

# M. Wade Shrader, M.D.

<b>Licensure/Board Certification:</b>	Arizona Medical Board # 33909 Diplomate, American Board of Orthopedic Surgery, September 2007 Fellow, American Academy of Orthopedic Surgery, Class of 2009
<b>Current Position:</b>	Pediatric Orthopedic Surgeon Director of Research Phoenix Children's Hospital, Center for Pediatric Orthopedic Surgery Clinical Assistant Professor University of Arizona College of Medicine Phoenix, AZ
<b>Previous Professional Experience:</b>	Pediatric Orthopedic Surgeon The CORE Institute Phoenix, AZ August 2005 – April 2009
<b>Education:</b>	
<b>Fellowship:</b>	Pediatric Orthopedic Surgery and Scoliosis Texas Scottish Rite Hospital for Children, Dallas, TX July 2004 – July 2005
<b>Residency:</b>	Orthopedic Surgery Mayo Clinic, Rochester, MN June 1999 – June 2004
<b>Medical School:</b>	University of Chicago, Pritzker School of Medicine Doctor of Medicine, with Honors, June 1999
<b>Undergraduate:</b>	Mississippi State University Bachelor of Science degree in Aerospace Engineering, May 1991 Summa Cum Laude (GPA 4.0/4.0)
<b>Professional Activities:</b>	<ul style="list-style-type: none"><li>• Board of Directors, Arizona Medical Association</li><li>• Executive Committee, Arizona Medical Association</li><li>• Member, Phoenix Children's Hospital Bioethics Committee</li><li>• Board of Directors, Arizona Children's Rehabilitative Services IPA</li><li>• Participant, Phoenix Children's Hospital Executive Physician Leadership Program, Eller School of Business, University of Arizona</li><li>• Volunteer Pediatric Orthopedic Surgeon, CURE International</li><li>• Member, Arizona Medical Association</li><li>• Member, American Academy of Pediatrics</li><li>• Member, American Academy of Cerebral Palsy and Developmental Medicine</li><li>• Advocacy Committee, AACPDM</li><li>• Member, AZ Chapter American Academy of Pediatrics</li><li>• Board of Directors, Arizona Medical Association Political Action Committee</li><li>• Member, NIH Panel for Pediatric Movement Disorders</li><li>• Member, Arizona State University Thesis Board, Department of Biomedical Engineering</li><li>• Completed, Birmingham Hip Resurfacing FDA Training, Birmingham, England</li><li>• Completed, Transosseous Osteosynthesis in Pediatrics Ilizarov Training Course,</li></ul>
<b>Professional Activities continued:</b>	

Russian Ilizarov Scientific Center, Kurgan, Russian Federation

- Completed, Basic Ilizarov Training Course, Texas Scottish Rite Hospital
- Mayo Clinic traveling fellow, Royal National Orthopaedic Hospital, Stanmore, U.K., March-April, 2003
- Administrative Chief Resident, Mayo Clinic Department of Orthopedic Surgery
- Instructor, 2003 Mayo Clinic Annual Sports Symposium
- Member, Mayo Clinic Orthopedic Surgery Clinical Research Committee
- Member, Mayo Clinic Orthopedic Surgery Education Committee
- Assistant team physician, Rochester Mustangs professional hockey team
- Assistant team physician, Rochester Lourdes High School football team
- Medical volunteer, Minnesota Special Olympics

**Honors and Awards:**

- Boone Pickens Scoliosis Research Award, 2005
- Mayo Clinic Outstanding Clinical Achievement Award, 2004
- Mayo Clinic Joseph B. Janes Award, 2004
- John Insall Clinical Research Award, Knee Society, 2003
- Mayo Clinic Hamlet Peterson Scientific Writing Award, 2003
- Minnesota Orthopedic Society Resident Research Award, 2003
- Mayo Clinic Mark B. Coventry Clinical Research Award, 2002
- Alpha Omega Alpha honor society, inducted 1999
- Pritzker School of Medicine Leadership Award
- NASA Special Service Award (for Space Shuttle Ascent Guidance Development)
- NASA Certificate of Appreciation (for National Launch System research)
- Otilie Schillig Leadership Scholarship for Academic Excellence
- MSU Elderstatesmen
- MSU Hall of Fame
- MS Society of Professional Engineers 1991 Engineering Student of the Year
- Phi Kappa Phi honor society
- Tau Beta Pi honor society
- Omicron Delta Kappa honor society
- President, Sigma Gamma Tau honor society
- Pontotoc High School Valedictorian, Class President, and Varsity Football Captain
- National Merit Finalist
- Mississippi High School Football Spirit of America Award, 1986

**Publications:**

Chien M., SHRADER M.W., Bulloch B., Youssfi M., and Segal L.S. "Bedside Ultrasound in the Diagnosis of Pediatric Clavicle Fractures." Accepted for Publication, *Pediatric Emergency Care*.

Zibas A.H., SHRADER M.W., Segal L.S. "Case Report: Mesenchymal Chondrosarcoma in the Lumbar Spine of a Child." Published, *Clinical Orthopedics and Related Research*, August 2010.

**Publications continued:**

Sucato D.S., Tulchin K., SHRADER M.W., DeLaRocha A., Gist T., Sheu G. "Gait, Hip Strength, and Functional Outcomes After a Ganz Periacetabular Osteotomy for Adolescent Hip Dysplasia." Published, *Journal of Pediatric Orthopedics*, June 2010.

