

## Servicemembers and veterans with major traumatic limb loss from Vietnam war and OIF/OEF conflicts: Survey methods, participants, and summary findings

Gayle E. Reiber, PhD, MPH, et al.

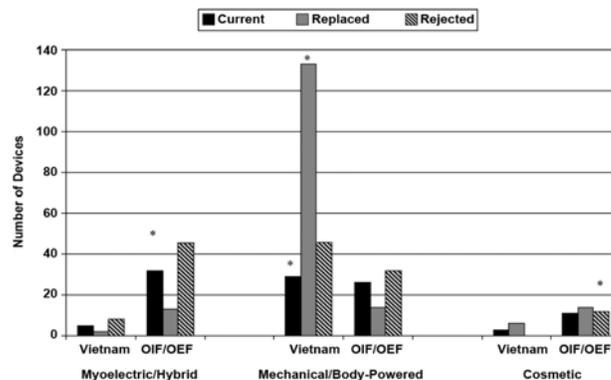
	Vietnam War (n = 298)		OIF/OEF (n = 283)	
	Number	Percent	Number	Percent
	193	64.8	75	26.5
	69	23.1	114	40.3
	36	12.1	94	33.2

Our *Survey for Prosthetic Use* had a 62 percent response rate from Vietnam war veterans and Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF) servicemembers who sustained major traumatic limb loss. Participants reported their combat injuries; health status; quality of life; and prosthetic device function, use, rejection, and satisfaction. Despite their serious injuries, a majority of Vietnam war and OIF/OEF participants rated their health status as excellent, very good, or good. Their persisting health issues include phantom pain, chronic back pain, residual-limb pain, prosthesis-related skin problems, hearing loss, traumatic brain injury, depression, and post-traumatic stress disorder. Strengths and issues in prosthetic rehabilitation are identified.

## Unilateral upper-limb loss: Satisfaction and prosthetic-device use in veterans and servicemembers from Vietnam and OIF/OEF conflicts

Lynne V. McFarland, PhD, et al.

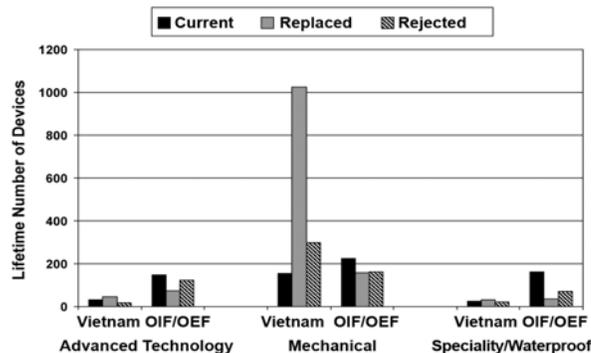
Prosthetic-device use is described in two groups with combat-associated unilateral upper-limb loss. Of those in the Vietnam conflict group, who have more experience with prosthetic devices, 70 percent are still using upper-limb prostheses, even 38 years since their amputation. In the Operation Iraqi Freedom/Operation Enduring Freedom conflict group, 77 percent are using upper-limb prostheses; however, they use three times as many upper-limb prosthetic devices as the Vietnam group and they use more technologically advanced devices. Reasons why



prosthetic devices have been abandoned are explored, and recommendations to improve the care of all veterans and servicemembers with upper-limb loss are presented.

## Unilateral lower-limb loss: Prosthetic device use and functional outcomes in servicemembers from Vietnam war and OIF/OEF conflicts

Robert Gailey, PhD, PT, et al.



This article describes prosthetic-device use by veterans and servicemembers with combat-associated unilateral lower-limb loss from the Vietnam war and Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF) conflicts. In the Vietnam group, which has more experience with prosthetic devices, 84% are still using lower-limb prostheses, even 38 years after their amputations. In the OIF/OEF group, 94% are using lower-limb prostheses; they are using more devices and more technologically advanced devices than the Vietnam group. Reasons for prosthetic-device abandonment are explored, and recommendations are given for improving the care of all veterans and servicemembers with lower-limb loss.

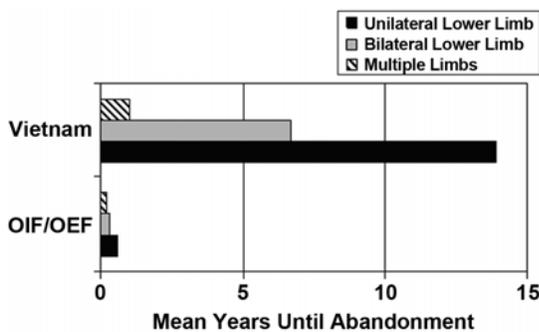
### Multiple traumatic limb loss: A comparison of Vietnam veterans to OIF/OEF servicemembers

Paul J. Dougherty, MD, et al.

We compared changes in health status, prosthetic-device use, and long-term prognosis in two groups of veterans and servicemembers with combat-associated multiple limb loss from Vietnam and Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF), using results from a national survey during 2007 and 2008. More of the OIF/OEF group performed high-impact aerobic activities and used more diverse types of prosthetic devices than the Vietnam group. The long-term prognosis for these OIF/OEF servicemembers based on the 39-year experience of the Vietnam veterans is for an active, fulfilling life. The healthcare team should pay attention to proper prostheses fit and maintenance of good health and function.

