

## W. Steven Tucker, PhD, ATC

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University of Central Arkansas  
 Farris Center – 120C  
 Conway, AR 72035  
 (501) 450-5702  
 stucker@uca.edu

### **Education:**

Aug. 2008	University of Toledo - Ph.D. in Exercise Science Specialization: Biomechanics Cognate: Anatomy Dissertation: <i>Scapular muscle activity in overhead athletes with symptoms of shoulder impingement during closed chain exercises</i>
Aug. 2000	University of Toledo - M.S. in Exercise Science Specialization: Biomechanics Thesis: <i>An electromyographic analysis of the Cuff Link rehabilitation device</i>
May 1998	Valparaiso University - B.S. in Physical Education Major: Athletic Training Minors: Psychology, Human Biology

### **Professional Experience:**

#### University of Central Arkansas, Conway, AR

Department of Exercise and Sport Science

(formerly Department of Kinesiology and Physical Education)

July 2015 – present	Department Chair
July 2014 – present	Associate Professor (tenured)
July 2013 – July 2015	Interim Department Chair
Aug. 2008 – June 2014	Assistant Professor (tenure-track)

#### Rocky Mountain University of Health Professions

July 2015 – June 2017	Adjunct Research Fellow
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The University of Toledo, Toledo, OH

Department of Kinesiology

Aug. 2004 – May 2008

Graduate Teaching/Research Assistant

Valparaiso University, Valparaiso, IN

Department of Physical Education

Aug. 2000 – June 2004

Athletic Trainer/Instructor/Clinical Coordinator

HealthSouth Sports Medicine, Toledo, OH

Aug. 1998 – July 2000

Graduate Assistant Athletic Trainer

**TEACHING**

**Courses Taught:**

University of Central Arkansas: (Aug. 2008 – present)

EXSS 3331: Care and Prevention of Exercise and Sports Injuries

ATTR 3351: Evaluation Techniques for the Lower Extremity

ATTR 3354: Evaluation Techniques for the Upper Extremity

EXSS 3382: Biomechanics

EXSS 4230: Fitness Assessment and Exercise Prescription

EXSS 4320: Measurement and Evaluation in Human Performance

EXSS 5V71: Special Topics in Exercise and Sport Science

EXSS 5332: Critical Analysis of Research

EXSS 6V01: Thesis Research

EXSS 6300: Independent Study

EXSS 6360: Measurement in Exercise and Sport Science

University of Toledo: (Aug. 2004 – May 2008)

KINE 1110: Introduction to Athletic Training

KINE 2460: Anatomy and Physiology I Lab

KINE 2470: Anatomy and Physiology II Lab

KINE 2520: Human Anatomy Lab

KINE 2620: Upper Extremity Injury Evaluation (Teaching Assistant)

KINE 3200: Advanced Human Anatomy

KINE 3630: Therapeutic Modalities for Athletic Training (Teaching Assistant)

KINE 3720: Clinical Skills IV

KINE 4550: Applied Biomechanics Lab

Valparaiso University: (Aug. 2000 – May 2004)

PE 185: Practicum I in Athletic Training  
 PE 285: Practicum II in Athletic Training  
 PE 355: Therapeutic Modalities  
 PE 370: Kinesiology  
 PE 385: Practicum III in Athletic Training  
 PE 435: Evaluation of Athletic Injuries  
 PE 440: Physiology of Exercise  
 PE 477: Biomechanics of Human Movement  
 PE 485: Practicum IV in Athletic Training

**Academic Advising:**University of Central Arkansas: (Aug 2008 – present)

Academic Year	Undergraduate Advisees	Graduate Advisees
2014-15.....	0.....	17
2013-14.....	0.....	14
2012-13.....	19	
2011-12.....	15	
2010-11.....	21	
2009-10.....	17	
2008-09.....	1	

**Curriculum Development:**University of Central Arkansas: (Aug 2008 – present)

- EXSS 5332: Critical Analysis of Research
- EXSS 1176: Sports Medicine Professions (co-developer)

University of Toledo: (Aug 2004 – May 2008)

- KINE 3200: Advanced Human Anatomy (co-developer)
- University of Toledo Athletic Training Education Program Policy & Procedure Manual (co-author)

## SCHOLARSHIP

\* Indicates undergraduate student

\*\* Indicates master's student

† Indicates doctoral student

# Indicates clinical sports medicine resident

### Book Chapters:

**Tucker WS.** Chapter 34: What are the optimal shoulder strength ratios for overhead athletes and strategies for achieving them? In *Quick Questions in the Shoulder: Expert Advice in Sports Medicine*. Slack Inc. Thorofare, NJ, 2015. **(Invited)**

### Peer Reviewed Publications:

Henderson J, Lyons BC, **Tucker WS**, Davidson B. Comparison of Prophylactic Ankle Cloth Wrapping and Taping on Vertical Jump Performance in Division I Football Players. *International Journal of Athletic Therapy and Training*. **(In press)**

Mayo JJ, Lyons BC, **Tucker WS**, Wax B. Electromyographical Comparison of Muscle Activation Patterns Across Three Commonly Performed Kettlebell Exercises. *Journal of Strength and Conditioning Research*. 2017; 31(9): 2363-2370.

Rich RL\*\*, Struminger A<sup>†</sup>, **Tucker WS**, Munkasy BA, Joyner B, Buckley TA. Acute Fatigue Produces Scapular Upward Rotation Deficits in Tennis Players. *Journal of Athletic Training*. 2016; 51(6): 474-479.

**Tucker WS** and Slone SW\*\*. The Acute Effects of Hold-Relax Proprioceptive Neuromuscular Facilitation with Vibration Therapy on Glenohumeral Internal Rotation Deficit. *Journal of Sport Rehabilitation*. 2016; 25(3): 248-254.

