

# CHUN-HAO CHANG

No. 250, Wenhua 1st Rd., Guishan District, Taoyuan, Taiwan

+886-975310186 | [hao781106@ntsu.edu.tw](mailto:hao781106@ntsu.edu.tw)

## BACKGROUND

National Taiwan Sport University | Taoyuan, Taiwan

Sep. 2014 - Jul. 2019

- *Ph. D. in Graduate Institute of Sports Science*

National Taiwan Sport University | Taoyuan, Taiwan

Sep. 2012 - Jun. 2014

- *M.S. in Graduate Institute of Sports Science*

Kaohsiung Medical University | Kaohsiung, Taiwan

Sep. 2008 - Jun. 2012

- *B.S. Department of Sports Medicine*

## CURRENT POSITION

Assistant Professor

Aug. 2021- now

- Graduate Institute of Sports Science, National Taiwan Sport University

## LABORATORY

Elite Sports Performance Tracking Laboratory

- Research areas: Sports Science, Sports Biomechanics, Sports Medicine

## PUBLICATIONS

### Journals

- **Chun-Hao Chang\***, Chao-Yuan Chen, Hei-Tung Lau. (2025). The Effects of Four-Week Plyometric Training on Delaying Muscle Fatigue in Youth Rowers. *Scientific Reports*, 15(1), 22141. (SCI)
- **Chun-Hao Chang\***, Yi-Ju Hsu, Chih-Hsien Huang. (2024). Effects of different levels of physical activity on arterial stiffness and physical fitness performance in firefighters. *International Journal of Medical Sciences*, 21(11), 2031-2039. (SCI)
- **Chun-Hao Chang\***, Chin-Shan Ho, Fang Li, Chao-Yuan Chen, Hung-Chih Yeh, Chia-An Ho. (2024). Acute effects of muscle mechanical properties after 2000-m rowing in Young Male Rowers. *PeerJ*, 12:e16737. (SCI) [教育部體育署-113 年運動科學研究獎勵-佳作]
- 李世宇、徐藝泓、**張淳皓\*** (2024)。足球運動傷害及預防對策：文獻回顧。 *華人運動生物力學期刊*，21(2)，54-66。 (TSSCI)
- Fang Li, **Chun-Hao Chang**, Chia-An Ho, Cheng-You Wu, Hung-Chih Yeh, Yuan-Shuo Chan, Jia-Yu Cheng, Wen-Sheng ChangChien, Chin-Shan Ho. (2022, Jan). The Determination of Step Frequency in 3-min

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Incremental Step-In-Place Tests for Predicting Maximal Oxygen Uptake from Heart Rate Response in Taiwanese Adults. *International Journal of Environmental Research and Public Health*, 19(1), 563.

- Cheng-Pang Yang, **Chun-Hao Chang**, Chun-Jui Weng, Kung-Tseng Hung, Alvin Chao-Yu Chen, Kuo-Yao Hsu, Yi-Sheng Chan. (2021, Nov). Older age and varus alignment lead to early failure in treating patellofemoral osteoarthritis with Fulkerson osteotomy. *Journal of Orthopaedic Surgery*, 29(3):23094990211061248. (SCI)
- Fang Li, Ying-Ting Hsueh, Yi-Ju Hsu, Mon-Chien Lee, **Chun-Hao Chang**, Chin-Shan Ho, Chi-Chang Huang. (2021, Nov). Effects of Isolated Soy Protein Supplementation Combined with Aerobic Exercise Training on Improving Body Composition, Anthropometric Characteristics and Cardiopulmonary Endurance in Women: A Pilot Study. *International Journal of Environmental Research and Public Health*, 18(22), 11798.
- Fang Li, **Chun-Hao Chang**, Yu-Chun Chung, Huey-June Wu, Nai-Wen Kan, Wen-Sheng Chang-Chien, Chin-Shan Ho, Chi-Chang Huang. (2021, Oct.). Development and validation of 3-min incremental step in place test for predicting maximal oxygen uptake in home settings: a submaximal exercise study to assess cardiorespiratory fitness. *International Journal of Environmental Research and Public Health*, 18(20), 10750.
- Chun-Sheng Ho, Yi-Ju Hsu, Fang Li, Chien-Ching Tang, Cheng-Pang Yang, Chi-Chang Huang, Chin-Shan Ho, **Chun-Hao Chang\***. (2021, May). Effect of Ambulance Stretcher Bed Height Adjustment on CPR Quality and Rescuer Fatigue in a Laboratory Environment. *International Journal of Medical Sciences*, 18(13), 2783-2788. (Corresponding Author) (SCI) [收錄於成人基本生命支持：2025 年美國心臟協會心肺復甦術和緊急心血管護理指引]
- Mon-Chien Lee, Yi-Ju Hsu, Chin-Shan Ho, **Chun-Hao Chang**, Ching-Wen Liu, Chi-Chang Huang, Wen-Dee Chiang. (2021, May). Evaluation of the Efficacy of Supplementation with Planox® Lemon Verbena Extract in Improving Oxidative Stress and Muscle Damage: A Double-Blind Controlled Trial. *International Journal of Medical Sciences*, 18(12), 2641-2652. (SCI)
- **Chun-Hao Chang**, Yi-Ju Hsu, Fang Li, Yuan-Shuo Chan, Ching-Ping Lo, Guan-Jian Peng, Chin-Shan Ho, Chi-Chang Huang. (2021, Apr). The feasibility of emergency medical technicians performing intermittent high-quality cardiopulmonary resuscitation. *International Journal of Medical Sciences*, 18(12), 2615-2623. (SCI)
- Shih-Chung Cheng, Ting-Yu Wan, **Chun-Hao Chang**. (2021, Mar). The Relationship between the Glenohumeral Joint Internal Rotation Deficit and the Trunk Compensation Movement in Baseball Pitchers. *Medicina (Kaunas)*, 57(3), 243. (SCI)
- Mon-Chien Lee, Wei-Lun Jhang, Chia-Chia Lee, Nai-Wen Kan, Yi-Ju Hsu, Chin-Shan Ho, **Chun-Hao Chang**, Yi-Chen Cheng, Jin-Seng Lin, Chi-Chang Huang. (2021, Feb). The Effect of Kefir Supplementation on Improving Human Endurance Exercise Performance and Antifatigue. *Metabolites*, 11(3), 136. (SCI)
- **Chun-Hao Chang**, Yi-Ju Hsu, Fang Li, Yu-Tsai Tu, Wei-Lun Jhang, Chih-Wen Hsu, Chi-Chang Huang, Chin-Shan Ho. (2020, Aug). Reliability and validity of the physical activity monitor for assessing energy expenditures in sedentary, regularly exercising, non-endurance athlete, and endurance athlete adults. *PeerJ*, 8, e9717. (SCI) [教育部體育署-110 年度運動科學研究發展獎勵-佳作]
- Chin-Shan Ho, **Chun-Hao Chang**, Yi-Ju Hsu, Yu-Tsai Tu, Fang Li, Wei-Lun Jhang, Chih-Wen Hsu, Chi-Chang Huang. (2020, Jun). Feasibility of the Energy Expenditure Prediction for Athletes and Non- Athletes from Ankle-Mounted Accelerometer and Heart Rate Monitor. *Scientific Reports*, 10, 8816, doi.org/10.1038/s41598-020-65713-7. (SCI)
- Min-Hsien Wang, Ke-Chou Chen, Min-Hao Hung, Chi-Yao Chang, Chin-Shan Ho, **Chun-Hao Chang**, Kuo-Chuan Lin. (2020, Jun). Effects of Plyometric Training on Surface Electromyographic Activity and Performance during Blocking Jumps in College Division I Men's Volleyball Athletes. *Applied Sciences*, 10(13), 4535. (SCI)

