INSTRUCTIONAL WORKSHOPS

Instructional Workshop 1:
Building blocks for a prosthetic training programme – Kristin Gulick, OTR/L, CHT
While every rehabilitation program needs to be client centered, it is helpful to have a basic treatment approach that can be modified to fit the individual client. Education about prosthetic training that most US occupational therapists receive in school is very limited and thus a therapist who prepares to provide treatment for a client with upper limb loss can feel less than prepared. This workshop will describe an approach to prosthetic training based on rehabilitation stages beginning with acute injury management progressing through pre-prosthetic>basic prosthetic>advanced prosthetic>community reintegration. Basic anatomy will be reviewed and terminology will be defined. Examples of patient cases using a variety of current technology will be shared. The information offered in this workshop will provide an example of an approach to the rehabilitation of a client with upper limb loss while also demonstrating how to tailor a program to address individual client needs and desires. Resources will be shared for future reference.

Instructional Workshop 2:
Silicone – innovative solutions in upper extremity prosthetics
Custom made silicone prostheses under the use of CAD systems – Jiri Rosicky, ING Corporation, Czech Republic
New possibilities in the treatment of children with myoelectric below-elbow prostheses - Bob Watts, Dorset Orthopaedic, UK
Silicoe socket design in upper extremity prosthetics (finger to shoulder) - Michael Schaefer, Pohlig GmbH, Germany

Instructional Workshop 3:
Alternative Harnessing Techniques – Michael Fillauer, CPO, USA, The Fillauer Companies Inc.
This workshop will first review the biiomechanical work sources for body power control with respect to power and excursion. Current harnessing techniques will be illustrated and evaluated based on patient acceptance, suspension and functionality. Alternative harnesses will also be discussed to address individual patient requirements and functional goals. Unique characteristics will be shared with the intent of increasing harnessing options.
The Anchor for UE Use – Debra Latour, M.Ed OTR/L, Shriners Hospitals for Children, USA
Traditionally, a body-powered prosthesis is activated by a figure-of-eight or nine harness system using the contralateral shoulder as the power source. Many users of this system complain of discomfort from the harness rubbing on the skin, especially in the axilla region. The "Anchor" system eliminates the need for a harness and the benefits of the system include increased comfort, improved cosmesis and decreased impingement at the axilla.

Instructional Workshop 4:
John Miguelez, CP, FAAOP, Advanced Arm Dynamics, USA
The Evolution of Upper Limb Prosthetic Design Socket
Well thought out interface designs and careful consideration of residual limb presentation set the stage for patient success –maximizing range of motion, providing stability throughout daily activities and comfortably distributing the forces exerted on the residual limb during movement as well as suspension. In contrast, poor interface design will often drive people to abandon the prosthesis since many patients have an intact arm or hand. The foundation for all prosthetic procedures is a well designed and considerate prosthetic interface. This workshop will shed light on the many variables behind the evolution of upper limb interface design. Review of historical literature reveals two distinct and major influences – material science and the emerging upper limb prosthetic specialist.

Management of the Bilateral Upper Limb Deficient Individual
The patient population that requires bilateral upper extremity electrically-powered prosthetic intervention is limited, as are the practitioners who have sufficient experience to meet the patients' myriad of goals. Maximizing a patient's rehabilitation potential involves several critical success factors. Formation of a rehabilitation plan via a team approach ensures that all aspects of care are addressed simultaneously and is essential to a positive result which includes significant improvement in function and long-term prosthetic use. Essential in the formation and execution of successful prosthetic rehabilitation is the knowledge of design theory. Design theory takes into consideration volume containment, suspension, comfort, range of motion, component considerations, stabilization, anatomical contouring, and cosmesis. This knowledge allows the team to select the appropriate interface design, componentry, and control schemes that best suit the patient's level of amputation, skin, tissue, musculature condition, range of motion, learning ability and desire, and vocational and avocational goals. While knowledge of design theory in itself does not guarantee successful prosthetic rehabilitation, a lack of knowledge can often overshadow the contributions of the rehabilitation team. This workshop will detail a protocol to address the critical factors that should be considered when bilateral upper extremity electrically-powered prostheses are prescribed.