



UK Bulletin

July 2010



CHAIRMAN'S REPORT

This is my final year as chair of the UK National Member Society and I was pleased to attend my last international meeting in Leipzig and have the opportunity to thank the international board for the changes I and several other national societies had suggested and lobbied for during my time with them. They are now a more open society both with their information, structure and finances.

Many other countries are struggling with membership numbers and the subsequent economies of scale as we do. The UK NMS committee has worked hard to change the format of our annual scientific meeting and by introducing extra meetings such as our Cerebral Palsy conference we hope to attract new members. Whilst it remains to be seen how successful this will be, UK NMS has attracted considerable interest from the rest of the world at being most proactive in this area.

It was fantastic to see recognition for the CP conference in the world forum and it will not surprise you to know the photograph of Colin Peacock questioning a panel was one of the pictures used to illustrate the event.

Towards the end of the week in Leipzig, I was invited to sit on a European group to consider how ISPO could be involved in future Leipzig trade fairs which take place biannually. I proposed a Western European Regional ISPO meeting to coincide with the trade fair. This idea was very well received. I have stressed however that such an event would require multi national input to organise!

Although not discussed formally at any meetings, there appears to be a swell of interest in holding the ISPO world congress every two years rather than three and perhaps over three to four days rather than five to six as is present.

Frustratingly at this year's congress there was no abstract book, however I understand these are now available on the ISPO international website (www.ispoint.org) for all to view.

Of particular interest to me was a session on **OA knee** and its orthotic management. Papers were presented looking mainly at medial compartment OA and the effects of off loader braces and lateral heel wedges. One particular paper showed that soft knee orthoses tend to reduce knee flexion in gait. It was suggested this may reduce joint forces and was supported by another paper which compared a soft knee orthoses with an off loader and a heel wedge on pain management. Whilst the off loader was most effective along with the heel wedge, the soft orthoses also had a significant effect on the subject group.

Paul Charlton
Chairman, ISPO UK NMS

ISPO UK NMS
Annual Scientific Meeting & Commercial Exhibition
4 - 5 November 2010
Centre for Life, Newcastle



Following the success of the Cerebral Palsy conference in January, ISPO UK NMS has changed the format of this year's annual scientific meeting. Thursday 4 November will be dedicated to prosthetics with an overarching theme on Trauma. Bob Gailey, a well published and renowned speaker, will present the Blatchford Lecture. Friday 5 November will focus on orthotics and concentrate on Neuromuscular disease where there have been many recent changes in understanding and medical treatments which may well have an impact on orthotic management.

The meeting will further provide a platform to share new research and whilst day delegates may only wish to attend one speciality day they will also have the option of attending the generic free paper sessions on both days at no additional cost.

A draft programme is outlined below. The full programme and registration forms will be circulated in August and will also be available on the website at www.ispo.org.uk

Thursday 4th November - Prosthetics

Technical Developments

Prosthetic Programme

Blatchford Lecture: Dr Robert Gailey, Dept of Physical Therapy, University of Miami, USA

Focus on Trauma - invited speakers and panel discussion

Free Paper Presentations

Annual General Meeting

1930 hrs Conference Dinner - venue to be confirmed

Friday 5th November - Orthotics

Free Paper Presentations

Overview of Latest Developments in Muscular Dystrophy

Orthotic Provision Clinical Reasoning & Evidence

New Ideas on Orthotic Management

Overview of Latest Developments in Charcot Marie Tooth Disease (CMT)

CMT Orthotic Provision, Clinical Reasoning & Evidence

Physiotherapy Interventions, Clinical Reasoning & Evidence

The Walton Report

**1645 hrs Presentation of Prizes
Conference Closes**

This year's venue – the Centre for Life – is a dedicated conference arena ideally located in the centre of Newcastle within easy reach of rail and motorway networks. Delegates will be able to choose from a selection of nearby accommodation to suit all budgets and, again, information is available on the website at www.ispo.org.uk or at <http://visitnewcastlehateshead.com>

We look forward to seeing you there!

