

# **Bergische Universität Wuppertal**

Fakultät 2 – Human und Sozialwissenschaften  
Institut für Sportwissenschaft  
Arbeitsbereich Bewegungs- und Trainingswissenschaft



University of Wuppertal  
School of Human and Social Sciences  
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## **Mitgliedschaften / Memberships**

- The European College of Sport Science (ECSS)

## **Gutachtertätigkeiten / Reviewer**

- Journal of Musculoskeletal and Neuronal Interactions
- Scientific Reports
- German Journal of Exercise and Sport Research
- Biology of Sport

## Preise / Awards

2023

Best poster award (2<sup>nd</sup> place): Nafisi, S., Mähler, D., Rappelt, L., **Heinke, L.**, Baumgart, C., Freiwald, J., Javanmardi, S. (2023). *Core exercises and neuromuscular activation: A randomized crossover trial.* dvs-Tagung Sektion Trainingswissenschaft, 09.-10.11., Köln.

## Publikationsliste / Publications

### Zeitschriftenartikel / Journal article (peer reviewed)

2025

**Heinke, L.**, Javanmardi, S., Zemke, J., Rappelt, L., Knicker, A., Freiwald, J., Baumgart, C., Niederer, D. (2025). Pain without gain? A randomized crossover study on the impact of active and passive foam rolling on jump height and pain intensity. *PeerJ*, 13:e19747. [doi](#)

Javanmardi, S., Rappelt, L., Zangenberg, S., **Heinke, L.**, Baumgart, C., Niederer, D., Freiwald, J. (2025). Effectiveness of workplace health promotion programs for industrial workers: a systematic review. *BMC Public Health*, 25(1), 168. [PubMed](#)

Javanmardi, S., Rappelt, L., Baumgart, C., Niederer, D., **Heinke, L.**, Freiwald, J. (2025). Work conditions and determinants of health status among industrial shift workers: a cross-sectional study. *Frontiers in Public Health*, 12. [doi](#)

2024

**Heinke, L.**, Javanmardi, S., Rappelt, L., Konrad, A., Schleip, R., Knicker, A. J., Freiwald, J., Baumgart, C. (2024). Comparison of the effects of cold water immersion and percussive massage on the recovery after exhausting eccentric exercise: A three-armed randomized controlled trial. *Frontiers in Physiology*, 15, 1432009. [PubMed](#)

Javanmardi, S., Rappelt, L., **Heinke, L.**, Niederer, D., Zemke, J. A., Freiwald, J., Baumgart, C. (2024). Impact of work pace on cardiorespiratory outcomes, perceived effort and carried load in industrial workers: a randomised cross-over trial. *Occup Environ Med*, 81(9), 456–461. [PubMed](#)

2023

Baumgart, C., **Heinke, L.**, Javanmardi, S., Freiwald, J. (2023). Maximal and submaximal isometric strength properties of knee extensors and flexors and their relationship to kinesiophobia and subjective knee function in ACL-reconstructed patients. (in preparation)

Rappelt, L., Javanmardi, S., **Heinke, L.**, Baumgart, C., Freiwald, J. (2023). The multifaceted nature of recovery after exercise: A need for individualization. *Sport Orthop Sport Traumatol*, 39(4), 359-367. [doi](#)

2022

**Heinke, L.**, Knicker, AJ., Albracht, K. (2022). Test-Retest Reliability of the Internal Shoulder Rotator Muscles' Stretch Reflex in Healthy Men. *Journal of electromyography and kinesiology*. 62, 102611. [doi](#)

2020

**Heinke L.**, Knicker AJ, Albracht K. (2020) Increased shoulder muscle stretch reflex elicibility in supine subject posture. *Isokinetics and Exercise Science*.;28(2):139-146. [doi](#)

2018

**Heinke L.**, Knicker AJ, Albracht K. (2018) Evaluation of passively induced shoulder stretch reflex using an isokinetic dynamometer in male overhead athletes. *Isokinetics and Exercise Science*.;26(4):265-274. [doi](#)