**Tucker WS**, Swartz EE, Hornor SD. Head and Trunk Acceleration during Intermediate Transport on Medical Utility Vehicles. *Clinical Journal of Sport Medicine*. 2016; 26(1): 53-58.

Endres BD<sup>#</sup>, Swartz EE, **Tucker WS**, Decoster LC. A Comparison of Head Acceleration, Time and Difficulty during Helmet Removal with and without Facemask Removal. *Athletic Training & Sports Health Care*. 2015; 7(6): 224-231. **(Invited)**

**Tucker WS** and Ingram RL\*. Reliability and Validity of Measuring Scapular Upward Rotation Using an Electrical Inclinometer. *Journal of Electromyography and Kinesiology*. 2012; 22: 419-423.

McClain MA\*, **Tucker WS**, Hornor SD. Comparison of Scapular Position in Overhead and Non-Overhead Athletes Using the Pectoralis Minor Length Test. *Athletic Training & Sports Health Care*. 2012; 4(1): 45-48.

**Tucker WS**, Bruenger AJ, Doster CM\*\*, Hoffmeyer DR. Scapular Muscle Activity in Overhead and Non-Overhead Athletes during Closed Chain Exercises. *Clinical Journal of Sport Medicine*. 2011; 21(5): 405-410.

**Tucker WS**, Armstrong CW, Gribble PA, Timmons MK, Yeasting RA. Scapular Muscle Activity in Overhead Athletes with Symptoms of Secondary Shoulder Impingement during Closed Chain Exercises. *Archives of Physical Medicine and Rehabilitation*. 2010; 91(4): 550-556.

**Tucker WS**, Gilbert ML\*\*, Gribble PA, Campbell BM. Effects of Hand Placement on Scapular Muscle Activation during the Push-Up Plus Exercise. *Athletic Training & Sports Health Care*. 2009; 1(3): 107-113. **(Invited)**

**Tucker WS**, Campbell BM, Swartz EE, Armstrong CW. Electromyography of 3 Scapular Muscles: A Comparative Analysis of the Cuff Link Device and a Standard Push-Up. *Journal of Athletic Training*. 2008; 43(5): 464-469.

Gribble PA, **Tucker WS**, White PA\*\*. Time of Day Influences Static and Dynamic Postural Control. *Journal of Athletic Training*. 2007; 42(1): 35-41.

**Tucker WS**, Armstrong CW, Swartz EE, Campbell BM, & Rankin JM. An Electromyographic Analysis of the Cuff Link Rehabilitation Device. *Journal of Sport Rehabilitation*. 2005; 14(2): 124-136.

**Manuscripts in Review:**

Swartz EE, **Tucker WS**, Nowak MJ#, Roberto JC#, Hollingworth AT, Decoster LC, Trimarco TW, Mihalik JP. Prehospital cervical spine motion: immobilization versus spine motion restriction. *Prehospital Emergency Care*.

Struminger A<sup>†</sup>, Rich RL<sup>\*\*</sup>, **Tucker WS**, Munkasy BA, Joyner B, Buckley TA. The Minimal Detectable Change of Scapular Upward Rotation Measurement. *Sports Biomechanics*.

**Manuscripts in Progress:**

**Tucker WS**, Brown MJ<sup>\*\*</sup>, Patterson AB<sup>\*\*</sup>, Fotioo AW<sup>\*\*</sup>. The Effects of Wearing a Portable Media Armband on Muscle Activation of the Biceps Brachii.

Brewer ME\* and **Tucker WS**. Shoulder Kinematics in Elite Volleyball Players Following a Full Season of Play.

**Tucker WS**, Fletcher JP, Taylor JD, Engle SA<sup>\*\*</sup>. The Effects of 6-week Open and Closed Chain Resistance Tubing Programs on Shoulder Torque and Power.

**Tucker WS**, Rich RL\*, Shimozawa Y\*. A Comparison of Scapular Upward Rotation between Overhead Athletes, Non-Overhead Athletes and Non-Athletes.

**Non-Peer Reviewed Publications:**

**Tucker WS** and Stento B. Alternate Internal Rotation Stretch for the Rotator Cuff. *NATA News*. April 2010: p35.

**Peer Reviewed Abstracts and Presentations:**

**Tucker WS**, Fletcher JP, Taylor JD, Engle SA. Effects of 6-week Open Kinetic Chain and Closed Kinetic Chain Resistance Exercise Programs on Scapular Upward Rotation. (Oral Presentation: *National Athletic Trainers' Association Clinical Symposia & AT Expo*, Houston, TX, 2017)

Wax B, Mayo JJ, Lyons B, **Tucker WS**, Hendrix R. Electromyographical Comparison of Muscle Activation Patterns Across Three Commonly Performed Kettlebell Exercises. (*National Strength and Conditioning Association National Conference, New Orleans, LA, 2016*)

Nowak MJ<sup>#</sup>, Roberto JC<sup>#</sup>, Hollingworth AT, Decoster LC, **Tucker WS**, Swartz EE, Mihalik JP, Trimarco TW. Efficacy of Spinal Immobilization and Spinal Motion Restriction in Minimizing Cervical Spine Motion during Patient Transfer. (Oral Presentation: *National Athletic Trainers' Association Clinical Symposia & AT Expo*, Baltimore, MD, 2016)

Roberto JC<sup>#</sup>, Nowak MJ<sup>#</sup>, Hollingworth AT, Decoster LC, **Tucker WS**, Swartz EE, Mihalik JP, Trimarco TW. Comparing Spine Immobilization with Spinal Motion Restriction during Transport of Suspected Spine-Injured Patients. (Poster Presentation: *National Athletic Trainers' Association Clinical Symposia & AT Expo*, Baltimore, MD, 2016)