ISPO – The 13th World Congress and Orthopädie + Reha-Technik 2010

Report by W D Spence
UK NMS Bursary Winner



Research and Innovation for Human Technology

ISPO – The 13th World Congress
of the International Society for Prosthetics and Orthotics

10 to 15 May 2010, Leipzig - Germany



International Trade Show
for Prosthetics, Orthotics, Orthopaedic Footwear Technology,
Compression Therapy and Rehabilitation Technology

ORTHOPÄDIE + REHA-TECHNIK 2010

12 to 15 May 2010, Leipzig - Germany

The ISPO world congress is arguably the most important scientific meeting in the Prosthetic and Orthotic calendar. The fact that this year's meeting was coupled with the Orthopädie and Reha-Technik meeting in Leipzig promised it to be one event not to be missed by professionals in this field.

Leipzig has been the venue for the biennial Orthopädie and Reha-Technik meeting since 1990 making use of the outstanding facilities of the Leipzig Messegelände conference centre. The structure of the event was such that the ISPO meeting commenced on Monday the 10th May continuing through to Saturday the 15th. The Orthopädie and Reha-Technik exhibition did not begin until the Wednesday, again running until the Saturday. This had the unfortunate effect of leaving delegates with little to do during the breaks in the scientific programme on the first two days.

Scientific Programme

In a similar programme layout to previous world congresses the programme had multiple parallel sessions which, inevitably, introduced the dilemma of which sessions would prove to be the most interesting and informative. This report therefore provides some insight into some of the more interesting sessions attended by the author. As someone who works predominantly with the lower extremity, this report reflects this interest, however it commences with a session on upper extremity prosthetics as I believe this discipline is where the current and near future exciting developments within the profession lie.

The session entitled '**Innovations in Multifunctional Prosthetic Hand Systems**' commenced with *Peter Kyberd* providing a review of the development of design from Da Vinci through the work of *David Simpson* in Edinburgh to the current designs of Touch Bionics, RSL Steeper and Otto Bock. Interestingly he suggested that shape memory alloy was too weak and too slow to be of practical use in this field. *Hugh Gill* of Touch Bionics followed Peter with a brief history of the i-Limb and an outline of the improvements that have occurred since its inception. A further commercially orientated approach was provided by Hans-Willem van Vliet, describing the functionality of the Michelangelo Hand from Otto Bock, which appears to offer multiple grips and an active thumb and will, in the future, offer 75^o wrist flexion, 45^o extension and 180^o rotation, all electrically powered.

Stefan Schulz followed with a description of the Vincent hand. Stefan has been working away for many years to develop a fluid activated hand, which he has had considerable success with but no commercial interest. He has now turned his attention to the Vincent hand which may see a commercial future. It offers a multi-articulating myoelectric hand system including individual finger construction with no lengthening of the fingers and a variety of grips. The size of the hand looks impressive, especially for the young slim female. Next up was *Linda Resnick* describing the development of the DEKA arm which has been fitted to 15 patients. Control is achieved via foot control, myoelectric or Force Sensing Resistors (FSR). The arm has 18 degrees of freedom, 15 of which are powered. The patient toggles through the options to choose which of the six grip patterns he or she wishes to use.

A session on **Lower Limb Prosthetics** dealing with functional knee components commenced with a very good explanation, by *Martin Seyr*, of the theory behind the new algorithm for the latest microprocessor controlled knee (MPC) from Otto Bock. Using ankle and knee moments, angular velocity and acceleration it controls knee flexion to +/- 1^o resulting in a, claimed, excellent gait symmetry at all speeds. *Patrick Theeven* from the Netherlands described a study they had undertaken to evaluate the validity of providing level-2 amputees with microprocessor controlled prostheses. The outcome suggested that high and medium activity level amputees

did indeed benefit from such knees and that low level activity amputees, whilst showing no benefit, did not show any deterioration from the use of such knees. The main thrust of the presentation was to show the benefit of their ADAPT test measurement tool.

