pleased to welcome and introduce member country Switzerland and congratulate them on 10 great years and many more to come! You can check out the Physiotherapia Paediatrica at www.physiotherapia.paediatrica.ch

ORGANISATION HIGHLIGHT:

Hands of Light in Action



Providing Physical Therapy In Haiti

"Don't ask yourself what the world needs. Ask yourself what makes you come alive, and then go do that. Because what the world needs is people who have come alive." - Howard Thurman

For United States physical therapist Nancy Malone helping others was what made her come alive and in 2005 she founded the organization Hands Of Light In Action (HOLIA). HOLIA has aided victims of Katrina hurricane in Louisiana and Mississippi and most recently the earthquake survivors in Haiti. Nancy Malone is the president and founder of HOLIA but also a trained orthopedic manual therapist and a strong woman who survived a middle cerebral aneurysm two years ago. As she watched the news coverage of the devastation in Haiti she realized that the survivors of all ages were going to need physical therapy (PT) services. HOLIA volunteers arrived in February to the Love a Child - Camp Hope to provide such PT services but what they ended up giving to the residents of the camp was so much more.

Over 100 volunteers from the United States, including physical therapists, went to Haiti and staffed the PT tent but also worked with malnutrition in babies, gathering needed essential supplies such as formula, clothes, shoes, can openers, duct tape, toothbrushes, hair ties, toothpaste, books, crayons, packets of food, markers, marbles, reading glasses, a few computers, school supplies and other things to make life just a little easier. HOLIA volunteers helped with the building of homes and even worked at a PT rehabilitation center and at a clinic in the next town. When a need was discovered the HOLIA volunteers tried to meet it and that is what led one volunteer, Lorin, to establish the mental health evaluation at Camp Hope. Since arriving at the camp 40 individuals with amputations have been fitted with legs, 200 patients from Camp Hope have been treated, and injuries of camp employees, builders and others have received therapy through the expertise of the PT volunteers. Nancy Malone witnessed the impact their services had on the residents of the camp, "our PT tent not only was a place of treatment and rehab but tons of people gathered there daily for smiles, hugs, laughter and conversation. We became the gathering place. We gave joy, laughter, love and a hope for the future. We gave an escape into a little normalcy." Volunteers not only provided manual therapy and therapeutic exercise but also became friends with the residents and listened to their triumphs and struggles as well as cheering for them on the soccer field.



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The PT volunteers treated the members of the camp, young and old, who had suffered horrendous injuries as a result of the earthquake and they also established a daily exercise program for all residents. Dozens of residents would gather for exercise and as they grew stronger physically they were also strengthened emotionally. Malone recalls, “The actual air and energy of the whole camp changed within 24 hours [of the therapists arrival] as patients and families began to see that they would move again and they would have life past this moment. People were able to move under trees, gather for church services, sit outside in chairs or benches or even on the ground. HOLIA PT volunteers received a standing-ovation from all the other doctors, nurses and medical workers at our nightly meetings.” For many of the children a return to normalcy and the most pressing goal was to return to playing soccer and with the help of the therapists the children and adults were able to return to their favorite sport, sometimes with new legs.

The PT volunteers from HOLIA worked tirelessly and in the end they worked themselves out of a job and so at the end of September they closed the PT tent because the patients had no further need of skilled PT services. But in the true giving spirit of HOLIA they didn't leave the camp without a parting gift—they provided the camp with a volleyball net, basketball hoops, balls, and uniforms as a way to encourage them to continue to be active. For Malone being able to provide the children and adults with this necessary equipment was providing them with a way to “forget just for a short period of time and play, laugh and dream” just by stepping onto the field. “Camp Hope children and adults will be able to gather, cheer for their soccer, basketball and volleyball teams taking pride in the fact that they have the necessary equipment and that they have their own Camp Hope uniforms.” The PTs involved in the HOLIA PT tent at Camp Hope gave the patients back their mobility, dignity and hope using their unique skills as therapists. Through all the hard work the PTs were able to change their small part of Haiti and get children and adults moving in a positive way.



For more information on HOLIA you can visit them on the internet at www.handsoflightinaction.org.