**Tucker WS**, Allen MJ<sup>\*\*</sup>, Patterson AB<sup>\*\*</sup>, Fotioo AW<sup>\*\*</sup>. The Effects of Wearing a Portable Media Armband on Muscle Activation of the Biceps Brachii. (Poster Presentation: *National Athletic Trainers' Association Clinical Symposia & AT Expo*, Baltimore, MD, 2016)

Cohen MR<sup>#</sup>, Silva KJ<sup>#</sup>, Decoster LC, **Tucker WS**, Hollingworth AT, Swartz EE. A Comparison of Chinstrap Removal Techniques for an American Football Athlete with a Suspected Cervical Spine Injury. (Oral presentation: *National Athletic Trainers' Association Clinical Symposia & AT Expo*, St. Louis, MO, 2015)

Hollingworth AT, Silva KJ<sup>#</sup>, Cohen MR<sup>#</sup>, Decoster LC, **Tucker WS**, Swartz EE. Head Acceleration caused by Chinstrap Removal during Emergency Management of Football Equipment. (Oral presentation: *National Athletic Trainers' Association Clinical Symposia & AT Expo*, St. Louis, MO, 2015)

Silva KJ<sup>#</sup>, Cohen MR<sup>#</sup>, Decoster LC, **Tucker WS**, Hollingworth AT, Swartz EE. The Difference in Head and Helmet Motion during an Emergency Management Maneuver: Does the Helmet Immobilize the Head? (Oral presentation: *National Athletic Trainers' Association Clinical Symposia & AT Expo*, St. Louis, MO, 2015)

**Tucker WS**, Fletcher JP, Taylor JD, Engle SA. The Effects of 6-week Open and Closed Chain Resistance Tubing Programs on Shoulder Torque and Power. (Oral presentation: *National Athletic Trainers' Association Clinical Symposia & AT Expo*, St. Louis, MO, 2015)

Smith CA<sup>\*\*</sup> and **Tucker WS**. Serratus Anterior Activation in Overhead Athletes with Shoulder Impingement during Phases of the Push-up. *Journal of Athletic Training (supplement)*. 2014; 49(3): S-65 (Oral presentation: *National Athletic Trainers' Association Clinical Symposia & AT Expo*, Indianapolis, IN, 2014)

Rich RL<sup>\*\*</sup>, **Tucker WS**, Munkasy BA, Buckley TA. Acute Alterations of Scapular Upward Rotation Following a Functional Fatiguing Protocol in Male Tennis Player.

*Journal of Athletic Training (supplement)*. 2014: 49(3): S-97 (Oral presentation: *National Athletic Trainers' Association Clinical Symposia & AT Expo*, Indianapolis, IN, 2014)

**Tucker WS**, Chester TE<sup>#</sup>, Decoster LC, Swartz EE, Endres BD<sup>#</sup>. A Comparison of Head Acceleration, Time and Difficulty during Helmet Removal with and without Facemask Removal. *Journal of Athletic Training (supplement)*. 2014: 49(3): S-127 (Thematic poster presentation: *National Athletic Trainers' Association Clinical Symposia & AT Expo*, Indianapolis, IN, 2014)

Ingram RL<sup>\*\*</sup>, Munkasy BA, **Tucker WS**, Buckley TA. Reliable Change Index of Scapular Upward Rotation. *Journal of Athletic Training (supplement)*. 2013: 48(3): S-179 (Poster presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, Las Vegas, NV, 2013)

Swartz EE, **Tucker WS**, Hornor SD. Head and Trunk Acceleration during Intermediate Transport on Medical Utility Vehicles. *Journal of Athletic Training (supplement)*. 2013: 48(3): S-196 (Poster presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, Las Vegas, NV, 2013)

Brewer ME\* and **Tucker WS**. Shoulder Kinematics in Elite Volleyball Players Following a Full Season of Play. *Journal of Athletic Training (supplement)*. 2013: 48(3): S-241 (Poster presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, Las Vegas, NV, 2013)

**Tucker WS** and Slone SW<sup>\*\*</sup>. The Acute Effects of Hold-Relax Proprioceptive Neuromuscular Facilitation with Vibration Therapy on Glenohumeral Internal Rotation Deficit. *Journal of Athletic Training (supplement)*. 2013: 48(3): S-48 (Oral presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, Las Vegas, NV, 2013)

Ingram RL<sup>\*\*</sup>, Munkasy BA, **Tucker WS**, Buckley TA. Quantifying Scapular Upward Rotation Reliable Change Index. (Poster presentation: *Annual Southeast Athletic Trainers' Association Clinical Symposia and Members Meeting*, Atlanta, GA, 2013)

Hoult A\*, Fisher RA, **Tucker WS**. A Comparison of Facial Muscle Activation between Vocalists and Instrumentalists (Poster presentation: *Texas Music Educators Association Convention*, San Antonio, TX, 2013)

Ingram RL<sup>\*\*</sup>, Munkasy BA, **Tucker WS**, Buckley TA. Reliable Change Index of Scapular Upward Rotation. (Oral presentation: *Georgia Athletic Trainers' Association Annual Meeting and Symposium*, Peachtree City, GA, 2013)



Brewer ME\*, Sipes BA\*, **Tucker WS**. The Effectiveness of Various Taping Techniques on Restricting Wrist Range of Motion. (Poster presentation: *Southwest Athletic Trainers' Association Annual Meeting & Clinical Symposia*, Addison, TX, 2012)

Smith AC\*, Robinson MC\*, **Tucker WS**. A Comparison of Balance between Individuals with and without a History of Concussion. (Poster presentation: *Southwest Athletic Trainers' Association Annual Meeting & Clinical Symposia*, Addison, TX, 2012)

Bruenger AJ, Carruth J\*\*, **Tucker WS**. Comparison of Moments and Shear Forces of the Hip and Knee during Step Ups and Single Leg Squats. (Poster presentation: *Conference of the International Society of Biomechanics in Sports*, Melbourne Australia, 2012)

