



Journal of Surgical Orthopaedic Advances

VOLUME 20, NUMBER 1

SPRING 2011

contents

SPECIAL ISSUE ON TRAUMA: EMPHASIZING EXTREMITY MANAGEMENT ASSOCIATED WITH COMBAT AND DISASTER

Special Issue Editors: Tad L. Gerlinger, MD, Joseph R. Hsu, MD, and Joel W. Jenné, MD

Editorial: Lessons to Be Learned From Our Combat Surgeons 1
L. Andrew Koman, MD

FEATURE ARTICLES

Spine Immobilization: Prehospitalization to Final Destination 2
Daniel G. Kang, MD; Ronald A. Lehman, Jr., MD

Can an Ankle-Foot Orthosis Change Hearts and Minds? 8
Jeanne C. Patzkowski, MD; Ryan V. Blanck, CPO; Johnny G. Owens, MPT;
Jason M. Wilken, PhD, MPT; James A. Blair, MD; Joseph R. Hsu, MD

Partial Foot Amputations in the Combat Wounded 19
LTC Kevin L. Kirk, DO; Maj Evan M. Jones, MD; MAJ Benjamin Kyle Potter, MD;
Maj Patrick M. Osborn, MD; COL James R. Ficke, MD

PRIMARY ARTICLES

**Burden of Musculoskeletal Disease and Nonbattle Nontraumatic Injury
in Both War and Disaster Zones** 23
CPT Brian R. Waterman, MD; MAJ Andrew J. Schoenfeld, MD; MAJ Courtney A. Holland, MD;
CPT Gens P. Goodman, DO; LTC Philip J. Belmont, Jr., MD

Correlation of Altitude and Compartment Pressures in Porcine Hind Limbs 30
Capt Robert McGill, MD; Maj Evan Jones, MD; Maj Ben Robinson, MD;
Capt Tom Kryzak, MD; Lt Col Warren Kadrmas, MD

Does a Longer Delay in Fixation of Talus Fractures Cause Osteonecrosis? 34
CPT Jaime L. Bellamy, DO; CDR John J. Keeling, MD; Joseph Wenke, PhD;
LTC Joseph R. Hsu, MD; Skeletal Trauma Research Consortium

Humanitarian Assistance and Disaster Relief Aboard the USNS <i>Mercy</i> (TAH-19)	38
CDR Matthew T. Provencher, MD; CDR Trent D. Douglas, MD	
In Vivo Intra-articular Negative Pressure Wound Therapy Effect on Cartilage in a Goat Model	44
Maj Kenneth Bode, MD; Maj Charles Haggerty, MD; Lt Col J. T. Tokish, MD; Lt Col Warren Kadrmas, MD	
Early Analysis of the United States Army’s Telemedicine Orthopaedic Consultation Program	50
CPT Elizabeth Blank, MD; Charles Lappan, MS; LTC Philip J. Belmont, Jr., MD; COL M. Shaun Machen, MD; COL James Ficke, MD; LTC Richard Pope, MD; LTC Brett D. Owens, MD	
Data-Driven Disaster Management Requires Data: Implementation of a Military Orthopaedic Trauma Registry	56
CPT Jessica D. Cross, MD; Joseph C. Wenke, PhD; COL James R. Ficke, MD; LTC Anthony E. Johnson, MD	
Air Force Disaster Response: Haiti Experience	62
Joseph J. Stuart, MD; Drew C. Johnson, DO	
Do Plans and Execution Agree in a Humanitarian Medical Mission?	67
David M. Doman, MD; James A. Blair, MD; Matthew A. Napierala, MD; Mickey S. Cho, MD	
External Fixation and Temporary Stabilization of Femoral and Tibial Trauma	74
Eben A. Carroll, MD; L. Andrew Koman, MD	
ANNOUNCEMENTS	82