Siegmar Blumentritt, from Germany, provided an interesting presentation on the use of microprocessor knees and the rate of falling. He opened his presentation indicating that the falling rate of amputees over the age of 65 was double that of younger people. He stated that the C-Leg reduces the falling rate. He described the various reasons for falls in three categories; the individual mental and physical component, the environment and prosthetic components. Knee safety is of vital importance, of course. He then described two tests that had been conducted with a number of microprocessor controlled knees and non microprocessor controlled knees; an abrupt stopping test and a tripping test. They tested patients wearing the C-Leg, the Rheo, and the Adaptive 2. The outcome showed that not all MPC knees are the same and that the C-Leg came out as the best. *Stephan Lang*, from the UK, provided a description of a new concept in the control of hydraulic prosthetic knees indicating that a current trial was ongoing involving 10 patients from both the UK and the USA of the latest MPC knee from the Blatchford stable.

A session on **lower limb prosthetic sockets** began with a comparison of the 'Anatomical' socket and the 'Ischial containment' socket from the biomechanical and the prosthetic viewpoints. This was delivered by *Ludger Linkemeyer* from Germany and also included the quadrilateral socket as a base line. In essence, based on six participants, he concluded, subjectively, that the Ischial Containment socket produced less pistoning (failed to mention the type of suspension), less pressure on Scarpa's triangle and a better gait than the quadrilateral socket. He further stated that the Anatomical socket (the MAS) provided more comfort and an increased range of hip motion. The biomechanical section of his study utilised the GaitRite walk mat, socket pressure measurement from Novel and a Kistler/Vicon motion analysis system. The objective study revealed marginal differences between the sockets with the anatomical socket being perceived as better. He strongly emphasised the more demanding nature of its manufacture.

Samer Tawfik for the USA discussed design considerations for production of a prosthetic socket using digital technology. Employing Magnetic Resonance Imaging and the finite element program ABACUS he considered material models, contact properties and mesh types. His conclusion was that fine detail could be achieved with a fine mesh but computation time was long and expensive whereas a coarse mesh was not so accurate but cheap, quick and adequate!

Henk Meulenbelt, from the Netherlands conducted a postal survey of 805 participants to try to establish the prevalence of skin problems in amputees. The conclusion was that there is a problem and that since there is a dearth of research in the area further work should be carried out as a matter of urgency. A presentation by *Andrew Campbell*, UK, considered the replacement of toxic acrylic resins and the reinforcing glass and carbon fibres with bio resins and plant fibres respectively. He considered the use of polyurethane resins and flax, banana, cotton and some animal fibres as reinforcing agents. The upshot was that the resulting laminate would be heavier to achieve the same strength as currently used materials and the cost would be, at the moment, higher. Work is ongoing.

A study of residual limb/prosthetic socket compliance in trans-tibial amputees by *Erin Boutwell* was presented by *Steven Gard*, USA. This was a good study considering whether Gel liners introduced compliance or not. Specifically does a thicker liner increase compliance and offer better pressure distribution. Eleven trans-tibial amputees participated in this study, five with bony stumps, five with padded stumps and one in between. They tested with a 3mm and a 9mm gel liner, employing Novel pressure measuring equipment and collected temporal and spatial parameters and kinetic and kinematic data. The results indicated that the thicker liner produced a significant reduction in interface pressure; there was a slight increase in walking speed with the thicker liner and there was a slight increase in the first vertical peak of the Ground Reaction Force with the thicker liner. Subjectively the subjects with the bony stumps felt the thicker liners provided more comfort and those with padded stumps felt the thicker liner to be hotter and bulkier with a small, marginal, increase in walking speed. Overall the conclusion was that there was no effect on compliance.

David Boone, presenting on behalf of *Jay Martin*, USA, discussed the measurement of torque, distal to the socket, during running with a variety of feet. No firm conclusion was reached other than a huge variation was recorded between the different feet tested.

Functional prosthetic foot components were dealt with during a session on the Saturday morning. *Gregory Schneider* from Otto Bock described the selection of prosthetic feet by biomechanical principles. He described

how most patients have little exposure to the many prosthetic feet available and that most prescriptions are based on past experience, the manufacturer's advice or several feet are tried. These are all subjective of course. He then outlined a method using a 6 axis hydraulic machine which used 8 testing profiles at three aspects of stance phase examining foot deflection, roll over and the path of the centre of pressure. The outcome is a clinical tool which can test prosthetic feet and select an appropriate foot for a particular mobility grade.