MEMBER CORNER— Elastic Taping as an adjunct to paediatric physiotherapy

This is a reprint of the last edition of the journal due to some formatting errors on the part of the newsletter editor.

The original Kinesio Tape and Kinesio Taping Method were developed by Dr. Kenzo Kase, a Japanese Chiropractor in the early 1970's. Originally it was used as a specialized elastic sports tape only and introduced to the world at the 1988 Olympics in Japan. The Kinesio method was introduced into

History:

Europe and the U.S.A. in 1997. Many physiotherapists have started using this, or similar tapes since. As far as I am informed there are four major tape producers worldwide at this moment: Kinesio Tape, Cure- Tape, K-Tape and Kinesiology Tape.

It is currently being used by many colleagues in paediatric cases. One manual on paediatric taping and a number of case studies have been published in various languages. Basic and specialized taping courses are being organized by various companies¹ and by numerous therapists in various countries.

Tape properties:

- It is highly elastic (30 to 40%) lengthwise only,
- heat sensitive acrylic adhesive (in wavelike pattern) on the back of the tape,
- tape is placed on a protective paper backing with the tape stretched 10%,
- it is roughly the same thickness as the epidermis,
- it is very light, comfortable, does not limit range of movement
- it is waterproof making showering and bathing possible,
- it remains in place and is effective for a number of days.

This tape is said to have the ability to re-educate the neuromuscular system, relax muscles, stimulate weak muscles, reduce pain, reduce inflammation, promote lymph and blood flow, enhance performance while supporting muscles in movement.

Tape techniques:

Muscle, ligament, fascia, lymph, space and corrective techniques are described. The tape can be cut into various shapes and comes in different colours.

CrossTape: has been used by acupuncturists for many years. In certain cases, applying the cross tape might be a better option than applying the elastic tape. In the experience of two paediatric instructors, using cross tapes on young infants is sometimes to be preferred. The cross tape is not elastic and I have found no studies, only a manual² about the subject.

¹ www.kinesiotaping.com www.medicaltaping.com <http://www.kinesiologytaping.co.uk> <http://www.k-taping.eu>
www.atenasl.com

² Manual Medical Taping, Cross taping & Spiral taping by Kim Gwang Won Korea 2005

Hypothesis on tape properties:

1. Skin lifting properties (displacement and pressure)³,
2. Changes (inhibition of facilitation) in muscle tone and input CNS^{4 5 6 7},
3. Muscle strength⁸,
4. Blood and lymph flow changes^{9 10}
5. That the amount of stretch would have different results and that the tape can “align” the fascia, has not been sufficiently researched.

More research is needed. The mechanical properties of the tape¹¹ have been researched and the different colours were associated with different mechanical behaviour. Thermal effects of Kinesiology tape have been analysed¹²

The evidence found so far:

A great number of case studies and smaller pilot studies¹³ have been conducted. Two level 1b studies and one RCT¹⁴ have been published so far.^{15 16} Pain relief has been documented by various authors.^{17 18 19 20}

³ J.U. McCarthy Persson et al Repeatability of skin displacement and pressure during “inhibitory” vastus lateralis muscle taping. *Man Ther* vol 12(1); 17-21 febr 2007

⁴ P.Janwantanakul et al Thailand . Vastus lateralis vastus medialis obliquus muscle activity during the application of inhibition or facilitation taping techniques. *Clinical Rehabilitation* vol 19, no 1,12-19 (2005)

⁵ McCarthy Persson et al. The effect of a vastus lateralis tape on muscle activity during stair climbing *Man.Ther.* 2009 jun;14(3)330-7

⁶ Alexander CM et al. What is the effect of taping along or across a muscle on motoneurone excitability? A study using the triceps surae. *Man Ther.* 2008 Feb 1381):57-62

⁷ Akio Mori (2005) Activation of cerebral cortex in various regions after using Kinesio tape. *Kinesio Symp* 20.2005:pg141-144

⁸ Hsu Y-H et al. The effects of taping on scapular kinematics and muscle performance. *J Electromyogr kinesiol* (2009), doi:10.1016/j.jelkin.2008.11.003

⁹ Kenzo Kase et al Changes in the Volume of the Peripheral Blood Flow by using Kinesio Taping study in 1997-98

¹⁰ Han-Ju Tsai et al Could Kinesio tape replace the bandage in decongestive lymphatic therapy for breast-cancer-related lymphedema? A pilot study *J. Supportive Care in Cancer* Volume 17, Number 11 / November, 2009

¹¹ X.Aguado Jodar et Al Poster Congress ECSS Portugal 2008. Mechanical behaviour of functional tape: implications for functional taping preparation.

