# Timothy J. Suchomel, PhD, CSCS\*D, RSCC\*D, mISCP

Associate Professor
Director of the Sports Science Master's Program
Department of Sports Medicine and Nutrition
University of Pittsburgh
E-mail: TIS125@pitt.edu

#### **EDUCATION**

### Ph.D. in Sport Physiology and Performance

2015

East Tennessee State University
Concentration: Sport Physiology

Dissertation Title: "The acute effects of ballistic and non-ballistic concentric-only half-

squats on squat jump performance"

Dissertation Committee: Michael H. Stone (Chair), Kimitake Sato, Brad H. DeWeese, and

William P. Ebben

### M.S. in Human Performance

2012

2010

University of Wisconsin-La Crosse

Concentration: Applied Sports Science

Thesis Title: "Kinetic comparison of the power development between the hang clean,

jump shrug, and high pull"

Thesis Committee: Glenn A. Wright (Chair), Thomas W. Kernozek, and Dennis E. Kline

## B.S. in Kinesiology

University of Wisconsin-Oshkosh

Concentration: Strength and Conditioning

Graduation date: May 2010

### **CERTIFICATIONS**

Master International Strength and Conditioning Practitioner (mISCP), International Universities Strength and Conditioning Association, 2024 –

Registered Strength and Conditioning Coach (RSCC), National Strength & Conditioning Association, 2019 –

Awarded distinction (RSCC\*D), 2023.

Level 1 Sport Performance Coach (USAW-I), USA Weightlifting, 2012 – 2016, 2021 – 2024. Collaborative Institutional Training Initiative (CITI) – Group 3: Social and Behavioral Research Investigators and Key Personnel (Training for the protection of human subjects in research), 2012 –

Certified Strength and Conditioning Specialist (CSCS), National Strength & Conditioning Association - certification # 201071372, 2010 –

Recertified with distinction (CSCS\*D), 2014 -

Standard First Aid Care, American Red Cross, 2010 –

Protecting Human Research Participants, National Institute of Health, 2009 –

Basic Life Support for Health Care Providers (CPR/AED), American Red Cross, 2008 -

University of Pittsburgh	2024 - Present
Associate Professor	
SPSCI2110, Sports Science Practicum I	
SPSCI2120, Sports Science Practicum II	
SPSCI2130, Sports Science Practicum III	
Carroll University	2016 – 2024
Assistant/Associate Professor	
CCS300, Cross Cultural Experience – Culture and Soccer in Spain	
ESC280, Exercise Physiology	
ESC320, Exercise Testing and Prescription	
ESC320L, Exercise Testing and Prescription Lab	
ESC322L, Kinesiology Lab	
EXP500, Advanced Strength and Conditioning I	
EXP504, Advanced Assessment of Athletic Performance	
EXP506 (prev. HED606), Research Design and Statistical Methods for H	ealth Science
EXP508 (prev. EXP692), Current Topics in Strength and Conditioning	
EXP521, Coaching Theory and Philosophy	
EXP574, Practicum I in Strength and Conditioning	
EXP575, Practicum II in Strength and Conditioning	
EXP591, Advanced Strength and Conditioning II	
EXP607, Graduate Research Project I	
EXP608, Graduate Research Project II	
EXP690, Internship in Strength and Conditioning	
National Taiwan Sport University	2021
National Taiwan Sport University Guest Lecturer	2021
"Developing Power with Weightlifting Derivatives"	
Developing Fower with Weightinting Derivatives	
Edith Cowan University	2021
Guest Lecturer	
Master of Exercise Science (Strength and Conditioning)	
"Weightlifting Derivatives – Cross-sectional Comparisons"	
"Weightlifting Derivatives – Longitudinal Comparisons"	
"Weightlifting Derivatives – Programming"	
University of Salford	2020
<u>Guest Lecturer</u>	
Master of Science in Strength and Conditioning	
"PAP and PAPE – An Introduction"	
"PAP and PAPE – Designing Potentiation Protocols"	
"PAP and PAPE – Implementing Potentiation Protocols"	
East Stroudsburg University	2015 – 2016
Assistant Professor	2013 – 2010
BIOL119, Human Anatomy and Physiology II Laboratory for the Health	Sciences
EXSC202, Kinesiology – Applied Anatomy	Juichices
2.00202, Killesiology Applied Allatolity	

**TEACHING EXPERIENCE** 

EXSC230, Personal Training Workshop

EXSC310, Exercise Physiology I Lab

EXSC322, Strength and Conditioning Theory

EXSC454, Anaerobic Training Workshop

EXSC456, Certified Strength and Conditioning Specialist Workshop

## **East Tennessee State University**

2013 - 2015

Lecturer

PEXS4061, Exercise Fitness Testing

PEXS4062, Cardiovascular Exercise Testing

#### **Guest Lecturer**

PEXS3080, Teaching Aerobic Conditioning

"Nutrition and Weight Control"

PEXS4620, Exercise Physiology II

"Training for Sport"

PEXS4656, Sports Conditioning

"Speed, Agility, and Plyometrics"

PEXS4657, Sport Nutrition

"Bioenergetics"

"Principles of Nutrient Timing"

"Supplements and Ergogenic Aids"

PEXS5520 & 6520 (Combined Section), Instrumentation in Exercise & Sport Science

"Introduction to Ultrasound"

PEXS7100, Advanced and Alternative Statistics

"Single Subject Design"

King University 2013

**Adjunct Faculty** 

ATEP3680, Kinesiology

#### **COURSE DEVELOPMENT**

### **University of Pittsburgh**

SPSCI2110, Sports Science Practicum I

SPSCI2120, Sports Science Practicum II

SPSCI2130, Sports Science Practicum III

## **Carroll University**

EXP504, Advanced Assessment of Athletic Performance, Fall 2017

EXP506, Research Design and Statistical Methods for the Health Sciences, Fall 2017

EXP508, Current Topics in Strength and Conditioning, Fall 2017

EXP521, Coaching Theory and Philosophy, Fall 2017

## **East Tennessee State University**

PEXS6520, Instrumentation in Exercise and Sport Science, Fall 2013: Adapted course material to be delivered as an online course.

PEXS6610, Sport Physiology I, Spring 2013: Adapted course material to be delivered as an online course.

### PROFESSIONAL / RESEARCH EXPERIENCE

### **Director of the Carroll University Sport Performance Institute (CUSPI)**

Carroll University, Waukesha, WI. 2021 – 2024.

#### **Honorary Research Fellow**

University of Salford, Greater Manchester, UK. 2018 -

## Project Developer for the Carroll University Sport Performance Institute (CUSPI)

Carroll University, Waukesha, WI. 2017 – 2021.

## Faculty Coordinator for the Fitness Assessment and Sport Testing (FAST) Academy

East Stroudsburg University, East Stroudsburg, PA. 2016.

### **Weightlifting Sport Scientist**

United States Olympic Training Site, East Tennessee State University, Johnson City, TN. 2014 – 2015. Advisors: Meg Stone, Dr. Michael Stone, and Satoshi Mizuguchi.

## **Sport Science Research Laboratory Assistant**

Center of Excellence for Sport Science and Coach Education, East Tennessee State University, Johnson City, TN. 2012 – 2015. Advisor: Dr. Michael H. Stone.

## **Biomechanics Laboratory Graduate Research Assistant**

Exercise and Sport Science, Department of Physical Therapy, University of Wisconsin-La Crosse, La Crosse, WI. 2010 – 2012. Advisor: Dr. Thomas Kernozek.

### Strength & Conditioning Research Laboratory Research Assistant / Intern

Program in Exercise Science, Department of Physical Therapy, Marquette University, Milwaukee, WI. Spring Semester 2010. Advisor: Dr. William Ebben.

#### **Independent Study and Research Assistant**

Kinesiology Major, Department of Kinesiology, University of Wisconsin-Oshkosh, Oshkosh, WI. 2008 – 2009. Advisor: Dr. Dan Schmidt.

### **BOOKS**

- 1. **Suchomel, T.J.** The Science and Development of Muscular Strength. Human Kinetics: Champaign, IL. With Editor.
- Stone, M.H. and Suchomel, T.J. with Hornsby, W.G., Wagle, J.P., and Cunanan, A.J. Strength and Conditioning in Sports: From Science to Practice. Routledge: New York, 2022.

## **BOOK CHAPTERS**

 Suchomel, T.J. and Comfort, P. Program Design for Resistance Training. In: Essentials of Strength Training and Conditioning, 5<sup>th</sup> edition (Haff, G.G. and Triplett, N.T., editors). In press.

- 2. **Suchomel, T.J.**, McKeever, S.M., and others. General Principles of Exercise Prescription. In: *ACSM's Guidelines for Exercise Testing and Prescription, 12<sup>th</sup> edition* (Ozemek, C. and Gallo, P., editors). In press.
- 3. **Suchomel, T.J.** Resistance Training Strategies to Train the Force-velocity Characteristics of Athletes. In: *Central Virginia Sport Performance: The Manual Vol. 7* (DeMayo, J., editor). pp. 95-118. 2022.
- 4. **Suchomel, T.J.** and Comfort, P. Developing Strength and Power. In: *Advanced Strength and Conditioning: An Evidence-based Approach 2<sup>nd</sup> edition* (Turner, A. and Comfort, P., editors). pp. 13-39. 2022.
- 5. **Suchomel, T.J.** and Comfort, P. Technical Demands of Strength Training. In: *Advanced Strength and Conditioning: An Evidence-based Approach 2<sup>nd</sup> edition* (Turner, A. and Comfort, P., editors). pp. 264-282. 2022.
- 6. **Suchomel, T.J.** and Comfort, P. Weightlifting for Sports Performance. In: *Advanced Strength and Conditioning: An Evidence-based Approach 2<sup>nd</sup> edition* (Turner, A. and Comfort, P., editors). pp. 283-306. 2022.
- 7. **Suchomel, T.J.**, McMahon, J.J., and Lake, J.P. Combined Assessment Methods. In: *Performance Assessment in Strength and Conditioning* (Comfort, P., Jones, P.A., and McMahon, J.J., editors). pp. 275-291. 2018.
- 8. McMahon, J.J., Lake, J.P., and **Suchomel, T.J.** Vertical Jump Testing. In: *Performance Assessment in Strength and Conditioning* (Comfort, P., Jones, P.A., and McMahon, J.J., editors). pp. 96-116. 2018.
- 9. Ebben, W.P. and **Suchomel, T.J.** Analysis of Male and Female Athletes' Muscle Activation Patterns During Running, Cutting, and Jumping. In: *ACL Injuries in the Female Athlete: Causes, Impacts, and Conditioning Programs, 2<sup>nd</sup> Edition* (Noyes, F.R. and Barber-Westin, S., editors). pp. 167-187. 2018.
- 10. **Suchomel, T.J.** and Comfort, P. Developing Strength and Power. In: *Advanced Strength and Conditioning: An Evidence-based Approach* (Turner, A. and Comfort, P., editors). pp. 13-38. 2018.
- 11. **Suchomel, T.J.** and Comfort, P. Technical Demands of Strength Training. In: *Advanced Strength and Conditioning: An Evidence-based Approach* (Turner, A. and Comfort, P., editors). pp. 229-248. 2018.
- 12. **Suchomel, T.J.** and Comfort, P. Weightlifting for Sports Performance. In: *Advanced Strength and Conditioning: An Evidence-based Approach* (Turner, A. and Comfort, P., editors). pp. 249-273. 2018.

### PEER-REVIEWED ORIGINAL RESEARCH / REVIEWS

- 1. Chiang, C-Y., Lin, H-Y., Chiang, Y-C., Chang, C-C., **Suchomel, T.J.**, and Shiang, T-Y. An investigation of kinetic and kinematic characteristics in the behind-the-neck push jerk across loads. *Journal of Strength and Conditioning Research*. In review.
- Campbell, B.A., Cantwell, C.J., Marshall, L.K., Schroeder, Z.S., Sundh, A.E., Chard, J.B., Taber, C.B., and **Suchomel, T.J.** A comparison of the braking and propulsion phase characteristics of traditional and accentuated eccentric loaded back squats in resistancetrained women. *Applied Sciences*. In review.
- 3. Stuart, A., **Suchomel, T.J.**, McKeever, S.M., Tufano, J.J., and Cochrane-Snyman, K.C. Within-session reliability of phase specific measurements derived from 100-meter acceleration profiling in elite speed skaters. *Measurement in Physical Education and Exercise Science*. In review.
- 4. Jones, A.T., Cantwell, C.J., and **Suchomel, T.J.** Countermovement jump force-time characteristics of NCAA Division III collegiate athletes. *Journal of Strength and Conditioning Research*. In review.
- 5. Beato, M., Hughes, J., Taber, C.B., Baumert, P., and **Suchomel, T.J.** The rationale and application of eccentric-based exercises in sports: Practical suggestions for its implementation. *Strength and Conditioning Journal*. In review.
- 6. Kissick, C.R., Techmanski, B.S., Comfort, P., and **Suchomel, T.J.** The reliability, bias, differences, and agreement between velocity measurement devices during the hang clean pull. *Journal of Strength and Conditioning Research*. In press.
- 7. **Suchomel, T.J.**, Kissick, C.R., Techmanski, B.S., Mann, J.B., and Comfort, P. Velocity-based training with weightlifting derivatives: Barbell and system velocity comparisons. *Journal of Strength and Conditioning Research*, Epub ahead of print October 24, 2024.
- 8. Techmanski, B.S., Kissick, C.R., Loturco, I., and **Suchomel, T.J.** Using barbell acceleration to determine the one repetition maximum of the jump shrug. *Journal of Strength and Conditioning Research* 38: 1486-1493, 2024.
- 9. **Suchomel, T.J.**, Techmanski, B.S., Kissick, C.R., and Comfort, P. Can the velocity of a 1RM hang power clean be used to estimate a 1RM hang high pull? *Journal of Strength and Conditioning Research* 38: 1321-1325, 2024.
- 10. Keiner, M., Kierot, M., Stendahl, M., Brauner, T., and **Suchomel, T.J.** Maximum strength and power as determinants of match skating performance in elite youth ice-hockey players. *Journal of Strength and Conditioning Research* 38: 1090-1094, 2024.
- 11. **Suchomel, T.J.**, Cantwell, C.J., Campbell, B.A., Schroeder, Z.S., Marshall, L.K., and Taber, C.B. Braking and propulsion phase characteristics of traditional and accentuated eccentric loaded back squats. *Journal of Human Kinetics* 91: 121-133, 2024.