Delgado, M.R., Hirtz, D, Aisen, M., Ashwal S., Fehlings D.L., McLaughlin J., Morrison L.A., SHRADER M.W., Tilton A., Vargus-Adams J. "Practice Parameter: Pharmacological Treatment of Spasticity in Children and Adolescents with

Cerebral Palsy (An Evidence-Based Review): Report of the Quality Standards Subcommittee of the American Academy of Neurology and The Practice Committee of the Child Neurology Society.” Published, *Neurology*, January 2010.

SHRADER M.W., Bhowmik-Stoker M., Jacofsky M., Jacofsky D.J. “Gait and stair function in total and resurfacing hip arthroplasty: a pilot study.” Published, *Clinical Orthopedics and Related Research*, June 2009.

SHRADER M.W., Stans A.A., Shaughnessy W.J., Haidukewych G.J. “Nonunion of Pediatric Fractures: A 15 Year Experience at a Level One Trauma Center.” Published, *Orthopedics*, June 2009.

SHRADER M.W., Schwab J.H., Shaughnessy W.J., Jacofsky D.J. “Pathological Femoral Neck Fractures in Children.” Published, *American Journal of Orthopedics*, February 2009.

SHRADER M.W., Campbell M.D., Jacofsky D.J. “Accuracy of Emergency Room Physicians’ Interpretation of Pediatric Elbow Fractures.” Published, *Orthopedics*, December 2008

Estes C., Rhee P, SHRADER M.W., Csavina K., Jacofsky M.C., Jacofsky D.J. “Biomechanical Strength of the Peri-Loc Proximal Tibial Plate: A Comparison of All-locked vs. Hybrid Locked/Non-locked Screw Configurations.” Published, *Journal of Orthopedic Trauma*, May-Jun 2008.

SHRADER M.W. “Pediatric Supracondylar Fractures and Pediatric Physeal Elbow Fractures.” Published, *Orthopedic Clinics of North America*, April 2008.

SHRADER M.W. “Proximal Humerus and Humeral Shaft Fractures in Children.” Published, *Hand Clinics*, Nov 2007.

SHRADER M.W., Stans A.A., Jacofsky D.J., Shaughnessy W.J., Haidukewych G.J. “Femoral Neck Fractures in Pediatric Patients: A 30 Year Experience at a Level I Trauma Center.” Published, *Clinical Orthopedics and Related Research*, Jan 2007.

SHRADER M.W., Schall D., Parvizi J., McCarthy J.T., Lewallen D.G. “Total Hip Arthroplasty in Patients with Renal Failure a Comparison Between Transplant and Dialysis Patients.” Published, *J Arthroplasty*, April 2006.

Sierra R.J., Weiss N.G., SHRADER M.W., Steinmann S.P. “Acute Triceps Ruptures: Case Report and Retrospective Chart Review.” Published, *J Shoulder Elbow Surg*, Jan-Feb 2006.

SHRADER M.W., Sucato D.J. “Surgical Dislocation with Trochanteric Osteotomy: A Surgical Approach for Femoroacetabular Impingement.” Published, *Current Opinions in Orthopedics*, December 2005.

Ford K.S., SHRADER M.W., Smith J., McLean T.J., Dahm D.L. “ Full-thickness Burn Formation After the Use of Electrical Stimulation for Rehabilitation of Unicompartamental Knee Arthroplasty.” Published, *J Arthroplasty*, Oct 2005.

SHRADER M.W., Sanchez-Sotelo J., Sperling J.W., Rowland C.M., Cofield R.H. “Understanding Proximal Humerus Fractures: Image Analysis, Classification, and Treatment.” Published, *J Shoulder Elbow Surg*, Sep- Oct 2005.

Callaghan J.J., Parvizi J., Novak C.C., Bremner B., SHRADER M.W., Lewallen D.G., Johnston R.C., Goetz D.D. “A Constrained Liner Cemented into a Secure Cementless Acetabular Shell.” Published, *Journal of Bone and Joint Surgery Am*, October 2004.

#### **Publications continued:**

SHRADER M.W., Draganich L.F., Pottenger L.A., Piotrowski G.A. “Effects of Knee Pain Relief in Osteoarthritis on Gait and Stair-stepping.” Published, *Clinical Orthopedics and Related Research*, April 2004.

SHRADER M.W., Parvizi J., Lewallen D.G. “The Use of a Constrained Acetabular Component to Treat Instability After Total Hip Arthroplasty.” Published, *Journal of Bone and Joint Surgery Am*, November 2003.

SHRADER M.W., Morrey B.F. "Insall Award Paper. Primary Total Knee Arthroplasty in Patients with Lymphedema." Published, *Clinical Orthopedics and Related Research*, November 2003.

Hanson J.M., SHRADER M.W., Cruzen C.A. "Ascent Guidance Comparisons." Published, *The Journal of the Astronautical Sciences*, Vol. 43, No.3, July-September 1995.

#### **Podium Presentations:**

SHRADER M.W., Bernat N., White G.R., Vaughn J.M., Karlen J.W., and Segal L.S. "Age and Insurance Status: Significant Risk Factors for Non-Accidental Trauma and Pediatric Femoral Shaft Fractures." Accepted for Presentation, Annual Meeting of the American Academy of Orthopedic Surgeons, San Diego, CA, February 2011.

