



contents

SPECIAL ISSUE ON TREATMENT AND OUTCOMES OF COMMON MUSCULOSKELETAL CONDITIONS AND INJURIES IN MILITARY SERVICE MEMBERS

Special Issue Editors: LTC(P) Philip J. Belmont, Jr., MD, and MAJ(P) Benjamin K. Potter, MD

Editorial 1
LTC(P) Philip J. Belmont, Jr., MD; MAJ(P) Benjamin K. Potter, MD

PRIMARY ARTICLES

Identification of Optimal Control Compartments for Serial Near-Infrared Spectroscopy Assessment of Lower Extremity Compartmental Perfusion 2
CPT Keith Jackson II, MD; Ashley Cole, MPH; MAJ(P) Benjamin K. Potter, MD; Michael Shuler, MD; Tracy Kinsey, MSPH; LTC Brett Freedman, MD

Outcomes Following Cervical Disc Arthroplasty in an Active Duty Military Population 10
CPT Daniel G. Kang, MD; LTC Ronald A. Lehman, Jr., MD; LCDR Robert W. Tracey, MD; CPT John P. Cody, MD; LTC Michael K. Rosner, MD; CPT Adam J. Bevevino, MD

Functional Outcomes of Hip Arthroplasty in Active Duty Military Service Members 16
CPT Anton Y. Jorgensen, MD; CPT Brian R. Waterman, MD; CPT Mark S. Hsiao, MD; LTC(P) Philip J. Belmont, Jr., MD

Achillon Mini-Open Achilles Tendon Repair: Early Outcomes and Return to Duty Results in U.S. Military Service Members 23
MAJ Justin D. Orr, MD; CPT Brendan McCriskin, MD; CPT Jason R. Dutton, DO

Heterotopic Ossification Resection After Open Periarticular Combat-Related Elbow Fractures 30
LT Kevin W. Wilson, MD; CPT Jonathan F. Dickens, MD; LCDR Reed Heckert, MD; LCDR Scott M. Tintle, MD; CDR John J. Keeling, MD; COL Romney C. Andersen, MD; MAJ(P) Benjamin K. Potter, MD

Outcomes of Manipulation Under Anesthesia Versus Surgical Management of Combat-Related Arthrofibrosis of the Knee 36
MAJ Korboi N. Evans, MD, MS; LT Louis Lewandowski, MD; CPT Adam Pickett, MD; CDR Joseph E. Strauss, DO; LTC Wade T. Gordon, MD

Acute Compartment Syndrome of the Thigh in Combat Casualties	42
MAJ Brendan D. Masini, MD; MAJ Adam W. Racusin, MD; Joseph C. Wenke, PhD; COL Tad L. Gerlinger, MD; LTC Joseph R. Hsu, MD	
Tibial Stress Fractures in an Active Duty Population: Long-Term Outcomes	50
CPT Kelly G. Kilcoyne, MD; MAJ Jonathan F. Dickens, MD; CDR John-Paul Rue, MD	
Prevalence of Radiographic Findings Consistent With Femoroacetabular Impingement in Military Personnel With Femoral Neck Stress Fractures	54
CPT Timothy Carey, DO; CPT Christian Key, MD; CPT David Oliver, MD; LTC Timothy Biega, MD; LTC John Bojescul, MD	
Anterior Cruciate Ligament Augmentation for Rotational Instability Following Primary Reconstruction With an Accelerated Physical Therapy Protocol	59
CPT Timothy Carey, DO; CPT David Oliver, MD; Josh Pniewski, DPT; MAJ Terry Mueller, DO; LTC John Bojescul, MD	
Military Movement Training Program Improves Jump-Landing Mechanics Associated With Anterior Cruciate Ligament Injury Risk	66
LTC Brett D. Owens, MD; Kenneth L. Cameron, PhD, ATC; Michele L. Duffey, MS; Donna Vargas, MPT; Michael J. Duffey, PhD; Sally B. Mountcastle, PhD; Darin Padua, PhD; Bradley J. Nelson, MD	
Surgical Technique Affects Outcomes in Acromioclavicular Reconstruction	71
MAJ Jason A. Grassbaugh, MD; CPT Chad Cole, PA-C; Kurt Wohlrab, MD; MAJ Josef Eichinger, MD	
Comparison of Complication Rates of Intramedullary Pin Fixation Versus Plating of Midshaft Clavicle Fractures in an Active Duty Military Population	77
MAJ Jerome J. Wenninger, Jr., PA-C; CPT Joseph H. Dannenbaum, MD; MAJ Joanna G. Branstetter, MD; COL Edward D. Arrington, MD	
Completing Records-Based Research Within the Military: A User’s Guide	82
CPT Chad A. Krueger, MD; Wendy Ching, MS; Joseph C. Wenke, PhD	
Allograft Reconstruction of Chronic Pectoralis Major Tendon Ruptures	95
CPT Michael A. Zacchilli, MD; CPT Justin T. Fowler, MD; LTC Brett D. Owens, MD	
ANNOUNCEMENTS	103