A study of the Proprio foot by *Merkur Alimusaj* from Germany involved 17 patients from the K3 and K4 categories and 20 controls. He tested the subjects on stairs and slopes using a Vicon/Kistler motion analysis system and the Pliance pressure measurement system from Novel. The results were somewhat inconclusive although he stated that socket interface pressures were elevated and that the Proprio foot placed higher demands on the socket design! (the author was unconvinced by some of the kinetic and kinematic data presented).

Lexyne McNealy Jackson, USA, considered whether prosthetic ankle units had a beneficial effect on bilateral trans-femoral amputees or not. Four male trans-femoral amputees with a mean age of 41 were included in the study examining the Seattle Lightfoot and the Endolite Multiflex foot and ankle. There was no observable difference in the temporal spatial parameters however ankle angle increased with the MultiFlex and the patients all reported increased comfort with the MultiFlex ankle, especially over uneven terrain. The conclusion was that it is better for bilateral trans-femoral amputees to be prescribed moveable ankles!

Exhibition

The other aspect to this joint meeting was, of course, the vast trade exhibition, Orthopadie + Reha-Technik. This must be the largest trade exhibition in our profession. A huge number of exhibitors, ranging from the small local independent individual to the might of the international companies, were represented here. Almost every conceivable rehabilitation product was displayed in two massive exhibition halls. A third hall was devoted to mobility vehicles and a display of paralympic sports.

Spending time at each stand was impossible, therefore only those which held a specific interest or were exhibiting something perceived to be new were targeted. In keeping with the opening remarks regarding the most exciting developments currently occurring in this field, significant time was spent examining Otto Bock's 'Michelangelo' hand and the 'bebionic' hand from RSL Steeper. The latter gets this author's vote for being the best new product on display in terms of functionality, aesthetic appearance and availability.

Conclusion

The city of Leipzig continues to be revitalised with new developments and restoration of many fine buildings. It is a city well worth a visit, and since the Orthopadie + Reha-Technik trade show will return to Leipzig in 2012, I would suggest you note your diary and make plans now to attend.

There is always knowledge to be gained at an ISPO meeting, however, I have to express personal disappointment that, from the sessions attended, there was very little new material, few papers that presented rigorous scientific data and, as is becoming common at these meetings, too many sessions to choose from. Arguably many of the 'scientific' presentations were little more than pitches by commercial companies, which could neither be described as objective nor scientific. It was also an extremely expensive event to attend, and I wonder if a more focused meeting would be better appreciated, more affordable, accessible and increase attendance. This notwithstanding, the value of networking at such prestigious events cannot be underestimated and attendance at this joint event has enabled the writer to increase learning from the presentations of other professionals and investigate developments from the typically, vast commercial exhibition - arguably the foremost showcase in the world for the prosthetic and orthotic community.

Finally, I would like to express my gratitude to the United Kingdom Member Society of ISPO for awarding the bursary, which was kindly donated by Opcare Ltd., to assist with attendance at the world congress.

W D Spence



Another win for Germany!!

Leipzig, ISPO 13th World Congress 2010

Report by Carolyn Hirons - ISPO UK Bursary Winner

How did I get there?

Having been to Glasgow, Hong Kong and Vancouver for previous ISPO World Congresses, I was wondering how I might get myself to Leipzig for May 2010? I knew that if I presented a paper I would be eligible for various sources of funding. Thus, I was delighted when Sarah Deans at Strathclyde University asked me to present along side her, with Bob Gailey, USA physical therapist and BACPAR hero!, and Peter Hersch, whom many of you will have heard speak at BAPO in Bolton this year. What prestigious speakers - how could I refuse? Our topic was to be 'Physical Activity Exercise in Sports, The Bar is Being Raised in Prosthetic Rehabilitation'. Sarah discussed the barriers to participation in exercise for people with amputation, Bob looked at advance training techniques, Peter considered the prosthetic implications and I described the role of fitness training within prosthetic rehabilitation.

Why this article?

I am writing this article primarily to encourage other UK clinicians in the field of prosthetics and orthotics to consider attending a World Congress. I will describe my 'journey' from when I accepted my invitation to speak and what I learned by attending.

How did I fund it?