SHRADER M.W., White G.R., Karlen J.W., Segal L.S. "Reoperation Rate for Posterior Spine Fusion for Adolescent Idiopathic Scoliosis." Presented, National Conference and Exhibition, American Academy of Pediatrics Orthopedics Section, San Francisco, CA October 2010.

SHRADER M.W., White, G.R., Vaughn J.M., Karlen J.W., and Segal L.S. "Physician Evaluation of the PODCI Quality of Life Questionnaire." Presented, National Conference and Exhibition, American Academy of Pediatrics Orthopedics Section, San Francisco, CA October 2010.

SHRADER M.W., White G.R., Karlen J.W., Segal L.S. "Reoperation Rate for Posterior Spine Fusion for Adolescent Idiopathic Scoliosis." Presented, Annual Meeting of the Western Orthopedic Association, Monterey, CA, August 2010.

Jacofsky D.J., McCamley J., Larsen B., Jacofsky M.C., SHRADER M.W. "Effects of Surgical Approach for TKA on Stair Descent Biomechanics: A Prospective Randomized Trial." Presented, Annual Meeting of the Orthopedic Research Society, New Orleans, LA, March 2010.

Jacofsky D.J., McCamley J., Larsen B., Jacofsky M.C., SHRADER M.W. "Surgical Approach Has No Effect on Total Knee Arthroplasty Gait: A Prospective Randomised Trial." Presented, Annual Meeting of the Orthopedic Research Society, New Orleans, LA, March 2010.

Bhowmik-Stoker M., SHRADER M.W., Buneo CA, Jacofsky M.C. "Hip Resurfacing Expedites Restoration of Complex Hip Mechanics in Comparison to Standard Treatment." Presented, Annual Meeting of the American Academy of Orthopedic Surgeons, New Orleans, LA, March 2010.

Jacofsky D.J., Jacofsky M.C., SHRADER M.W., Varnell M.S. "The Effect of Total Knee Arthroplasty Approach on the Ability to Perform Stair Descent." Presented, Annual Meeting of the American Academy of Orthopedic Surgeons, New Orleans, LA, March 2010.

Jacofsky D.J., McCamley J, Larsen B., Jacofsky M.C., SHRADER M.W. "Surgical Approach Has No Effect on Total Knee Arthroplasty Gait: A Prospective Randomized Trial." Presented, Annual Meeting of the Western Orthopedic Association, Seattle, WA, August 2009.

Jacofsky D.J., McCamley J, Larsen B., Jacofsky M.C., SHRADER M.W. "Effects of Surgical Approach for TKA on Stair Descent Biomechanics: A Prospective Randomized Trial ." Presented, Annual Meeting of the Western Orthopedic Association, Seattle, WA, August 2009.

#### **Podium Presentations continued:**

SHRADER M.W., Bhowmik-Stoker M., Jacofsky M.C., Jacofsky D.J. "Functional Assessment of Stair Negotiation Following a Total and Resurfacing Hip Arthroplasty." Presented, Annual Meeting of the Gait and Clinical Movement Analysis Society, Denver, CO, March 2009.

Jacofsky, D.J., McCamley J., Larsen, B., Jacofsky M.C., SHRADER M.W. "Surgical Approach Has No Effect on Total Knee Arthroplasty Gait : A Prospective, Randomized Trial" Presented, Annual Meeting of the American Academy of Orthopedic Surgery, Las Vegas, NV, February 2009.

Siegel, J., Tornetta P, Jacofsky M.C., Jacofsky D.J., McCamley J., Jaczynski A., SHRADER M.W. "The Effect of Malreduction of the SI Joint on the Stability of Pelvic Internal Fixation in Ligamentous APC3 Injuries." Presented, Annual Meeting of the Orthopedic Trauma Association, Denver, CO, October 2008.

SHRADER M.W., Bhowmik-Stoker M., McCamley J., Jacofsky M., Jacofsky D.J. "Kinematic and Kinetic Results Following Use of a Valgus Knee Brace." Presented, 72<sup>nd</sup> Annual Meeting of the Western Orthopedic Association, Maui, HI, July 2008.

SHRADER M.W., McCamley J., Csavina K.R., Jacofsky M., Zitelli J., Jacofsky D.J. "Biomechanical Strength of an Injectable HA Bone Substitute into Acetabular Cavitory Defects in Revision THA." Presented, 72<sup>nd</sup> Annual Meeting of the Western Orthopedic Association, Maui, HI, July 2008.

SHRADER M.W., Csavina K.R., Jacofsky D.J., Tornetta, P. "Intercondylar Fixation of the Distal Femur: A Comparison of 3.5mm and 6.5mm Lag Screw Configuration." Presented, 72<sup>nd</sup> Annual Meeting of the Western Orthopedic Association, Maui, HI, July 2008.

Sucato D.S., Foster E.K., SHRADER M.W. "Radiographic and Gait Outcome Following Ganz Periacetabular Osteotomy for Adolescent Hip Dysplasia." Presented, Pediatric Orthopedic Society of North America, Albuquerque, NM, May 2008.

Campbell M.D., Bhowmik-Stoker M, Yarnall K.A., Jacofsky M., SHRADER M.W., Jacofsky D.J. "Functional Outcomes of Unicompartmental and Total Knee Arthroplasty One Year Post Operatively." Presented, Orthopedic Research Society, San Francisco, CA, March 2008.

McCamley J., Csavina K.R., Jacofsky D.J., SHRADER M.W. "Walking and Stair Descent Following Minimally Invasive Total Knee Arthroplasty." Presented, Sixth Combined Meeting of the Orthopedic Research Societies, Honolulu, HI, October 2007.