Bruenger AJ, Carruth J\*\*, **Tucker WS**. Comparison of Muscle Activity during Step Ups and Single Leg Squats. (Poster presentation: *Conference of the International Society of Biomechanics in Sports*, Melbourne Australia, 2012)

Ingram RL\*, **Tucker WS**, Shimozawa Y\*. The Influence of Athletic Participation on the Degree of Change of Scapular Upward Rotation. *Journal of Athletic Training (supplement)*. 2012: 47(3): S-157 (Poster presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, St. Louis, MO, 2012)

Brewer ME\* and **Tucker WS**. Bilateral Comparison of Shoulder Kinematics in Collegiate Volleyball Players. *Journal of Athletic Training (supplement)*. 2012: 47(3): S-124 (Poster presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, St. Louis, MO, 2012)

- NATA Undergraduate Poster Award Finalist

**Tucker WS**, Ingram RL\*, Shimozawa Y\*. A Comparison of Scapular Upward Rotation between Overhead Athletes, Non-Overhead Athletes and Non-Athletes. *Journal of Athletic Training (supplement)*. 2012: 47(3): S-96 (Oral presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, St. Louis, MO, 2012)

Ingram RL\* and **Tucker WS**. Reliability and Validity of Measuring Scapular Upward Rotation Using an Electrical Inclinometer. (Oral Presentation: *Georgia Athletic Trainers' Association Annual Meeting and Symposium*, Peachtree City, GA, 2012)

Smallwood JD\*\* and **Tucker WS**. Effects of an Ankle Support on Ankle Range of Motion in Male Collegiate Soccer Players. (Oral presentation: *North Carolina Athletic Trainers' Association Summer Symposium*, Greensboro, NC, 2011)

Doster CM\*\* and **Tucker WS**. Upper Trapezius Activation during Manual Muscle Testing Positions: A Comparison between the Sexes. *Journal of Athletic Training (supplement)*. 2011: 46(3): S-136 (Poster presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, New Orleans, LA, 2011)

Ingram RL\* and **Tucker WS**. Reliability and Validity of Measuring Scapular Upward Rotation Using an Electrical Inclinometer. *Journal of Athletic Training (supplement)*. 2011: 46(3): S-114 (Poster presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, New Orleans, LA, 2011)

- NATA Undergraduate Poster Award Winner

Shimozawa Y\*, **Tucker WS**, Ingram RL\*. Comparison of Static Scapular Upward Rotation in Healthy Athletes and Non-Athletes. (Poster presentation: *Arkansas Athletic Trainers' Association Annual Meeting*, Little Rock, AR, 2011)

Doster CM\*\*, **Tucker WS**, Bruenger AJ. A Comparison of Scapular Muscle Activation during a Push and a Pull Exercise. (Student poster presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, Philadelphia, PA, 2010)

**Tucker WS**, Bruenger AJ, Doster CM\*\*, Hoffmeyer DR. Scapular Muscle Activity in Overhead and Non-Overhead Athletes during Closed Chain Exercises. *Journal of Athletic Training (supplement)*. 2010: 45(3): S-104 (Poster presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, Philadelphia, PA, 2010)

McClain MA\*, **Tucker WS**, Hornor SD. Comparison of Scapular Position in Overhead and Non-Overhead Athletes Using the Pectoralis Minor Length Test. (Poster presentation: *Arkansas Athletic Trainers' Association Annual Meeting*, Little Rock, AR, 2010)

- AATA Student Poster Award Winner

Sopocy KA\*, **Tucker WS**, Gribble PA. A Comparison of the Modified Rowe Score between Overhead Athletes with and without Shoulder Impingement. (Student poster presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, San Antonio, TX, 2009)

**Tucker WS**, Armstrong CW, Gribble PA, Timmons MK, Yeasting RA. Bilateral Scapular Muscle Activation in Overhead Athletes with Unilateral Shoulder Impingement during a Push-Up. *Journal of Athletic Training (supplement)*. 2009: 44(3): S-41 (Oral

presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, San Antonio, TX, 2009)

**Tucker WS**, Armstrong CW, Gribble PA, Timmons MK, Yeasting RA. Scapular Muscle Activity in Overhead Athletes with Symptoms of Shoulder Impingement during Closed Chain Exercises. (Oral presentation: *Great Lakes Athletic Trainers' Association Annual Meeting and Clinical Symposium*, Fort Wayne, IN, 2009)

Gilbert ML\*\*, **Tucker WS**, Campbell BM, Gribble PA. The Effects of Hand Placement on Scapular Muscle Activation during a Push-Up Plus Exercise. (Student poster presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, St. Louis, MO, 2008)

Sopocy KA\*, **Tucker WS**, Gilbert ML\*\*, Campbell BM, Gribble PA. Electromyography of the Scapular Stabilizing Musculature during an Upper Extremity Closed Chain Exercise with Different Hand Placements. (Student poster presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, St. Louis, MO, 2008)

Freece KA\*, **Tucker WS**, Gilbert ML\*\*, Campbell BM, Gribble PA. Effects of Hand Placement on Scapular Muscle Activation during Cuff Link Exercise. (Student poster presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, St. Louis, MO, 2008)

**Tucker WS**, Gilbert ML\*\*, Campbell BM, Gribble PA. Electromyography of the Scapular Stabilizers during Upper Extremity Closed Chain Exercises with "Plus Phase" Protraction. *Journal of Athletic Training (supplement)*. 2008: 43(3): S-100 (Poster presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, St. Louis, MO, 2008)

**Tucker WS**, Campbell BM, Gustwiller SM\*, Armstrong CW. Electromyography and Gender Analysis of Four Trunk Muscles during Two Upper Extremity Closed Kinetic Chain Exercises. *Journal of Athletic Training (supplement)*. 2007: 42(2): S-19 (Oral presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, Anaheim, CA, 2007)

