




Samuel Montalvo Hernandez

Postdoctoral Scholar, Cardiovascular Medicine

 Curriculum Vitae available Online

Bio

BIO

I am a clinical exercise physiologist and sport biomechanist interested in human exercise and sports performance. I am a certified performance and sport scientist (CPSS) and a certified strength and conditioning specialist with distinction (CSCS, *D) by the National Strength and Conditioning Association (NSCA). In 2022, I was honored with the 2022 Wu Tsai Human Performance Alliance Post-Doctoral Research Fellowship. As a research exercise and sport scientist, I am interested in understanding the mechanical, molecular, and physiological mechanisms of human performance. Additionally, I am interested in creating new and practical training methods to improve human exercise and sports performance.

HONORS AND AWARDS

- 1st Place on Scientific Poster Presentations, 2nd International Student Congress of Exercise Sciences in Monterrey, Mexico. (2018)
- National Sports Award "Luchador Olmeca", Confederación Deportiva Mexicana (2011)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Post Doctoral Fellow, Wu Tsai Human Performance Alliance (2022 - present)
- Post-Doc, Stanford Cardiovascular Institute (2022 - present)
- Member, National Strength and Conditioning Association (2018 - present)
- Member, American College of Sports Medicine (2018 - present)

PROFESSIONAL EDUCATION

- Bachelor of Science, University of Texas El Paso (2011)
- Doctor of Philosophy, University of Texas El Paso (2021)
- Master of Science, University of Texas El Paso (2014)
- Fellowship, Stanford University, Wu Tsai Human Performance Alliance Post-Doctoral Fellowship (2022)
- Doctor of Philosophy, The University of Texas at El Paso , Interdisciplinary Health Sciences - Strength and Conditioning (2021)
- Master of Science, The University of Texas at El Paso , Kinesiology - Clinical Exercise Physiology (2015)
- Bachelor of Science, The University of Texas at El Paso , Kinesiology - Physical Education (2011)

STANFORD ADVISORS

- Matthew Wheeler, Postdoctoral Faculty Sponsor

LINKS

- Google Scholar: <https://scholar.google.com/citations?user=whonnOUAAAAJ&hl=en>

Publications

PUBLICATIONS

- **Digitized Electrocardiography Measurements Support the Biological Plausibility of the Pathological Significance of ST Segments in Athletes.** *Clinical journal of sport medicine : official journal of the Canadian Academy of Sport Medicine*
Montalvo, S., Froelicher, V. F., Hadley, D., Wheeler, M. T.
2024
- **Should ECG criteria for Low QRS voltage (LQRSV) be specific for Sex?** *American heart journal*
Tso, J. V., Montalvo, S., Christle, J., Hadley, D., Froelicher, V.
2024
- **Assessing the Assisted Six-Minute Cycling Test as a Measure of Endurance in Non-Ambulatory Patients with Spinal Muscular Atrophy (SMA).** *Journal of clinical medicine*
Tang, W. J., Gu, B., Montalvo, S., Dunaway Young, S., Parker, D. M., de Monts, C., Ataide, P., Ni Ghiollagain, N., Wheeler, M. T., Tesi Rocha, C., Christle, J. W., He, Z., Day, et al
2023; 12 (24)
- **Effects of manual resistance versus weight resistance training on body composition and strength in young adults after a 14-week intervention.** *Journal of bodywork and movement therapies*
Dorgo, S., Terrazas, L. A., Gonzalez, M. P., Dietze-Hermosa, M. S., Montalvo, S.
2023; 36: 313-319
- **ST Segment Depression In Male Athletes**
Montalvo, S., Froelicher, V. F., Myers, J. N., Wheeler, M. T.
LIPPINCOTT WILLIAMS & WILKINS.2023: 202-203
- **Biomechanical Characteristics Of The Carotid Artery During Aerobic Exercise**
Gomez, M., Montalvo, S., Sanchez, A., Hassan, P., Gurovich, A. N.
LIPPINCOTT WILLIAMS & WILKINS.2023: 48
- **Commercial Smart Watches and Heart Rate Monitors: A Concurrent Validity Analysis.** *Journal of strength and conditioning research*
Montalvo, S., Martinez, A., Arias, S., Lozano, A., Gonzalez, M. P., Dietze-Hermosa, M. S., Boyea, B. L., Dorgo, S.
2023
- **Differences in sprint profile, sprint completion times, and jumping performance between division I track and field sprinters** *Journal of Physical Education and Sport*
Dietze-Hermosa, M., Montalvo, S., Gonzales, M. P., Cubillos, N. R., Dorgo, S.
2023; 20: 2076-2085
- **Dynamic stretching improves muscle activation and pain pressure threshold but not isometric hand strength when compared to static stretching** *Journal of Physical Education and Sport*
Montalvo, S., Conde, D., Sanchez, M., Martinez, P., Trevizo, R., Ibarra-Mejia, G.
2023; 2 (23): 293 - 300
- **A Comparison of Morphological, Jump, and Sprint Kinematic Asymmetries in Division I Track and Field Athletes.** *International journal of exercise science*
Gonzalez, M. P., Montalvo, S., Dietze-Hermosa, M., Gomez, M., Dorgo, S.
2023; 16 (1): 1306-1319
- **Near Infrared Spectroscopy is not a Surrogate of Venous Occlusion Plethysmography to Assess Microvascular Resting Blood Flow and Function.** *International journal of exercise science*
Gomez, M., Montalvo, S., Gurovich, A. N.
2022; 15 (2): 1616-1626
- **Differences in Blood Flow Patterns and Endothelial Shear Stress at the Carotid Artery Using Different Exercise Modalities and Intensities** *FRONTIERS IN PHYSIOLOGY*
Montalvo, S., Gomez, M., Lozano, A., Arias, S., Rodriguez, L., Morales-Acuna, F., Gurovich, A. N.
2022; 13: 857816