My first job was to find funding, as costs can be the first and obvious barrier to attending conferences. I knew I would need approximately £1200 to cover flights, accommodation, registration fees (as a speaker you still need to pay) and expenses. Obviously this does not include beer money! I wrote to various sources for bursaries; BACPAR, ISPO UK, the CSP (Chartered Society of Physiotherapy) and a number of prosthetic companies. My own employer, Pace Rehabilitation, offered a contribution, but I did not expect them to pay for it all. The International Lecture Fund at the CSP required a rather extensive submission; addressing how my attendance would be of benefit to my personal and professional development, of benefit to my professional career, how it would promote physiotherapy practice, what was the value of this particular conference, and how my new knowledge would be further disseminated. However you don't have to present to go to congress. There are travel bursaries available for education if you know where to look; universities, NHS Trusts, professional bodies and independent support groups such as The Vascular Society, 'a registered charity founded to relieve sickness and to preserve, promote & protect the health of the public by advancing excellence & innovation in vascular health, through education, audit & research'. Also <http://www.educationforhealth.org/pages/funding-sponsorship.html> for example.

Why ISPO 13th World Congress?

So why did I want to go to ISPO 13th World Congress? This year ISPO held a joint meeting with ORTHOPADIE + REHA-TECHNIK, bringing together the largest international forum of Prosthetics, Orthotics and Orthopaedic Technology. Attendees were promised a comprehensive scientific programme with an exhibition and trade fair. ISPO is a MDT organisation with over 3000 members in almost 50

countries. Attending a multi-professional conference provides the opportunity to mix with other disciplines, reflecting the MDT nature of prosthetic rehabilitation. This is even more important to me since I left the NHS to work in independent prosthetic practice. Being alongside global leaders in my specialist field will be enriching and inspiring I thought. I was not disappointed. I met people from Japan, South Africa, Israel, Sweden, Netherlands, Canada and the USA to name a few. These were people whose names I recognised from publications. I met people in clinical practice, from research and education institutes and from voluntary organisations like The Cambodia Trust. Networking like this opens doors and opportunities: research projects and travel to name but two.

What would I learn?

Hopefully attending any conference extends my understanding of new innovations, service trends and outcomes. It is important when working in private practice to be able to promote recent and wide spread experience. A number of my patients are from overseas and attendance at a World Congress gives me better insight into their particular needs and cultures. I attended a few lectures given by the developing countries which were interesting and truly eye opening. In the UK, we don't know how lucky we are with our cash strapped NHS!

My current workload consists of patients with acquired amputation through trauma and war injury, similar to other countries' amputee populations who are victims of war, trauma and natural disasters. These people are a small number in the UK. Younger users with multiple injuries have prolonged need for prosthetic rehabilitation services, designed to meet their psychological, recreational and occupational needs. By travelling to international facilities for learning and teaching purposes, I hoped to gain the relevant clinical skills necessary in order to offer my patients' best evidence based practice. Surely this is what every clinician strives for. The World Congress had 5 concurrent sessions throughout the day, covering a wide spread of topics. They are plenty of speakers addressing our more normal amputee population issues such as the diabetic foot, psychology and phantom management.

My presentation

I was hoping that my lecture would give me the chance to show that physiotherapists have a role to play in the promotion of fitness, exercise and healthy lifestyles. In busy clinics patients are often discharged too early from rehabilitation. By providing a level of fitness, exercise skills and confidence, we are investing in patients' long term health and participation in mainstream exercise with our colleagues in the fitness industry, really pertinent to prosthetic limb wearers. My presentation demonstrated the types of fitness exercises included in a typical treatment programme. The advantages of exercise are well documented; enhanced neuromuscular body control, weight control, confidence, mood and self esteem, prevention of secondary musculo skeletal dysfunctions related to limb loss, promoting a healthier lifestyle and a reduction in falls. Prosthetic users benefit from improved walking aiding a return to work, mainstream recreation and social integration.

We were scheduled for 8am the morning after the Congress Dinner!! Always a bad slot I thought. Indeed at 7.57am we had no audience at all and considered a run through just for ourselves. However within a blink of a bleary eye the auditorium filled up and we had about 200 people. If you have ever heard Bob or Peter speak then you would know that their charismatic style and extensive knowledge would be enough to drag anyone out of bed! It was with trepidation that I approached the podium between these congress veterans. Luckily Sarah's relaxed and chirpy face gave me confidence. My talk went ok. I know it could have been better referenced and I own up to being distracted by my preparations for the London Marathon (which I thoroughly enjoyed I might add!). My talk had practical application which was rewarded by questions and interest from the physiotherapists in the audience. I have been asked to

repeat it in November this year at the BACPAR conference.