Estes C, D.O., SHRADER M.W., Csavina K.R., Jacofsky D.J. "Biomechanical Strength of the Peri-Loc Proximal Tibia Plate: A Comparison of All-locked versus Hybrid Locked/Non-Locked Screw Configurations." Presented, Sixth Combined Meeting of the Orthopedic Research Societies, Honolulu, HI, October 2007.

SHRADER M.W., Yarnall K.A., Csavina K.R., Tornetta, P. "Intercondylar Fixation of the Distal Femur: A Comparison of 3.5mm and 6.5mm Lag Screw Configuration." Presented, Sixth Combined Meeting of the Orthopedic Research Societies, Honolulu, HI, October 2007.

SHRADER M.W., Yarnall K.A., Csavina K.R., Jacofsky D.J. "Functional Changes in Gait After Intertrochanteric Hip Fracture." Presented, Sixth Combined Meeting of the Orthopedic Research Societies, Honolulu, HI, October 2007.

Yarnall K.A., Csavina K.R., Boeke, E., SHRADER M.W. "Functional Gait Outcomes After Intertrochanteric Fracture." Presented, Northwest Biomechanics Symposium, Eugene, OR, May 2007.

SHRADER M.W., Campbell M.D., Jacofsky D.J. "Accuracy of Emergency Room Physicians' Interpretation of Pediatric Elbow Fractures." Presented, American Academy of Orthopedic Surgery, Annual Meeting, San Diego, CA., February 2007.

#### **Podium Presentations continued:**

Sucato DJ, SHRADER MW, Zhang H, McClung A. "Lenke 1A Curve Patterns: A Comparison of Anterior and Posterior Instrumentation and Fusion." Presented, The 13<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), Athens, Greece, July 2006.

SHRADER MW, Sucato DJ, Haideri N. "Functional, Gait and Radiographic Outcome Following Ganz Periacetabular Osteotomy for Hip Dysplasia." Presented, Pediatric Orthopedic Society of North America, Annual Meeting, San Diego , May 2006.

Sucato DJ, SHRADER MW, Zhang H, McClung A. "Lenke 1A Curve Patterns: A Comparison of Anterior and Posterior Instrumentation and Fusion." Presented, Pediatric Orthopedic Society of North America, Annual Meeting, San Diego, CA, May 2006.

SHRADER MW, Sucato DJ, Haideri N. "Functional, Gait and Radiographic Outcome Following Ganz Periacetabular Osteotomy for Hip Dysplasia." Presented, American Academy of Orthopedic Surgery, Annual Meeting, Chicago, IL , March 2006.

Richards BS, Welch RD, SHRADER MW, Johnston, CE. "Use of rhBMP-2 in Congenital Pseudarthrosis of the Tibia." Presented, Pediatric Orthopedic Society of North America, Annual Meeting, Ottawa, Canada, May 2005.

SHRADER M.W., Schwab J.H., Shaughnessy W.J., Jacofsky D.J. "Pathological Femoral Neck Fractures in Children." Presented, MidAmerica Orthopedic Association, Annual Meeting, Amelia Island, FL, May 2005.

SHRADER M.W., Shaughnessy, W.J., Kitaoka H.B. "Isolated Subtalar Arthrodesis for Talocalcaneal Coalition." Presented, MidAmerica Orthopedic Association, Annual Meeting, Amelia Island, FL, May 2005.

SHRADER M.W., Bruggeman N.B., Jacofsky D.J., Stans A.A., Haidukewych G.J. "Femoral Neck Fractures in Pediatric Patients: a 25 Year Experience at a Level I Trauma Center." Presented, MidAmerica Orthopedic Association, Annual Meeting, Amelia Island, FL, May 2005.

SHRADER M.W., Schwab J.H., Shaughnessy W.J., Jacofsky D.J. "Pathological Femoral Neck Fractures in Children." Presented, American Academy of Orthopedic Surgery, Annual Meeting, Washington, D.C., February 2005.

SHRADER M.W., Shaughnessy, W.J., Kitaoka H.B. "Isolated Subtalar Arthrodesis for Talocalcaneal Coalition." Presented, American Academy of Orthopedic Surgery, Annual Meeting, Washington, D.C., February 2005.

SHRADER, M.W., Stans, A.A., Shaughnessy W.J., Haidukewych G.J. "Nonunion of Pediatric Fractures: A 15 Year Experience at a Level One Trauma Center." Presented, MidAmerica Orthopedic Association, Annual Meeting, La Quinta, CA, April 2004.

Sierra R.J., Shrader M.W., Weiss N.G., Steinmann S.P. "Outcome of Surgical Treatment of Triceps Tendon Ruptures." Presented, MidAmerica Orthopedic Association, Annual Meeting, La Quinta, CA, April 2004.

SHRADER, M.W., Stans, A.A., Shaughnessy W.J., Haidukewych G.J. "Nonunion of Pediatric Fractures: A 15 Year Experience at a Level One Trauma Center." Presented, American Academy of Orthopedic Surgery, Annual Meeting, San Francisco, CA, March 2004.

SHRADER M.W., Sanchez-Sotelo J., Sperling J.W., Cofield R.H. "Understanding Proximal Humerus Fractures: Image Interpretation, Classification, and Treatment." Presented, American Shoulder and Elbow Surgeons, Closed Meeting, November 2003.

