Effect of prosthetic socket surface area on comfort and ability to bear weight in persons with above-knee amputation

A study is being conducted to evaluate the effect of prosthetic socket surface area on the ability to bear weight through the socket and socket comfort in persons with an above-the-knee amputation.

The research will be led by investigators at the Northwestern University Prosthetic-Orthotic Center but all study visits will take place at Scheck & Siress in Schaumburg IL.

During the study, participants will be cast and fit with a check socket with removable plastic panels. Testing will involve placing as much weight onto the residual limb as you can tolerate in each of three socket conditions: one that provides total contact with your residual limb and two that have less surface area in contact with your residual limb and varying degrees of compression. While you place weight on each socket we will measure the weight with a digital scale and ask you to rate socket comfort. You will repeat the rating of socket comfort before and after a 6 minute walk test.

The study involves 5 study visits each lasting approximately 1 hour and spread over 3-4 weeks.

Please contact Dr. Stefania Fatone (312) 503-5717 or s-fatone@northwestern.edu in the Department of Physical Medicine and Rehabilitation if you are interested in learning more about the study or potentially participating.

Participants must meet the following criteria:
- be 18 to 80 years of age
- have a single above-the-knee amputation
- have a residual limb longer than 5 inches in femur length
- have a residual limb free of wounds or sores
- regularly use a lower limb prosthesis
- be able to speak and read English

Subjects will be screened to confirm eligibility.

Participants will receive compensation for taking part in this study.

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