- 12. Weakley, J., Black, G., McLaren, S., Scantlebury, S., **Suchomel, T.J.**, McMahon, E., Watts, D., and Read, D.B. Testing and profiling athletes: Recommendations for test selection, implementation, and maximizing information. *Strength and Conditioning Journal* 46: 159-179, 2024
- 13. Meechan, D., McMahon, J.J., **Suchomel, T.J.**, and Comfort, P. The effect of rest redistribution on kinetic and kinematic variables during the hang pull. *PLoS One* 19: e0299311, 2024.
- 14. **Suchomel, T.J.** Guest editorial: Special topic, sport science and performance. *Strength and Conditioning Journal* 46: 1, 2024.
- 15. Gleason, B.H., **Suchomel, T.J.**, Brewer, C., McMahon, E., Lis, R.P., and Stone, M.H. Defining the sport scientist. *Strength and Conditioning Journal* 46: 2-17, 2024.
- 16. Gleason, B.H., **Suchomel, T.J.**, Brewer, C., McMahon, E., Lis, R.P., and Stone, M.H. Defining the sport scientist: Common specialties and subspecialties. *Strength and Conditioning Journal* 46: 18-27, 2024.
- 17. Gleason, B.H., **Suchomel, T.J.**, Pyne, D.B., Comfort, P., Hornsby, W.G., McMahon, E., Lis, R.P., and Stone, M.H. Development pathways for the sport scientist: A process for the United States. *Strength and Conditioning Journal* 46: 28-42, 2024.
- 18. Gleason, B.H., **Suchomel, T.J.**, Brewer, C., McMahon, E., Lis, R.P., and Stone, M.H. Applying sport scientist roles within organizations. *Strength and Conditioning Journal* 46: 43-54, 2024.
- 19. Rimer, E., Jones, P., Petway, A., Schultz, R., Hayes, B., Daily, J., **Suchomel, T.J.**, Nichols, K., LeBlanc, B., Antle, B., and Ivey, P. Building comprehensive integration of health and performance support through sport science. *Strength and Conditioning Journal* 46: 55-68, 2024.
- 20. **Suchomel, T.J.** Current issues and future research directions in sport science: A roundtable discussion. *Strength and Conditioning Journal* 46: 98-105, 2024.
- 21. **Suchomel, T.J.** and McMahon, E.L. The state of sport science around the world: A roundtable discussion. *Strength and Conditioning Journal* 46: 106-116, 2024.
- 22. Taber, C.B., Butler, C., Dabek, V., Kochan, B., McCormick, K., Petro, E., **Suchomel, T.J.**, and Merrigan, J.J. The effects of accentuated eccentric loading on barbell and trap bar countermovement jumps. *International Journal of Strength and Conditioning* 3, 2023.
- Comfort, P. Suchomel, T.J., Haff, G.G., Soriano, M.A., Swisher, A., Pierce, K., Sommerfield, L., Chavda, S., Morris, S.J., Haff, E., Hornsby, W.G., Fry, A.C., and Stone, M.H. National Strength and Conditioning Association position statement on weightlifting for sports performance. *Journal of Strength and Conditioning Research* 37: 1163-1190, 2023.

- 24. Meechan, D., McMahon, J.J., **Suchomel, T.J.**, and Comfort, P. The effect of rest redistribution on kinetic and kinematic variables during the countermovement shrug. *Journal of Strength and Conditioning Research* 37: 1358-1366, 2023.
- 25. **Suchomel, T.J.**, Techmanski, B.S., Kissick, C.R., and Comfort, P. Reliability, validity, and comparison of barbell velocity measurement devices during the jump shrug and hang high pull. *Journal of Functional Morphology and Kinesiology* 8: 35, 2023.
- 26. **Suchomel, T.J.**, McKeever, S.M., Sijuwade, O., and Carpenter, L. Propulsion phase characteristics of loaded jump variations in resistance-trained women. *Sports* 11: 44, 2023.
- Suchomel, T.J., McKeever, S.M., Nolen, J.D., and Comfort, P. Muscle architectural and force-velocity profile adaptations following 10 weeks of training with weightlifting catching and pulling derivatives. *Journal of Sports Science and Medicine* 21: 504-516, 2022.
- 28. Meechan, D., McErlain-Naylor, S.A., McMahon, J.J., **Suchomel, T.J.**, and Comfort, P. Comparing biomechanical time series data across countermovement shrug loads. *Journal of Sports Sciences* 40: 1658-1667, 2022.
- 29. Edwards, T., Weakley, J., Woods, C.T., Breed, R., Bensen, A.C., **Suchomel, T.J.**, and Banyard, H.G. A comparison of countermovement jump and squat jump profiles between 627 state and non-state representative junior Australian football players. *Journal of Strength and Conditioning Research* 37: 641-645, 2023.
- 30. Soriano, M.A., Kipp, K., Lake, J.P., **Suchomel, T.J.**, Marin, P.J., Sainz de Baranda, M.P., and Comfort, P. Mechanical power production assessment during weightlifting exercises: A systematic review. *Sports Biomechanics* 22: 633-659, 2023
- 31. Lum, D., Joseph, R., Ong, K.Y., Tang, J.M., and **Suchomel, T.J.** Comparing the effects of long-term vs periodic inclusion of isometric strength training on strength and dynamic performances. *Journal of Strength and Conditioning Research* 37: 305-314, 2023.
- 32. Merrigan, J.J., Borth, J., Taber, C.B., **Suchomel, T.J.**, and Jones, M.T. Application of accentuated eccentric loading to elicit acute and chronic velocity and power improvements: A narrative review. *International Journal of Strength and Conditioning* 2: 1-16, 2022.
- 33. Comfort, P., Jones, P.A., Dos'Santos, T., McMahon, J.J., and **Suchomel, T.J.** Changes in early and maximal isometric force production in response to moderate and high load strength and power training. *Journal of Strength and Conditioning Research* 36: 593-599, 2022.
- 34. James, L.P., **Suchomel, T.J.**, Comfort, P., Haff, G.G., and Connick, M. Rate of force development adaptations following weightlifting-style training: The influence of power clean ability. *Journal of Strength and Conditioning Research* 36: 1560-1567, 2022.

- 35. Kipp, K., Comfort, P., and **Suchomel, T.J.** Comparing biomechanical time series data during the hang-power clean and jump shrug. *Journal of Strength and Conditioning Research* 35: 2389-2396, 2021.
- 36. Soriano, M.A., Lake, J.P., Comfort, P, **Suchomel, T.J.**, McMahon, J.J., Jiménez-Ormeño, E., and Sainz de Baranda, P. No differences in weightlifting overhead pressing exercises kinetics. *Sports Biomechanics*, Epub ahead of print October 27, 2021.
- 37. James, L.P., Lidums, M., Grant, M., Talpey, S.W., Comfort, P., **Suchomel, T.J.**, Gastin, P.B., and Driller, M.W. Considerations in the development of a postgraduate strength and conditioning program: Insights from the US, Australia, the UK, and New Zealand. *Strength and Conditioning Journal* 43: 116-122, 2021.
- 38. **Suchomel, T.J.**, Nimphius, S., Bellon, C.R., Hornsby, W.G., and Stone, M.H. Training for muscular strength: Methods for monitoring and adjusting training intensity. *Sports Medicine* 51: 2051-2066, 2021.
- 39. Cuthbert, M., Ripley, N.J., **Suchomel, T.J.**, Alejo, R. McMahon, J.J., and Comfort, P. Electromyographical differences between the hyperextension and reverse-hyperextension. *Journal of Strength and Conditioning Research* 35: 1477-1483, 2021.
- 40. Lake, J.P., Mundy, P.D., Comfort, P., McMahon, J.J., **Suchomel, T.J.**, and Carden, P.J. The effect of barbell load on vertical jump landing force-time characteristics. *Journal of Strength and Conditioning Research* 35: 25-32, 2021.
- 41. McMahon, J.J., **Suchomel, T.J.**, Lake, J.P., and Comfort, P. Relationship between reactive strength index variants in rugby league players. *Journal of Strength and Conditioning Research* 35: 280-285, 2021.
- 42. **Suchomel, T.J.**, Giordanelli, Geiser, C.F., and Kipp, K. Comparison of joint work during load absorption between weightlifting derivatives. *Journal of Strength and Conditioning Research* 35: S127-S135, 2021.
- 43. Loturco, I., **Suchomel, T.J.**, Kobal, R., Arruda, A.F.S., Guerriero, A., Pereira, L.A., and Pai, C.N. Force-velocity relationship in three different variations of prone row exercises. *Journal of Strength and Conditioning Research* 35: 300-309, 2021.
- 44. James, L.P., Haycraft, J., Pierobon, A., Connick, M., and **Suchomel, T.J.** Mixed methods versus focused power training for improving jump performance during an Australian Rules football pre-season. *Journal of Functional Morphology and Kinesiology* 5: 99, 2020.
- 45. Loturco, I., **Suchomel, T.J.**, Freitas, T., Pereira, L.A. Pereja-Blanco, F., Rodriguez-Rosel, D., and McGuigan, M.R. Determining the one-repetition maximum in the ballistic benchpress exercise. *Journal of Strength and Conditioning Research* 34: 3321-3325, 2020.
- 46. **Suchomel, T.J.** The gray area of programming weightlifting exercises. *NSCA Coach*. 7: 6-14, 2020.

- 47. Maestroni, L. Read, P., Bishop, C., Papadopoulos, K., **Suchomel, T.J.**, Comfort, P., and Turner, A. The benefits of strength training on musculoskeletal system health: Practical applications for interdisciplinary care. *Sports Medicine* 50: 1431-1450, 2020.
- 48. **Suchomel, T.J.**, Sole, C.J., Bellon, C.R., and Stone, M.H. Dynamic strength index: Relationships with common performance variables and contextualization of training recommendations. *Journal of Human Kinetics* 74: 59-70, 2020.
- 49. **Suchomel, T.J.**, McKeever, S.M., and Comfort, P. Training with weightlifting derivatives: The effects of force and velocity overload stimuli. *Journal of Strength and Conditioning Research* 34: 1808-1818, 2020.
- Suchomel, T.J., McKeever, S.M., McMahon, J.J., and Comfort, P. The effect of training with weightlifting catching or pulling derivatives on squat jump and countermovement jump force-time adaptations. *Journal of Functional Morphology and Kinesiology* 5: 28, 2020.
- 51. Meechan, D., **Suchomel, T.J.**, McMahon, J.J., and Comfort, P. A comparison of kinetic and kinematic variables during the mid-thigh pull and countermovement shrug, across loads. *Journal of Strength and Conditioning Research* 34: 1830-1841, 2020.
- 52. Meechan, D., McMahon, J.J., **Suchomel, T.J.**, and Comfort, P. A comparison of kinetic and kinematic variables during the pull from the knee and hang pull, across loads. *Journal of Strength and Conditioning Research* 34: 1819-1829, 2020.
- 53. Loturco, I., **Suchomel, T.J.**, Bishop, C., Kobal, R., Pereira, L.A., and McGuigan M.R. Determining the optimum bar-velocity in the barbell hip thrust exercise. *International Journal of Sports Physiology and Performance* 15: 585-589, 2020.
- 54. Comfort, P., **Suchomel, T.J.**, and Stone, M.H. Normalization of early isometric force production as a percentage of peak force, during multijoint isometric assessment. *International Journal of Sports Physiology and Performance* 15: 478-482, 2020.
- 55. James, L.P., **Suchomel, T.J.**, McMahon, J.J., and Comfort, P. Effect of onset threshold on kinetic and kinematic variables of a weightlifting derivative containing a first and second pull. *Journal of Strength and Conditioning Research* 34: 298-307, 2020.
- 56. **Suchomel, T.J.**, Nimphius, S., and Stone, M.H. Scaling maximum strength in Division I athletes: Are we meeting the assumptions? *Sports Biomechanics* 19: 532-546, 2020.
- 57. Lake, J.P., Mundy, P.D., Comfort, P., and **Suchomel, T.J.** Do the peak force and mean force methods of assessing vertical jump force asymmetry agree? *Sports Biomechanics* 19: 227-234, 2020.
- 58. Kipp, K., **Suchomel, T.J.**, and Comfort, P. Correlational analysis between joint-level kinetics of countermovement jumps and weightlifting derivatives. *Journal of Sports Science and Medicine* 18: 663-668, 2019.

- 59. **Suchomel, T.J.**, McKeever, S.M., Sijuwade, O., Carpenter, L., McMahon, J.J., Loturco, I., and Comfort, P. The effect of load placement on the power production characteristics of three lower extremity jumping exercises. *Journal of Human Kinetics* 68: 109-122, 2019.
- 60. **Suchomel, T.J.**, Wagle, J.P., Douglas, J., Taber, C.B., Harden, M., Haff, G.G., and Stone, M.H. Implementing eccentric resistance training Part 2: Practical recommendations. *Journal of Functional Morphology and Kinesiology* 4: 38, 2019.
- 61. **Suchomel, T.J.**, Wagle, J.P., Douglas, J., Taber, C.B., Harden, M., Haff, G.G., and Stone, M.H. Implementing eccentric resistance training Part 1: A brief review of existing methods. *Journal of Functional Morphology and Kinesiology* 4: 38, 2019.
- 62. Soriano, M.A., **Suchomel, T.J.**, and Comfort, P. Weightlifting overhead pressing derivatives: A review of literature. *Sports Medicine* 49(6): 867-885, 2019.
- 63. Bodden, D., **Suchomel, T.J.**, Lates, A., Anagnost, N., Moran, M., and Taber, C. Acute effects of ballistic and non-ballistic bench press on explosive push-up performance. *Sports* 7(2): 47, 2019.
- 64. Beckham, G.K., **Suchomel, T.J.**, Sole, C.J., Bailey, C.A., Grazer, J.L., Kim, S.B., Talbot, K.B., and Stone, M.H. Influence of sex and maximum strength on reactive strength index-modified. *Journal of Sports Science and Medicine* 18: 65-72, 2019.
- 65. Loturco, I., **Suchomel, T.J.**, Bishop, C., Kobal, R., Pereira, L.A., and McGuigan, M.R. One-repetition-maximum measures or maximum bar-power output: Which is more related to sport performance? *International Journal of Sports Physiology and Performance* 14: 33-37, 2019.
- 66. James, L.P., Comfort, P., **Suchomel, T.J.**, Kelly, V.G., Beckman, E.M., and Haff, G.G. Influence of power clean ability and training age on adaptations to weightlifting-style training. *Journal of Strength and Conditioning Research* 33: 2936-2944, 2019.
- 67. Loturco, I., **Suchomel, T.J.**, James, L.P., Bishop, C., Abad, C.C.C., Pereira, L.A., and McGuigan, M.R. Selective influences of maximum dynamic strength and bar-power output on team sports performance: A comprehensive study of four different disciplines. *Frontiers in Physiology* 9: 1-11, 2018.
- Loturco, I., Contreras, B., Kobal, R., Fernandes, V., Moura, N., Siqueira, F. Suchomel, T.J., and Pereira, L.A. Vertically and horizontally directed muscle power exercises: Relationships with top-level sprint performance. *PloS ONE* 13: e0201475, 2018.
- 69. Comfort, P., Thomas, C., Dos'Santos, T., **Suchomel, T.J.**, Jones, P.A., and McMahon, J.J. Changes in dynamic strength index in response to strength training. *Sports* 6: 176, 2018.
- 70. Hornsby, W.G., Gentles, J.A., Comfort, P., **Suchomel, T.J.**, Mizuguchi, S., and Stone, M.H. Resistance training volume load with and without exercise displacement. *Sports* 6: 137, 2018.

