

Riku Nikander, PhD, PT, Professor, Managing Director
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Research interest

- i) exercise and physical activity & association/effect on bone strength, falls and fractures
- ii) exercise and PA & association/effect on muscle, bone & QoL in cancer patients
- iii) therapeutic training & effect on neck pain, cervicogenic headache and physical function
- iv) innovative primary care services for aged & effectiveness of health outcomes

Scientific Education and Qualifications

- Physical Therapist, College of Health Care, Helsinki, Finland, 1996
- MSc, University of Jyväskylä, Health Sciences, 2003, eximia cum laude approbatur
- Teacher for the substance of Physiotherapy in University of Applied Sciences 2008, University of Jyväskylä, Jyväskylä, Finland
- PhD, University of Jyväskylä 2009, eximia cum laude approbatur, Jyväskylä, Finland

Professional experience

- Entrepreneur (Devisys Oy, Slip Protectors for shoes, 16% shareholder, 2001- ; Nikander LTD Import and Wholesale, Sports and Leisure Products & Industrial Raw Materials, 5% shareholder, 1996-; UKK Health Services, Health Services, 1% shareholder, 2009-)
- Researcher, UKK Institute, 1.6.2003-31.10.2009
- Medical Scientist, Postdoctoral Fellow Researcher, University of Melbourne, 9.11.2009-31.10.2010
- Principal Lecturer, Helsinki Metropolia University of Applied Sciences, 1.11.2010-31.7.2013
- Postdoctoral Fellow Researcher in Academy of Finland, 1.1.2011- 31.7.2013
- Professor, University of Jyväskylä, 1.8.2013-
- Managing Director, GeroCenter Foundation for Aging Research & Development, 1.8.2013-

Professional membership

- Member of Finnish Osteoporosis Association's exercise team, 2004-2006
- Founding member and Member of Board, Pirkanmaa Osteoporosis Society, 2004-2011
- The secretary of the (scientific) Finnish Bone society, 2006- 2008
- Member of American Society of Bone & Mineral Research, 2006-2009, 2011
- Member of Australian & New Zealand Bone & Mineral Society, 2010
- Member of Finnish Physiotherapy Foundation, 2013-

Awards and honors

- The best article in physiotherapy and a Top 10 Article of all fields on Medscape in 2006: Nikander R, Mälkiä E, Parkkari J, Heinonen A, Starck H, Ylinen J. Dose-response of Specific Training to Reduce Chronic Neck Pain and Disability, *Med Sci Sports Exerc* 2006, 38(12): 2068-2074
- The 2012 Silver Quill Award in the Qualitative or Quantitative Research category by Physiotherapy Canada Association: Heinonen A, Mäntynen J, Kannus P, Uusi-Rasi K, Nikander R, Kontulainen S, Sievänen H. Effects of high-impact training and detraining on femoral neck structure in premenopausal women: a hip structural analysis of an 18-month randomized controlled exercise intervention with 3.5-year follow-up. *Physiother Can* 2012;64(1):98-105.

- Loading Modality Predicts Bone Strength. Finnish Bone Society's Progress Report- presentations. The prize of the best English presentation and data. May 7th 2004, Jyväskylä, Finland
- Liikunnallinen kuormitus ja reisiluun kaulan 3-ulotteinen rakenne – Laajan urheilijatutkimuksen alustavia tuloksia. Finnish Bone Society's Progress Report- presentations. The prize of the best English presentation and data. April 20th 2007, Tampere, Finland
- Liikuntakuormitus ja luun rakenne- Huippu-urheilijanaisten ja –miesten luustotutkimus. Finnish Bone Society's Progress Report- presentations. The prize of the best English presentation and data. April 3rd 2009, Tampere, Finland

Research Impact & Public Health

Bone Exercise Recommendation

http://www.liikuterveemmaksi.fi/filearc/52_luuliikuntasuosituskortit%20090806.pdf

Exercise Training for Headache

<http://www.hs.fi/videot/1135249565262>

Exercise Training for Neck Pain

<http://www.hs.fi/omaelama/artikkeli/Eroon+j%C3%A4yk%C3%A4st%C3%A4+niskasta/1135231223796>

A Book for Cancer Patients and a Book Chapter of Adaptation of Bone and Tendon to Exercise Loading



Selected publications

- Nikander, R., Sievänen, H., Heinonen, A., Kannus, P. Femoral neck structure in adult female athletes subjected to different loading modalities. *J Bone Miner Res* 2005; 20 (3): 520-528 (IF 6.443)
- Nikander R, Mälkiä E, Parkkari J, Heinonen A, Starck H, Ylinen J. Dose-response of Specific Training to Reduce Chronic Neck Pain and Disability, *Med Sci Sports Exerc* 2006, 38(12): 2068-2074 (IF 3.399)
- Nikander R, Gagnon C, Dunstan DW, Magliano DJ, Ebeling PR, Lu ZX, Zimmet PZ, Shaw JE, Daly RM. Frequent walking, but not total physical activity, is associated with increased fracture incidence: a 5-year follow-up of an Australian population-based prospective study (AusDiab). *J Bone Miner Res* 2011, 26(7):1638-47, (IF 6.443)
- Nikander R, Sievänen H, Heinonen A, Daly RM, Uusi-Rasi K, Kannus P. Targeted exercise against osteoporosis: A systematic review and meta-analysis for optimising bone strength throughout life. *BMC Med* 2010, 21:8:47, Review, (IF 3.99)
- Nikander R, Sievänen H, Ojala K, Oivanen T, Kellokumpu-Lehtinen P-L, Saarto T: Effect of an Intense Aerobic Regimen on Physical Performance in Breast Cancer Patients - A Randomized Controlled Pilot Trial, *Acta Oncologica* 2007; 46: 181-6 (IF 2.739)