### Wheeled mobility: Factors influencing mobility and assistive technology in veterans and servicemembers with major traumatic limb loss from Vietnam war and OIF/OEF conflicts

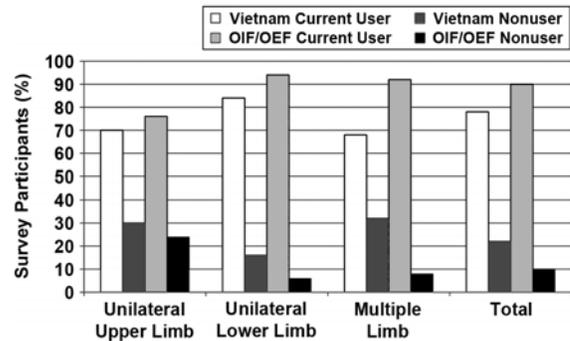
Justin Z. Laferrier, MSPT, OCS, SCS, CSCS, ATP, et al.



We describe the use of mobility assistive technologies (prosthetic devices, wheelchairs, assistive devices) for veterans and servicemembers with major combat-associated lower-limb loss from the Vietnam and Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF) conflicts. Exclusive wheelchair use is more common in Vietnam (18%) than OIF/OEF (4%) cohorts, but supplementary wheelchair use (with prosthetic devices) is more common in OIF/OEF (53%) than Vietnam (32%) group. Other types of assistive devices (canes, crutches, or walkers) are also used (Vietnam 23%, OIF/OEF 30%). Early training and continued support services for assistive devices should not be neglected in the global rehabilitation planning for those persons with lower-limb loss.

### Comparison of satisfaction with current prosthetic care in veterans and servicemembers from Vietnam and OIF/OEF conflicts with major traumatic limb loss

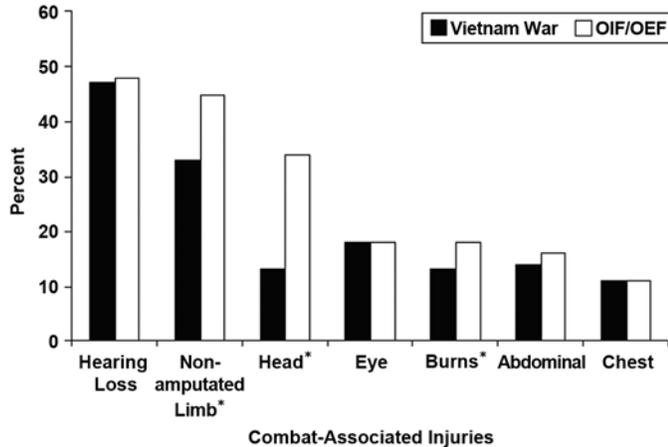
Gary M. Berke, MS, CP, FAAOP, et al.



Veterans and servicemembers from Vietnam and Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF) conflicts with major traumatic limb loss were surveyed about their satisfaction with current prosthetic devices and prosthetic services. Reports of pain, sweating, skin irritation, and problems with socket fit continue to be significant issues for survey participants. In those with upper-limb loss using myoelectric prostheses, minimal impact was found on prosthetic use and prosthesis satisfaction. Among lower-limb loss participants from both conflicts, notable differences exist in prosthetic satisfaction when comparing source of care. Prosthetic technology, surgical changes, and changes in rehabilitation procedures appear to have had little effect on the overall prosthetic satisfaction across those with unilateral upper-limb and multiple-limb loss in the Vietnam and OIF/OEF conflicts. Areas of significant concern continue to be socket fit, pain, skin problems, sweating, and nuisances. There are also important differences in the overall satisfaction between sources of prosthetic care, but these differences are more profound when compared across conflict than between sources within the same conflict group. Differences in prosthetic satisfaction between sources of care suggest a need for continued practitioner education and system evaluation.

### Quality of life for veterans and servicemembers with major traumatic limb loss from Vietnam and OIF/OEF conflicts

Richard A. Epstein, PhD, et al.



Quality of life (QOL) is a valuable indicator of well-being. We surveyed overall QOL in veterans and servicemembers wounded in the Vietnam war and Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF) conflicts. Vietnam war participants with higher QOL were satisfied with their current prostheses, had less depression, and felt their limb loss has less affect on their current life. OIF/OEF participants with higher QOL reported fewer combat injuries, fewer injuries to their nonamputated limb, and less need for assistance with daily activities. These results may help guide interventions to increase overall QOL after major limb loss.

### Prosthetic cost projections for servicemembers with major limb loss from Vietnam and OIF/OEF

David K. Blough, PhD, et al.

This study projects 5-, 10-, 20-year, and lifetime costs of prosthetic and assistive devices for Vietnam veterans with limb loss and injured servicemembers with limb loss returning from Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF). These costs were projected from the current use of these devices by veterans and servicemembers in a national survey. Average projected costs for the Vietnam group were found to be lower than for the OIF/OEF group. These costs provide the Department of Veterans Affairs with an estimate of the funding needed to maintain a high standard of prosthetic care for these veterans.

### Department of Veterans Affairs compensation and medical care benefits accorded to veterans with major limb loss

Charles Maynard, PhD, et al.

This article focuses on compensation and medical care, two very important benefits available to veterans with service-connected disabilities, including major limb loss. The current conflicts in Iraq and Afghanistan, as well as past ones in Vietnam and the Persian Gulf, have placed severe pressures on the Veterans Health Administration (VHA) and Veterans Benefits Administration (VBA) to provide timely medical care and benefits for veterans with service-connected disabilities. Both VBA and VHA are working hard to meet this challenge. Finally, it must be recognized that other governmental agencies and organizations are also serving the veteran with major limb loss.