



Orthotics and Prosthetics Outcomes Research Program

The number of Service members and Veterans who need orthotics and prosthetics is significantly large. While the wearers of all types of orthotics in the military population are not tracked, their number is estimated to be quite high. As for prosthetics, there have been 1,723 amputee patients treated in Military Treatment Facilities from recent conflicts. According to the Congressional Research Service, 1,645 Service members experienced combat-related major limb amputations between 2001 and 2015¹. In addition, approximately 40,000 military veterans with limb loss resulting from their service, accident, peripheral vascular disease, or diabetes are served by the Veterans Administration Prosthetics and Sensory Aids Services².

VISION

The highest possible quality of life for our injured Warfighters through the advancement of knowledge in orthotics and prosthetics related research

MISSION

Advance orthotic and prosthetic research to optimize evidence-based care and clinical outcomes for military-related neuromusculoskeletal injury

PROGRAM HISTORY

The Department of Defense (DoD) Orthotics and Prosthetics Outcomes Research Program (OPORP) was established by Congress in fiscal year 2014 (FY14) to enhance the lives of Service members, Veterans, and others recovering from traumatic neuromusculoskeletal injury by means of improving the outcomes of orthotic and prosthetic device implementation. This includes improving the ability to carry out daily activities, enhancing work productivity, and increasing the possibility of returning to duty. Since the OPORP's inception, it has received Congressional appropriations of \$10 million (M) each year to facilitate research that ultimately will advance orthotic and prosthetic device prescription, treatment, rehabilitation, and secondary health effect prevention for patients, clinicians, caregivers, and policymakers.

RESEARCH PORTFOLIO

The OPORP received \$10M in FY18 and has released two Program Announcements, one for the Clinical Research Award and one for the Clinical Trial Award.

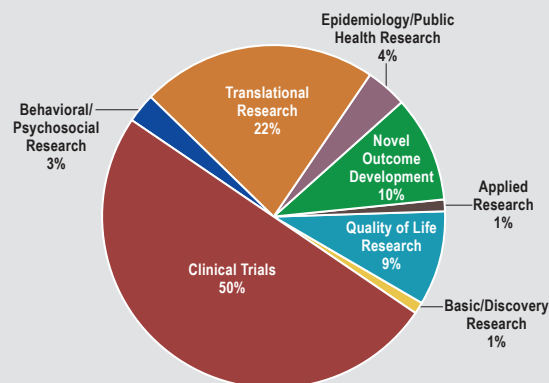
The OPORP Programmatic Panel identified three Focus Areas to address the critical needs of the Orthotics and Prosthetics Outcomes research community:

- Device Form
- Device Fit
- Device Function

STRATEGIC GOALS

The OPORP Programmatic Panel also identified the following three overarching strategic goals to guide its efforts over the next 3-5 years:

- Optimize patient-specific technology prescription for the Warfighter
- Optimize patient-specific rehabilitation regimens for the Warfighter
- Support standardized assessment of patient outcomes related to prosthetics and orthotics



OPORP Investments FY14-FY17
\$36,882,240 in 38 Awards

1. Fischer H. 2015. A Guide to U.S. Military Casualty Statistics: Operation Freedom's Sentinel, Operation Inherent Resolve, Operation New Dawn, Operation Iraqi Freedom, and Operation Enduring Freedom. *Congressional Research Service* 7-5700. RS22452.

2. Blough DK, Hubbard S, McFarland LV, et al. 2010. Prosthetic cost projections for service members with major limb loss from Vietnam and OIF/OEF. *J Rehabil Res Dev* 47(4):387-402.

OPORP RESEARCH HIGHLIGHTS

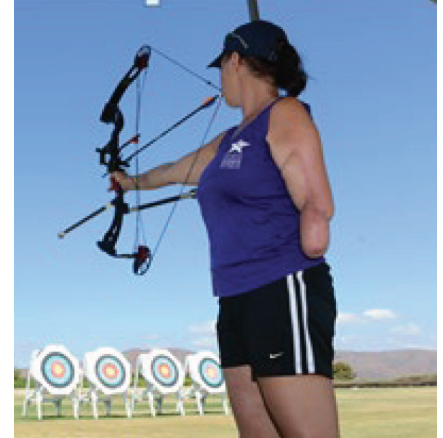


THE UNIQUE NEEDS OF WOMEN WITH AMPUTATION

Principal Investigator, Dr. Roxanne Disla, O.T.D., OTR/L, VA New York Harbor Health Care System / Narrows Institute for Biomedical Research, New York, NY

Thirty-five percent of the current population living with limb loss is female, yet male structure and biomechanics are the base for the vast majority of prosthetic devices. As a result, females with limb loss face challenges such as ill-fitting prosthetics, skin issues, and an increased risk of other health problems.

Dr. Disla hopes to determine the unique physical and psychosocial needs of women with amputation with a FY16 Prosthetic Outcomes Research – Funding Level 2 Award. This 3-year national study will enroll both males and females with amputations and comprise a mixture of Service members, Veterans, and civilians. By collaborating with the Department of Veterans Affairs (VA) and DoD, Dr. Disla and her team hope to bridge the knowledge gap so that the needs of the females living with limb loss may be met.



AN INITIATIVE TO ADVANCE CARE FOR INDIVIDUALS FOLLOWING INJURY OF THE LOWER LIMB

Principal Investigator, Dr. M. Jason Highsmith, D.P.T., Ph.D., CP, FAAOP, University of South Florida, Tampa, FL

During the recent Iraqi and Afghanistan wars, the annual estimate of Service members experiencing limb trauma is 20,000. For non-military persons, the annual average is 30,000. The orthotics market has expanded due to these figures, but the cost of newer braces and the time to fabricate them has increased.

While these devices are newer and/or more advanced, it is unclear whether they improve comfort and function. Dr. Highsmith, recipient of an FY15 OPORP Orthotics Outcome Research – Funding Level 2 Award, wants to determine whether different types of leg/foot braces will improve comfort and function in persons who have sustained lower limb injury. This study will capitalize on the established bracing infrastructure within the VA and Hanger Clinics systems and will use participants from the Veteran and civilian sectors. The conclusions may provide information that can improve conditions for Service members to maintain active status in their military career or reintegrate into society as a Veteran.



MORE INFORMATION:

cdmrp.army.mil/oporp

cdmrp.army.mil/funding/oporp

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