- 71. Sole, C.J., **Suchomel, T.J.**, and Stone, M.H. Preliminary scale of reference values for evaluating reactive strength index-modified in male and female NCAA division I athletes. *Sports* 6: 133, 2018.
- 72. Comfort, P., McMahon, J.J., and **Suchomel, T.J.** Optimizing squat technique Revisited. *Strength and Conditioning Journal* 40: 68-74, 2018.
- 73. Comfort, P., Dos'Santos, T., Thomas, C., McMahon, J.J., and **Suchomel, T.J.** An investigation into the effects of excluding the catch phase of the clean on force-time characteristics during isometric and dynamic tasks: An intervention study. *Journal of Strength and Conditioning Research* 32: 2116-2129, 2018.
- 74. Lake, J.P., Mundy, P., Comfort, P., McMahon, J.J., **Suchomel, T.J.**, Carden, P. Concurrent validity of a portable force plate using vertical jump force-time characteristics. *Journal of Applied Biomechanics* 34: 410-413, 2018.
- 75. **Suchomel, T.J.**, Taber, C.B., Sole, C.J., and Stone, M.H. Force-time differences between ballistic and non-ballistic half-squats. *Sports* 6: 79, 2018.
- 76. Loturco, I., Pereira, L.A., Kobal, R., Cal Abad, C.C., Fernandes, V., Ramirez-Campillo, R., and **Suchomel, T.J.** Portable force plates: A viable and practical alternative to rapidly and accurately monitor elite sprint performance. *Sports* 6: 61, 2018.
- 77. McMahon, J.J., **Suchomel, T.J.**, Lake, J.P., and Comfort, P. Understanding the key phases of the countermovement jump force-time curve. *Strength and Conditioning Journal* 40: 96-106, 2018.
- Comfort, P., Thomas, C., Dos'Santos, T., Jones, P.A., Suchomel, T.J., and McMahon, J.J. Comparison of methods of calculating dynamic strength index. *International Journal of Sports Physiology and Performance* 13: 320-325, 2018.
- 79. Bazyler, C.D., Mizuguchi, S., Sole, C.J., **Suchomel, T.J.**, Sato, K., Kavanaugh, A.A., DeWeese, B.H., and Stone, M.H. Jumping performance is preserved, but not muscle thickness in collegiate volleyball players after a taper. *Journal of Strength and Conditioning Research* 32: 1029-1035, 2018.
- 80. **Suchomel, T.J.**, Nimphius, S., Bellon, C.R., and Stone, M.H. The importance of muscular strength: Training considerations. *Sports Medicine* 48: 765-785, 2018.
- 81. McMahon, J.J., Jones, P.A., **Suchomel, T.J.**, Lake, J.P., and Comfort, P. Influence of reactive strength index modified on force- and power-time curves. *International Journal of Sports Physiology and Performance* 13: 220-227, 2018.
- 82. Kipp, K., Malloy, P.J., Smith, J., Giordanelli, M.D. Kiely, M.T., Geiser, C.F., and **Suchomel, T.J.** Mechanical demands of the hang power clean and jump shrug: A joint-level perspective. *Journal of Strength and Conditioning Research* 32: 466-474, 2018.

- 83. **Suchomel, T.J.** and Stone, M.H. The relationships between hip and knee extensor cross-sectional area, strength, power, and potentiation characteristics. *Sports* 5: 66, 2017.
- 84. **Suchomel, T.J.** and Sole, C.J. Power-time curve comparison between weightlifting derivatives. *Journal of Sports Science and Medicine* 16: 407-413, 2017.
- 85. Comfort, P., Williams, R., **Suchomel, T.J.**, and Lake, J.P. A comparison of catch phase force-time characteristics during clean derivatives from the knee. *Journal of Strength and Conditioning Research* 31: 1911-1918, 2017.
- 86. **Suchomel, T.J.**, Lake, J.P., and Comfort, P. Load absorption force-time characteristics following the second pull of weightlifting derivatives. *Journal of Strength and Conditioning Research* 31: 1644-1652, 2017.
- 87. Soriano, M.A., **Suchomel, T.J.**, and Marin, P.J. The optimal load for maximal power production during upper-body resistance exercises: A meta-analysis. *Sports Medicine* 47: 757-768, 2017.
- 88. **Suchomel, T.J.**, Comfort, P., and Lake, J.P. Enhancing the force-velocity profile of athletes using weightlifting derivatives. *Strength and Conditioning Journal* 39: 10-20, 2017.
- 89. **Suchomel, T.J.** and Sole, C.J. Force-time curve comparison between weightlifting derivatives. *International Journal of Sports Physiology and Performance* 12: 431-439, 2017.
- 90. **Suchomel, T.J.**, Nimphius, S., and Stone, M.H. The importance of muscular strength in athletic performance. *Sports Medicine* 46: 1419-1449, 2016.
- 91. **Suchomel, T.J.**, DeWeese, B.H., and Serrano, A.J. The power clean and power snatch from the knee. *Strength and Conditioning Journal* 38: 98-105, 2016.
- 92. **Suchomel, T.J.**, Lamont, H.S., and Moir, G.L. Understanding vertical jump potentiation: A deterministic model. *Sports Medicine* 46: 809-828, 2016.
- 93. **Suchomel, T.J.**, Sato, K., DeWeese, B.H., Ebben, W.P., and Stone, M.H. Potentiation following ballistic and non-ballistic complexes: The effect of strength level. *Journal of Strength and Conditioning Research* 30: 1825-1833, 2016.
- 94. **Suchomel, T.J.**, Sato, K., DeWeese, B.H., Ebben, W.P., and Stone, M.H. Potentiation effects of half-squats performed in a ballistic or non-ballistic manner. *Journal of Strength and Conditioning Research* 30: 1652-1660, 2016.
- 95. **Suchomel, T.J.**, Sato, K., DeWeese, B.H., Ebben, W.P., and Stone, M.H. Relationships between potentiation effects following ballistic half-squats and bilateral symmetry. *International Journal of Sports Physiology and Performance* 11: 448-454, 2016.

- 96. Nimphius, S., McGuigan, M.R., **Suchomel, T.J.**, and Newton, R.U. Variability of a "force signature" during windmill softball pitching and the relationship between discrete force variables and pitch velocity. *Human Movement Science* 47: 151-158, 2016.
- 97. **Suchomel, T.J.**, Sands, W.A, and McNeal, J.R. Comparison of static, countermovement, and drop jumps of the upper and lower extremities in U.S. junior national team male gymnasts. *Science of Gymnastics Journal* 8: 15-30, 2016.
- 98. DeWeese, B.H., **Suchomel, T.J.**, Serrano, A.J., Burton, J.D., Scruggs, S.K., and Taber, C.B. The pull from the knee: Proper technique and application. *Strength and Conditioning Journal* 38: 79-85, 2016.
- 99. **Suchomel, T.J.**, Sole, C.J., and Stone, M.H. Comparison of methods that assess lower body stretch-shortening cycle utilization. *Journal of Strength and Conditioning Research* 30: 547-554, 2016.
- 100. **Suchomel, T.J.**, Taber, C.B., and Wright, G.A. Jump shrug height and landing forces across various loads. *International Journal of Sports Physiology and Performance* 11: 61-65, 2016.
- 101. McMahon, J.J., Stapley, J.T., **Suchomel, T.J.**, and Comfort, P. Relationships between lower body muscle structure and isometric mid-thigh pull peak force. *Journal of Trainology* 4: 43-48, 2015.
- 102. **Suchomel, T.J.**, Comfort, P., and Stone, M.H. Weightlifting pulling derivatives: Rationale for implementation and application. *Sports Medicine* 45: 823-839, 2015.
- 103. **Suchomel, T.J.**, Sole, C.J., Bailey, C.A., Grazer, J.L., and Beckham, G.K. A comparison of reactive strength index-modified between six U.S. collegiate athletic teams. *Journal of Strength and Conditioning Research* 29: 1310-1316, 2015.
- 104. **Suchomel, T.J.**, Beckham, G.K., and Wright, G.A. Effect of various loads on the force-time characteristics of the hang high pull. *Journal of Strength and Conditioning Research* 29: 1295-1301, 2015.
- 105. **Suchomel, T.J.**, Bailey, C.A., Sole, C.J., Grazer, J.L., and Beckham, G.K. Using reactive strength index-modified as an explosive performance measurement tool in Division I athletes. *Journal of Strength and Conditioning Research* 29: 899-904, 2015.
- 106. Beckham, G.K., **Suchomel, T.J.**, and Mizuguchi, S. Force plate use in performance monitoring and sport science testing. *New Studies in Athletics* 29: 25-37, 2014.
- 107. **Suchomel, T.J.** and Bailey, C.A. Monitoring and managing fatigue in baseball players. *Strength and Conditioning Journal* 36: 39-45, 2014.
- 108. **Suchomel, T.J.**, DeWeese, B.H., Beckham, G.K., Serrano, A., and French, S. The hang high pull: A progressive exercise into weightlifting derivatives. *Strength and Conditioning Journal* 36: 79-83, 2014.

- 109. Wellenkotter, J., Kernozek, T.W., Meardon, S., and **Suchomel, T.J.** The effects of running cadence manipulation on plantar loading in healthy runners. *International Journal of Sports Medicine* 35: 779-784, 2014.
- 110. **Suchomel, T.J.**, DeWeese, B.H., Beckham, G.K., Serrano, A.J., and Sole, C.J. The jump shrug: A progressive exercise into weightlifting derivatives. *Strength and Conditioning Journal* 36: 43-47, 2014.
- 111. **Suchomel, T.J.**, Wright, G.A., Kernozek, T.W., and Kline, D.E. Kinetic comparison of the power development between power clean variations. *Journal of Strength and Conditioning Research* 28: 350-360, 2014.
- 112. **Suchomel, T.J.**, Beckham, G.K., and Wright, G.A. The impact of load on lower body performance variables during the hang power clean. *Sports Biomechanics* 13: 87-95, 2014.
- 113. **Suchomel, T.J.**, Beckham, G.K., and Wright, G.A. Lower body kinetics during the jump shrug: Impact of load. *Journal of Trainology* 2: 19-22, 2013.
- 114. **Suchomel, T.J.** and Sato, K. Baseball resistance training: Should power clean variations be incorporated? *Journal of Athletic Enhancement* 2, 2013.
- 115. Ebben, W.P., Garceau, L.R., Wurm, B.J., **Suchomel, T.J.**, Duran, K., and Petushek, E.J. The optimal back squat load for potential osteogenesis. *Journal of Strength and Conditioning Research* 26: 1232-1237, 2012.
- 116. Simenz, C., Garceau, L.R., Lutsch, B.N., **Suchomel, T.J.**, and Ebben, W.P. Electromyographical analysis of lower extremity muscle activation during variations of the loaded step-up exercise. *Journal of Strength and Conditioning Research* 26: 3398-3405, 2012.
- 117. Ebben, W.P. and **Suchomel, T.J.** Physical demands, injuries, and conditioning practices of stock car drivers. *Journal of Strength and Conditioning Research* 26: 1188-1198, 2012.

#### PEER-REVIEWED FULL-LENGTH CONFERENCE PROCEEDINGS

- Suchomel, T.J. and Sole, C.J. Force-time curve comparison between weightlifting derivatives. 10<sup>th</sup> Annual Coaches & Sport Science College; (J. Goodin & A. Swisher, editors). Johnson City, TN. December 11-12, 2015.
- Suchomel, T.J., Sato, K. DeWeese, B.H., and Stone, M.H. Potentiation effects of ballistic vs. non-ballistic concentric-only half-squats: Preliminary findings. 9<sup>th</sup> Annual Coaches & Sport Science College; (G.K. Beckham & A. Swisher, editors). Johnson City, TN. December 5-6, 2014.
- 3. **Suchomel, T.J.**, Sole, C.J., Sams, M.L., Hollins, J.E., Griggs, C.V., and Stone, M.H. The effect of a competitive season on the explosive performance characteristics of collegiate male soccer players. *9*<sup>th</sup> *Annual Coaches & Sport Science College;* (G.K. Beckham & A. Swisher, editors). Johnson City, TN. December 5-6, 2014.

- 4. Sole, C.J., **Suchomel, T.J.**, Bellon, C., Rapp, C., VanGoethem, A., Reed, J.P., Mizuguchi, S., and Stone, M.H. Relationship between accumulated volume-load and rate of force development in the countermovement vertical jump. *9*<sup>th</sup> *Annual Coaches & Sport Science College;* (G.K. Beckham & A. Swisher, editors). Johnson City, TN. December 5-6, 2014.
- 5. Beckham, G.K., Sato, K., **Suchomel, T.J.**, Sands, W.A., and Stone, M.H. Changes in peak acceleration in the snatch across multiple attempts in training: A case study. In proceedings of: *XXXII Congress of the International Society of Biomechanics in Sports;* (K. Sato, W.A. Sands, & S. Mizuguchi, editors). Johnson City, TN. July 12-16, 2014.
- Chiang, C-Y., Bailey, C.A., Sole, C.J., Suchomel, T.J., Sato, K., and Stone, M.H. Leg dynamic strength predictors of a pre-planned change of direction task in NCAA Division I soccer players. In proceedings of: XXXII Congress of the International Society of Biomechanics in Sports; (K. Sato, W.A. Sands, & S. Mizuguchi, editors). Johnson City, TN. July 12-16, 2014.
- Bailey, C.A., Suchomel, T.J., Beckham, G.K., Sole, C.J., and Grazer, J.L. A comparison of baseball positional differences with reactive strength index-modified. In proceedings of: XXXII Congress of the International Society of Biomechanics in Sports; (K. Sato, W.A. Sands, & S. Mizuguchi, editors). Johnson City, TN. July 12-16, 2014.
- 8. Sole, C.J., Mizuguchi, S., **Suchomel, T.J.**, Sands, W.A., and Stone, M.H. Longitudinal monitoring of countermovement jump mechanical variables: A preliminary investigation. In proceedings of: *XXXII Congress of the International Society of Biomechanics in Sports;* (K. Sato, W.A. Sands, & S. Mizuguchi, editors). Johnson City, TN. July 12-16, 2014.
- 9. **Suchomel, T.J.**, Sole, C.J., Bailey, C.A., Grazer, J.L., and Beckham, G.K. Reactive strength index-modified: A comparison between six U.S. collegiate athletic teams. In proceedings of: *XXXII Congress of the International Society of Biomechanics in Sports;* (K. Sato, W.A. Sands, & S. Mizuguchi, editors). Johnson City, TN. July 12-16, 2014.
- 10. Beckham, G.K., Suchomel, T.J., Bailey, C.A., Sole, C.J., and Grazer, J.L. The relationship of the reactive strength index-modified and measures of force development in the isometric mid-thigh pull. In proceedings of: XXXII Congress of the International Society of Biomechanics in Sports; (K. Sato, W.A. Sands, & S. Mizuguchi, editors). Johnson City, TN. July 12-16, 2014.
- Suchomel, T.J., Bailey, C.A., Sole, C.J., Grazer, J.L., and Beckham, G.K. The use of reactive strength index-modified as an explosive performance measurement in male and female athletes. In proceedings of: XXXII Congress of the International Society of Biomechanics in Sports; (K. Sato, W.A. Sands, & S. Mizuguchi, editors). Johnson City, TN. July 12-16, 2014.

