



US DEPARTMENT OF DEFENSE

# BLAST INJURY RESEARCH PROGRAM COORDINATING OFFICE

## Health Outcomes Following Extremity Trauma

### Assessment of Outcome Measures to Evaluate the Performance of Advanced Upper Limb Devices

As upper extremity prosthetic devices continue to advance, it is unclear if traditional outcome measures accurately assess their impact on function and quality of life (QOL). Researchers from the Center for Rehabilitation Sciences Research (CRSR) at the Uniformed Services University of Health the Sciences (USUHS) evaluated currently available assessments of QOL (Box and Blocks Test, Southampton Hand Assessment Procedure, and Assessment of Capacity for Myoelectric Control) in a Vietnam Veteran using an advanced DEKATM prosthetic. Data showed that currently used upper extremity prosthetic assessment tools are inaccurate when assessing the impact that advanced prosthetic systems have on the perceived QOL because the assessments lack qualitative elements and QOL metrics that are important to populations using modern prosthesis. The findings of this research caution against using these assessment tools and suggest that there is a need to develop better tools for assessing QOL.

