MSDII Testing – Wearability Test

Team: P15001: Active Ankle Foot Orthotic
Engineer: Adam Podole - Electrical Engineer and support from entire team

Related System: Use AFO

Testing Plan

This test will encompass many small tests to ensure we have met all of our engineering requirements.

ER3: A worst case scenario test will be done to test the added temperature of wearing the AFO, the skin temperature of the user's leg will be taken then the AFO will be dawned then the user will go through an intensive use scenario (i.e. walking from the commuter lot to the senior design floor) then the users skin temperature will be taken immediately after they reach their destination. This test will be done 3 times with 3 different individuals to calculate the average skin temperature increase from use. In addition notes will be taken about how the orthotic felt to the test subjects.

ER13: The time it take to dawn and remove the orthotic will be timed for 10 iterations for at least but not limited to, 3 individuals, in order to determine the average time it takes to dawn and remove the orthotic.

ER14 and ER15: The component of the orthotic on the leg will be weighed and recorded. The weight of the components in and including the backpack will be measured for both a full and empty tank.

ER16: The range of motion of a users knee without the orthotic will be measured and compared to the range of motion the users knee has when the orthotic is dawned. This test will be done three times with at least three different individuals.

ER19: The foot of a users foot without the orthotic will be measured with and without the orthotic, the difference is the added width. The width of the cloth will also be measured and lastly users will wear 3 different types of shoes and notes of their comfort will be taken. this test will be repeated for at least 3 individuals.

Start Date: 30-Mar-2015

End Date: 3-Apr-2015

Budget

Equipment	Price	Quantity
Total:		