- 12. Ebben, W.P., **Suchomel, T.J.**, and Garceau, L.R. The effect of plyometric training volume on performance. In proceedings of: *XXXII Congress of the International Society of Biomechanics in Sports;* (K. Sato, W.A. Sands, & S. Mizuguchi, editors). Johnson City, TN. July 12-16, 2014.
- 13. **Suchomel, T.J.**, Wright, G.A, Lottig, J. Lower extremity joint velocity comparisons between the hang power clean and jump shrug at various loads. In proceedings of: *XXXII Congress of the International Society of Biomechanics in Sports;* (K. Sato, W.A. Sands, & S. Mizuguchi, editors). Johnson City, TN. July 12-16, 2014.
- 14. Suchomel, T.J., Ebben, W.P., Garceau, L.R., Harrison, A.P., Howe, M.I., Grazer, J.L., Goodin, J., and McBride, I.M. The effect of verbal instruction on lower body power development during various plyometrics. In proceedings of: 8<sup>th</sup> Annual Coaches & Sport Science College; (G.K. Beckham & A. Swisher, editors). Johnson City, TN. December 13-14, 2013.
- 15. Bailey, C.A., Suchomel, T.J., Beckham, G.K., Driggers, A., Haun, C., Sato, K., and Stone, M.H. A comparison of baseball and softball player's bilateral strength asymmetry and its relationship with performance. In proceedings of: 8<sup>th</sup> Annual Coaches & Sport Science College; (G.K. Beckham & A. Swisher, editors). Johnson City, TN. December 13-14, 2013.
- 16. Bellon, C., Leigh, S., and Suchomel, T.J. A comparison of muscle activation of the lower back and legs between a back squat and a rear foot elevated split squat exercise. In proceedings of: 8<sup>th</sup> Annual Coaches & Sport Science College; (G.K. Beckham & A. Swisher, editors). Johnson City, TN. December 13-14, 2013.
- 17. Beckham, G.K., Sato, K., **Suchomel, T.J.**, Chiang, C., Sands, W.A., Bailey, C.A., and Stone, M.H. The application of accelerometry to weightlifting: current challenges. In proceedings of: 8<sup>th</sup> Annual Coaches & Sport Science College; (G.K. Beckham & A. Swisher, editors). Johnson City, TN. December 13-14, 2013.
- 18. **Suchomel, T.J.**, Garceau, L.R., Wurm, B.J., Duran, K.D., and Ebben, W.P. The effect of antagonist conditioning contractions on lower and upper body power tests. In proceedings of: *XXVIII Congress of the International Society of Biomechanics in Sports*; (R. Anderson, D. Harrison, & I. Kenny, editors). Marquette, MI. July 19-23, 2010.
- 19. Garceau, L.R., Wurm, B.J., **Suchomel, T.J.**, Duran, K.D., and Ebben, W.P. The osteogenic potential of supermaximal squat loads. In proceedings of: *XXVIII Congress of the International Society of Biomechanics in Sports*; (R. Anderson, D. Harrison, & I. Kenny, editors). Marquette, MI. July 19-23, 2010.
- Simenz, C.J., Garceau, L.R., Lutsch, B., Suchomel, T.J., and Ebben, W.P.
   Electromyographical analysis of lower extremity muscle activation during variations of
   the loaded step up exercise. In proceedings of: XXVIII Congress of the International
   Society of Biomechanics in Sports; (R. Anderson, D. Harrison, & I. Kenny, editors).
   Marquette, MI. July 19-23, 2010.

#### LETTERS TO THE EDITOR / NON-PEER-REVIEWED ARTICLES

- Stone, M.H., Adams, K., Bazyler, C., Brewer, C., Beckham, G.K., Carroll, K., Chetlin, R.D., Comfort, P., Comstock, B., Cunanan, A., DeWeese, B.H., Earp, J.E., Drogo, S., Fleck, S.J., Fry, A.C., Galpin, A., Garhammer, J., Gahreman, D., Guppy, S. Haff, G.G., Häkkinen, K., Hatfield, D., Haun, C. Hornsby, W.G., Kersick, C., Kraemer, W.J., Lamont, H., McBride, J. Mizuguchi, S. Newton, R.U., Pierce, K., Ramsey, M.W., Ratamess, N., Santana, H., Stone, M.E., Suchomel, T.J., Suarez, D., Travis, K., Taber, C.B., Triplett, N.T., Vingren, J., Wagle, J.P., and Wathen, D. Letter to the Editor On "The basics of training for muscle size and strength". *Med Sci Sports Exerc* 52: 2047-2050, 2020.
- 2. DeWeese, B.H., Bellon, C.R., Magrum, E., Taber, C.B., and **Suchomel, T.J.** Strengthening the Springs. *Techniques Magazine* 9(3): 8-20, 2016.
- 3. Anders, M., Hackbarth, J., Porcari, J.P., Kernozek, T., Doberstein, S., **Suchomel, T.J.**, and Foster, C. Does the Mega-selling Shake Weight Live Up to the Hype? *American Council on Exercise Journal*. December 2011.

## PUBLISHED / PEER-REVIEWED INTERNATIONAL / NATIONAL ABSTRACTS

- Audley, E.T.A., Foster, B.A., Cantwell, C.J., Sundh, A.E., Chard, J.B., Taber, C.B., and Suchomel, T.J. The acute effects of accentuated eccentric loading on subsequent rebound jump performance using percentages of body weight and back squat. National Strength and Conditioning Association 46<sup>th</sup> Annual Meeting. Baltimore, MD. July 10-13, 2024.
- Audley, E.T.A., Foster, B.A., Sundh, A.E., Chard, J.B., Cantwell, C.J., Taber, C.B., and Suchomel, T.J. The force-time characteristics of accentuated eccentric loaded countermovement jumps during different loading conditions. National Strength and Conditioning Association 46<sup>th</sup> Annual Meeting. Baltimore, MD. July 10-13, 2024.
- 3. Camacho, S.M., Ho, C-T., Raatz, N.C., McKeever, S.M., Lake, J.P., and **Suchomel, T.J.** Force-time differences between the static hexagonal barbell jump and squat jump in resistance-trained men. *National Strength and Conditioning Association 46<sup>th</sup> Annual Meeting*. Baltimore, MD. July 10-13, 2024.
- 4. Camacho, S.M., Ho, C-T., Raatz, N.C., McKeever, S.M., Lake, J.P., and **Suchomel, T.J.** Force-time differences between the static hexagonal barbell jump and squat jump in resistance-trained women. *National Strength and Conditioning Association 46<sup>th</sup> Annual Meeting*. Baltimore, MD. July 10-13, 2024.
- Campbell, B.A., Cantwell, C.J., Sundh, A.E., Chard, J.B., Marshall, L.K., Schroeder, Z.S., Taber, C.B., and **Suchomel, T.J.** Phase duration in accentuated eccentric loaded back squats in resistance-trained women. *National Strength and Conditioning Association 46<sup>th</sup> Annual Meeting*. Baltimore, MD. July 10-13, 2024.

- Cantwell, C.J., Schroeder, Z.S., Marshall, L.K., Campbell, B.A., Sundh, A.E., Chard, J.B., Taber, C.B., and Suchomel, T.J. Multi-set strength comparison in braking and propulsive force-time characteristics during accentuated eccentric loaded back squats. *National* Strength and Conditioning Association 46<sup>th</sup> Annual Meeting. Baltimore, MD. July 10-13, 2024.
- Chard, J.B., Audley, E.T.A., Foster, B.A., Cantwell, C.J., Sundh, A.E., Taber, C.B., and Suchomel, T.J. Sex differences in force-time characteristics during accentuated eccentric dumbbell jumps using back squat percentages. *National Strength and Conditioning* Association 46<sup>th</sup> Annual Meeting. Baltimore, MD. July 10-13, 2024.
- 8. Chard, J.B., Sundh, A.E., Cantwell, C.J., Campbell, B.A., Marshall, L.K., Schroeder, Z.S., Taber, C.B., and **Suchomel, T.J.** Downward phase durations in accentuated eccentric loaded back squats in resistance-trained men. *National Strength and Conditioning Association 46<sup>th</sup> Annual Meeting*. Baltimore, MD. July 10-13, 2024.
- Foster, B.A., Audley, E.T.A., Chard, J.B., Sundh, A.E., Cantwell, C.J., Taber, C.B., and Suchomel, T.J. Braking force-time characteristics during accentuated eccentric dumbbell countermovement and rebound jumps using various loading schemes. *National Strength* and Conditioning Association 46<sup>th</sup> Annual Meeting. Baltimore, MD. July 10-13, 2024.
- 10. Foster, B.A., Audley, E.T.A., Chard, J.B., Sundh, A.E., Cantwell, C.J., Taber, C.B., and Suchomel, T.J. Propulsion force-time characteristics during accentuated eccentric dumbbell countermovement and rebound jumps using various loading schemes. National Strength and Conditioning Association 46th Annual Meeting. Baltimore, MD. July 10-13, 2024.
- 11. Fredrick, H.T.R., Murphy, S., Phillips, M., Taber, C.B., Beato, M., and **Suchomel, T.J.**Comparison of relative mean concentric force, duration, and impulse between flywheel and traditional squats. *National Strength and Conditioning Association 46<sup>th</sup> Annual Meeting*. Baltimore, MD. July 10-13, 2024.
- 12. Gawelski, K.M. and **Suchomel, T.J.** Countermovement jump, 5-10-5, and seated shot-put performance comparisons between NCAA Division III female athletes. *National Strength and Conditioning Association 46<sup>th</sup> Annual Meeting*. Baltimore, MD. July 10-13, 2024.
- 13. Ho, C-T., Camacho, S.M., Raatz, N.C., McKeever, S.M., Lake, J.P., and **Suchomel, T.J.** The differences in force-time characteristics produced during the static hexagonal barbell jump between stronger and weaker men. *National Strength and Conditioning Association 46<sup>th</sup> Annual Meeting*. Baltimore, MD. July 10-13, 2024.
- 14. Ho, C-T., Camacho, S.M., Raatz, N.C., McKeever, S.M., Lake, J.P., and **Suchomel, T.J.** The differences in force-time characteristics produced during the static squat jump between stronger and weaker men. *National Strength and Conditioning Association 46<sup>th</sup> Annual Meeting*. Baltimore, MD. July 10-13, 2024.

- Michalak, M., Suchomel, T.J., Greer, B.K., Long, S.A., and Taber, C.B. The effects of maximal and supramaximal accentuated eccentric loading on the barbell bench press. *National Strength and Conditioning Association 46<sup>th</sup> Annual Meeting*. Baltimore, MD. July 10-13, 2024.
- 16. Murphy, S., Fredrick, H.T.R., Phillips, M., Cantwell, C.J., Chard, J.B., Sundh, A.E., Taber, C.B., Beato, M., and Suchomel, T.J. Braking force-time characteristics between traditional squats and flywheel inertia squats at different loads. *National Strength and Conditioning Association 46<sup>th</sup> Annual Meeting*. Baltimore, MD. July 10-13, 2024.
  - Winner of the Master's Student Podium Presentation Award
- Murphy, S., Gawelski, K.M., and Suchomel, T.J. Benchmarking physical performance measurements in NCAA Division III women's lacrosse: A preliminary analysis. *National* Strength and Conditioning Association 46<sup>th</sup> Annual Meeting. Baltimore, MD. July 10-13, 2024.
- Phillips, M.G., Fredrick, H.T.R., Murphy, S., Sundh, A.E., Chard, J.B., Cantwell, C.J., Taber, C.B., Beato, M., and Suchomel, T.J. A comparison of traditional and flywheel inertial training squat load-velocity characteristics. *National Strength and Conditioning Association 46<sup>th</sup> Annual Meeting*. Baltimore, MD. July 10-13, 2024.
- Raatz, N.C., Camacho, S.M., Ho, C-T. McKeever, S.M., Lake, J.P., and Suchomel, T.J. The impact of load on the force-time characteristics of the squat jump in resistance-trained men. National Strength and Conditioning Association 46<sup>th</sup> Annual Meeting. Baltimore, MD. July 10-13, 2024.
- Raatz, N.C., Camacho, S.M., Ho, C-T. McKeever, S.M., Lake, J.P., and Suchomel, T.J. The impact of load on the force-time characteristics of the hexagonal barbell jump in resistance-trained men. *National Strength and Conditioning Association 46<sup>th</sup> Annual Meeting*. Baltimore, MD. July 10-13, 2024.
- 21. Sundh, A.E., Cantwell, C.J., Chard, J.B., Foster, B.A., Audley, E.T.A., Taber, C.B., and Suchomel, T.J. Accentuated eccentric loading in the countermovement jump and its impact on consecutive rebound jumps: Repetition-to-repetition comparisons. *National Strength and Conditioning Association 46<sup>th</sup> Annual Meeting*. Baltimore, MD. July 10-13, 2024.
- 22. Sundh, A.E., Cantwell, C.J., Campbell, B.A., Marshall, L.K., Schroeder, Z.S., Chard, J.B., Taber, C.B., and Suchomel, T.J. Strength-dependent differences in downward phase durations during traditional and accentuated eccentric loaded back squats. *National Strength and Conditioning Association 46<sup>th</sup> Annual Meeting*. Baltimore, MD. July 10-13, 2024.
- 23. **Suchomel, T.J.**, Campbell, B.A., Marshall, L.K., Cantwell, C.J., Schroeder, Z.S., Sundh, A.E., Chard, J.B., and Taber, C.B. Accentuated eccentric loaded back squats: Relationships between relative strength and braking impulse characteristics. *National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting*. Las Vegas, NV. July 12-15, 2023.

- 24. Suchomel, T.J., McKeever, S.M., Stuart, A.C., Tufano, J.J., and Cochrane-Snyman, K.C. Relationships between countermovement jump force-time characteristics and 500meter sprint time in speed skaters. *National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting*. Las Vegas, NV. July 12-15, 2023.
- Burke, A.A., Cantwell, C.J., Jones, M.T, and Suchomel, T.J. Effect of seasonal accumulated workload on phase characteristics of the countermovement jump forcetime curve. *National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting*. Las Vegas, NV. July 12-15, 2023.
- 26. Campbell, B.A., Cantwell, C.J., Marshall, L.K., Schroeder, Z.S., Sundh, A.E., Chard, J.B., Taber, C.B., and Suchomel, T.J. Relationships between relative strength and braking impulse during accentuated eccentric loaded back squats in resistance-trained women. National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting. Las Vegas, NV. July 12-15, 2023.
- 27. Campbell, B.A., Cantwell, C.J., Marshall, L.K., Schroeder, Z.S., Chard, J.B., Sundh, A.E., Taber, C.B., and **Suchomel, T.J.** The effect of load on accentuated eccentric loaded back squat performance in resistance-trained women. *National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting*. Las Vegas, NV. July 12-15, 2023.
- Chard, J.B., Cantwell, C.J., Sundh, A.E., and Suchomel, T.J. Force-time characteristics during accentuated eccentric dumbbell jumps using percent squat loads in multi-set conditions-Preliminary findings. *National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting*. Las Vegas, NV. July 12-15, 2023.
- 29. Chard, J.B., Sundh, A.E., Cantwell, C.J., and **Suchomel, T.J.** Using body weight percentages with accentuated eccentric dumbbell jumps during multiple sets: Preliminary findings. *National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting*. Las Vegas, NV. July 12-15, 2023.
- 30. Marshall, L.K., Campbell, B.A., Cantwell, C.J., Schroeder, Z.S., Chard, J.B., Sundh, A.E., Taber, C.B., and **Suchomel, T.J.** Force and velocity set to set analysis of accentuated eccentric loaded squats in resistance-trained women. *National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting*. Las Vegas, NV. July 12-15, 2023.
- 31. Otley, T., Mann, J.B., Smith, C., Renaghan, E., Luther, A., Powell, H.R., **Suchomel, T.J.**, Dawes, J., Williams, C., and Signorile, J.F. Lower extremity injury prediction from countermovement jump discrete variables in NCAA Division 1 women's soccer. *National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting*. Las Vegas, NV. July 12-15, 2023.
- 32. Penneau, C.A., Cole, M.T., Sundh, A.E., Utt, J., and **Suchomel, T.J.** Relationships between countermovement jump force-time characteristics and strikeouts in division III baseball players. *National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting*. Las Vegas, NV. July 12-15, 2023.