SHRADER M.W., Sanchez-Sotelo J., Sperling J.W., Cofield R.H. "Understanding Proximal Humerus Fractures: Fractures, Displacements, Classification, and Treatment." Presented, Orthopedic Trauma Association, Annual Meeting, Salt Lake City, UT, October 2003.

**Podium Presentations continued:**

SHRADER M.W., Morrey, B.F. "Total Knee Arthroplasty in Patients with Lymphedema." Presented, American Academy of Orthopedic Surgery, Annual Meeting, Hip and Knee Society Specialty Day, New Orleans, LA, February 2003. Knee Society John Insall Award, 2003.

SHRADER M.W., Morrey, B.F. "Total Knee Arthroplasty in Patients with Lymphedema." Presented, Minnesota Orthopedic Association, Annual Meeting, Minneapolis, MN, May 2003.

SHRADER M.W., Parvizi J., Lewallen D.G. "Constrained Acetabular Components for the Treatment of Recurrent Instability of Total Hip Arthroplasty." Presented, MidAmerica Orthopedic Association, Annual Meeting, Tuscon, AZ, April 2002.

SHRADER M.W., Parvizi J., Lewallen D.G. "Constrained Acetabular Components for the Treatment of Recurrent Instability of Total Hip Arthroplasty." Presented, Minnesota Orthopedic Association, Annual Meeting, Minneapolis, MN, May 2002.

SHRADER M.W., Draganich L.F., Pottenger L.A. "The Effects of Knee Injections on the Gait of Patients with Osteoarthritis." Presented at the Orthopedic Research Society/American Academy of Orthopedic Surgery, Annual Meeting, Orlando, FL, March 2000.

Lomas J.L., Hanson J.M., SHRADER M.W. "Guidance and Targeting Simulation for Automated Rendezvous." Presented, AAS/AIAA Flight Mechanics Meeting, Cocoa Beach, FL, February 1994.

Hanson J.M., SHRADER M.W., Chang H.P., Freeman S.E. "Guidance and Dispersion Studies of National Launch System Ascent Trajectories," Presented, AIAA Guidance and Control Conference, Hilton Head Island, SC, August 1992.

#### **Poster Presentations:**

SHRADER M.W., Karlen J.W., Bernat N.M., Karlen J.W., Segal L.S. "Suspected Non-accidental Trauma and Femoral Shaft Fractures in Children." Presented, Annual Meeting of the Western Orthopedic Association, Monterey, CA, August 2010.

Bhowmik-Stoker M., SHRADER M.W., Buneo C., Jacofsky M.C. "Hip Arthroplasty Alters Hip Mechanics During Sit-Stand-Sit Activity." Presented, Annual Meeting of the Western Orthopedic Association, Monterey, CA, August 2010.

Bhowmik-Stoker M., Onstot B.R., Buneo C., SHRADER M.W., Jacofsky M.C. "Midterm Functional Assessment of the Sit-Stand-Sit Task Following a Total or Hip Resurfacing Arthroplasty." Presented, Annual Meeting of the Gait and Clinical Movement Analysis Society, and Combined Meeting with the European Society of Movement Analysis, Miami, FL, May, 2010.

SHRADER M.W., and Segal L.S. "Physician Evaluation of the PODCI Quality of Life Questionnaire." Presented as an E-poster, Annual Meeting of the European Pediatric Orthopedic Society, Zagreb, Croatia, April 2010.

Bhowmaik-Stoker M., Jacofsky, M.C., Ciccone W.J., Jacofsky D.J., SHRADER M.W. "Surgical Approach Has No Effect on Functional Outcome Following Total Knee Arthroplasty." Presented, Annual Meeting of the American Academy of Orthopedic Surgery, New Orleans, LA, March 2010.

Onstot B.R., Jacofsky M.C., SHRADER M.W., Jacofsky D.J. "Surgical Approach Affects Ability to Control Sitting After Total Knee Arthroplasty." Presented, Annual Meeting of the American Academy of Orthopedic Surgery, New Orleans, LA, March 2010.

#### **Poster Presentations continued:**

SHRADER M.W., Bhowmik-Stoker M., Jacofsky M.C., Jacofsky D.J. "Superior Recovery of Stair Negotiation Following Resurfacing Hip Arthroplasty in Comparison to Total Hip Arthroplasty." Presented, Annual Meeting of the Orthopedic Research Society, New Orleans, LA, March 2010.

Campbell M.D., Bhowmik-Stoker M., Jacofsky M.C., SHRADER M.W., Jacofsky D.J. "No Functional Differences Between A Mobile Bearing Unicompartmental and Total Knee Arthroplasty One Year Post Operatively." Presented, Annual Meeting of the Orthopedic Research Society, New Orleans, LA, March 2010.

SHRADER M.W., Stoker-Bhowmik M., Jacofsky M.C., Jacofsky D.J. "Superior Recovery of Stair Negotiation Following Resurfacing Hip Arthroplasty in Comparison to Total Hip Arthroplasty." Presented, Annual Meeting of the Western Orthopedic Association, Seattle, WA, August 2009.

Campbell M.D., Stoker-Bhowmik M., Jacofsky M.C., SHRADER M.W., Jacofsky D.J. "No Functional Differences Between A Mobile Bearing Unicompartmental and Total Knee Arthroplasty One Year Post Operatively." Presented, Annual Meeting of the Western Orthopedic Association, Seattle, WA, August 2009.