**Tucker WS**, Campbell BM, Swartz EE, Armstrong CW. Electromyography of Three Scapular Muscles: A Comparative Analysis of the Cuff Link Device and a Standard Push-Up. *Journal of Athletic Training (supplement)*. 2006: 41(2): S-36 (Oral presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, Atlanta, GA, 2006)

**Tucker WS** and Armstrong CW. Analysis of the Lumbar Spine during a Lifting Task with and without an Infant Carrier. *Medicine and Science in Sports and Exercise (supplement)*. 2006; 38(5): S-261. (Poster presentation: *American College of Sports Medicine Annual Meeting*, Denver, CO, 2006)

- Abstract included in the ACSM Communications and Public Information Office's press release to the media

Gribble PA, **Tucker WS**, White PA\*\*. The Effects of Time of Day on Static and Dynamic Postural Control. *Medicine and Science in Sports and Exercise (supplement)*. 2006; 38(5): S-444. (Poster presentation: *American College of Sports Medicine Annual Meeting*, Denver, CO, 2006)

**Tucker WS** and Armstrong CW. An Electromyographical Analysis of the Cuff Link Rehabilitation Device. *Journal of Athletic Training (supplement)*. 2001; 34(2): S-34 (Oral Presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, Los Angeles, CA, 2001)

Norkus SA, Armstrong CW, Campbell BM, Swartz EE, **Tucker WS**, Rankin JM, Skelly WA. A Comparison of the Three-Dimensional Characteristics of a Full-Effort Overhead Throw and the Throwing Motions Involved in the Program. *Journal of Athletic Training (supplement)*. 2001; 34(2): S-59. (Oral Presentation: *National Athletic Trainers' Association Annual Meeting & Clinical Symposia*, Los Angeles, CA, 2001)

#### **Workshop and Symposium Presentations:**

**Tucker WS.** Closing the Chain on Shoulder Injuries in Overhead Athletes. *Arkansas Athletic Trainers' Association Annual Meeting*, Little Rock, AR, April 29, 2017.

**Tucker WS.** Closed Kinetic Chain Exercises for Overhead Athletes. National Strength and Conditioning Association Arkansas State Clinic, Conway, AR, June 3, 2016. **(Invited)**

**Tucker WS.** Clinical Techniques to Quantify Scapular Upward Rotation. *New Hampshire Musculoskeletal Institute Annual Meeting*, Bedford, NH, September 14, 2013. **(Invited)**

**Tucker WS.** The Closed Chain Approach to Shoulder Rehabilitation. *New Hampshire Musculoskeletal Institute Annual Meeting*, Bedford, NH, September 14, 2013. **(Invited)**

**Tucker WS, Walendzak DR, Rogers BL.** Advanced Track Course: “Hands On” Approach to Shoulder Rehabilitation. *National Athletic Trainers’ Association Annual Meeting & Clinical Symposia*, Las Vegas, NV, June 28, 2013.

**Tucker WS.** Treating Common Shoulder Muscle-Length Deficiencies. *Arkansas Athletic Trainers’ Association Annual Meeting*, Rogers, AR. April 21, 2013. **(Invited)**

**Tucker WS.** What to Look for in a Graduate School. *Central Arkansas Athletic Training Student Association Meeting*. Conway, AR, November 14, 2012. **(Invited)**

**Tucker WS.** Closing the Chain on Shoulder Rehabilitation and Injury Prevention. *National Athletic Trainers’ Association Annual Meeting & Clinical Symposia*, St. Louis, MO, 2012. **(Invited)**

**Tucker WS.** What to Look for in a Graduate School. *Central Arkansas Athletic Training Student Association Meeting*. Conway, AR, November 3, 2011.

**Tucker WS and Walendzak DR.** Standing Shoulder Mobilization for the Overhead Athlete. *National Athletic Trainers’ Association Annual Meeting & Clinical Symposia*, New Orleans, LA, June 22, 2011.

**Tucker WS.** Clinical Techniques to Quantify Scapular Upward Rotation. *National Athletic Trainers’ Association Annual Meeting & Clinical Symposia*, New Orleans, LA, June 21, 2011.

**Tucker WS.** What to Look for in a Graduate School. *Central Arkansas Athletic Training Student Association Meeting*. Conway, AR, November 11, 2010.

**Tucker WS.** The Closed Kinetic Chain Approach to Shoulder Rehabilitation. *University of Central Arkansas Department of Physical Therapy Research Forum*. Conway, AR, September 24, 2008. **(Invited)**

**Discussion Panels:**

**Tucker WS.** The Science of Baseball. *Society of Physics Students*. Conway, AR, April 15, 2015. **(Invited)**

**Tucker WS.** Academic Vitality Panel Discussion. *University of Central Arkansas Office of the Provost*. Conway, AR, October 8, 2013. **(Invited)**

**Tucker WS.** Student Undergraduate Research Fellowship Q & A Session. *University of Central Arkansas Sponsored Programs Office*. Conway, AR, September 13, 2012. **(Invited)**

**Tucker WS.** Student Undergraduate Research Fellowship Panel. *Informational Grant Workshop for Students*. Conway, AR, April 16, 2012. **(Invited)**

**Interviews:**

March 16, 2011

Simon Gable, staff writer for *The Echo*, the University of Central Arkansas Newspaper.  
Topic: Quantification of Scapular Upward Rotation in Elite Volleyball Players Following a Full Season of Play

April 20, 2010

Carl Lanore, host of *Super Human Radio*, an internationally syndicated radio talk show.  
Topic: Identifying the Real Issues behind Shoulder Injuries

June 14, 2006

Editorial staff for *Women's Health*.

