

Recent Publications and Presentations

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Articles

- HoenigM, Gao F, Kinder J, Zhang LQ, Collinge C, Merk BR. Extra-articular distal tibia fractures: a mechanical evaluation of 4 different treatment methods. *J Orthop Trauma* 2010;24(1):30-5.
- Stevens PM, Fross N, Kapp SL. Clinically Relevant Outcome Measures in Orthotics and Prosthetics. *The Academy Today* 2009;5(1).
- DrummeyJ. Enhancing the Functional Envelope: A Review of Upper-Limb Prosthetic Treatment Modalitie. *The Academy Today* 2009;5(3).
- GaoF, Grant TH, Roth EJ, Zhang LQ. Changes in passive mechanical properties of the gastrocnemius muscle at the muscle fascicle and joint levels in stroke survivors. *Archives of physical medicine and rehabilitation* 2009;90(5):819-26.
- GaoF, Zhang L-Q. Altered contractile properties of the gastrocnemius muscle poststroke. *J Appl Physiol* 2008;105(6):1802-8.
- Gambrell CR. Overuse Syndrome and the Unilateral Upper Limb Amputee: Consequences and Prevention. *J Prosthet Orthot* 2008;20(3):126-32.
- Gao F, Latash ML, Zatsiorsky VM. Similar Motion of a Hand-held Object may Trigger Nonsimilar Grip Force Adjustments. *J Hand Therapy* 2007;20(4):300-8.
- Aminian A, Gao F, Fedoriw WW, Zhang L-Q, Kalainov D, Merk B. Vertically Oriented Pauwels' III Femoral Neck Fractures a Treatment Dilemma: Biomechanical Study of 4 Fixation Techniques. *J Orthop Trauma* 2007;21(8):544-48.
- Zatsiorsky VM, Gao F, Latash ML. Prehension stability: experiments with expanding and contracting handle. *J Neurophysiol* 2006;95(4):2513-29.

Book chapters

- Kapp SL, Miller JA. Lower Limb Prosthetics. In: Pasquina PF, Cooper RA, editors. *Care of the Combat Amputee (Textbooks of Military Medicine)*. Dept. of the Army; 2010. p 553-80.

- Mojica M. Foot Orthoses. In: Hsu J, Michael J, Fisk J, editors. AAOS atlas of orthoses and assistive devices. 4th ed. Philadelphia, PA: Mosby; 2008. p 335-42.
- Kapp SL, Ferguson JR. Transtibial amputation: prosthetic management. In: Smith D, Michael J, Bowker J, editors. AAOS atlas of amputations and limb deficiencies: surgical, prosthetic, and rehabilitation principles. 3rd ed. Rosemont, IL: American Academy of Orthopaedic Surgeons; 2004. p 503-16.
- Kapp SL. Visual analysis of prosthetic gait. In: Smith D, Michael J, Bowker J, editors. AAOS atlas of amputations and limb deficiencies: surgical, prosthetic, and rehabilitation principles. 3rd ed. Rosemont, IL: American Academy of Orthopaedic Surgeons; 2004. p 385-94.

Conference Abstracts, Proceedings and Presentations

- Gao F, Carlton W, Kapp S. Development of a Motorized Device for Quantitative Investigation of Articulated AFO Misalignment. The 4th International Conference on Bioinformatics and Biomedical Engineering (iCBBE 2010). June 18-20, 2010, Chengdu, China; 2010.
- Gao F, Carlton W, Kapp S. Development of a Motorized Device for Quantitative Investigation of Articulated AFO Misalignment. Proceedings of the DFW Movement Science Symposium; Texas Scottish Rite Hospital for Children; 2010.
- Gao F, Carlton W, Kapp S. Development of a Motorized Device for Quantitative Investigation of AFOs. Proceedings of the American Academy of Orthotists and Prosthetists 36th Annual Meeting & Scientific Symposium; Chicago, IL; 2010.
- Gao F. 3D Anatomical Investigation of Achilles Tendon Using a Freehand Ultrasound Imaging System. The 4th International Conference on Bioinformatics and Biomedical Engineering (iCBBE 2010). June 18-20, 2010, Chengdu, China; 2010.
- Carlton W. A Scale to Describe Various Gait Patterns in Post-CVA Patients. Proceedings of the American Academy of Orthotists and Prosthetists 36th Annual Meeting & Scientific Symposium; Chicago, IL; 2010.
- Kapp SL. Prosthetic Management of the Upper Limb. Proceedings of the PMR Baylor-UT Houston Residency Programs; 2010.
- Kapp SL. Lower Limb Prosthetics: Prescription Options. Proceedings of the PMR Baylor-UT Houston Residency Programs; 2009.