What did I learn?

On returning from Leipzig I dictated my notes. Swotty I know but having just been through the HPC audit process I thought this would be good evidence for next time!! Full abstracts from all presentations can be found on <http://www.ispoint.org/>. For now, here are some excerpts from my own conference notes:

Epidemiology of Phantom Pain and Phantom Sensations in Germany

- 74.5% experience PLP.
- 51% experience phantom limb attacks.
- 73.4% experience PLS.
- 49.7% experience phantom movement i.e. they can move it.
- 24.2% experience telescoping, which is related to a reduction in phantom feelings.

Those who do not meld with the prosthesis get the greatest phantom limb pain. There is no correlation between phantom limb pain and phantom limb sensation. Phantom limb pain is associated with sweating. This can be treated with Botox. Phantom limb sensation tends to be distal. 35.9% feel phantom sensation is naked, perhaps this is the final state of the limb before surgery, we can influence this pre-surgery sensation.

Therapeutic Options

Very few published papers in phantom pain compared to low back pain. Opioids and antiepileptic drugs are the best treatment but only good in 60% of patients. Only 50% of patients report any success in drug treatment. 50% of people have pain the same or worse after a neuroma is removed.

Mirror therapy relates to cortical reorganisation, cells being overtaken, the mirror creates a sensation for the brain to perceive. Trigger point therapy relates to injecting botulinum into the trigger points, very little literature with this but it appears to be helpful for some. Reference: Une Kern Burnd, Atkeye and Matthis, Hall.

Residual Limb Pain

There is incidence of residual limb pain in 50-60% of people in the first week post amputation. Between 10% and 70% feel stump pain in following weeks and years after amputation and this can recur and it can be persistent. Most stump pain occurs two to five times a week. Most report a discomfort. The reasons for residual limb pain can be poor prosthetic fit, non-acceptance, neuroma, CRPS, infection, reduced circulation, ulceration, radiculopathy, gait deviations, muscle tension, myofascial pain, prominent sharp distal bone edge, bony development in fibular requiring surgical revision, osteomyelitis, neuroma (this may return after surgery), bursitis.

Pain management should be before surgery. Perioperative pain should be dealt with using regional anaesthesia, opioids, gabapentin and globuloid. Early psychological pain before surgery should be addressed. Neuropathic pain drugs can be addictive if parasympathetic pain can have sympathetic spinal block.

Gait Training for Össur Rheo Users

Users of the Rheo prosthesis were observed with respect to step length, step width, knee and pelvic movement, arm swing and stair descent. They need gait training during prosthetic fitting of approximately a half to one hour. They need long-term review to see if they are maintaining use. Six hours of training are built into the cost of private provision. A question was raised as to whether people

would require top-up training and what criteria could prosthetists' use in order to indicate when to refer to physiotherapy?

Bilateral Transfemoral Outcome

Recommend that bilateral transfemoral amputees start on short stubbies or pylons, they need to learn how to fall and get up. They can descend a ramp backwards to stop simple free knees from jack-knifing. Raise their height gradually, aiming for microprocessor knees for ramps and stairs. Climb the stairs through active knee extension using hip muscles. We saw a video of a bilateral C-leg wearer driving a manual car!!

Gait Analysis Systems: RehaWatch

This consists of inertial sensor technology, there are two sensors, one in each foot and three accelerometers and three gyroscopes, all of which measure six degrees of freedom. The variables measured are phases of gait including symmetry, velocity and step length. In total, 20 variables. This leads to objective evaluation of therapy progress and success. It can be used on the floor or on the treadmill with a walking distance of 10-20 metres at a comfortable walking speed with or without a walking aid. You need reference values of what is normal based on age, height and velocity; normal benchline being 50 years old, 1.7 metres high, walking at a speed of 1.4 miles per second.

