Curriculum Vitae

Nathan Edward Townsend, PhD

Assistant Professor
College of Health and Life Sciences
Hamad Bin Khalifa University
Doha, Qatar
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Personal Details	Mobile: +974 3349 8643 Email: ntownsend@hbku.edu.qa ORCID: 0000-0002-2328-4638 Google scholar: https://scholar.google.com.au/citations?user=A7gWsX8AAAAJ&hl=en
Degrees Earned	- PhD in Exercise Science, University of Sydney - BSc (Hons) in Human Movement Science, Wollongong University
Area of Specialty	Exercise Physiology
Academic and Other Related Experience	2020 to present: Assistant Professor of Exercise Science Hamad Bin Khalifa University 2014-2019: Senior researcher in exercise science, Aspetar Hospital, Doha Qatar 2012-2014: Lecturer in exercise science, Deakin University, Geelong, Australia 2007-2012: Senior sport scientist, NSW Institute of Sport, Sydney Australia
List of Courses Taught in the Past Five Years	1. Exercise Physiology 2. Health & Wellness in Modern Society 3. Cardiopulmonary Exercise Testing 4. Research Methods in Exercise Science 5. Epidemiology of Physical Activity

Selected Publications

Dania Ibrahim, Youmna Elsayed Hassanein, ***Nathan E. Townsend** (2025). Effect of Moderate Hypoxia on Muscle Activation during Incremental Exercise to Task Failure. *Experimental Physiology. Accepted, in production*

Luca Ruggiero, Franck Brocherie, Olivier Girard, **Nathan Townsend**, Chris J. McNeil, Grégoire P. Millet (2025). Neuromuscular fatigability with repeated exercise in hypoxia: from intermittent single-joint paradigms to repeated sprints. *Journal of Physiology. Accepted, in production*

Youmna Elsayed Hassanein, Dania Ibrahim, Juan M. Murias, ***Nathan Townsend** (2025). Acute Hypoxia Decreases Maximum Fat Oxidation Rate during Step Incremental Exercise Normalized to Respiratory Compensation Point. *European Journal of Sport Sciences. Accepted, in production*

Youmna A. Hassanein, Bruce Rogers, Dania Ibrahim, Pablo R. Fleitas-Paniagua, Juan M. Murias, ***Nathan E. Townsend** (2025). Do agreements between HRV and gas exchange thresholds still hold under hypoxic conditions? *Medicine & Science Sports and Exercise*. 57(9): 2062-2072

Hansen C, Brocherie F, Racinais S, **Townsend N**, Cocking S, Couderc A, Piscione J, and Girard O (2025). Statistical Parametric Mapping Analysis of Muscle Oxygenation Kinetics in Response to Repeated-Sprint Training in Hypoxia. *International Journal of Sports Physiology and Performance*, 20 (7), 1012-1016

Brocherie, F., Racinais, S., Cocking, S., **Townsend, N**., Couderc, A., Piscione, J. and Girard, O., (2023). Repeated-Sprint Training at 5000-m Simulated Altitude in Preparation for the World Rugby Women's Sevens Series: Too High? *Medicine and science in sports and exercise*, 55(10), 1923-1932.

Lock, M., Yousef, I., McFadden, B., Mansoor, H., & ***Townsend, N**. (2023). Cardiorespiratory Fitness and Performance Adaptations to High-Intensity Interval Training: Are There Differences Between Men and Women? A Systematic Review with Meta-Analyses. *Sports Medicine*. https://doi.org/10.1007/s40279-023-01914-0

Périard, J. D., Girard, O., **Townsend, N**., Bourdon, P., Cocking, S., Ihsan, M., Lacome, M., Nichols, D., Travers, G., Wilson, M. G., Piscione, J., & Racinais, S. (2023). Hematological Adaptations Following a Training Camp in Hot and/or Hypoxic Conditions in Elite Rugby Union Players. *International Journal of Sports Physiology and Performanc*e, 18(9), 1053–1061.

Racinais, S., Périard, J. D., Piscione, J., Bourdon, P. C., Cocking, S., Ihsan, M., Lacome, M., Nichols, D., **Townsend**, **N**., & Travers, G. (2021). Intensified Training Supersedes the Impact of Heat and/or Altitude for Increasing Performance in Elite Rugby Union Players. *International Journal of Sports Physiology and Performance*, 1(aop), 1–8.

Townsend, NE, Brocherie, F., Millet, G. P., & Girard, O. (2021). Central and peripheral muscle fatigue following repeated sprint running in moderate and severe hypoxia. *Experimental Physiology*, 106(1), 126–138.

Puchowicz, M. J., Mizelman, E., Yogev, A., Koehle, M. S., **Townsend, N. E**., & Clarke, D. C. (2018). The critical power model as a potential tool for anti-doping. *Frontiers in Physiology,* 9, 643.

***Townsend, Nathan E**, Nichols, D. S., Skiba, P. F., Racinais, S., & Périard, J. D. (2017). Prediction of critical power and W' in hypoxia: Application to work-balance modelling. *Frontiers in Physiology*, 8, 180.

Shearman, S., Dwyer, D., Skiba, P., & ***Townsend**, N (2016). Modeling intermittent cycling performance in hypoxia using the critical power concept. *Medicine and Science in Sports and Exercise*, *48*(3), 527–535.

Selected MS Student Supervision

Title:	*Validity And Reliability of a Novel Performance Test to Determine Metabolic Critical Power in Team Sports*
Student:	Mohamed Ayouni, Hamad Bin Khalifa University
Defence:	April 2025
Title:	*Physiological Responses to High Intensity Intervals are Strongly Associated with W-prime Depletion in Normoxia and Hypoxia*
Student:	Irene Grace Peter, Hamad Bin Khalifa University
Defence:	November 2024
Title:	*Effect of Hypoxia on Maximal Fat Oxidation Rate During Incremental Cycling*
Student:	Youmna Hassanein, Hamad Bin Khalifa University
Defence:	March 2024
Title:	*Effect Of Hypoxia on Muscle Activation During Incremental Exercise at Equivalent Relative Intensity*
Student:	Dania Ibrahim, Hamad Bin Khalifa University
Defence:	March 2024
Title:	*Effect Of Hypoxia on Aerobic and Anaerobic Energy Expenditure During High Intensity Interval Exercise*
Student:	Sumaia Almahdoun, Hamad Bin Khalifa University
Defence:	March 2022
Title:	*Effect Of Hypoxia on Post-Exercise Energy Expenditure and Substrate Utilization*
Student:	Mahboobeh Razaviasfali, Hamad Bin Khalifa University
Defence:	April 2022

Professional Activities and Awards

Member of European Congress of Sport Science
Associate Editor for Frontiers in Exercise Physiology, Frontiers in Sports and Active Living
Peer reviewer for various journals including Medicine and Science in Sports and Exercise, Frontiers in Physiology, Frontiers in Sports and Active Living, Journal of Science and Medicine in Sports, International Journal of Sport Physiology and Performance, Biology of Sport Journal, European Journal of Sport Sciences, Journal of Applied Physiology, European Journal of Applied Physiology

Institutional Service for the Past Five Years

MS Exercise Science: Program Coordinator: 2020-2022
Chair of EXSC admissions committee: 2020-2022
University: Working group on review of university IRB procedures
Department: Graduate Programs Committee member, Continuing Professional Development Committee member