Topic: Analysis of the Lumbar Spine during a Lifting Task with and without an Infant Carrier

- Interview published in *Women's Health*. Oct 2006: p20.

**Funded Grant Proposals:**

Title: Serratus Anterior Activation in Overhead Athletes with Shoulder Impingement during Phases of the Push-up.

Source: University of Central Arkansas Graduate School

PI: Christina Smith\*\*

Faculty Mentor: W. Steven Tucker

Period: February – June 2014

Amount: \$400

Title: Acute Alterations in Scapular Upward Rotation Following a Functional Fatiguing Protocol in Male Tennis Players

Source: National Athletic Trainers' Association Research & Education Foundation

PI: R. Lyndsey Ingram\*\*

Co-investigators: Thomas Buckley and W. Steven Tucker

Period: July 2012 – July 2013

Amount: \$1,000

Title: The Effects of Open and Closed Chain Resistance Tubing Programs on Shoulder Torque and Scapular Upward Rotation

Source: Lifting Up Life, LP

PI: W. Steven Tucker

Period: June 2012 – unrestricted

Amount: \$2,000 (no contract equipment donation)

Title: *Emergency Care for the Injured Athlete Clinical Workshop*

Source: University of Central Arkansas Foundation, Inc.

PI: W. Steven Tucker

Period: May 2012 – Oct 2013

Amount: \$2,977

Title: *Head and Trunk Acceleration during Intermediate Transport on Medical Utility Vehicles*

Source: University Research Council

PI: W. Steven Tucker

Period: May 2012 – Sept 2012

Amount: \$3,000

Title: *The Acute Effects of Hold-Relax Proprioceptive Neuromuscular Facilitation with Vibration Therapy on Glenohumeral Internal Rotation Deficit*

Source: University Research Council

PI: W. Steven Tucker

Period: May 2011 – April 2012

Amount: \$7,902.00

Title: *Quantification of Scapular Upward Rotation in Elite Volleyball Players Following a Full Season of Play*

Source: Arkansas Department of Higher Education - Student Undergraduate Research Fellowship

PI: Meghann Brewer\*

Faculty Mentor: W. Steven Tucker

Period: Jan 2011 – Dec 2011

Amount: \$4,000

Title: *Reliability and Validity of Measuring Scapular Upward Rotation Using an Electrical Inclinometer*

Source: Arkansas Department of Higher Education - Student Undergraduate Research Fellowship

PI: R. Lyndsey Ingram\*

Faculty Mentor: W. Steven Tucker

Period: Jan 2010 – Dec 2010

Amount: \$3,900

Title: *Scapular Muscle Activity in Overhead and Non-Overhead Athletes during Closed Chain Exercises*

Source: University Research Council

PI: W. Steven Tucker

Period: May 2009 – Sept 2009

Amount: \$4,362

Title: *Scapular Muscle Activity in Overhead Athletes with Symptoms of Impingement Syndrome during Closed Chain Exercises*

Source: Great Lakes Athletic Trainers' Association

PI: W. Steven Tucker

Period: Sept 2007 – Sept 2008

Amount: \$1,459

**Non-Funded Grant Proposals:**

Title: *The Effects of Six-Week Stretching Programs on Glenohumeral Internal Rotation Deficit and Posterior Tissue Thickness*

Source: National Athletic Trainers' Association Foundation

PI: W. Steven Tucker

Co-investigators: Steven Forbush and Thomas Roberts

Amount: \$32,798

Pre-proposal accepted: January 3, 2012

Initial submission: February 10, 2014

Resubmitted: February 13, 2015

Decision: Not funded

- Impact on AT Score: 78/100
- Scientific Content Score: 54/100



Title: *The Effects of Six-Week Stretching Programs on Glenohumeral Internal Rotation Deficit and Posterior Capsule Thickness*

Source: National Athletic Trainers' Association Foundation

PI: W. Steven Tucker

Co-investigators: Thomas Roberts and Steven Forbush

Amount: \$37,858

Pre-proposal accepted: January 3, 2012

Submitted: February 10, 2014

Decision: Do not fund – Resubmit revised proposal

- Impact on AT Score: 83/100
- Scientific Content Score: 77/100

Title: *Scapular Upward Rotation in Collegiate Volleyball Players: A One Year Follow-Up*

Source: Arkansas Department of Higher Education - Student Undergraduate Research Fellowship

PI: Tim Driedric\*

Faculty Mentor: W. Steven Tucker

Year: 2011

Amount: \$4,000

Title: *Medical Emergency Care Training Utilizing a Medically Modified Utility Vehicle*

Source: Ford Motor Company

PI: W. Steven Tucker

Year: 2011

Amount: \$20,347

Title: *Medical Emergency Care Training Utilizing a Medically Modified Utility Vehicle*

Source: Firehouse Subs Foundation

PI: W. Steven Tucker

Year: 2010

Amount: \$20,347

Title: *Analysis of force, muscle activation and throwing velocity following two upper extremity training protocols*

Source: National Athletic Trainers' Association Research & Education Foundation

PI: W. Steven Tucker

Year: 2007

Amount: \$2,303.00

**Other Research Involvement:**

Dec. 2010 – present

Biomechanical Consultant: University of Central Arkansas Baseball Team

Feb. 2006

Research Assistant: *Comparison of Vertical Ground Reaction Force during Walking, Jogging and the Skytrec*. The University of Toledo Motion Analysis Laboratory.

March 2005

Research Assistant: *The Influences on Football Equipment from a Full Season of Participation and its Relation to Face Mask Removal Efficiency*. University of New Hampshire and New Hampshire Musculoskeletal Institute. The Bryon Goldman Research Award from the National Operating Committee on Standards for Athletic Equipment. Awarded: \$34,145

Dec. 2004

Research Assistant: *Levels of Activation in Selected Muscles during a “Katamibar” Exercise Session*. The University of Toledo Motion Analysis Laboratory.