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- Chin-Shan Ho, **Chun-Hao Chang**, Kuo-Chuan Lin, Chi-Chang Huang, Yi-Ju Hsu. (2019, Nov). Correction of estimation bias of predictive equations based on wrist/waist-worn accelerometer of energy expenditure. *PeerJ*, 7, e7973. (Co-first Author) (SCI)
  - Po-An Tai, Yi-Ju Hsu, Wen-Ching Huang, **Chun-Hao Chang**, Yi-Hsun Chen, Chi-Chang Huang, Li Wei. (2019, Oct). Congenital exercise ability ameliorates muscle atrophy but not spinal cord recovery in spinal cord injury mouse model. *International Journal of Medical Sciences*, 16(12), 1549-1556. (SCI)
  - **Chun-Hao Chang**, Kuo-Chuan Lin, Chin-Shan Ho, Chi-Chang Huang. (2019, Jan). Accuracy of the energy expenditure during uphill exercise measured by the Waist-worn ActiGraph. *Journal of Exercise Science & Fitness*, 17(2), 62-66. (SCI)
  - Chin-Shan Ho, Kuo-Chuan Lin, Ke-Chou Chen, Zheng-Tong Yan, **Chun-Hao Chang**. (2016, Jun). Mechanical factors associated with the development of training volleyball. *Journal of Sports Engineering and Technology*, 230(2), 84-89. (SCI)

#### *Conference papers*

- **Chun-Hao Chang\***, Chao-Yuan Chen, Shih-Yu Lee, Hong-Kai Lin, Che-Yuan Chang. (2025, 07). Effects of muscle mechanical properties on sweep and scull rowers following a 2000-meter on-water rowing time trial. 30th Annual ECSS Congress. Rimini/Italian Republic.
- Chao-Yuan Chen, Sun-Jui Chou, Shih-Yu Lee, Chi-Chang Huang, Chin-Shan Ho, **Chun-Hao Chang\***. (2025, 06). The Impact of Fatigue on Lower-Limb Force Symmetry in Sweep and Sculling Rowers. 2025 Asia Association of Coaching Science Conference. Taoyuan, Taiwan.
- **Chun-Hao Chang\***, Chao-Yuan Chen, Hung-Chih Yeh, Cheng-You Wu, Chia-An Ho, Chin-Shan Ho. (2023, 07). Effect of four-week plyometric training on delaying muscle fatigue in rowers. 28th Annual ECSS Congress 2023. Paris/French Republic.
- Fang Li, Hung-Chih Yeh, Yu-Chung Peng, Yen-Nien Lu, **Chun-Hao Chang**, Chin-Shan Ho. (2021, 10). Validity of the Submaximal Strength for Predicting One Repetition Maximum Bench Press. The 8<sup>th</sup> Conference of Asian Society of Sports Biomechanics. Taoyuan, Taiwan.