- 33. Phillips, M.G., Burke, A.A., and **Suchomel, T.J.** Countermovement jump performance and the impact of a competitive volleyball season. *National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting*. Las Vegas, NV. July 12-15, 2023.
- 34. Schedlbauer, R., Cantwell, C.J., and **Suchomel, T.J.** Relationships between modified reactive strength index and sprint performance in male NCAA division III soccer players. *National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting*. Las Vegas, NV. July 12-15, 2023.
- 35. Sundh, A.E., Cantwell, C.J., Chard, J.B., and **Suchomel, T.J.** The effect of load on accentuated eccentric loaded countermovement and rebound jumps: A preliminary analysis. *National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting*. Las Vegas, NV. July 12-15, 2023.
- 36. Sundh, A.E., Chard, J.B., Cantwell, C.J., and **Suchomel, T.J.** The acute effect of accentuated eccentric loading on vertical jump performance: A preliminary analysis. *National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting*. Las Vegas, NV. July 12-15, 2023.
- 37. Techmanski, B.S., Kissick, C.R., Comfort, P., Mann, J.B., and **Suchomel, T.J.** Barbell vs. system mean and peak velocity differences within the jump shrug and hang high pull. *National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting*. Las Vegas, NV. July 12-15, 2023.
- 38. Utt, J., Cole, M.T., Sundh, A.E., Penneau, C.A., and **Suchomel, T.J.** Relationships between force plate countermovement jump characteristics and batting performance in NCAA division III baseball players. *National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting*. Las Vegas, NV. July 12-15, 2023.
- 39. Utt, J., Techmanski, B.S., Kissick, C.R., and **Suchomel, T.J.** Estimating the 1RM of a weightlifting pulling derivative using barbell velocity. *National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting*. Las Vegas, NV. July 12-15, 2023.
- 40. Vervoort, D., Cantwell, C.J., and **Suchomel, T.J.** The relationships between countermovement jump braking and propulsion phases with sprint speeds among NCAA division III soccer athletes. *National Strength and Conditioning Association 45<sup>th</sup> Annual Meeting*. Las Vegas, NV. July 12-15, 2023.
- 41. Campbell, B.A., Cantwell, C.J., Schroeder, Z.S., Marshall, L.K., Katanick, L.C., Taber, C.B., and **Suchomel, T.J.** Force characteristics on accentuated eccentric loaded back squats. *National Strength and Conditioning Association 44<sup>th</sup> Annual Meeting*. New Orleans, LA. July 6-9, 2022.
- 42. Cantwell, C.J., Kissick, C.R., Techmanski, B.S., and **Suchomel, T.J.** The effect of load on countermovement shrug force- and power-time characteristics. *National Strength and Conditioning Association 44<sup>th</sup> Annual Meeting*. New Orleans, LA. July 6-9, 2022.

- 43. Cantwell, C.J., Schroeder, Z.S., Marshall, L.K., Katanick, L.C., Campbell, B.A., Taber, C.B., and Suchomel, T.J. Preliminary set to set analysis between loading conditions on force and velocity characteristics of accentuated eccentric loading. *National Strength and Conditioning Association 44<sup>th</sup> Annual Meeting*. New Orleans, LA. July 6-9, 2022.
  - Winner of the Master's Student Podium Presentation Award
- 44. Edlbeck, B., Jones, A.T., Olson, M.L., Bischel, B.S., Reid, N.C., and **Suchomel, T.J.**Correlation between skeletal muscle mass and lower body power in NCAA Division III athletes. *National Strength and Conditioning Association 44<sup>th</sup> Annual Meeting*. New Orleans, LA. July 6-9, 2022.
- 45. Jones, A.T., Cantwell, C.J., and **Suchomel, T.J.** Countermovement jump characteristics of Division III collegiate athletes. *National Strength and Conditioning Association 44<sup>th</sup> Annual Meeting*. New Orleans, LA. July 6-9, 2022.
- 46. Katanick, L.C., Campbell, B.A., Cantwell, C.J., Schroeder, Z.S., Marshall, L.K., Taber, C.B., and Suchomel, T.J. The effect of load on braking and propulsion characteristics during a 100% 1-RM AEL back squat using weight releasers. *National Strength and Conditioning Association 44<sup>th</sup> Annual Meeting*. New Orleans, LA. July 6-9, 2022.
- 47. Marshall, L.K., Katanick, L.C., Campbell, B.A., Cantwell, C.J., Schroeder, Z.S., Taber, C.B., and **Suchomel, T.J.** The effect of load on braking and propulsion force-time characteristics during accentuated eccentric loaded back squats. *National Strength and Conditioning Association 44<sup>th</sup> Annual Meeting*. New Orleans, LA. July 6-9, 2022.
- 48. McKeever, S.M., Stuart, A.C., Tufano, J.J., and **Suchomel, T.J.** The relationships between final times and acceleration profiles within the first 100-meters of 500-meter speed skaters. *National Strength and Conditioning Association 44<sup>th</sup> Annual Meeting*. New Orleans, LA. July 6-9, 2022.
- 49. Schroeder, Z.S., Marshall, L.K., Katanick, L.C., Campbell, B.A., Cantwell, C.J., Taber, C.B., and **Suchomel, T.J.** Comparing mean and peak barbell velocity during traditional and accentuated eccentric loaded back squats. *National Strength and Conditioning Association 44<sup>th</sup> Annual Meeting*. New Orleans, LA. July 6-9, 2022.
- 50. Stuart, A.C., McKeever, S.M., Tufano, J.J., and **Suchomel, T.J.** Reliability and minimal detectable change during speed skating 100-m acceleration. *National Strength and Conditioning Association 44<sup>th</sup> Annual Meeting*. New Orleans, LA. July 6-9, 2022.
- Techmanski, B.S., Kissick, C.R., Loturco, I., and Suchomel, T.J. Using propulsive phase percentage to determine the one repetition maximum of the jump shrug. National Strength and Conditioning Association 44<sup>th</sup> Annual Meeting. New Orleans, LA. July 6-9, 2022.
- 52. Lum, D., Ranald, J., Ong, K.Y., Tang, J.M., and **Suchomel, T.J.** Neuromuscular adaptations to long term vs periodic inclusion of isometric training. *27<sup>th</sup> Annual Congress of the European College of Sport Science*. Sevilla, Spain. August 31-September 2, 2022.

- 53. **Suchomel, T.J.**, Kissick, C.R., Techmanski, B.S., and Comfort, P. The effect of load on hang clean pull force- and power-time characteristics. *National Strength and Conditioning Association 43<sup>rd</sup> Annual Meeting*. Orlando, FL. July 7-10, 2021.
- 54. **Suchomel, T.J.**, Techmanski, B.S., Kissick, C.R., and Comfort, P. The effect of load on jump shrug force- and power-time characteristics. *National Strength and Conditioning Association 43<sup>rd</sup> Annual Meeting*. Orlando, FL. July 7-10, 2021.
- 55. Connell, S., Chavez, M.T., Holt, S.F., and **Suchomel, T.J.** Differences in countermovement jump height, time to takeoff, and modified reactive strength index between division III collegiate teams. *National Strength and Conditioning Association 43<sup>rd</sup> Annual Meeting*. Orlando, FL. July 7-10, 2021.
  - Winner of the Master's Student Podium Presentation Award
- 56. Kissick, C.R., Techmanski, B.S., Comfort, P., Mann, J.B., and **Suchomel, T.J.** The reliability of and relationships between three velocity-based training devices during the countermovement shrug. *National Strength and Conditioning Association 43<sup>rd</sup> Annual Meeting*. Orlando, FL. July 7-10, 2021.
- 57. Kissick, C.R., Techmanski, B.S., Comfort, P., Banyard, H.G., Thompson, S.W., and **Suchomel, T.J.** The reliability of and relationships between three velocity-based training devices during the hang clean pull. *National Strength and Conditioning Association 43*<sup>rd</sup> *Annual Meeting*. Orlando, FL. July 7-10, 2021.
- 58. McKeever, S.M., Sijuwade, O., Carpenter, L., and Suchomel, T.J. The effect of load placement on the power production characteristics of three lower extremity jumping exercises in resistance-trained women. *National Strength and Conditioning Association* 43<sup>rd</sup> Annual Meeting. Orlando, FL. July 7-10, 2021.
- 59. Techmanski, B.S., Kissick, C.R., Comfort, P., Mann, J.B., and **Suchomel, T.J.** The reliability of and relationships between three velocity-based training devices during the jump shrug. *National Strength and Conditioning Association 43<sup>rd</sup> Annual Meeting*. Orlando, FL. July 7-10, 2021.
- 60. Techmanski, B.S., Kissick, C.R., Comfort, P., Banyard, H.G., Thompson, S.W., and Suchomel, T.J. The reliability of and relationships between three velocity-based training devices during the hang high pull. *National Strength and Conditioning Association 43<sup>rd</sup>* Annual Meeting. Orlando, FL. July 7-10, 2021.
- 61. **Suchomel, T.J.**, Sijuwade, O., McKeever, S.M., Carpenter, L., McMahon, J.J., Loturco, I., and Comfort, P. The effect of load placement on the power production characteristics of three lower extremity jumping exercises. *National Strength and Conditioning Association 42<sup>nd</sup> Annual Meeting*. Washington D.C. July 10-13, 2019.
- 62. **Suchomel, T.J.**, McKeever, S.M., McMahon, J.J., and Comfort, P. Countermovement jump adaptations following 10 weeks of training weightlifting catching or pulling derivatives: Preliminary findings. *National Strength and Conditioning Association 42<sup>nd</sup> Annual Meeting*. Washington D.C. July 10-13, 2019.

- 63. McKeever, S.M., Comfort, P., McMahon, J.J., and **Suchomel, T.J.** Squat jump peak power and mechanical work adaptations following 10 weeks of training weightlifting catching or pulling derivatives: Preliminary findings. *National Strength and Conditioning Association 42<sup>nd</sup> Annual Meeting*. Washington D.C. July 10-13, 2019.
- 64. Beckham, G.K., **Suchomel, T.J.**, Sole, C.J., Kim, S.B., and Stone, M.H. Influence of sex, relative maximal strength, and unloaded vertical jump height on the loaded countermovement vertical jump. *National Strength and Conditioning Association 42*<sup>nd</sup> *Annual Meeting*. Washington D.C. July 10-13, 2019.
- 65. Comfort, P., McMahon, J.J., Dos'Santos, T., Jones, P.A., Thomas, C., and **Suchomel, T.J.** Changes in early and maximal isometric force production in response to moderate and high intensity strength and power training. *National Strength and Conditioning Association 42<sup>nd</sup> Annual Meeting*. Washington D.C. July 10-13, 2019.
- 66. Comfort, P., McMahon, J.J., Ripley, N.J., **Suchomel, T.J.**, and Cuthbert, M. An electromyographical comparison of the Russian curl and razor curl. *National Strength and Conditioning Association 42*<sup>nd</sup> *Annual Meeting*. Washington D.C. July 10-13, 2019.
- 67. Meechan, D., **Suchomel, T.J.**, McMahon, J.J., and Comfort, P. A biomechanical comparison of the mid-thigh pull and countermovement shrug. *11*<sup>th</sup> *International Conference on Strength Training*. Perth, Western Australia. November 30-December 3, 2018.
- 68. **Suchomel, T.J.**, McKeever, S.M., and Comfort, P. Dynamic and isometric strength adaptations following 10 weeks of training with weightlifting catching or pulling derivatives: Preliminary findings. *National Strength and Conditioning Association 41st Annual Meeting*. Indianapolis, IN. July 11-14, 2018.
- 69. Suchomel, T.J., McKeever, S.M., and Comfort, P. Sprint and change of direction adaptations following 10 weeks of training weightlifting catching or pulling derivatives: Preliminary findings. National Strength and Conditioning Association 41st Annual Meeting. Indianapolis, IN. July 11-14, 2018.
- 70. Cuthbert, M., Ripley, N.J., McMahon, J.J., **Suchomel, T.J.**, and Comfort, P. A comparison of normalization methods for electromyography of the biceps femoris during the gluteham raise exercise. *National Strength and Conditioning Association 41st Annual Meeting*. Indianapolis, IN. July 11-14, 2018.
- 71. Cuthbert, M., McMahon, J.J., Ripley, N.J., **Suchomel, T.J.**, and Comfort, P. Changes in gluteus maximus and biceps femoris muscle activation during the glute-ham raise. *National Strength and Conditioning Association 41st Annual Meeting*. Indianapolis, IN. July 11-14, 2018.
- 72. Lake, J.P., Comfort, P., **Suchomel, T.J.**, Mundy, P.D., Carden, P., Bishop, C., and McMahon, J.J. Consistency in vertical jump asymmetry. *National Strength and Conditioning Association 41st Annual Meeting*. Indianapolis, IN. July 11-14, 2018.