**Dissertation Committees:**

2016 – present

Committee Member, Dockery, L. (University of Central Arkansas) *Analyzing Activity in Gait Utilizing Simi Analysis, GAITRite and EMG*

2015 – 2017

Committee Chair, Butterfield, B. (Rocky Mountain University) *Effects of Short-Term, Intermittent Cryotherapy on Pitch Velocity, Pitch Accuracy, Perceived Exertion, and Perceived Recovery in Collegiate Softball Pitchers*

**Thesis Committees:**

2017 – present

Committee Chair, Susa, A. (University of Central Arkansas) *Shoulder and Trunk Kinematics in Youth Baseball Players Throwing an Underweight Ball during a Simulated Game*

2016 – 2017

Committee Member, Walker, C. (University of Central Arkansas) *Muscle Activity in a Ring Muscle Up Verses Bar Muscle Up*

2016 – 2017

Committee Member, Story, A. (University of Central Arkansas) *Understanding Perceived Barriers and Current Practices for Transgender Needs within the Fitness Industry*

2015 – 2016

Committee Member, Flynn, A. (University of Central Arkansas) *Comparison of Ground Reaction Force during Drop Jumps from Various Heights*

2014 – 2015

Committee Member, Tsutai, S. (University of Central Arkansas) *The Effect of Orthotics on Knee and Hip Kinematics in a Pes Planus Population*

2012 – 2013

Committee Member, Ingram, L. (Georgia Southern University) *Acute Alterations in Scapular Upward Rotation Following a Functional Fatiguing Protocol in Male Tennis Players*

2009 – 2010

Committee Chair, Doster, C. (University of Central Arkansas) *Upper Trapezius Activation during Manual Muscle Testing Positions: A Comparison between the Sexes*

2008 – 2009

Committee Member, Smallwood, J. (University of Central Arkansas) *Effects of an Ankle Support on Ankle Range of Motion in Male Collegiate Soccer Players*

## **SERVICE**

### **Professional Service:**

#### Article Reviewer

2017 – present,  
Article Reviewer, *Sports Biomechanics*

2016 – present  
Article Reviewer, *Physiotherapy Theory and Practice*

2015 – present,  
Article Reviewer, *Physical Therapy Reviews*

2015 – present,  
Article Reviewer, *International Journal of Sports Medicine*

2014 – present,  
Article Reviewer, *Journal of Athletic Training*

2013 – present,  
Article Reviewer, *Archives of Physical Medicine and Rehabilitation*

2013 – present,  
Article Reviewer, *Journal of Electromyography and Kinesiology*

2013 – present,  
Article Reviewer, *Journal of Sports Medicine*

2012 – present,  
Article Reviewer, *Journal of Back and Musculoskeletal Rehabilitation*

2012 – present  
Article Reviewer, *Journal of Applied Biomechanics*

2011 – present  
Article Reviewer, *Nursing: Research and Reviews*

2010 – present  
Article Reviewer, *Journal of Sport Rehabilitation*

2008 – present  
Article Reviewer, *Athletic Training & Sports Health Care*

2005 – present  
Article Reviewer, *Journal of Sports Science and Medicine*

Grant Reviewer

2009, 2011

Grant Reviewer, Arkansas Department of Higher Education Student Undergraduate Research Fellowship

2009

Grant Reviewer, Eastern Athletic Trainers' Association Supported Research Program

External Reviewer for Tenure and Promotion

2017

External Reviewer, Kent State University

2017

External Reviewer, University of Texas at San Antonio

Conference Involvement

2016 – present

Mentor, National Athletic Trainers' Association Research & Education Foundation Research/Faculty Mentor Program

2016 – present

Committee Member, National Athletic Trainer's Association Convention Program Committee

2014

Judge, National Athletic Trainers' Association Clinical Symposia & AT Expo Doctoral Student Oral Presentations

2012

Founder and Chair, Emergency Care for the Injured Athlete Clinical Workshop

2010 – present

Moderator, Arkansas Athletic Trainers' Association Annual Meeting

2010 – 2015

Chair, Arkansas Athletic Trainers' Association Program Committee

2009 – present

Committee Member, Arkansas Athletic Trainers' Association Program Committee

2009

Judge, Arkansas Athletic Trainers' Association Annual Meeting Poster Presentations

2005 – present

Moderator, National Athletic Trainers' Association Annual Meeting & Clinical Symposia

**University Service:**

**University of Central Arkansas**

2016 – present

Chair, Dean of the Honors College Search Committee

2012 – 2013

Committee Member, Dean of the College of Health & Behavioral Sciences Search Committee

2010 – 2011

Committee Member, University of Central Arkansas Institutional Review Board

2008 – 2009

Committee Member, University of Central Arkansas Jack Kent Cook Foundation Selection Committee

**College Service:**

**University of Central Arkansas**

May 2011

Undergraduate Marshall, College of Health & Behavioral Sciences Commencement Ceremony

2008 – 2013

Committee Member, College of Health & Behavioral Sciences Research Committee

University of Toledo

2005 – 2008

Committee Member, College of Health Science & Human Service Technology  
Fee Oversight Committee

**Department Service:**

University of Central Arkansas

2012 – 2013

Committee Member, Department of Kinesiology and Physical Education Planning  
and Assessment Committee

Aug. 2011

Graduate Marshall, Department of Kinesiology and Physical Education,  
University of Central Arkansas Commencement Ceremony

Spring 2011

Chair, Clinical Coordinator of Athletic Training Education Search Committee

2010 – 2011

Committee Member, Self-Study for the Re-accreditation of the University of  
Central Arkansas Athletic Training Education Program

