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Document Type:
Statistical Analysis Plan (SAP)

Official study title:
Computational Design, Fabrication, and Evaluation of Optimized Patient-Specific Transtibial Prosthetic Sockets

NCT number:
not yet assigned

Document Date:
02/15/2018

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Sponsor:

NIH

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Statistical analysis plan

Statistical analysis of the socket clinical evaluation data will focus on the following measurements:
1. local skin contact pressures
2. metabolic power
3. gait parameters (symmetry indices for joint angles, positions, torques, and ground reaction forces)
4. the socket evaluation questionnaire

For scalar comparisons a paired t-test, with the level of significance set at 0.05, will be used to test for differences between the novel and conventional sockets. For time-series analysis of variance (ANOVA) will be used.