- 73. Sole, C.J., Manceaux, K.P., and **Suchomel, T.J.** Intersession reliability of reactive strength index modified in military cadets. *National Strength and Conditioning Association 41st Annual Meeting*. Indianapolis, IN. July 11-14, 2018.
- 74. Beckham, G.K., **Suchomel, T.J.**, Sole, C.J., Bailey, C.A., Grazer, J.L., Kim, S.B., Talbot, K.B., and Stone, M.H. Influence of sex and maximal strength on reactive strength index-modified. *National Strength and Conditioning Association 41st Annual Meeting*. Indianapolis, IN. July 11-14, 2018.
- 75. McMahon, J.J., **Suchomel, T.J.**, Lake, J.P., and Comfort, P. Relationships between reactive strength index modified and 5, 10, and 20 m sprint times. *United Kingdom Strength and Conditioning Association Annual Conference 2017*. Leicestershire, U.K. August 4-6, 2017.
- Suchomel, T.J., Taber, C.B., and Stone, M.H. Peak force and impulse characteristics of ballistic and non-ballistic half-squats. *National Strength and Conditioning Association* 40th Annual Meeting. Las Vegas, NV. July 12-15, 2017.
- 77. Nimphius, S., Callaghan, S.J., Hawser, A., and **Suchomel, T.J.** Quantifying the skill of maintaining sprint speed during baserunning. *National Strength and Conditioning Association 40th Annual Meeting*. Las Vegas, NV. July 12-15, 2017.
- 78. Lake, J.P., Mundy, P.D., Comfort, P., McMahon, J.J., and **Suchomel, T.J.** The validity portable force plate countermovement vertical jump reactive strength and force-time characteristics. *National Strength and Conditioning Association 40th Annual Meeting*. Las Vegas, NV. July 12-15, 2017.
- 79. **Suchomel, T.J.** and Sole, C.J. Power-time curve comparison between weightlifting derivatives. *National Strength and Conditioning Association 39th Annual Meeting*. New Orleans, LA. July 6-9, 2016.
- 80. **Suchomel, T.J.**, Lake, J.P., and Comfort, P. Load absorption comparison between weightlifting catching and pulling derivatives. *National Strength and Conditioning Association 39th Annual Meeting*. New Orleans, LA. July 6-9, 2016.
- 81. Comfort, P., **Suchomel, T.J.**, and Lake, J.P. Load effect on hang clean catch phase force-time characteristics. *National Strength and Conditioning Association 39th Annual Meeting*. New Orleans, LA. July 6-9, 2016.
- 82. Lake, J.P., Murrell, J., Mundy, P.D., Comfort, P., and **Suchomel, T.J.** The validity and reliability of inexpensive portable force plate jump height. *National Strength and Conditioning Association 39th Annual Meeting*. New Orleans, LA. July 6-9, 2016.
- 83. Bazyler, C.D., **Suchomel, T.J.**, Sole, C.J., Mizuguchi, S., and Stone, M.H. Changes in muscle architecture and explosive ability in collegiate volleyball players throughout a competitive season. *American College of Sports Medicine 63rd Annual Meeting, 7<sup>th</sup> World Congress on Exercise is Medicine, and World Congress on the Basic Science of Energy Balance*. Boston, MA. May 31-June 4, 2016.

- 84. **Suchomel, T.J.**, Sato, K., DeWeese, B.H., Ebben, W.P., and Stone, M.H. A comparison of the potentiation effects following ballistic and non-ballistic concentric-only half-squats. *National Strength and Conditioning Association 38th Annual Meeting*. Orlando, FL. July 8-11, 2015.
  - Winner of the Doctoral Student Podium Presentation Award
- 85. **Suchomel, T.J.**, Sato, K., DeWeese, B.H., Ebben, W.P., and Stone, M.H. Potentiation following ballistic and non-ballistic complexes: The effect of strength. *National Strength and Conditioning Association 38th Annual Meeting*. Orlando, FL. July 8-11, 2015.
- 86. **Suchomel, T.J.**, Sole, C.J., and Stone, M.H. A comparison of three methods of assessing the lower body stretch-shortening cycle utilization of athletes. National Strength and Conditioning Association 37th Annual Meeting. Las Vegas, NV. July 9-12, 2014.
- 87. **Suchomel, T.J.**, Garceau, L.R., and Ebben, W.P. The effect of verbal instruction on lower body performance variables during various plyometrics. (Sponsored by: Randall L. Jensen, FACSM). American College of Sports Medicine 61<sup>st</sup> Annual Meeting and 5<sup>th</sup> World Congress on Exercise is Medicine. Orlando, FL. May 27-31, 2014.
- 88. Chiang, C-Y., Sato, K., Bailey, C.A., Sole, C.J., **Suchomel, T.J.**, Alexander, R.P., Sayers, A.L., Sands, W.A., and Stone, M.H. Is change of direction ability related to vertical jump height in female soccer players? American College of Sports Medicine 61<sup>st</sup> Annual Meeting and 5<sup>th</sup> World Congress on Exercise is Medicine. Orlando, FL. May 27-31, 2014.
- 89. **Suchomel, T.J.** and Wright, G.A. Power development comparisons between power clean variations at different relative loads. National Strength and Conditioning Association 36th Annual Meeting. Las Vegas, NV. July 10-13, 2013.
- 90. Suchomel, T.J., Garceau, L.R., and Ebben, W.P. Verbal instruction effect on stretch shortening cycle duration and reactive strength index-modified during plyometrics. (Sponsored by: Randall L. Jensen, FACSM). American College of Sports Medicine 60<sup>th</sup> Annual Meeting and 4<sup>th</sup> World Congress on Exercise is Medicine. Indianapolis, IN. May 28-June 1, 2013.
- 91. Wellenkotter, J., Meardon, S., Kernozek, T., and **Suchomel, T.J.** The effects of running cadence manipulation on plantar loading. Presented at: 2013 American Physical Therapy Association Combined Sections Meeting. San Diego, CA. January 21-24, 2013.
- 92. **Suchomel, T.J.** and G.A. Wright. Kinetic comparison of the power development between the hang clean, jump shrug, and high pull. National Strength and Conditioning Association 35<sup>th</sup> Annual Meeting. Providence, RI. July 11-14, 2012.
  - Winner of the Master's Poster Presentation Award
- 93. Ebben, W.P., Wurm, B.J., Garceau, L.R., and **Suchomel, T.J.** Supermaximal loads potentiate subsequent high load back squat performance. National Strength and Conditioning Association 35<sup>th</sup> Annual Meeting. Providence, RI. July 11-14, 2012.

- 94. Condello, G., Kernozek, T.W., **Suchomel, T.J.**, Tessitore, A., and Foster, C. Gender differences during changes of direction in college soccer players. In: *17<sup>th</sup> Annual Congress of the European College of Sport Science: pp. 77*; (R. Meeusen, J. Duchateau, B. Roelands, M. Klass, B. De Geus, S. Baudry, & E. Tsolakidis, editors). Bruges, Belgium. July 4-7, 2012.
- 95. **Suchomel, T.J.** and W.P. Ebben. Qualitative analysis of injuries in stock car racing. 63<sup>rd</sup> National Athletic Trainers Association Annual Meeting and Symposium. St Louis, MO. June 26-29, 2012.
- 96. Ebben, W.P. **Suchomel, T.J.**, Wurm, B.J., and Garceau, L.R. Antagonist knockout training increases agonist force and the rate of force development. National Strength and Conditioning Association 34<sup>th</sup> Annual Meeting. Las Vegas, NV. July 6-9, 2011.
- 97. Ebben, W.P., **Suchomel, T.J.**, and Garceau, L.R. Pilot study of the physical demands and conditioning practices of short track stock car drivers. National Strength and Conditioning Association 33rd Annual Meeting. Orlando, FL. July 14-17, 2010.

## PEER-REVIEWED REGIONAL / STATE/ LOCAL ABSTRACTS

- Chard, J.B., Sundh, A.E., Cantwell, C.J., and Suchomel, T.J. Using body weight percentages with accentuated eccentric dumbbell jumps during multiple sets: Preliminary findings. 2023 National Strength and Conditioning Association Great Lakes Regional Clinic. Waukesha, WI. April 1, 2023.
- 2. Cole, M.T., Utt, J., Sundh, A.E., Penneau, C.A., and **Suchomel, T.J.** Relationships between force plate countermovement jump characteristics and batting performance in NCAA division III baseball players. *2023 National Strength and Conditioning Association Great Lakes Regional Clinic*. Waukesha, WI. April 1, 2023.
- 3. Penneau, C.A., Cole, M.T., Sundh, A.E., Utt, J., and **Suchomel, T.J.** Relationships between countermovement jump force-time characteristics and strikeouts in division III baseball players. *2023 National Strength and Conditioning Association Great Lakes Regional Clinic*. Waukesha, WI. April 1, 2023.
- 4. Phillips, M.G., Burke, A.A., and **Suchomel, T.J.** Countermovement jump performance and the impact of a competitive volleyball season. *2023 National Strength and Conditioning Association Great Lakes Regional Clinic*. Waukesha, WI. April 1, 2023.
- Schedlbauer, R., Cantwell, C.J., and Suchomel, T.J. Relationships between modified reactive strength index and sprint performance in male NCAA division III soccer players. 2023 National Strength and Conditioning Association Great Lakes Regional Clinic. Waukesha, WI. April 1, 2023.
- 6. Sundh, A.E., Chard, J.B., Cantwell, C.J., and **Suchomel, T.J.** The acute effect of accentuated eccentric loading on vertical jump performance: A preliminary analysis. *2023 National Strength and Conditioning Association Great Lakes Regional Clinic*. Waukesha, WI. April 1, 2023.

- 7. Utt, J., Techmanski, B.S., Kissick, C.R., and **Suchomel, T.J.** Estimating the 1RM of a weightlifting pulling derivative using barbell velocity. *2023 National Strength and Conditioning Association Great Lakes Regional Clinic*. Waukesha, WI. April 1, 2023.
- 8. Campbell, B.A., Cantwell, C.J., Schroeder, Z.S., Marshall, L.K., Katanick, L.C., Taber, C.B., and **Suchomel, T.J.** Force characteristics on accentuated eccentric loaded back squats. *2022 National Strength and Conditioning Association Great Lakes Regional Clinic*. Waukesha, WI. April 9, 2022.
- 9. Cantwell, C.J., Kissick, C.R., Techmanski, B.S., and **Suchomel, T.J.** The effect of load on countermovement shrug force- and power-time characteristics. *2022 National Strength and Conditioning Association Great Lakes Regional Clinic*. Waukesha, WI. April 9, 2022.
- 10. Edlbeck, B., Jones, A.T., Olson, M.L., Bischel, B.S., Reid, N.C., and **Suchomel, T.J.**Correlation between skeletal muscle mass and lower body power in NCAA Division III athletes. *2022 National Strength and Conditioning Association Great Lakes Regional Clinic*. Waukesha, WI. April 9, 2022.
- 11. Jones, A.T., Cantwell, C.J., and **Suchomel, T.J.** Countermovement jump characteristics of Division III collegiate athletes. *2022 National Strength and Conditioning Association Great Lakes Regional Clinic*. Waukesha, WI. April 9, 2022.
- 12. Katanick, L.C., Campbell, B.A., Cantwell, C.J., Schroeder, Z.S., Marshall, L.K., Taber, C.B., and Suchomel, T.J. The effect of load on braking and propulsion characteristics during a 100% 1-RM AEL back squat using weight releasers. 2022 National Strength and Conditioning Association Great Lakes Regional Clinic. Waukesha, WI. April 9, 2022.
- 13. Marshall, L.K., Katanick, L.C., Campbell, B.A., Cantwell, C.J., Schroeder, Z.S., Taber, C.B., and Suchomel, T.J. The effect of load on braking and propulsion force-time characteristics during accentuated eccentric loaded back squats. 2022 National Strength and Conditioning Association Great Lakes Regional Clinic. Waukesha, WI. April 9, 2022.
- 14. Schroeder, Z.S., Marshall, L.K., Katanick, L.C., Campbell, B.A., Cantwell, C.J., Taber, C.B., and Suchomel, T.J. Comparing mean and peak barbell velocity during traditional and accentuated eccentric loaded back squats. 2022 National Strength and Conditioning Association Great Lakes Regional Clinic. Waukesha, WI. April 9, 2022.
- 15. Mentele, P. and Suchomel, T.J. Using decision tree methods to predict session rating of perceived exertion using duration of categorized drills in NCAA division III women's lacrosse players. 2019 National Strength and Conditioning Association Wisconsin State Clinic. Waukesha, WI. April 13th, 2019.
- Norton, M.S. and Suchomel, T.J. Using analytics to track specificity of training compared to competition demands via power output. 2019 National Strength and Conditioning Association Wisconsin State Clinic. Waukesha, WI. April 13th, 2019.

- 17. Koenig, J. and **Suchomel, T.J.** Using weekly jump data to help monitor fatigue in collegiate women's volleyball. 2019 National Strength and Conditioning Association Wisconsin State Clinic. Waukesha, WI. April 13th, 2019.
- 18. Reese, K.R., Miltenberger, M., Moir, G.L., and **Suchomel, T.J.** The correlation of track & field distance racing to jumping performance. *2016 Mid-Atlantic American College of Sports Medicine Annual Meeting*. Harrisburg, PA. November 4-5, 2016.
- 19. Sole, C.J., **Suchomel, T.J.**, Mizuguchi, S., and Stone M.H. Comparison of peak mechanical power estimates in longitudinal vertical jump monitoring. *2016 Southeast American College of Sports Medicine Annual Meeting*. Greenville, SC. February 18-20, 2016.
- 20. Bazyler, C.D., Suchomel, T.J., Sole, C.J., Mizuguchi, S., and Stone, M.H. Longitudinal changes in muscle architecture, reactive strength, and explosive ability in collegiate volleyball players throughout a competitive season. To be presented at: 2016 Southeast American College of Sports Medicine Annual Meeting. Greenville, SC. February 18-20, 2016.
- Ebben, W.P. and Suchomel, T.J. Psychology of short track stock car racing. 2015
   *Midwest American College of Sports Medicine Annual Meeting*. Fort Wayne, IN,
   November 6-7, 2015.
- Suchomel, T.J. and Sole, C.J. The effect of a competitive season on performance characteristics in male soccer players. 2014 Southeast American College of Sports Medicine Annual Meeting. Jacksonville, FL, February 12-14, 2015.
- 23. Beckham, G.K., **Suchomel, T.J.**, Bailey, C.A., Sole, C.J., and Stone, M.H. The influence of sex on reactive strength index-modified. *Southwest American College of Sports Medicine 2014 Annual Meeting*. Costa Mesa, CA, October 17-18, 2014.
- 24. **Suchomel, T.J.**, Beckham, G.K., and G.A. Wright. The impact of load on performance variables during power clean variations. *Southeast American College of Sports Medicine 2013 Annual Meeting*. Greenville, SC. February 14-16, 2013.
- Beckham, G.K., Suchomel, T.J., Sato, K., and M.H. Stone. Differences in factor organization between measures of isometric strength in key deadlift positions. Southeast American College of Sports Medicine 2013 Annual Meeting. Greenville, SC. February 14-16, 2013.
- 26. Sands, W.A., Stone, M.H., McNeal, J.R., Haff, G.G., Harrison, A.P., and **Suchomel, T.J.**Athlete recovery via peristaltic pulse compression. 7<sup>th</sup> Annual Coaches & Sport Science College. Johnson City, TN. December 14-15, 2012.
- 27. **Suchomel, T.J.**, G. Wright, T. Kernozek, and D. Kline. Kinetic comparison of the power development between the hang clean, jump shrug, and high pull. *National Strength and Conditioning Association 2012 Wisconsin State Clinic*. Waukesha, WI. April 14, 2012.