¹² Henryk Rachenik, et al Assessment of thermal effects of kinesiology tape application *EP* 2008; 8(3):310-316
ICID: 879828

¹³ whole personal list available from author

¹⁴ Bye-Then Chen et al The initial effects of kinesio taping in lateral epicondylitis – a randomised controlled trail.

¹⁵ Mark. D. Thelen et al. The clinical efficacy of Kinesio taping for shoulder pain: A randomized double blinded Trail. *J.of Orthop & sport P.T.* vol. 38 nr 7, July 2008

¹⁶ Javier Gonzalez-Iglesias et al Short term effects of cervical Kinesio Taping on pain and cervical ROM in patients with acute whiplash injury: a randomized clinical trial *J. Orth. Sport Physical Ther.* vol. 39.nr 7 July 2009 515-521

¹⁷ Javier González-Iglesias et al (2009) Short term effects of cervical kinesio taping on pain and cervical range of motion with acute whiplash injury: a Randomized Clinical Trail. *JOrthop*

¹⁸ W. Evermann (2008) Effekte des elastischen Tapings bei ausgewählten functionellen Beeinträchtigungen des muskuloligamentären Apparates. *KiM Kompelemt.integr Med* 18/2008 (German).

¹⁹ Catucci Maria (2009) Studio lombalgia con controllo sulla mobilità articolare e VAS del dolore con Taping NeuroMuscolare. *Newsletter Jan 2009 website Aneid* (Italian).

In Mark Thelen's study, Kase et al²¹ are cited as "proposing several benefits depending on the amount of stretch to the tape during application: (1) to provide a positional stimulus through the skin, (2) to align fascial tissues, (3) to create more space by lifting fascia and soft tissue above area of pain/inflammation, (4) to provide sensory stimulation to assist or limit motion and (5) to assist in the removal of edema by directing exudates toward a lymph duct".

An intensive search has resulted in the following list of studies on elastic taping of paediatric disorders.

- case series (3 children)²² by Frances Powell (2001)
- pilot study: by Audrey Yasukawa et al.²³ from U.S.A.
- Case report by Hille Maas²⁴ from Estonia,
- Study (16 children) by Hille Maas²⁵ from Estonia
- Case report²⁶ by P. Greve et al from Brasil,
- Study (10 children) by Pelland et al²⁷ from Canada,
- Case study by Esther de Ru & Marc v. Zuilen²⁸ from Spain
- Case studies: Trish Martin & Audrey Yasukawa²⁹ U.S.A.
- Study 5 children Jaime P Cepeda et al³⁰ from the U.S.A.
- Case study 12jr old female (&2 adults) R. Brandon et al³¹
- Case series of 5 by Kayoko Maruko³² from Japan
- Case study baby³³ by P. Nuvoli from Italy
- Case Study by Esther de Ru³⁴ from Holland
- Study (2 children) by Trish Martin³⁵ from the U.S.A.
- Document including protocol by A, Yasukawa and Trish Martin³⁶ from the U.S.A.

