

Progress Report

Title: Active Ankle/Foot Orthotic (AFO) to Enhance Walking and Balance

Names: Jessica Hause: Co-leader
Erin Main: Co-leader
Emily Andrews: BSAC
Josh White: Communicator
Tony Schuler: BWIG

Date: April 27, 2007 – May 3, 2007

Problem Statement:

Create a device that actively enhances forefoot step-off and increases proprioception to improve balance for people experiencing ankle weakness, foot-drop and the inability to walk and balance safely as a result of various neurological diseases such as Charcot-Marie-Tooth disease, multiple sclerosis and stroke. The device should be non-obtrusive, fit in a shoe, comfortably attach to the leg, and be economical.

Last Week's Goals:

- Attach two pieces of orthotic together
- Cut material to pad then inside of our device
- Cut thermoplastic so that velcro can be attached
- Test the device
- Finish poster and begin working on paper

Summary of Accomplishments:

- Attached two pieces of orthotic together with screws
- Padded the inside of the orthotic with mole skin
- Cut thermoplastic and attached Velcro
- Purchased and attached padded sole in to orthotic
- Tested our device
- Finished poster and began working on paper

This Week's Goals:

- Present orthotic to client and advisors
- Complete final paper
- Complete work in design notebooks
- Fill out self and peer-evaluations

Project Schedule:

Task	Jan	February				March					April				May
Project Research	26	2	9	16	23	2	9	16	23	30	6	13	20	27	4
Research															
Contact Patient															
Contact Client															
Meet with PT															
Brainstorming															
Design															
Develop Prototype															
Website															
Deliverables															
Mid-semester Presentation															
Mid-semester Report															
Final Presentation															
Final Report															
Progress Reports															
Meetings															
Semester Wrap-up															

Difficulties:

This week we had a small amount of difficulty testing our device due to our inability to get a hold of, and use, a gait analysis machine. As a result, we were forced to test our device based off of client feedback and comparison alone. In addition, we found the screws we used to attached the two pieces of our device made our orthotic somewhat uncomfortable. As a result, we padded the inside of our device with moleskin in hopes of reducing the amount of contact these screws had with the wearer's skin.

This Week's Activities:

4/27/2007	Team:	Attached two pieces of orthotic	2 hours
4/27/2007	Josh:	Purchased Velcro and elastic band	1 hour
4/28/2007	Emily & Erin:	Purchased padded insole and attached Velcro, elastic strap, and insole	2 hours
4/29/2007	Team:	Worked on poster	1 hour
4/30/2007	Emily:	Worked on poster	2 hours
5/1/2007	Josh:	Tested device	2 hours
5/2/2007	Team:	Completed poster	2 hours
5/3/2007	Team:	Worked on presentation	1 hour
5/4/2007	Jess:	Progress report	1 hour

Week Total 45 hours

Overall Total Hours:

Individual

Erin:	86 hours
Jess:	82 hours
Josh:	75 hours
Tony:	75 hours
Emily:	81 hours

Team Total 399 hours