Biomimetics

Biomimetics is the interface between physics and biology. It is the implementation of good design from Mother Nature. Creativity is what we do not know we know! Think of the function, not the context and then we can use lateral thinking processors. Biology and engineering; for example observing a woodpecker and creating a powered hammer. TRIZ is a problem-solving technique whereby you define opposites to solve a problem. In TRIZ there are 40 ways to solve a problem. There are similarities of technology and biology in the terms substance, structure, space, time, information and energy. Find solutions by thinking of the function. Biomimicry is a tool for innovation and can be applied in prosthetics and orthotic design.

Bebionics Workshop (RSL Steepers)

The benefits to the new hand are: instant grip changes through contraction, autogrip feature on a slipping item, software to optimise potential, wireless programming and fixed control strategies. The software is called BeBalance™ with set functions and thresholds to initiate. See promotional website video <http://www.youtube.com/watch?v=ICpnqf8kN6s>

Amputation of the Upper Extremity and Healing of the Residual Limb

Keep the upper limb stump as long as possible without pain. Need to preserve the epiphyseal growth plates, especially through the wrist and shoulder. All hand movements are accompanied by pronation and supination. Tumours - 10% result in amputation, occurs rarely in the upper limb - occurs in the humerus more than the forearm and hand. Tumours mainly affect the lower limb bone. Amputation is indicated if infiltration of the nerve, blood vessels, soft tissue, bone, haematoma, failed previous surgery. Consider age and the individual et cetera. Consider curative versus palliative care. The forequarter amputation is the most common upper limb amputation for cancer. 60% survival rate at 28 months. The Krukenberg procedure involves splitting the forearm to become a pincer. The Krukenberg pincer surgery has only been performed three times since 1996. Krukenberg amputation one year after primary amputation, needs OT input to make it work. Good if bilateral.

The Exhibition

Attending just to see the exhibition itself would have been worthwhile. Items of interest to me were:

- Blatchford Endolite Orion knee, not unlike the Otto Bock C-leg and Össur Rheo (Adaptive, IP with

yield) - for the US market.

- Otto Bock Helix 3D hip, C-leg compact and Genium (upstairs, no power).
- New version Össur Power Knee - smaller, no other foot insole, two power packs for all-day use, cheaper.
- RSL Steeper BeBionic hand.

Poster presentations

- Leg length discrepancy leads to medial compartment osteoarthritis of the remaining knee due to the adduction moment.
- Berg scale and the 6-minute walk test valid for amputee rehabilitation outcome.
- Temporomandibular joint problems in leg length discrepancy.
- Shock absorbing pylons for running.

Global Community of Practice for Rehabilitation

Global Community of Practice for Rehabilitation contributes to international discussions on Community Based Rehabilitation. Five complete webcasts from the recent 13th World Congress of ISPO are now available through the GCoPR website. You will need to follow the joining instructions as issued on the 7th May (through announcements) in order to view the webcasts. Once connected follow the link to EventsCasts. Please note that an additional webcast on "Education" has been added in but still requires the powerpoint slides to be uploaded to the site. (Reference - Susie Shaw)

What next?

On returning from ISPO, I identified the following action points:

- Produce a guide for prosthetists on when to refer back to physiotherapy.
- Create a Bacpar poster rather than the taking the stand abroad.
- To write my clinical notes more factually so that they can be more easily analysed for audit purpose.
- Investigate the role of physiotherapy in orthotics as a possible poster for India.

In summary

I had an email following the Congress from the Team ORTHOPÄDIE + REHA-TECHNIK which sums up the event really well "The 13th ISPO World Congress and the ORTHOPÄDIE + REHA-TECHNIK 2010 in Leipzig was an overwhelming success with exhibitors, participants and visitors alike. A total of 21,200 visitors from 108 countries used this major industry gathering to keep abreast of the latest developments, receive training and swap information. 630 lectures given by speakers from 55 countries were attended by approximately 2,600 visitors, making this the most successful ISPO World Congress yet."

How could you not want to go to Hyderabad, India, in February 2013? Watch <http://www.ispoint.org/> for details.

**Carolyn Hiron, ISPO UK bursary winner
With thanks also to BACPAR, Össur and Pace Rehabilitation**

Your invitation to participate at TIPS 2012



... now firmly established as the premier event dedicated to the management of upper extremity amputees and limb deficient children ...