Behringer M, **Heinke L.**, Leyendecker J, Mester J. (2018) Effects of blood flow restriction during moderate-intensity eccentric knee extensions. *The Journal of Physiological Sciences*.;68(5):589-599. [doi](#)

## Journal Artikel / Journal article

**Heinke, L., & Konrad, A.** (2024). Alternative Formen des Beweglichkeitstrainings: wissenschaftliche Erkenntnisse und Mythen im Fokus. *Sportphysio.* 12. 177-184. [doi](#)

## Vorträge / Oral presentations (published abstracts)

2025

Baumgart, C., Zemke, J. A., **Heinke, L.**, Rappelt, L., Legerlotz, K. (2025). *Acute effects of eccentric and concentric muscle fatigue on strength and jump performance: A randomized controlled cross-over study.* 30<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), 01.-04.07., Rimini (Italy).

Fay, L., Rappelt, L., **Heinke, L.**, Javanmardi, S., Held, S., Baumgart, C., Donath, L. (2025). *Effects of different saddle height determination methods on lower limb mechanics and physiological performance in cycling.* 30<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), 01.-04.07., Rimini (Italy).

Zemke, J., **Heinke, L.**, Rappelt, L., Javanmardi, S., Baumgart, C. (2025). *Akute Effekte exzentrischer und konzentrischer Muskelermüdung auf die neuromuskuläre Leistungsfähigkeit: Eine randomisiert-kontrollierte Cross-over-Studie.* 40. Jahrestagung der Gesellschaft für Orthopädisch-Traumatologische Sportmedizin (GOTS), 15.-17.05., Krems (Austria).

2024

**Heinke, L.**, Javanmardi, S., Zemke, J., Rappelt, L., Knicker, A., Freiwald, J., Niederer, D., Baumgart, C. (2024). *Pain without gain? Assessing pain perception and jump height after active and passive foam rolling: A crossover randomized controlled trial.* 29<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), 02.-05.07., Glasgow (Scotland).

2023

Javanmardi, S., Rappelt, L., **Heinke, L.**, Freiwald, J., Baumgart, C. (2023). *The impact of different work paces on energy demand in industrial workers: A randomized controlled trial.* dvs-Tagung Sektion Trainingswissenschaft, 09.-10.11., Köln.

Zemke, J., Rappelt, L., Javanmardi, S., **Heinke, L.**, Freiwald, J., Baumgart, C. (2023). *Der kardiale, metabolische, respiratorische und psychologische Einfluss von KN95-Masken sowie deren Einfluss auf die Ausdauerleistungsfähigkeit.* dvs-Tagung Sektion Trainingswissenschaft, 09.-10.11., Köln.

**Heinke, L.**, Zivic, P., Javanmardi, S., Zemke, J., Rappelt, L., Freiwald, J., Baumgart, C. (2023). *Acute effects of active and passive foam rolling on pain perception and countermovement jump height: A crossover randomized controlled trial.* dvs-Tagung Sektion Trainingswissenschaft, 09.-10.11., Köln.

**Heinke, L.**, Javanmardi, S., Rappelt, L., Konrad, A., Schleip, R., Knicker, A., Baumgart, C., Freiwald, J. (2023). *Comparison of the effects of cold-water immersion and percussive massage on the recovery after exhausting eccentric exercise: A three-armed randomized control trial.* 28<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), 04.-07.07., Paris (France).

Javanmardi, S., Rappelt, L., Baumgart, C., **Heinke, L.**, Freiwald, J. (2023). *Lokalisation, Häufigkeit und Schmerzintensität orthopädischer Beschwerden bei Industriearbeitern – Können wir aus dem Leistungssport lernen?* 38. Jahrestagung der Gesellschaft für Orthopädisch-Traumatologische Sportmedizin (GOTS), 15.-17.06., Luxemburg (Luxemburg).