²⁰ Javier Moreno Sanjuan (2009) Hallux valgus tratamiento comperativo entre: kinesiotape, vendaje funcional y terapia manual www.efisioterapia.net (Spanish)

²¹ Kase K et al Clinical Therapeutic Applications of the Kinesio Taping method. Tokyo, Japan. Ken IKA Co Ltd;2003

²² Frances Powell (2001) The effects of Kinesio taping method in treatment of congenital torticollis case studies. Kinesio website

²³ Investigating the Effects of Kinesio Taping in an Acute Pediatric Rehabilitation Setting. Am J. Occup Ther 60(1):104-10

²⁴ The pediatric physical therapy intervention using kinesiotaping in Estonia. FP2007;7(3):355-361

²⁵ Pediatric physical Therapy intervention using kinesiotaping in Estonia. Int.Confr Baltic Child may6-9,2009pg110-113

²⁶ Effect of the bandage Kinesio Taping in spasticity in Cerebral Palsy in diparetic Palau de Congressos WCPT RR-PO-1673

²⁷ Predictive control of posture to voluntary model of the effects of kinesio tape on motor performance poster AACPD 2007

²⁸ Vendaje Neuromuscular integrado en fisioterapia funcional pediátrica. **Jornada Hispano-Brasileira Alteraciones en Neurología Infantil 8 y 9 de mayo de 2009 Madrid (english-translation)**

²⁹ Kinesiotape in paediatrics to improve Oral Motor Control & TMJ instability 18th Annual Symposium Tokyo 2003 (Kinesio website)

³⁰ Does Kinesio taping of the abdominal muscles improve the supine-to-sit transition in children with hypotonia? (Kinesio website)

³¹ The use of kinesio Tape in patients diagnosed with patellofemoral pain(FPF) (Kinesio website)

³² Kinesio Taping with Aqua-Therapy for Pediatric Disability involving Neurological Impairment (Kinesio website)

³³ Bambini e cerotti, Kinesio Taping in età pediatrica Baby with psychomotor retardation and metatarsus adductus in Newsletter 2004 (website Aneid Italy)

³⁴ Drooling – possible new treatment method to help reduce excessive drooling (website Atena Portugal, UK, Spain)

³⁵ Oral Motor Control: use of Kinesio Tape in paediatrics to improve oral motor control. Presentation 18th Int. Symp. japan Kinesiowebste (2003).

- Case Study by I. Jiménez Mata³⁷ from Spain
- Study of 28 children by Zbigniew Sliwinski from Poland
- Case series (4 children) by Carol Motyko – Miller³⁸
- Chiropractic case study by Tracy Barnes³⁹ from U.S.A.
- Study (30 children) by Beata Zuk ,Krystyna Ksiezopolska-Orlowska⁴⁰ from Poland
- Case study by Marc van Zuilen⁴¹ from Holland
- Case study by Mariani Virginio⁴² from Italy

In the Polish Journal of Physiotherapy a number of articles regarding Kinesio taping in various paediatric disorders have been published. I have only been able to obtain one⁴³ and but I have read all the abstracts from 2006-2009. In NDTA Network⁴⁴ Monica Diamond speaks of both rigid and elastic tape in: Lending an Extra Hand – taping as an adjunct to NDT treatment. Tape use in the management of the Web Space, was discussed by Bonny Boeing in the 2005⁴⁵.

Indications and contraindications:

Indications: elastic tape claims to be effective as an adjunct therapy possibility in many disorders in adults and children. A lot of anecdotal studies support these claims. Children with various musculoskeletal and neurological problems can be helped with elastic tape.

Contraindications are: allergic reaction to test strip or after longer use, sunburn, skin disorders, open wounds, severe trauma and no results after 2 applications.

Relative indications are: certain areas of the body: the neck, the armpits, belly button, groin and organ zones.

Because their skin is much thinner than the adult skin and it because its absorbs chemicals easily, I think it is wise to avoid taping (0-6 months old) young babies.

Education: Education in paediatric taping is now possible in more countries. The choice to use elastic taping as an adjunct or not, is not always easy. How to plan a treatment, make goals and chose to incorporate tape into the therapy plan, is dependant of the therapists' knowledge and the child's possibilities.