#### **ORAL PRESENTATIONS**

### **International / National Professional Meetings**

- Swiss Strength and Conditioning Association 10<sup>th</sup> Anniversary Workshop. "The Plyometric Continuum: Planning and Cueing." Biel/Bienne, Switzerland. October 11-13, 2024.
- 2. National Strength and Conditioning Association Annual Meeting. "Implementing weightlifting derivatives for strength and power development: Exercise and loading considerations." Baltimore, MD. July 10-13, 2024.
- 2023 Australian Strength and Conditioning Association International Conference on Applied Strength and Conditioning. "Implementing accentuated eccentric loading into resistance training programs." Gold Coast, Australia. November 2-4, 2023.
- 4. National Strength and Conditioning Association Annual Meeting. "Bridge the Gap Lecture: Implementing Eccentric Training: Applications for Improving Hypertrophy, Strength, and Power." Las Vegas, NV. July 12-15, 2023.
- 5. National Strength and Conditioning Association Annual Meeting. "Bridge the Gap Practical: Implementing Eccentric Training: Applications for Improving Hypertrophy, Strength, and Power." Las Vegas, NV. July 12-15, 2023.
- National Strength and Conditioning Association Annual Meeting. "Accentuated eccentric loaded back squats: Relationships between relative strength and braking impulse characteristics." Las Vegas, NV. July 12-15, 2023.
- 7. 14<sup>th</sup> Annual Middlesex Strength and Conditioning Student Conference. "Accentuated Eccentric Loading: Applications for Hypertrophy, Strength, and Power." March 4<sup>th</sup>, 2023.
- 8. 16<sup>th</sup> Annual Coaching and Sport Science College. "Application of cluster sets and potentiation complexes." Johnson City, TN. November 4-5, 2022.
- 2022 Swiss Strength and Conditioning Association Workshop Eccentric Training Science & Application. "Physiological adaptations to eccentric training." Virtual Presentation. October 29<sup>th</sup>, 2022.
- 2022 Swiss Strength and Conditioning Association Workshop Eccentric Training Science & Application. "Advantages and limitations of eccentric training." Virtual Presentation. October 29<sup>th</sup>, 2022.
- 11. 2022 National Taiwan Sport University World Sport Performance Conference. "Velocity considerations with weightlifting derivatives." Virtual Presentation. July 10<sup>th</sup>, 2022.
- 12. 2022 Notre Dame/Australian Catholic University Human Performance Summit. "Testing and training the force-velocity profile of athletes." South Bend, IN. June 16-17, 2022.

- 13. 2022 National Strength and Conditioning Association Coaches Conference. "Weightlifting Derivatives to Meet Your Force-Velocity Profile." Co-presented with Bryan Mann. San Antonio, TX. January 6-8, 2022.
- 14. 16<sup>th</sup> Annual Coaching and Sport Science College. "Implementing Weightlifting Derivatives: Practical Applications for Strength, Power, and Speed Development." Johnson City, TN. December 3-4, 2021.
- 15. 2021 United Kingdom Strength and Conditioning Association Virtual Conference Series: Strength and Conditioning in Cricket. "Force-velocity Curve Training Applications, Part 2: Velocity." Virtual Presentation. August 25<sup>th</sup>, 2021.
- 2021 United Kingdom Strength and Conditioning Association Virtual Conference Series: Strength and Conditioning in Cricket. "Force-velocity Curve Training Applications, Part 1: Force." Virtual Presentation. August 25<sup>th</sup>, 2021.
- 17. International Universities Strength and Conditioning Association Conference. "Weightlifting Derivatives and Jump Variations for the Development of Strength and Power." Virtual Presentation. August 20<sup>th</sup>, 2021.
- 18. National Strength and Conditioning Association 44<sup>th</sup> Annual Meeting. "Muscular Strength: The Foundation of Athletic Performance." Orlando, FL. July 7-10, 2021.
  - Michael H. Stone Sports Science Lecture
- 19. National Strength and Conditioning Association 44<sup>th</sup> Annual Meeting. "The effect of load on jump shrug pull force- and power-time characteristics." Orlando, FL July 7-10, 2021.
- 20. 2021 Carroll University Sport Performance and Coaching Clinic. "The Gray Area of Programming Weightlifting Derivatives." Virtual Presentation. April 17<sup>th</sup>, 2021.
- 21. 12<sup>th</sup> Annual Middlesex Strength and Conditioning Student Conference. "Integrating Weightlifting Derivatives: Expanding the Coaching Toolbox." Virtual Presentation. March 6<sup>th</sup>, 2021.
- 22. 2021 National Strength and Conditioning Association Coaches Conference. "Expanding the Coaching Toolbox Using Weightlifting Derivatives." Virtual Presentation. January 6-8, 2021.
- 23. 2020 Australian Strength and Conditioning Association International Conference on Applied Strength and Conditioning. "Training the Force-velocity Curve: Resistance Training Applications." Virtual presentation. November 19-21, 2020.
- 24. 2020 National Strength and Conditioning Association Advanced Periodization Virtual Clinic. "Eccentric Training Methods: Benefits, Shortcomings, and Implementation." Virtual presentation. November 13-14, 2020.
- 25. 2020 Singapore Sport Science Symposium: From Youth to Elite. "The Importance of Muscular Strength for Sport Performance." Virtual presentation. November 2-5, 2020.

- 26. 2019 National Taiwan Sport University Athletes' Performance Symposium. "Using weightlifting derivatives for sport performance." National Taiwan Sport University, Taoyuan, Taiwan. October 5<sup>th</sup>, 2019.
- 27. 2019 National Taiwan Sport University Athletes' Performance Symposium. "Improving an athlete's force-velocity characteristics: Programming considerations." National Taiwan Sport University, Taoyuan, Taiwan. October 5<sup>th</sup>, 2019.
- 28. National Strength and Conditioning Association 42<sup>nd</sup> Annual Meeting. "Training strategies to improve an athlete's force-velocity characteristics." Washington D.C. July 10-13, 2019.
- 29. National Strength and Conditioning Association 42<sup>nd</sup> Annual Meeting. "The effect of load placement on the power production characteristics of three lower extremity jumping exercises." Washington D.C. July 10-13, 2019.
- 30. National Strength and Conditioning Association Coaches Conference. "Sprint and change of direction adaptations following 10 weeks of training weightlifting catching or pulling derivatives: Preliminary findings." Presented as part of "Bridging the Gap Latest Research and What Can be Implemented Now by Coaches" (Bryan Mann). Indianapolis, IN. January 10-12, 2019.
- 31. Sports Performance Research Institute New Zealand Strength and Conditioning Conference. "The Importance of Muscular Strength: Considerations for Athletic Performance." Auckland University of Technology, Auckland, New Zealand. November 14-16, 2018.
- 32. Sports Performance Research Institute New Zealand Strength and Conditioning Conference. "Weightlifting Derivatives: Technique, Variations, and Practical Application." Auckland University of Technology, Auckland, New Zealand. November 14-16, 2018.
- 33. 2018 Australian Strength and Conditioning Association International Conference on Applied Strength and Conditioning. "Surfing the Force-Velocity Curve with Weightlifting Derivatives: Real World Application." ANZ Stadium, Sydney, Australia. November 9-11, 2018.
- 34. National Strength and Conditioning Association 40<sup>th</sup> Annual Meeting. "Bridge the Gap Lecture: Using Weightlifting Pulling Derivatives in Resistance Training Programs." Las Vegas, NV. July 12-15, 2017.
- 35. National Strength and Conditioning Association 40<sup>th</sup> Annual Meeting. "Bridge the Gap Practical: Using Weightlifting Pulling Derivatives in Resistance Training Programs." Las Vegas, NV. July 12-15, 2017.
- 36. National Strength and Conditioning Association 40<sup>th</sup> Annual Meeting. "Peak force and impulse characteristics of ballistic and non-ballistic half-squats. *National Strength and Conditioning Association 40th Annual Meeting*. Las Vegas, NV. July 12-15, 2017.

- 37. National Strength and Conditioning Association 39<sup>th</sup> Annual Meeting. "Power-time curve comparison between weightlifting derivatives." New Orleans, LA. July 6-9, 2016.
- 38. 10<sup>th</sup> Annual Coaches and Sport Science College. "Using Weightlifting Pulling Derivatives in Resistance Training Programs." Johnson City, TN. December 11-12, 2015.
- National Strength and Conditioning Association 38th Annual Meeting. "A comparison of the potentiation effects following ballistic and non-ballistic concentric-only half-squats." Orlando, FL. July 8-11, 2015.

## Regional / State / Local Professional Meetings

- 1. The Forged Athlete Summit. "Weightlifting derivatives to maximize rate of force development and power." Rise Indoor Sports, Bermuda Run, NC. June 1, 2024.
- 2. The Forged Athlete Summit. "Accentuated eccentric loading: Run faster, jump higher, get stronger, and more powerful." Rise Indoor Sports, Bermuda Run, NC. June 1, 2024.
- 3. 2024 High Performance Basketball Symposium. "Eccentric training methods: Implementation strategies for hypertrophy, strength, and power." University of Central Florida, Orlando, FL. May 9-10, 2024.
- 4. 2024 National Strength and Conditioning Association Wisconsin State Clinic. "Exercise and loading considerations with weightlifting derivatives." Divine Savior Holy Angels High School, Milwaukee, WI. April 20, 2024.
- 5. 2024 Duke Sports Performance Clinic. "Developing strength and power using weightlifting movements and their derivatives." Duke University, Durham, NC. January 28, 2024.
- 6. 2024 Duke Sports Performance Clinic. "Accentuated eccentric loading: Duration, loading, and frequency considerations." Duke University, Durham, NC. January 28, 2024.
- 7. Queensland Academy of Sport. "Implementing weightlifting derivatives with team sport athletes." Nathan, Queensland, Australia. November 1, 2023.
- 8. 2023 National Strength and Conditioning Association Great Lakes Regional Clinic, "Cluster sets and potentiation complexes: Considerations for training." Waukesha, WI. April 1, 2023.
- 9. 2023 National Strength and Conditioning Association Minnesota State Clinic, "Implementing eccentric training for hypertrophy, strength, and power: Training considerations." St. Paul, MN. January 21, 2023.
- 2022 National Strength and Conditioning Association Great Lakes Regional Clinic, "Practical considerations for implementing eccentric training." Waukesha, WI. April 9, 2022.

- 2022 National Strength and Conditioning Association West Virginia State Clinic, "Enhancing an athlete's force-velocity characteristics: Training applications." Morgantown, WV. March 25-26, 2022.
- 12. 2022 Queens Sports Performance Clinic, "Implementing weightlifting derivatives for team sports." Virtual Clinic. March 5, 2022.
- 13. 2020 National Strength and Conditioning Association Wisconsin State Clinic, "Eccentric Training Methods: Benefits, Shortcomings, and Implementation Strategies." Virtual Clinic. April 18, 2020.
- 14. 2020 National Strength and Conditioning Association Indiana State Clinic, "Eccentric Training Methods: Benefits, Shortcomings, and Implementation Strategies." Terre Haute, IN. January 25, 2020.
- 2019 National Strength and Conditioning Association Wisconsin State Clinic, "Athlete testing and monitoring: Isometric and dynamic performance assessment." Waukesha, WI. April 13, 2019.
- 16. 2018 National Strength and Conditioning Association Wisconsin State Clinic, "Back to the basics: What really works in the weight room?" Waukesha, WI. April 14, 2018.
- 17. 2017 National Strength and Conditioning Association Great Lakes Regional Conference. "Testing, training, and tracking of collegiate athletes during an academic year." Copresented with Jason Roe and Brian Edlbeck. Columbus, OH. October 21, 2017.
- 18. 2017 National Strength and Conditioning Association Wisconsin State Clinic, "Enhancing an athlete's speed and force-velocity characteristics using weightlifting derivatives." Waukesha, WI. April 8, 2017.
- 2016 National Strength and Conditioning Association Mid-Atlantic Regional Conference.
   "Developing Maximum Speed through the Sequenced Progression of Weightlifting Derivatives." Aston, PA. December 2-3, 2016.
- 20. 2015 Southeast American College of Sports Medicine Annual Meeting. "The Effect of a Competitive Season on Performance Characteristics in Male Soccer Players."
   Jacksonville, FL. February 12 – 14, 2015.
- 21. 2014 National Strength and Conditioning Association Tennessee State Clinic, "The Use of Weightlifting Derivatives for the Development of Strength and Power in Athletes." Nashville, TN. August 23, 2014.
- 22. Blackhawk Strength, Speed, and Agility Camp, "In-Season Training and Postactivation Potentiation." North Buncombe High School, Weaverville, NC. June 16 21, 2014.
- 23. Blackhawk Strength, Speed, and Agility Camp, "The Importance of Resistance Training in Sports Performance." North Buncombe High School, Weaverville, NC. June 16 21, 2014.

- 24. 2014 National Strength and Conditioning Association Wisconsin State Clinic, "Using Weightlifting Derivatives in Strength Training Programs." Waukesha, WI. April 12, 2014.
- 25. 2013 Elite Baseball Prospect Camp, "The Importance of Strength and Conditioning in Baseball." Johnson City, TN. September 28, 2013.
- 26. 2013 Elite Baseball Prospect Camp, "Speed and Agility in Baseball." Johnson City, TN. September 28, 2013.
- 27. 2013 Mountain Athletic Trainers' Society Meeting, "Developing Strength & Power with Olympic Lifting Movements." Kingsport, TN. June 11, 2013.
- 28. 2010 National Strength and Conditioning Association Wisconsin State Clinic, "The Effect of Plyometric Volume and Training Adaptations." La Crosse, WI. April 17, 2010.
- 29. Department of Kinesiology, University of Wisconsin-Oshkosh, Oshkosh, WI. Admission to Kinesiology Seminar (77-122), "UW-Oshkosh Kinesiology: Experience and Advice". Spring 2010.

### **POSTER PRESENTATIONS**

#### **International / National Professional Meetings**

- 1. National Strength and Conditioning Association Annual Meeting. "Relationships between countermovement jump force-time characteristics and 500-meter sprint time in speed skaters." Las Vegas, NV July 12-15, 2023.
- 2. National Strength and Conditioning Association 44<sup>th</sup> Annual Meeting. "The effect of load on hang clean pull force- and power-time characteristics." Orlando, FL July 7-10, 2021.
- 3. National Strength and Conditioning Association 42<sup>nd</sup> Annual Meeting. "Countermovement jump adaptations following 10 weeks of training with weightlifting catching or pulling derivatives: Preliminary findings." Washington, D.C. July 10-13, 2019.
- 4. National Strength and Conditioning Association 41<sup>st</sup> Annual Meeting. "Dynamic and isometric strength adaptations following 10 weeks of training with weightlifting catching or pulling derivatives: Preliminary findings." Indianapolis, IN. July 11-14, 2018.
- National Strength and Conditioning Association 41<sup>st</sup> Annual Meeting. "Sprint and change of direction adaptations following 10 weeks of training weightlifting catching or pulling derivatives: Preliminary findings." Indianapolis, IN. July 11-14, 2018.
- 6. National Strength and Conditioning Association 39<sup>th</sup> Annual Meeting. "Load absorption comparison between weightlifting catching and pulling derivatives." New Orleans, LA. July 6-9, 2016.
- 7. National Strength and Conditioning Association 38<sup>th</sup> Annual Meeting. "Potentiation following ballistic and non-ballistic complexes: The effect of strength." Orlando, FL. July 8-11, 2015.

