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Teamwork: Improving Upper Extremity Prosthetic Outcomes

Teamwork, which is based off of close communication between the prosthetist and therapist is key to ensuring a successful outcome. Success is different for every patient, but if the patient can incorporate the prosthesis into their daily life and it leads to a perceived improvement in their quality of life then it can be considered a success!

OttoBock's staff Occupational Therapists recommend that a therapist be called during the following stages of an upper extremity prosthesis fitting:

Before a prosthetist casts a patient for their prosthesis

This will allow the therapist to prepare the residual limb to tolerate a prosthesis or prostheses. The therapist will work on the following:

- Residual limb shaping and edema control
- Range of Motion (ROM)
- Desensitization
- Scar Tissue Management
- Muscle Re-education with Biofeedback
(Help Select and Train Muscle Sites for Myoelectrics)
- Phantom Pain/Phantom Sensation
- Address Psychosocial Issues
- Strengthening
- Independence Training

During interim socket fitting

This will allow the prosthetist and therapist to work out any problem areas, whether it is with patient training or fit of the socket before it is finalized. The therapist will work on the following in all planes of the body.

- Controls Training. This includes learning how to open and close the prosthesis, rotate the wrist and flex/extend the elbow.
- Repetitive Drills. This includes transferring simple objects such as pegs, cones, balls to different heights and areas around their body. These drills are non-threatening and allow the patient to develop confidence for future "real life" tasks.
- Functional Skill Training. This includes two-handed functional tasks that the patient would like to be able to do independently.

After delivery of the final prosthesis

This will allow the patient to learn how to incorporate their prosthesis into their daily life. The therapist will work on the following:

- Independent Don/Doff
- Controls Training
- Repetitive Drills
- Functional Skill Training



When transitioning from body-powered to myoelectric

This will allow the patient to learn a new control strategy in a controlled, less frustrating environment. The therapist will work on the suggested items from above interim and final prosthesis topics.

When learning a new myoelectric technology

This will allow the patient who has been using old myoelectric technology to fully grasp and understand the new technology in a controlled environment. Training sessions may be limited in number.

When having difficulty consistently controlling the various components on their prosthesis.

This will allow the patient to fully grasp and understand the technology behind the components on their prosthesis, which will lead to better control. The patient may have demonstrated the ability to “control” the device at the time of delivery in the prosthetists office, but when using it in daily tasks the patient is having difficulty and becoming frustrated.

Otto Bock has two occupational therapists on staff who can help be a resource for your local therapists. Please call 1-800-328-4058 and ask to speak to an OT or visit http://www.ottobockus.com/EDUCATION/ot_staff.asp to learn more about how we can assist in improving your patient’s outcomes.