³⁶ Kinesio Tex tape as an adjunct to treatment for older children with brachial plexus injuries. UPBN winter 2005-06

³⁷ El Kinesiotaping aplicado a alumnos con NEE: experiencia en un centro educativo www.efisioterapia.net mayo 2009

³⁸ KT and Hypotonia. Kinesiotaping website

³⁹ Chiropractic adjustments plus massage and kinesio taping in the care of an infant with gastroesophageal reflux. J.CI.Chir.Ped. vol 9.no1, march 2008 572-574

⁴⁰ Usefulness of Kinesiology taping method in inflammatory rheumatic illnesses in childhood. Reumtologia 2008;46/6

⁴¹ El uso de vendaje neuromuscular para incrementar el nivel de oxigenacion en pacientes con neumopatia crónica. Noticias VNM vol.2: pg 4-7

⁴² Caso clinic Trauma gomito Taping Neuromuscolare vol.3,2005.pg9

⁴³ Sbigniew Sliwinsky et al Vojta screening tests in children with CNS damage and functional application of kinesiology taping. Fisioterapia Polska 2008 3(4); vol 8: 317-324

⁴⁴ Edition NDTA network September/October 2003

⁴⁵ Edition NDTA Network may/June 2005

I have found this elastic tape to be a very interesting new treatment possibility. We need to learn more about the skin and the cutaneous nerve system to be able to use this tape to and benefit from its potential possibilities. The fact that colours can make a difference⁴⁶ and that taping can have effects of organ systems^{47 48 49} is truly amazing and warrants further research.

I sincerely hope that colleagues worldwide will start exchanging information, through the WCPT or Physiobob forums about their experience and research in paediatric taping.

Esther de Ru



Figure 1. Tape over scar



Figure 2. Abdominal taping



Figure 3. Back extensor taping

⁴⁶ personal observation and see reference 7

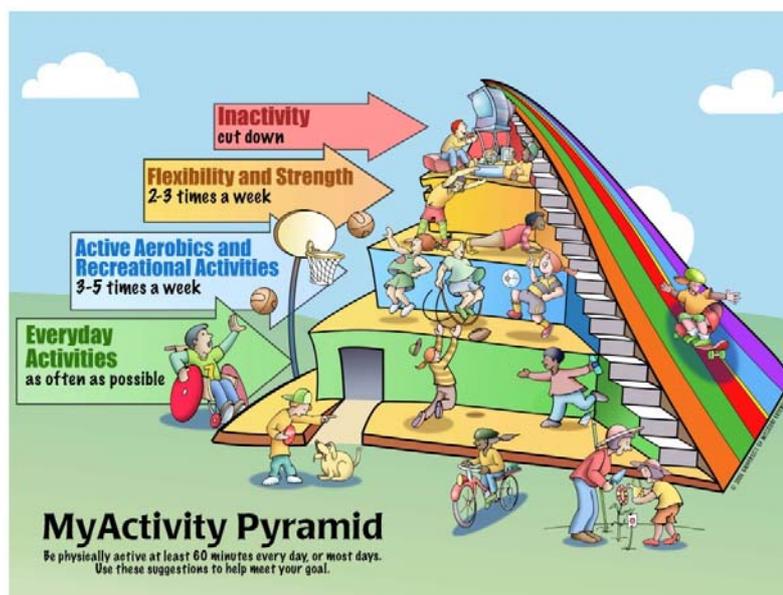
⁴⁷ Marc van Zuilen El uso de vendaje neuromuscular para incrementar el nivel de oxigenación en pacientes con neumopatía crónica (website Atena) Spain

⁴⁸ J.Szczegieliński et al The use of kinesio taping in patients with acute stages of bronchial asthma. Polish J of Sport Med.2007;23(6):337-341 ICID 846709 Poland

⁴⁹ Study to be published shortly on effects Cure Tape applications on menstrual pain patients in the Netherlands

Member Corner: Physical Activity Guidelines for Children

We all know that obesity is an issue of epidemic proportions that affects everyone including children and the best programs to prevent or reverse the weight gain include both a healthy diet and physical activity. The harmful effects of excessive weight gain exist in children with and without disabilities but for many children with physical disabilities the access to physical activity is limited. In 2008 the United States Federal Government issued *Physical Activity Guidelines* that recommended 60 minutes activity for children ages 6 to 17 years old¹. Physical activity should be composed of aerobic, strengthening and stretching activities. The University of Missouri has created a physical activity pyramid that organizes different components of physical activity into order based on the number of days the activity should be completed².



