



Musculoskeletal

Injuries related to running intensity and volume

Are progressions in training workload associated with specific injuries?

Author : José Pedro Correia

Despite the generalised idea that increases in running volume or intensity are associated with different injury patterns, the authors of this randomized trial found that there was no difference on the risk of developing specific injuries with either running schedule during a 24-week progression period.

Running-related injuries in recreational runners remain a significant reason to discontinue participation, with potential effects on health and well-being.

Epidemiological and biomechanical studies have traditionally associated injuries such as Achilles Tendinopathy, Plantar Fasciitis, and calf muscle injuries with increases in running intensity; the same has been said about Patellofemoral pain, Iliotibial Band Syndrome, and Patellar Tendinopathy and increases in running volume.

In this study, these injuries were hypothesized to be associated with each running parameter. A sample of 231 recreational runners was randomised to either volume-based or intensity-based progressive running schedules. At least 80% of the running sessions had to be completed. Standardized diagnostic criteria were used for each injury across the entire follow-up period.

A total of 80 runners sustained an injury during the study. There were no differences between intensity- and volume-related injuries between the 2 groups, which contradicts theoretical models and mechanistic studies of running parameter progression.

Although a significant portion of the initial sample was excluded due to homogenisation in the preconditioning study period (only a limited number of injuries chosen to represent each parameter), which may limit this study's validity, it certainly does provide intriguing findings.

Expert opinion

Despite the preliminary nature of this study, it is worth looking at in terms of contradicting the mechanistic and simplistic view that increases in a specific parameter will lead to specific injuries.

This highlights the multifactorial and complex nature of running-related injuries and is in line with recent evidence which points out that the magnitude of the increase in load is more related to injury risk than what parameter is increased.

> From: Ramskov et al., *J Orthop Sports Phys Ther* 48 (2018) 740-748 (Epub ahead of print). All rights reserved to *Journal of Orthopaedic & Sports Physical Therapy* . [Click here for the online summary](#).



Visit www.anatomy-physiotherapy.com

Anatomy & Physiotherapy works with international renown experts and writers to provide a current and evidence-based content service to students, physiotherapist, musculoskeletal health professionals and educational institutes around the world in 5 key thematic areas and 7 different languages.

The best summaries to help you to improve your care. Easy and accessible.



Musculoskeletal



Aging & Chronic
Diseases



Women's Health



Lifestyle &
Prevention



Psychosomatic