

DEVELOPMENT OF THE PROSTHETIC SOCK MANAGEMENT TOOL

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INTRODUCTION

Prosthetic socks are used by persons with amputations to accommodate volume changes of their residual limb^{1,2}. By donning (putting on) and doffing (removing) socks of various thicknesses (ply), fit and comfort can be adjusted during the course of a day, and over time. Prosthetic socks are integral to the comfort a patient experiences with their prosthesis³.

Amputation Team Clinicians at the Minneapolis VA Health Care System (physiatrists, prosthetists, occupational and physical therapists) expressed that there is a need for better education regarding sock management at the time of post-amputation prosthesis training, before the person goes home with their new prosthetic limb. Persons with amputations have said that they would like a tool to help them understand what to do with socks once they get home and create new routines following the amputation surgery.

METHODS

Following multiple meetings with stakeholders including patients, therapists, prosthetists, and physiatrists, the initial version of the Prosthetic Sock Management Tool (PSMT) was evaluated and the next version was developed.

The PSMT is a system that has two components:

- 1) A multi-section, washable, zippered pouch to organize and transport prosthetic socks
- 2) An accompanying information guide for the use of prosthetic socks

RESULTS



Figure 1. PSMT Prototypes

A current version of the PSMT is ready for pilot testing.

It includes:

- Color coded pouches
- Numbered zipper pulls
- Instructional material
- Easy to use and carry

A pilot study to test the feasibility of the PSMT system is funded and will be conducted at the Minneapolis VA Health Care System in Summer 2019. Five Veteran participants with new amputations will use the PSMT during their post-amputation rehabilitation and provide further feedback.

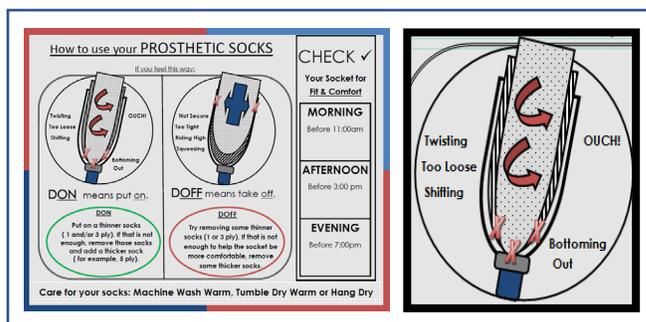


Figure 2. The PSMT infographic (L) and excerpt (R)

CONCLUSION

The Prosthetic Sock Management Tool (PSMT) tool is designed to bring value to clinicians who perform prosthetic sock training, as well as to the patients with amputations who must properly utilize their socks to manage the fit and comfort of their prosthetic socket.

SIGNIFICANCE

The PSMT was developed in response to clinician and prosthesis user input and meets an unmet need for an easy to use, simple to understand system for instruction for the management of prosthetic socks in the post-amputation, early prosthesis-use phase.

REFERENCES

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2. Cagle JC, et al. Prost Orthot Int; 38, 405-412, 2014
3. Uellendahl, J; Amputee Coalition of America in partnership with the US Army Amputee Patient Care Program

DISCLOSURE

Ms. Slater is the inventor of the PSMT.
The authors have no conflict of interest to report.
The PSMT is Patent Pending No.62/689.575.

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