For children with physical disabilities it is often challenging to find outlets for physical activity. By working on functional goals and increasing independence of activities of daily living a child can increase his/her amount of “Everyday Activities.” Activities such as propelling his wheelchair around his school or sitting independently while getting dressed increase overall activity. Aerobic and recreational activities, which are recommended three to five days a week, are great opportunities to increase activity as well as increase social interaction and self-confidence through participation in sports or other team activities. The key to activities in this section is to make sure that the activity is at an intensity to increase the child’s heart rate, a moderate to vigorous intensity. Examples of aerobic activities for children with physical disabilities could be timed laps around the neighborhood (either walking or wheeling) or rapid arm punches or arm circles. As physical therapists we can work with our children to find the best activity to achieve optimal aerobic activity whether it involves the upper or the lower body. Optimal aerobics generally is considered to be the ability to increase heart rate to 70- 80% of maximal heart rate (which is determined by calculating $220 - \text{age}$).

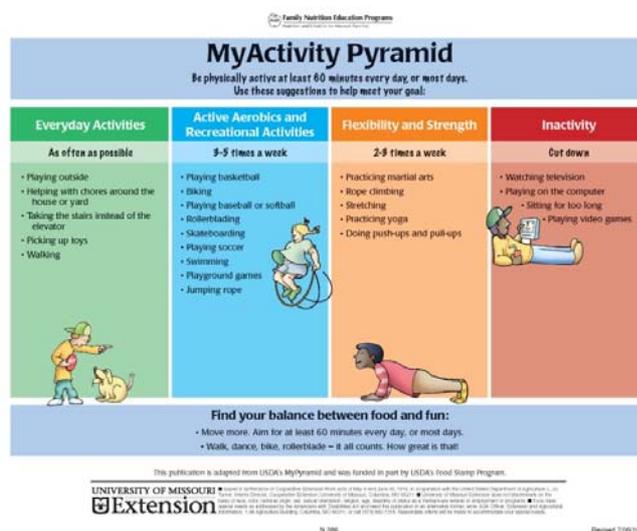
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Children and families must be educated on pacing as well as warning signs of over-exertion when beginning an aerobic program.

The final physical activity component of the pyramid is strengthening and stretching which can be performed two to three days a week, not consecutively in order to prevent injuries. For strengthening, focus should be on correct form of activities as well as proper breathing during exertion. For children with physical disabilities strengthening activities can utilize weights or elastic bands or can be done with body weight during activities such as push-ups or eccentric movements. For many children compliance is limiting factor in performance of activities so attaching elastic bands directly to a child's wheelchair or using household items for weights can increase compliance. As physical therapists we also must be integral in creating safe and appropriate strengthening programs that address arms, legs, and core. Stretching is an integral component of every activity program so self-stretching as well as assisted stretching by caregivers should be performed with sustained holds.

While many therapists know this knowledge the ability to create activity programs that incorporate all components of physical activity can be challenging. For our children it is crucial that activity programs are tailored to their strengths. Creativity is also important in developing exercise activities that can be incorporated into the family's schedule to allow children to participate in at least 60 minutes of physical activity every day. As physical therapists we are poised to be coaches and mentors for children with disabilities and encourage them to lead active lives from childhood through adulthood. With our help our children can get moving and stay healthy!!



Erin Wentzell PT, DPT member country USA

¹ "Physical Activity Guidelines for Americans: At-A-Glance: A fact sheet for professionals." Physical Activity Guidelines for Americans. US Department of Health and Human Services. www.health.gov/paguidelines/factsheetprof.aspx. 2008.

² "MyActivity Pyramid for Kids" University of Missouri Extension. <http://extension.missouri.edu/publications/DisplayPub.aspx?P=n386>. May 2010

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Winter 2010 NEWSLETTER

Deadline for Submission: November 20, 2010

I am always looking for member contributions articles, highlights from courses or conferences, interesting member profiles or reviews of research or treatment techniques.

There is no minimum length and it can be in any format.

Contact Erin Wentzell the IOPTP Newsletter Editor if you are interested in contributing.

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