## Posterpräsentationen / Poster presentations (peer reviewed)

- Heinke, L.**, Rappelt, L., Zemke, J. A., Freiwald, J., Legerlotz, K., Baumgart, C. (2025). *Percussive massage does not reduce eccentric and concentric torque decline during and after fatiguing eccentric knee extensions*. 30<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), 01.-04.07., Rimini (Italy).
- Wiedenmann, T., Rappelt, L., Niederer, D., Baumgart, C., **Heinke, L.**, Javanmardi, S., Mommartz, O., Held, S., Donath, L. (2025). *Statistically significant but practically irrelevant changes in jump height after repeated bouts of counter-movement-jumps: A non-inferiority study*. 30<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), 01.-04.07., Rimini (Italy).
- Javanmardi, S., Rappelt, L., **Heinke, L.**, Freiwald, J., Niederer, D., Baumgart, C. (2024). *The influence of work pace on energy expenditure and load in industrial workers: A randomized crossover trial*. 29<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), 02.-05.07., Glasgow (Scotland).
- Nafisi, S., Mähler, D., Rappelt, L., **Heinke, L.**, Baumgart, C., Freiwald, J., Javanmardi, S. (2023). *Core exercises and neuromuscular activation: A randomized crossover trial*. dvs-Tagung Sektion Trainingswissenschaft, 09.-10.11., Köln.
- Baumgart, C., Grim, C., **Heinke, L.**, Javanmardi, S., Rappelt, L., Freiwald, J., Hoppe, M. W. (2023). *Compensation strategies after a complete avulsion of the proximal rectus femoris muscle: A single case one-year follow-up*. 28<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), 04.-07.07., Paris (France).
- Javanmardi, S., Rappelt, L., **Heinke, L.**, Baumgart, C., Freiwald, J. (2023). *Health status assessment of industrial workers in a mid-size company: A novel approach in workplace health promotion*. 28<sup>th</sup> Annual Congress of the European College of Sport Science (ECSS), 04.-07.07., Paris (France).
- Schlotter, M., Terhorst, S., Baumgart, C., Rappelt, L., Javanmardi, S., Freiwald, J., **Heinke, L.** (2023). *Einfluss perkussiver Massage auf den Muskeldehnungsreflex bei plötzlicher Supination des Fußes*. 38. Jahrestagung der Gesellschaft für Orthopädisch-Traumatologische Sportmedizin (GOTS), 15.-17.06., Luxemburg (Luxemburg).
- Javanmardi, S., Rappelt, L., Baumgart, C., **Heinke, L.**, Freiwald, J. (2023). *Lokalisation, Häufigkeit und Schmerzintensität orthopädischer Beschwerden bei Industriearbeitern – Können wir aus dem Leistungssport lernen?* 38. Jahrestagung der Gesellschaft für Orthopädisch-Traumatologische Sportmedizin (GOTS), 15.-17.06., Luxemburg (Luxemburg).
- Javanmardi, S., Baumgart, C., **Heinke, L.**, Grim, C., Engelhardt, M., Freiwald, J. (2022). *Kasuistik nach traumatischer Patellaluxation mit MPFL-Plastik Versorgung - Funktionsdiagnostische Befunde*. 37. Jahrestagung der Gesellschaft für Orthopädisch-Traumatologische Sportmedizin (GOTS), 19.-20.05., Berlin.
- Heinke, L.**, Knicker, A., & Albracht, K. (2017). Evaluation of Passively Induced Shoulder Stretch Reflex Using an Isokinetic Dynamometer in Men. *35th Conference of the International Society of Biomechanics in Sports, Cologne*.
- Heinke, L.**, Knicker, A., & Albracht, K. (2016). Evaluation of Passively Induced Shoulder Stretch Reflex Using an Isokinetic Dynamometer in Men. *11th Conference of the International Shoulder Group, 2016., Winterthur*.