2009 – 2015

Academic Advisor, Department of Kinesiology and Physical Education

2009 – 2013

Preceptor, University of Central Arkansas Athletic Training Education Program

Spring 2009

Chair, Exercise Science Faculty Search Committee

2008 – 2013

Committee Member, University of Central Arkansas Exercise Science Program  
Curriculum Committee

2008 – 2013

Committee Member, University of Central Arkansas Athletic Training Education  
Program Admissions Committee

University of Toledo

2005 – 2006

Committee Member, Self-Study for the Re-accreditation of the University of Toledo Athletic Training Education Program

2004 – 2008

Committee Member, University of Toledo Athletic Training Education Program Oversight Committee

2004 – 2008

Approved Clinical Instructor, University of Toledo Athletic Training Education Program

**Community Involvement:**

2013 – 2016

Board Member, St. Joseph School Development Advisory Board

2007 – present

Board of Directors Member, Miracle League of Northwest Ohio – Administrative and organizational duties involving a baseball league dedicated to children with disabilities

2007 – 2008

Volunteer, Miracle League of Northwest Ohio – Assist children with disabilities play baseball

2005 – 2008

Gatorade Elite Soccer Club Manager, Michigan Wolves/Hawks Soccer Club

**PROFESSIONAL DEVELOPMENT**

**Honors and Awards:**

2014

Nominated for the National Athletic Trainers' Association Foundation New Investigator Award

2008

Great Lakes Athletic Trainers' Association Gordy Stoddard Research Assistance Award



2007

National Athletic Trainers' Association Research & Education Foundation Edward Block Courage Society Scholarship

1995, 1996

Mid-Continent Conference Academic All-Conference Baseball Team

**Certifications:**

- Board of Certification Certified Athletic Trainer, Certification # 129802463
- Arkansas State Board of Athletic Training, License #445
- National Provider Identifier, NPI #1316347628
- American Red Cross CPR/AED for the Professional Rescuer
- American Red Cross Administering Emergency Oxygen

**Professional Memberships:**

- American Society of Shoulder and Elbow Therapists (since 2017)
- Arkansas Athletic Trainers' Association (since 2008)
- Southwest Athletic Trainers' Association (since 2008)
- National Athletic Trainers' Association (since 1996)

**Continuing Education:**

2017

- National Athletic Trainers' Association Clinical Symposia & AT Expo, Houston, TX.
- Arkansas Athletic Trainers' Association Annual Meeting, Little Rock, AR.

2016

- Annual Arkansas Orthopaedic Forum, Little Rock, AR.
- Southwest Athletic Trainers' Association Annual Meeting & Clinical Symposium, Arlington, TX.

- National Athletic Trainers' Association Clinical Symposia & AT Expo, Baltimore, MD.
- Arkansas Athletic Trainers' Association Annual Meeting, Little Rock, AR.

## 2015

- National Athletic Trainers' Association Clinical Symposia & AT Expo, St. Louis, MO.
- Arkansas Athletic Trainers' Association Annual Meeting, Conway, AR.

## 2014

- Annual Arkansas Orthopaedic Forum, Little Rock, AR.
- National Athletic Trainers' Association Clinical Symposia & AT Expo, Indianapolis, IN.
- Arkansas Athletic Trainers' Association Annual Meeting, Little Rock, AR.

## 2013

- National Athletic Trainers' Association Annual Meeting & Clinical Symposia, Las Vegas, NV.
- Arkansas Athletic Trainers' Association Annual Meeting, Rogers, AR.

## 2012

- National Athletic Trainers' Association Annual Meeting & Clinical Symposia, St. Louis, MO.
- A New View of Injuries: The Use of Diagnostic Ultrasound for Athletic Trainers, St. Louis, MO.
- Arkansas Athletic Trainers' Association Annual Meeting, Magnolia, AR.

## 2011

- Surface EMG Introduction and Clinical Applications, Conway, AR.
- The Winning Grants Workshop by David Bauer, Conway, AR.
- National Athletic Trainers' Association Annual Meeting & Clinical Symposia, New Orleans, LA.
- Arkansas Athletic Trainers' Association Annual Meeting, North Little Rock, AR.

## 2010

- The Winning Grants Workshop by David Bauer, Conway, AR.
- National Athletic Trainers' Association Annual Meeting & Clinical Symposia, Philadelphia, PA.
- Arkansas Athletic Trainers' Association Annual Meeting, Little Rock, AR.

2009

- National Athletic Trainers' Association Annual Meeting & Clinical Symposia, San Antonio, TX.
- Arkansas Athletic Trainers' Association Annual Meeting, Hot Springs, AR.
- Great Lakes Athletic Trainers' Association Annual Meeting and Clinical Symposium, Fort Wayne, IN.

2008

- National Athletic Trainers' Association Annual Meeting & Clinical Symposia, St. Louis, MO.

2007

- National Athletic Trainers' Association Annual Meeting & Clinical Symposia, Anaheim, CA.

2006

- National Athletic Trainers' Association Annual Meeting & Clinical Symposia, Atlanta, GA.
- American College of Sports Medicine Annual Meeting, Denver, CO.

2005

- National Athletic Trainers' Association Annual Meeting & Clinical Symposia, Indianapolis, IN.

2004

- National Athletic Trainers' Association Annual Meeting & Clinical Symposia, Baltimore, MD.

2003

- National Athletic Trainers' Association Annual Meeting & Clinical Symposia, St. Louis, MO.

2002

- National Athletic Trainers' Association Annual Meeting & Clinical Symposia, Dallas, TX.

2001

- National Athletic Trainers' Association Annual Meeting & Clinical Symposia, Los Angeles, CA.

- Great Lakes Athletic Trainers' Association Annual Meeting and Clinical Symposium, Milwaukee, WI.

2000

- National Athletic Trainers' Association Annual Meeting & Clinical Symposia, Nashville, TN.

1998

- National Athletic Trainers' Association Annual Meeting & Clinical Symposia, Baltimore, MD.