- **Changes in vertical jump performance and body composition before and after COVID-19 lockdown** *Journal of Human Exercise and Sport*
Tan, E., Montalvo, S., Gonzales, M. P., Dietze-Hermosa, M. S., MIN, S., Dorgo, S.
2022; 18 (1): 224-241
- **Association and Predictive Ability of Jump Performance with Sprint Profile of Collegiate Track and Field Athletes** *SPORTS BIOMECHANICS*
Dietze-Hermosa, M., Montalvo, S., Gonzalez, M. P., Rodriguez, S., Cubillos, N. R., Dorgo, S.
2021: 1-20
- **Effects of Augmented Eccentric Load Bench Press Training on One Repetition Maximum Performance and Electromyographic Activity in Trained Powerlifters** *JOURNAL OF STRENGTH AND CONDITIONING RESEARCH*
Montalvo, S., Gruber, L. D., Gonzalez, M. P., Dietze-Hermosa, M. S., Dorgo, S.
2021; 35 (6): 1512-1519
- **Common Vertical Jump and Reactive Strength Index Measuring Devices: A Validity and Reliability Analysis** *JOURNAL OF STRENGTH AND CONDITIONING RESEARCH*
Montalvo, S., Gonzalez, M. P., Dietze-Hermosa, M. S., Eggleston, J. D., Dorgo, S.
2021; 35 (5): 1234-1243
- **Association Between the Modified Functional Movement Screen Scores, Fear of Falling, and Self-Perceived Balance in Active Older Adults** *TOPICS IN GERIATRIC REHABILITATION*
Dietze-Hermosa, M. S., Montalvo, S., Gonzalez, M. P., Dorgo, S.
2021; 37 (2): 64-73
- **Physical fitness in older adults: Is there a relationship with the modified Functional Movement Screen (TM)?** *JOURNAL OF BODYWORK AND MOVEMENT THERAPIES*
Dietze-Hermosa, M., Montalvo, S., Gonzalez, M. P., Dorgo, S.
2021; 25: 28-34
- **Heart rate percentage as a method for determining intra-set resting during a post-activation performance enhancement exercise to increase vertical jump performance** *Journal of Physical Education and Sport*
Montalvo, S., Conde, D., Gonzales, M. P., Dietze-Hermosa, M. S., Ibarra-Mejia, G., Dorgo, S.
2021; 21 (5): 730 – 2736
- **Sprint Training on a Treadmill vs. Overground Results in Modality-Specific Impact on Sprint Performance but Similar Positive Improvement in Body Composition in Young Adults** *JOURNAL OF STRENGTH AND CONDITIONING RESEARCH*
Dorgo, S., Perales, J. J., Boyle, J. B., Hausselle, J., Montalvo, S.
2020; 34 (2): 463-472
- **Association and predictive ability of vertical countermovement jump performance on unilateral agility in recreationally trained individuals** *Journal of Physical Education and Sport*
Dietze-Hermosa, M., Montalvo, S., Cubillo, N. R., Gonzales, M. P., Dorgo, S.
2020; 20: 2076-2085
- **The effect of different stretching protocols on vertical jump measures in college age gymnasts** *JOURNAL OF SPORTS MEDICINE AND PHYSICAL FITNESS*
Montalvo, S., Dorgo, S.
2019; 59 (12): 1956-1962
- **Validity of Vertical Jump Measuring Devices** *International Journal of Exercise Science: Conference Proceedings*
Montalvo, S., Dorgo, S., Tune, C. H., Sapien, A. C., Gonzalez, M. P., Sanchez, J. A.
2018
- **The Effects of Overground and Treadmill Sprint Training on Body Composition** *National Strength and Conditioning Association Conference Proceedings*
Dorgo, S., Perales, J., Montalvo, S.
2018
- **The Effects of Two Different Sprint Training Modalities on Sprint Speed, Aerobic Fitness and Body Composition** *International Journal of Exercise Science: Conference Proceedings*
Amador, M., Montalvo, S., Perales, J., Dorgo, S., Bajpeyi, S.
2016

- **Effects of Treadmill and Overground Sprint Training Modes on Sprint Speed, Body Composition and Aerobic Power** *National Strength and Conditioning Conference Association Proceeding*
Dorgo, S., Perales, J., Montalvo, S., Amador, M., Bajpeyi, B.
2016