- 8. International Society of Biomechanics in Sports 32<sup>nd</sup> Annual Conference. "Lower extremity joint velocity comparisons between the hang power clean and jump shrug at various loads." Johnson City, TN. July 12-16, 2014.
- 9. International Society of Biomechanics in Sports 32<sup>nd</sup> Annual Conference. "The use of reactive strength index-modified as an explosive measurement in male and female athletes." Johnson City, TN. July 12-16, 2014.
- International Society of Biomechanics in Sports 32<sup>nd</sup> Annual Conference. "Reactive strength index-modified: A comparison between six U.S. collegiate athletic teams." Johnson City, TN. July 12-16, 2014.
- 11. National Strength and Conditioning Association 37<sup>th</sup> Annual Meeting. "A comparison of three methods of assessing the lower body stretch-shortening cycle utilization of athletes." Las Vegas, NV. July 9-12, 2014.
- 12. American College of Sports Medicine 61<sup>st</sup> Annual Meeting and 5<sup>th</sup> World Congress on Exercise is Medicine. "The effect of verbal instruction on lower body performance variables during various plyometrics." Orlando, FL. June 27-31, 2014.
- 13. National Strength and Conditioning Association 36<sup>th</sup> Annual Meeting. "Power development comparisons between power clean variations at different relative loads." Las Vegas, NV. July 10-13, 2013.
- 14. American College of Sports Medicine 60<sup>th</sup> Annual Meeting and 4<sup>th</sup> World Congress on Exercise is Medicine. "Verbal instruction effect on stretch shortening cycle duration and reactive strength index-modified during plyometrics." Indianapolis, IN. May 28-June 1, 2013.
- 15. National Strength and Conditioning Association 35<sup>th</sup> Annual Meeting. "Kinetic comparison of the power development between the hang clean, jump shrug, and high pull." Providence, RI. July 11-14, 2012.
- 16. 63<sup>rd</sup> National Athletic Trainers' Association Annual Meeting and Clinical Symposia. "Qualitative analysis of injuries in stock car racing." St. Louis, MO. June 26-29, 2012.
- 17. International Society of Biomechanics in Sports 28<sup>th</sup> Annual Conference. "The effect of antagonist conditioning contractions on lower and upper body power tests". Marquette, MI. July 19-23, 2010.

## Regional / State / Local Professional Meetings

- 1. 10<sup>th</sup> Annual Coaches & Sport Science College. "Force-time curve comparison between weightlifting derivatives." Johnson City, TN. December 11-12, 2015.
- 2. 9<sup>th</sup> Annual Coaches & Sport Science College. "Potentiation effects of ballistic vs. non-ballistic concentric-only half-squats: Preliminary findings." Johnson City, TN. December 5-6, 2014.

- 3. 9<sup>th</sup> Annual Coaches & Sport Science College. "The effect of a competitive season on the explosive performance characteristics of collegiate male soccer players." Johnson City, TN. December 5-6, 2014.
- 4. 8<sup>th</sup> Annual Coaches & Sport Science College. "The effect of verbal instruction on lower body power development during various plyometrics." Johnson City, TN. December 13-14, 2013.
- 5. Southeast American College of Sports Medicine 2013 Annual Meeting. "The impact of load on performance variables during power clean variations." Greenville, SC. February 14-16, 2013.
- 6. 7<sup>th</sup> Annual Coaches & Sport Science College. "Athlete recovery via peristaltic pulse compression." Johnson City, TN. December 14-15, 2012.
- 7. National Strength and Conditioning Association 2012 Wisconsin State Clinic. "Kinetic comparison of the power development between the hang clean, jump shrug, and high pull." Waukesha, WI. April 14, 2012.
- 8. 2012 Celebration of Student Research and Creativity. "Kinetic comparison of the power development between the hang clean, jump shrug, and high pull." University of Wisconsin-La Crosse, La Crosse, WI. April 13, 2012.

### **GRANTS FUNDED**

- National Strength and Conditioning Association International Collaboration Grant, Title: An investigation into the effects of excluding the catch phase of the clean on changes in muscle architecture and force-time characteristics during isometric and dynamic tasks: An intervention study. Co-investigator: Dr. Paul Comfort (\$35,580).
- Graduate and Professional Student Association Travel Grant, East Tennessee State University, July 2015 (\$155).
- Graduate and Professional Student Association Travel Grant, East Tennessee State University, July 2014 (\$350).
- Graduate and Professional Student Association Travel Grant, East Tennessee State University, July 2013 (\$350).
- Online Course Development Grant, Office of e-Learning, East Tennessee State University, November 2012 (\$12,500).
- Graduate Student Professional Travel Grant, University of Wisconsin-La Crosse, May 2012 (\$400).
- Graduate Research, Service, and Educational Leadership Grant, University of Wisconsin-La Crosse, March 2011 (\$360).

### AWARDS / OTHER FUNDING

- 2023 Journal of Strength and Conditioning Research Editorial Excellence Award, National Strength and Conditioning Association, National Conference, Las Vegas, NV July 12-15, 2023.
- 2022 Terry J. Housh Young Outstanding Young Investigator, National Strength and Conditioning Association, National Conference, New Orleans, LA, July 6-9, 2022.

- 2019 State/Provincial Director of the Year, National Strength and Conditioning Association, National Conference, Washington, D.C., July 10-13, 2019.
- 2016 East Tennessee State University Clemmer College of Education Outstanding Dissertation Award for the Department of Exercise and Sport Science.
- First Place Award Winner for Sport Science Research Poster, 10<sup>th</sup> Annual Coaches & Sport Science College, Johnson City, TN, December 11-12, 2015 (\$100).
- 2015 Doctoral Student Research Award for Outstanding Podium Presentation, National Strength and Conditioning Association National Conference, Orlando, FL, July 8-11, 2015.
- Graduate Student Conference Travel Funding, Exercise and Sport Sciences Department, East Tennessee State University, July 2015 (\$848).
- Lee E. Brown Graduate Student Travel Award, July 2014 (\$400).
- Graduate Student Conference Travel Funding, Exercise and Sport Sciences Department, East Tennessee State University, July 2014 (\$350).
- First Place Award Winner for Coach Education Research Poster, 8<sup>th</sup> Annual Coaches & Sport Science College, Johnson City, TN, December 13-14, 2013 (\$100).
- Lee E. Brown Graduate Student Travel Award, July 2013 (\$100).
- Graduate Student Conference Travel Funding, Exercise and Sport Sciences Department, East Tennessee State University, May 2013 (\$532.40).
- First Place Award Winner for Sport Science Research Poster, 7<sup>th</sup> Annual Coaches & Sport Science College, Johnson City, TN, December 14-15, 2012 (\$200).
- 2012 Master's Student Research Award for Outstanding Poster Presentation, National Strength and Conditioning Association National Conference, Providence, RI, July 11-14, 2012.

### GRADUATE STUDENT SUPERVISION

- 1. Elias Audley and Brooke Foster, Research Project Advisor, Carroll University. Accentuated eccentric loaded countermovement jumps and subsequent rebound jumps: An analysis of force-time characteristics. (2023-2024).
- 2. Hunter Fredrick, Shane Murphy, and Michaela Phillips, Research Project Advisor, Carroll University. Comparing the braking and propulsion force-time and barbell velocity characteristics of traditional and flywheel squats (2023-2024).
- 3. Sofia Camacho, Cheng-Ting Ho, and Nathan Raatz, Research Project Advisor, Carroll University. Differences in force-time characteristics between the squat jump and static hexagonal barbell jump (2023-2024).
- 4. Andrew Lamb, Dissertation Chair, Concordia University-Chicago. Quantifying bilateral external load: Assessment of tibial-worn IMUs during professional basketball games and practices (2023-Present).
- 5. Brandon Moran, Methodologist, Concordia University-Chicago. A description of performance measures for the CMJ portable force plate assessment: Percentile ranked scores and comparisons within a cohort of highly trained soccer players (2022-Present).

- Conor Cantwell, Jack Chard, and Adam Sundh, Research Project Advisor, Carroll University. Accentuated eccentric loading during the countermovement jump: Considerations for eccentric loading (2022-2023).
- Lin (Sherry) Hsuan-Yu, Thesis Co-Supervisor, National Taiwan Sport University.
   Comparison of the power output in the behind-the-neck push jerk across loads between two load determination approaches. (2021-2022).
- 8. Brookelyn Campbell, Conor Cantwell, Lea Katanick, Lauren Marshall, and Zachary Schroeder, Research Project Advisor, Carroll University. Accentuated eccentric loading during the back squat: Considerations for eccentric and concentric loading (2021-2022).
- 9. Javad Bakhshinejad, Thesis Co-Supervisor, Seattle University. Drop jumps potentiate velocity in the deadlift (2021-2022).
- 10. Cameron Kissick and Baylee Techmanski, Research Project Advisor, Carroll University. Loading alternatives for weightlifting pulling derivatives (2020-2021).
- Melissa Chavez, Shea Connell, and Sam Holt, Research Project Advisor, Carroll University. Modified reactive strength index characteristics of Division III athletes (2020-2021).
- 12. Devin Cloud, Directed Research Mentor, Louisiana Tech University. Postactivation potentiation of countermovement jumping in a collegiate weightlifter (2020-2021).
- 13. Kirsten Everett, Thesis Examiner, University of Canberra, Australia. The time-course effects of neuromuscular fatigue from resistance training protocols and its implications for training and periodisation (2018-2019).
- 14. Olusegun Sijuwade and Logan Carpenter, Research Project Advisor, Carroll University. The effect of load position on lower body ballistic exercise performance (2017-2018).
- 15. Garrett Feimster, Master's Thesis Committee, Appalachian State University. Kinetic comparison of the power development between power snatch variations (2016-2017).
- 16. Kyle Reese, Master's Thesis Committee, East Stroudsburg University. Correlation of running economy and anaerobic field tests in collegiate distance runners (2015-2016).
- 17. Amanda Hannah, Master's Thesis Committee, East Stroudsburg University. The mechanical factors influencing efficiency in distance runners (2015-2016).
- 18. Travis Toth, Master's Thesis Committee, East Stroudsburg University. The mechanical effects of using the Sling-Shot during the bench press (2015-2016).
- 19. Jason Hauer, Master's Thesis Committee, East Stroudsburg University. Metabolic and mechanical differences between traditional and ballistic bench press in resistance trained collegiate males. (2015-2016).

### SERVICE, PROFESSIONAL AFFILIATIONS, AND COMMITTEES

#### **Academic**

Director, Sports Science master's program, University of Pittsburgh, 2024 -

Tenure and Promotion Committee, Carroll University, 2021.

Director, Carroll University Sport Performance Institute, 2021 – 2024.

Program Director, Sport Physiology and Performance Coaching master's program, Carroll University, 2019 – 2024.

Student/Faculty Ethics Committee, 2019 – 2021.

Department of Human Movement Sciences Faculty Review Committee, 2019 – 2020.

Campus Survey Committee, Carroll University, 2018 – 2019.

Alternate Member of the Institutional Review Board, Carroll University, 2018 – 2019.

General and Cross-cultural Education Committee Member, Carroll University, 2017 – 2019.

Department representative for 2016 Pennsylvania State Advocacy Day, Pennsylvania State Capital Building, Harrisburg, PA, April 5-6, 2016.

Department representative for Fall Wellness Festival, Northampton Community College, Bethlehem, PA, October 24, 2015.

Exercise and Sport Sciences Faculty Search Committee Member, East Tennessee State University, 2013 – 2014.

#### **Professional**

Guest Editor for special issue for *Strength and Conditioning Journal*, "Performance and Sport Science, 2022 – 2024

Reviewer for Kinesiology, 2021 -

Reviewer for Frontiers of Psychology, 2020 -

Reviewer for International Journal of Sports Science and Coaching, 2020 –

Reviewer for International Biomechanics, 2020 -

Reviewer for Scandinavian Journal of Medicine and Science in Sports, 2020 –

Associate Editor for Strength and Conditioning Journal, 2020 –

Member, National Strength and Conditioning Association Research Committee, 2020 –

Chair, National Strength and Conditioning Association Sport Science and Performance Technology Special Interest Group, 2020 –

Guest Editor for special issue for *Journal of Functional Morphology and Kinesiology*,

"Muscular Strength and its Influence on Performance Outcomes", 2020

Senior Associate Editor for Journal of Strength and Conditioning Research, 2020 –

2019 National Strength and Conditioning Association Annual Meeting Podium Moderator

Reviewer for European Journal of Sports Science, 2019 –

Guest Editor for special issue for Sports,

"Advances in Neuromuscular Research", 2018

Australian Strength and Conditioning Association Member, 2018 -

Associate Editor-in-Chief for the *Journal of Sports Science and Medicine*, 2018 – 2020

Reviewer for Journal of Functional Morphology and Kinesiology, 2018 –

Reviewer for the Asian Physical Education Journal, 2018 –

2018 National Strength and Conditioning Association Annual Meeting Poster Judge

PowerLift Sport Science Educational Board Member, 2018 -

Reviewer for Journal of Trainology, 2018 -

Reviewer for Journal of Sport and Health Sciences, 2017 -

Reviewer for Journal of Applied Biomechanics, 2017 -

National Strength and Conditioning Association Wisconsin State/Provincial Director 2017 – 2022.

National Strength and Conditioning Association Grant Reviewer, 2017 -

National Strength and Conditioning Association Abstract Reviewer, 2017 -

Scientific Committee Member for the International Society of Biomechanics in Sports Annual Conference, 2017 –

Reviewer for Sports Medicine, 2016 -

Strength/Resistance Training Section Editor for *Journal of Sports Science & Medicine*, 2016 – 2020.

Editorial Board Member for Journal of Sports Science & Medicine, 2016 -

Reviewer for Biology of Sport, 2016 -

Reviewer for Journal of Science and Medicine in Sport, 2016 -

Reviewer for Sports, 2015 –

Reviewer for Journal of Sports Sciences, 2015 -

Reviewer for Strength and Conditioning Journal, 2015 -

Reviewer for Journal of Sports Science & Medicine, 2015 -

Reviewer for PLOS ONE, 2015 -

Scientific Committee Member for 9<sup>th</sup> Annual Coaches & Sport Science College, Johnson City, TN, December 5-6, 2014.

Reviewer for International Journal of Sports Physiology and Performance, 2014 –

Reviewer for Journal of Strength and Conditioning Research, 2014 -

Conference organizing staff, 32<sup>nd</sup> International Society of Biomechanics in Sports Annual Conference, Johnson City, TN, USA, July 12-16, 2014.

Reviewer for Sports Biomechanics, 2014 -

Member, National Strength and Conditioning Association Research Consortium, 2013 -

Graduate and Professional Student Association – East Tennessee State University, 2012 – 2015

Member, American College of Sports Medicine (ACSM), 2012 – 2016.

Member, USA Weightlifting (USAW), 2012 – 2016, 2021 –

Member, International Society of Biomechanics in Sports (ISBS), 2010 –

Member, National Strength and Conditioning Association - WI State Chapter, 2010 -

Member, National Strength and Conditioning Association (NSCA), 2009 -