Jacofsky D.J., Bhowmik-Stoker M., Larsen, B., Jacofsky M., SHRADER M.W. "Medial Compartment Unloader Knee Brace Corrects Varus Deformity During Stair Negotiation" Presented, Annual Meeting of the American Academy of Orthopedic Surgery, Las Vegas, NV, February 2009.

Jacofsky M.C., Bhowmik-Stoker M., McCamley J., SHRADER M.W., Jacofsky D.J. "Functional Characteristics of Gait Over Two Months of Valgus Bracing for Medial Knee Osteoarthritis." Presented, Annual Meeting of the Orthopedic Research Society, Las Vegas, NV, February 2009.

Jacofsky M.C., Bhowmik-Stoker M., McCamley J., Larsen B., SHRADER M.W., Jacofsky D.J. "Functional Assessment of Stair Negotiation Following Short-Term Valgus Bracing." Presented, Annual Meeting of the Orthopedic Research Society, Las Vegas, NV, February 2009.

Jacofsky D.J., McCamley J., Bhowmik-Stoker M., Jacofsky M.C., SHRADER M.W. "Sit-to-Stand Biomechanics of Patients with Advanced Knee Osteoarthritis." Presented, Annual Meeting of the Orthopedic Research Society, Las Vegas, NV, February 2009.

Jacofsky D.J., McCamley J., Bhowmik-Stoker M., Jacofsky M.C., SHRADER M.W. "Effect of Surgical Approach on Gait Following Total Knee Arthroplasty." Presented, Annual Meeting of the Orthopedic Research Society, Las Vegas, NV, February 2009.

Jacofsky D.J., McCamley J., Bhowmik-Stoker M., Jacofsky M.C., SHRADER M.W. "Advanced Osteoarthritic Gait Kinematics and Kinetics." Presented, Annual Meeting of the Orthopedic Research Society, Las Vegas, NV, February 2009.

Bhowmik-Stoker M., SHRADER M.W., Jacofsky M.C., Jacofsky D.J. "Functional Assessment of Stair Negotiation Following a Total and Resurfacing Hip Arthroplasty." Presented, Annual Meeting of the Orthopedic Research Society, Las Vegas, NV, February 2009.

Jacofsky M.C., Siegel J., Jaczynski A., SHRADER M.W., Jacofsky D.J., Tornetta P. III. "The Biomechanics of Malreduction of the SI Joint on the Stability of Pelvic Internal Fixation in Ligamentous APC3 Injuries." Presented, Annual Meeting of the Orthopedic Research Society, Las Vegas, NV, February 2009.

Bhowmik-Stoker M., SHRADER M.W., Jacofsky M.C., Jacofsky D.J. "Functional Characteristics of Gait Following a Total and Resurfacing Hip Arthroplasty." Presented, Annual Meeting of the Orthopedic Research Society, Las Vegas, NV, February 2009.

#### **Poster Presentations continued:**

Jacofsky D.J., McCamley J., Jacofsky M.C., Jaczynski A., SHRADER M.W. "The Biomechanical Strength of Competing Methods for the Repair of Retroacetabular Defects: A Matched Pair Cadaveric Study." Presented, Annual Meeting of the Orthopedic Research Society, Las Vegas, NV, February 2009.

SHRADER M.W., Nehme A., Trousdale R.T. "Outcome of Total Knee Arthroplasty in patients with Cerebral Palsy: A Case Series." Presented, Adults with Cerebral Palsy Workshop, 62<sup>nd</sup> Annual Meeting of the American Academy of Cerebral Palsy and Developmental Medicine, Atlanta, GA, September 2008.

SHRADER M.W., Campbell M.D., Jacofsky D.J. "Accuracy of Emergency Room Physicians' Interpretation of Pediatric Elbow Fractures." Presented, 72<sup>nd</sup> Annual Meeting of the Western Orthopedic Association, Maui, HI, July 2008.

SHRADER M.W., Jacofsky D.J. "Early Learning Curve of Birmingham Hip Resurfacing." Presented, 72<sup>nd</sup> Annual Meeting of the Western Orthopedic Association, Maui, HI, July 2008.

McCamley J., Csavina K.R., Jacofsky M., Zitelli J., SHRADER M.W. Jacofsky D.J. "Biomechanical Strength of an Injectable HA Bone Substitute into Acetabular Cavitory Defects in Revision THA." Presented Orthopedic Research Society, San Francisco, CA, March 2008.

McCamley J., Jacofsky M., SHRADER M.W., Jacofsky D.J. "Stair Descent Following Minimally Invasive Total Knee Arthroplasty." Presented, Orthopedic Research Society, San Francisco, CA, March 2008.

McCamley J., Jacofsky M., SHRADER M.W., Jacofsky D.J. "Walking Following Computer Navigated Minimally Invasive Total Knee Arthroplasty." Presented, Orthopedic Research Society, San Francisco, CA, March 2008.

Gupta, A., SHRADER M.W., Campbell, M.D., Csavina, K.R., Jacofsky, D.J. "The Effect of Screw Diameter on a Lateral Tibial Plateau Fracture: A Comparison of 4.0mm vs. 6.5mm Cannulated Screws." Poster presentation, Sixth Combined Meeting of the Orthopedic Research Societies, Honolulu, HI, October 2007.

Yarnall K.A., Csavina K.R., Boeke E., SHRADER M.W. "Functional Gait Outcomes in Stair Climbing after Intertrochanteric Fracture." Poster presentation, Northwest Biomechanics Symposium, Eugene, OR, May 2007.

