Bas Van Hooren

Maastricht
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- 12 June 1992
- In a relationship

Brief summary

I am a human movement scientist who is particularly interested in doing research related to running injury prevention and performance enhancement. My goal is also to apply this research into practice and combine this with my experience as a professional athlete and coach to help people improve their performance and prevent injuries. I also have a particular interest in technology and its application in sports and health.

Work experience

- **Post-doctoral researcher at Maastricht university, Dept. of Nutrition and Movement Sciences, Institute for Nutrition and Translational Research in Metabolism, The Netherlands** — **2024–present**
  Various research projects ranging from controlled lab studies to large-scale field studies

- **Scientist at TopsportTopics** — **2023–present**
  Providing evidence-based answers to questions of national level coaches, factsheets

- **Research engineer Ato-Gear** — **2022–2024**
  Algorithm development, research project initiation and coordination

- **Research engineer Oryx Movement Solutions** — **2022–2023**
  Algorithm development, research project initiation and coordination

- **PhD candidate at Maastricht university** — **2019–2024**
  3D motion capture, musculoskeletal modelling, ultrasound tissue characterisation, Running wearables, real-time feedback, large-scale intervention study, validation of CPET systems, running economy and running technique, doubly-labelled water

- **Kootstra Talent Fellowship (Talented future PhD-student) at Maastricht university** — **2017-2019**
  Biomechanical comparison of two hamstring exercises and development of ultrasound tissue characterisation for the hamstrings

- **Lecturer and researcher at Fontys Univerity of applied sport sciences, school of sport studies** — **2016–2019**
  Lecturing in the international minor 'Sport Performance Enhancement', research on running wearables and reviewer of bachelor theses.

- **Freelance sport scientist/sport science consultant** — **2014–present**
  Writing scientific articles about topics related to sport science, answering

sport science questions and lecturing in workshops and masterclasses (NOS*NSF, French Athletics federation, Wolverhampton, etc.).

- **CTO (Centre for Topsport en education) Papendal** **2013–2014**

Assistant Strength and Conditioning Coach with handball, volleyball (youth national team), BMX, track cycling, wheelchair basketball and archery.

International experience

- **The Swedish School of Sport and Health Sciences, Stockholm** **May-July 2017**

Assistance with various PhD projects. Techniques: B-mode ultrasound, 3D MoCap, dynamometry, sEMG, CPET, and data analysis for these techniques

Skills

- R studio, SPSS
- Musculoskeletal ultrasound; 3D motion analysis; markerless motion capture; EMG; musculoskeletal modelling; CPET and respiratory gas analysis; doubly-labelled water; wearable technology; MRI
- ICT skills (e.g. Excel, Word, PowerPoint)
- Languages: Dutch (mother language), English (C2), German (B1), French (A1)

Education

- **Maastricht University** **2015–2016**

Master Human Movement Sciences
Master thesis: *Differences in mechanical properties of the gastrocnemius medialis tendon-aponeurosis between young and old athletes* (grade 8.8)

Selected list of international Peer Reviewed Articles (total >60 publications)

1. **Van Hooren, B.** & Peake, J. M. (**2018**). Do we need a cool-down after exercise? A narrative review of the psychophysiological effects and the effects on performance, injuries and the long-term adaptive response. *Sports Medicine*, 48(7), 1575-95. (>100.000 downloads)
2. **Van Hooren, B.;** Aagaard, P; Blazevich A. (**2024**). Optimizing resistance training for speed and endurance athletes: Balancing positive and negative adaptations. *Sports Medicine* in press**.**
3. **Van Hooren, B.;** van Rengs, L.; Meijer, K. **(2024**). Predicting musculoskeletal loading at common running injury locations using machine learning and instrumented insoles. *Journal of Medicine and Science in Sport and Exercise.* 56(10), 2059-75.
4. **Van Hooren, B.**; Van Rossom, S.; VanWanseele, B.; Teratsias, P.; Willems, P.; Meijer, K.; Drost, M. (**2022**). Muscle forces and fascicle behavior during three popular hamstring exercises. *Scandinavian Journal of Medicine and Science in Sport and Exercise*.
5. **Van Hooren, B.;** Plasqui, G.; Meijer, K. **(2024**). The Effect of Wearable-Based Real-Time Feedback on Running Injuries and Running Performance: A Randomized Controlled Trial. *American Journal of Sports Medicine.* 52(3), 750-765
6. **Van Hooren, B.;** Jukic, I.; Cox, M.; Frenken, K.; Bautista, I.; Moore, I. (**2024**). The association between running biomechanics and running economy: A systematic review. *Sports Medicine* in press.

Selected list of scientific outreach

- Interview on BBC More or Less regarding the false starts at the 2022 World Athletics Championships: https://www.bbc.co.uk/sounds/play/w3ct3k4x (22-7-22)
- Interview for the Dutch Public Broadcasting Station (NOS) about training in relation to body types https://www.youtube.com/watch?v=LEHI4GkXPI0 (5-4-22)

Hobbies

- Athletics (running), Atletiek Maastricht: Multiple medals at Dutch nationals **2010–present**