- Gray L. Health Literacy's Impact on Patients and Providers. Texas Chapter of American Academy of Orthotists & Prosthetists Annual Meeting; Austin, TX; 2009
- Gao F, Wang ZG, Lei X. Finite Element Analysis Based Design Optimization for Prosthetic Socket. Proceedings of the American Society of Biomechanics Annual Conference; State College, PA; 2009.
- Carlton W. Poster Presentation, "Functional Non-Invasive Immobilization Techniques for Humerus Fractures", American Academy of Orthotists and Prosthetists Annual National Meeting 2009.
- Gao F, Lin YJ, Marzilli ST. Power Grip Force is Modulated in Dynamic Arm Movement. Proceedings of the American Society of Biomechanics Annual Conference; State College, PA; 2009.
- Gao F, Gaebler D, Zhang LQ. In vivo Evaluations of the Medial Gastrocnemius Muscle Passive Mechanical Properties: Changes at the Muscle Fascicle and Joint Levels in Children with Cerebral Palsy. Proceedings of the American Academy for Cerebral Palsy and Developmental Medicine 63rd Annual meeting; Scottsdale, Arizona, USA; 2009.
- Carlton W. Poster Presentation, "Clinical Experience with the Cavus Foot Orthosis", American Academy of Orthotists and Prosthetists Annual, National Meeting 2008.
- GaoF, Zhang L-Q. Effects Of Ankle Stretching On Passive And Active Muscle-Tendon Properties Of Plantar Flexors In Stroke. Proceedings of the North American Congress of Biomechanics, Aug 5-9 2008; Ann Arbor, Michigan; 2008.
- Gao F, Zhang L-Q. In vivo evaluation of spastic muscle in Children with Cerebral Palsy. Proceedings of the CNS/UCSB Young Neuroscientists' Workshop, Sept 16-19 2007; Alisal Guest Ranch, Solvang, CA; 2007.
- Gao F, Zhang L-Q. In vivo examinations of medial gastrocnemius: change of force-generating capacity in stroke survivors. Proceedings of the 31th American Society of Biomechanics Annual Meeting, Aug 22-25, 2007; Stanford University, CA; 2007.
- Aminian A , Gao F, Fedoriw WW, Zhang L-Q, Merk B. Vertically Oriented Femoral Neck Fractures: Biomechanical Study of Four Fixation Techniques. Proceedings of the The 25th Annual Meeting of the Mid-America Orthopaedic Association, April 11-15, 2007; Boca Raton, Florida, USA; 2007.

- Aminian A, Gao F, Fedoriw WW, Merk B, Zhang L-Q. Pauwels III Femoral Neck Fractures: Biomechanical Study of Four Fixation Techniques. Proceedings of the American Academy of Orthopaedic Surgeons 2007 Annual Meeting, February 14-18, 2007; San Diego, CA; 2007.
- Kapp SL. Transtibial and Transfemoral Design, Otto Bock CAD System Workshop. Proceedings of the Texas Chapter of the American Academy of Orthotists and Prosthetists; Austin, Texas; 2006.
- Kapp SL. Pediatric Bone Tumor Conference: A Day for Families. Proceedings of the TSRH/UT Southwestern Breakout Session on Prosthetics; Gilda's Club North Texas, Dallas, Texas; 2006.
- Gao F, Zhang L-Q. In vivo Biomechanical Evaluations of the Medial Gastrocnemius: Changes in Muscle Properties in Stroke Survivors. Proceedings of the IEEE 2006 International Conference of the Engineering in Medicine and Biology Society, August 30-Sept 3, 2006; New York City, NY, USA; 2006.
- Gao F, Zhang L-Q. Ultrasonic and biomechanical evaluations of Medial Gastrocnemius: Biomechanical changes in hypertonic stroke survivors. Proceedings of the 30th American Society of Biomechanics Annual Meeting, Sept 6-9, 2006; Blacksburg, Virginia; 2006.
- Carlton W. AFO Use in CVA Patients at Risk for Contracture Development. Proceedings of the American Academy of Orthotists and Prosthetists 32nd Annual Meeting & Scientific Symposium; Chicago, IL; 2006.