FIRST ANNOUNCEMENT

21st to 23rd May 2012

**Burleigh Court Conference Centre
Loughborough, UK**

*... a must-attend event for all professionals involved with
upper limb prosthetics ...*

see and hear the latest research and developments

a unique opportunity to meet with other upper limb specialists

exhibition dedicated to upper limb prosthetics – see the latest products

clinical papers scientific papers instructional sessions manufacturers' workshops

fun and lively social programme



For further information or to register an interest in exhibiting or presenting at TIPS 2012, contact:
Irene Cameron, ISPO UK NMS Secretariat, PO Box 2781, Glasgow, G61 3YL
T/F: ++44 (0) 141 560 4092 E-mail: info@ispo.org.uk Website: www.info.org.uk

The Organising Committee, in conjunction with ISPO UK NMS, cordially invites you to participate at TIPS 2012 – **the premier international event** dedicated to the management of upper extremity amputees and limb deficient children.

TIPS 2012 will again be held at the very successful venue - **Burleigh Court Residential Conference Centre** conveniently located in the heart of the Trent area, in the grounds of Loughborough University, within easy access of both national rail networks and motorways as well as local and international airports.

With high specification meeting rooms, versatile exhibition space, luxury en-suite bedrooms, therapy, spa and leisure complex and award-winning cuisine, this superb venue undoubtedly complements the high quality conference and exhibition for which the **Trent International Prosthetic Symposium** is renowned. Full details, including a virtual tour of this unique residential conference centre, can be found at www.welcometoimago.com.

The symposium will follow its traditional format – a mix of guest lectures, invited speakers, free papers, exhibition and manufacturers' workshops – but with some additional features including opportunities for participants to submit short clinical papers developing solutions to challenges encountered in everyday practice; instructional workshops. Together with a lively evening social programme, TIPS 2012 endeavors to provide a multi-disciplinary forum and a wide range of opportunities for delegates to engage with rehabilitation professionals from across the globe.

To register an interest e-mail: info@ispo.org.uk

For regular updates visit www.ispo.org.uk



Letters to the Editor

Dear Sir

Re: ISPO Newcastle conference held 14th and 15th January 2010, launching the ISPO publication: Recent Developments in Healthcare for Cerebral Palsy: Implications and Opportunities for Orthotics.

I was very pleased to attend the above conference which I enjoyed and appreciated immensely. My thanks go to all involved in this impressive piece of work. However I have some concerns regarding how Bobath Therapy is reflected.

Evidence for all types of intervention was presented, including therapies. This highlighted that for the majority of therapy interventions there is little evidence. Views presented were unbiased and objective. The document published is consistent with this approach. In the body of the document and at the conference it was clear that the evidence around Bobath Therapy neither proves nor disproves its effectiveness, however in the conclusions and recommendations of the document Bobath Therapy is listed as "Classic Bobath Therapy" and placed in the section of "interventions not recommended". To reflect the evidence presented in the body of the document and at the conference, Bobath Therapy should be listed in the section where there is "uncertainty around effectiveness and further evaluation is required".

It is vital that the findings in the publication are reflected accurately in its conclusions and recommendations as many readers rely on this section to guide their thinking.

Yours Sincerely

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Members may be interested in commenting on the following communication from NICE

Dear Colleagues

I am writing to let you know that the National Institute for Health and Clinical Excellence (NICE) has opened its public consultation on the proposed process and methods guides for its new Evaluation Pathway Programme for Medical Technologies. The public consultation closes at 5 pm on 10 September 2010. We would like to receive comments on the documents from anyone who has an interest in or who is affected by the Programme. The documents are available here: <http://www.nice.org.uk/medtechconsultation>

The Evaluation Pathway Programme carries out two principal activities:

- ☐ Selection of medical technologies for evaluation by NICE programmes
- ☐ Development of medical technologies guidance.

The responses to the consultation will be considered by NICE's Board and, subject to Board approval, the Programme's final process and methods guides is expected to be published early in 2011.

Please feel free to forward this email to anyone who you think may be interested in this consultation. Please contact mangala.murali@nice.org.uk if you have any questions about the consultation. We look forward to hearing from you.

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