Gupta A., SHRADER M.W., Jacofsky D.J., Campbell M.D., Csavina K.R. "The Effect of Screw Diameter on the Lateral Tibial Plateau Fracture: 4.0 mm vs 6.5 mm Cannulated Screws." Poster presentation, Western Biomedical Engineering Conference, Phoenix, AZ, November 2006.

McCamley, J.D., SHRADER M.W., Jacofsky D.J., Campbell M.D., Yarnall K.A., Csavina K.R. "Kinematics and Kinetics of Stair Climbing in Elderly Subjects: The effects of Minimally Invasive Total Knee Arthroplasty." Poster presentation, Western Biomedical Engineering Conference, Phoenix, AZ, November 2006.

SHRADER MW, Richards BS, Johnston, CE, Welch RD. "Use of rhBMP-2 in Congenital Pseudarthrosis of the Tibia." Poster presentation, American Academy of Orthopedic Surgery, Annual Meeting, Chicago, IL, March 2006.

SHRADER M.W., Bruggeman N.B., Jacofsky D.J., Stans A.A., Haidukewych G.J. "Femoral Neck Fractures in Pediatric Patients: a 25 Year Experience at a Level I Trauma Center." Poster presentation, Orthopedic Trauma Association, Annual Meeting, Hollywood, FL, October 2004.

SHRADER M.W., Stans A.A., Shaughnessy W.J., Haidukewych G.J. "Nonunion of Pediatric Fractures: A 15 Year Experience at a Level One Trauma Center." Poster presentation, Orthopedic Trauma Association, Annual Meeting, Salt Lake City, UT, October 2003.

Draganich L.F., Pottenger L.A., SHRADER M.W., Piotrowski G.A. "Pain-relieving Knee Injections in Osteoarthritis Increase Knee Loading During Gait but not During Stair Stepping." Poster presentation, Orthopedic Research Society, Annual Meeting, New Orleans, LA, February 2003.

#### **Poster Presentations continued:**

SHRADER M.W., Parvizi J., Lewallen D.G. "Constrained Acetabular Components for the Treatment of Recurrent Instability of Total Hip Arthroplasty." Poster presentation at the American Academy of Orthopedic Surgery, Annual Meeting, Dallas, TX, February 2002.

**Book Chapters:**

SHRADER M.W., Jacofsky D.J. "Septic Arthritis." *Adult Reconstruction*, 2007.

**Commercial Publications:**

SHRADER M.W. "Cast Treatment for Infants with Clubfoot." *CORE INK*, Winter 2008.

SHRADER M.W. "Latest Techniques: Birmingham Hip Resurfacing." *CORE INK*, Spring 2007.

**National Invited Lectures:**

SHRADER M.W. "Tibia Shaft Fractures in Children." 10<sup>th</sup> Annual AAOS/OTA Orthopedic Trauma Update, Orlando, FL, April 2010.

SHRADER M.W. "Pediatric Elbow Fractures." 10<sup>th</sup> Annual AAOS/OTA Orthopedic Trauma Update, Orlando, FL, April 2010.

SHRADER M.W. "Non-accidental Trauma in Children." 10<sup>th</sup> Annual AAOS/OTA Orthopedic Trauma Update, Orlando, FL, April 2010.

SHRADER M.W. "Pediatric Fracture Management." AAOS/AAPA 2<sup>nd</sup> Annual A PA's Guide to the Musculoskeletal Galaxy, Phoenix, AZ, February 2010.

SHRADER M.W. "Assessment of the Limping Child." AAOS/AAPA 2<sup>nd</sup> Annual A PA's Guide to the Musculoskeletal Galaxy, Phoenix, AZ, February 2010.

SHRADER M.W. "Pediatric Scoliosis." AAOS/AAPA 2<sup>nd</sup> Annual A PA's Guide to the Musculoskeletal Galaxy, Phoenix, AZ, February 2010.

SHRADER M.W. "Pediatric Fractures and Dislocations." PAOS Annual Conference, Phoenix, AZ, October 2009.

**Lectures and Grand Rounds:**

SHRADER M.W. "Muscle Contraction, Gait, and Lower Extremity Nerve Lesions." MS1 Musculoskeletal Block Core Lecture, University of Arizona College of Medicine in Phoenix, May 2010.

SHRADER M.W. "Clinical Examples of Pathological Gait." MS1 Musculoskeletal Block Core Lecture, University of Arizona College of Medicine in Phoenix, May 2010.

SHRADER M.W. "Pediatric Femoral Shaft Fractures." Phoenix Children's Hospital Pediatric Residency Lecture Series, June 2010.

SHRADER M.W. "Musculoskeletal Infections in Children." Phoenix Children's Hospital Pediatric Update, October 2009.

SHRADER M.W. "Periacetabular (Ganz) Osteotomy for Adolescent Hip Dysplasia." Banner-Phoenix Orthopedic Residency Grand Rounds, October 2009.

SHRADER M.W. "Pediatric Fractures." Phoenix Children's Hospital Pediatric Residency Lecture series, July 2009

SHRADER M.W. "Transitioning Children with Neuromuscular Diseases into Adulthood." Phoenix Children's Hospital Orthopedic Update for Primary Care Physicians, May 2009.

SHRADER M.W. "Gait and Strength Analysis Following Periacetabular (Ganz) Osteotomy for Adolescent Hip Dysplasia." Nemours Jacksonville Department of Pediatric Orthopedic Surgery Grand Rounds, March 2009.

SHRADER M.W. "Orthopedic Emergencies." Abrazo Emergency Medical Services Program, January 2008.

SHRADER M.W. "Update on the SHRI-CORE Orthopedic Research Laboratories." Sun Health CORE Orthopedic Ground Rounds, November 2007.

SHRADER M.W. "Orthopedic Emergencies." Sun Health Emergency Medical Services Program, November 2007.

SHRADER M.W. "Pediatric Fractures and Dislocations." Sun Health Emergency Medical Services Program, November 2007.

SHRADER M.W. "Career Options: Orthopedic Surgery." School lecture, Vistancia Elementary School, Peoria, AZ, September 2007.

SHRADER M.W. "Common Pathologic Conditions of the Cervical Spine: Diagnosis and Non-operative Management." Sun Health Primary Care Orthopedic Symposium, May 2007.

SHRADER M.W. "Indications for Advanced Imaging of the Spine." Sun Health Primary Care Orthopedic Symposium, May 2007.

SHRADER M.W. "Hip Resurfacing Arthroplasty." Sun Health CORE Orthopedic Ground Rounds, December 2006.

SHRADER M.W. "Pediatric Fractures and Dislocations." Sun Health Emergency Medical Services Program, November 2006.

SHRADER M.W. "Minimally Invasive Total Hip Arthroplasty." Community Lecture Series, Sun City Grand, Sun City West, AZ, March 2006.

SHRADER M.W. "Common Disorders of the Foot and Ankle." Community Lecture Series, Sun City Grand, Sun City West, AZ, October 2005.

SHRADER MW, Sucato DJ, Haideri N. "Functional, Gait and Radiographic Outcome Following Ganz Periacetabular Osteotomy for Hip Dysplasia." Presented, Texas Scottish Rite Hospital for Children Department of Pediatric Orthopedic Surgery, Boone Pickens Fellow Research Symposium, May, 2005.

Sucato DJ, SHRADER MW, Zhang H, McClung A. "Lenke 1A Curve Patterns: A Comparison of Anterior and Posterior Instrumentation and Fusion." Presented, Texas Scottish Rite Hospital for Children Department of Pediatric Orthopedic Surgery, Boone Pickens Fellow Research Symposium, May, 2005.

SHRADER M.W. "Muscular Dystrophy, Spinal Muscle Atrophy, and Charcot-Marie-Tooth Disease." Texas Scottish Rite Hospital for Children Department of Pediatric Orthopedic Surgery, Grand Rounds, November 2004.

SHRADER M.W. "Tarsal Coalitions." Mayo Clinic Department of Orthopedic Surgery Foot Conference, March 2003.

SHRADER M.W. "Spine Infections." Mayo Clinic Department of Orthopedic Surgery Spine Conference, November 2002.

#### **Lectures and Grand Rounds continued:**

SHRADER M.W. "The Management of Spasticity in Cerebral Palsy." Nemours Children Clinic, Wolfson's Children's Hospital, Department of Orthopedic Surgery, Jacksonville, FL, Grand Rounds, June 2002.

SHRADER M.W., Parvizi J., Lewallen D.G. "Constrained Acetabular Components for the Treatment of Recurrent Instability of Total Hip Arthroplasty." Presented, Mayo Clinic Department of Orthopedic Surgery Coventry Research Award Presentation, June 2002.

SHRADER M.W. "Lateral Condyle Fractures." Nemours Children Clinic, Wolfson's Children's Hospital, Department of Orthopedic Surgery, Jacksonville, FL, Grand Rounds, May 2002.

SHRADER M.W. "Cerebral Palsy in the Upper Extremity." Nemours Children Clinic, Wolfson's Children's Hospital, Department of Orthopedic Surgery, Jacksonville, FL, Grand Rounds, April 2002.

SHRADER M.W. "Patellar Tendon Rupture." Mayo Clinic Department of Orthopedic Surgery Sports Conference, November, 2001.

SHRADER M.W. "Cerebral Palsy in the Upper Extremity." Mayo Clinic Department of Orthopedic Surgery Hand Conference, March 2001.

**Other Professional experience:**

June 1991 - August 1995

NASA, Marshall Space Flight Center, Huntsville, AL

Aerospace Engineer in Guidance, Navigation, and Control

- Developed optimal trajectories for Space Shuttle and next generation space vehicles, designed Lunar and Mars mission profiles to minimize human exposure to space environments, and programmed ascent and orbital computer simulations.

May 1990 - August 1990

McDonnell Douglas Aerospace, Space Station Division, Huntington Beach, CA

Aerospace Engineering Summer Intern

- Analyzed stress properties and structural design of Space Station structural elements and planned Shuttle/Space Station element flight manifests.

September 1996 – April 1997

Research Assistant, Motion Analysis Laboratory

Section of Orthopaedic Surgery, Department of Surgery

University of Chicago

- Analyzed biomechanical gait parameters of human subjects during normal gait, stair stepping, and obstacle crossing, and developed computer processing tools to automate the analysis and data reduction of gait analysis.

September 1996 –  
December 1996

Department of Anatomy,

University of Chicago Pritzker School of Medicine

Human Morphology Teaching Assistant

- Performed dissections on cadavers for musculoskeletal dissections, instructed first-year medical students gross anatomy, and assisted with testing and evaluation