**ABSTRACT**

**Background:** Sudden changes (increases and decreases) in training load have been suggested to play a key role in the development of running-related injuries. However, the compiled evidence for an association between change in training load and running-related injury does not exist.

**Purpose:** The purpose of the present systematic review was to compile the evidence from original articles examining the association between changes in training load and running-related injuries.

**Study Design:** Systematic review.

**Methods:** Four databases (Pubmed/Medline, SPORTDiscus, Embase, and Scopus) were systematically searched. Two reviewers screened titles, abstracts, and full-text articles independently. Articles were included if i) the study design was a randomized trial, a prospective cohort study, a cross-sectional study or a case-control study, ii) participants were runners between 18-65 years, and iii) specific information on changes in training load was provided. Methodological quality of included articles was assessed using the Newcastle Ottawa Scale and the PEDro rating scale.

**Results:** Four articles fulfilled the eligibility criteria of which three found an association between increases in training load and an increased risk of running-related injuries: This association was shown by an increased injury risk amongst runners: i) if they recently had performed one or more changes in either velocity and/or distance and/or frequency compared with the non-injured runners (p=0.037), ii) increasing their average weekly running distance by more than 30% compared to an increase less than 10% (Hazard Ratio =1.59 (95% Confidence Interval: 0.96; 2.66)), iii) increasing their total running distance significantly more the week before the injury origin compared with other weeks (mean difference: 86%; 95% Confidence Interval: 12%; 159%, p=0.026). However, no difference was found between a 10% and a 24% average increase in weekly volume (HR=0.8, 95% CI: 0.6; 1.3).

**Conclusion:** Very limited evidence exists supporting that a sudden change in training load is associated with increased risk of running-related injury.

**Level of evidence:** 2

**Keywords:** Etiology, running-related injuries, training load.

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**CORRESPONDING AUTHOR**

Camma Damsted  
Section of Sport Science, Department of Public Health  
Aarhus University, Dalsgave 4, DK-8000 Aarhus C  
E-mail: camma@ph.au.dk  
Telephone: +45 87 16 84 92

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1 Section of Sport Science, Department of Public Health, Aarhus University, Aarhus, Denmark  
2 University College Lillebaelt, Odense, Denmark  
3 Sports Medicine Research Laboratory, Department of Population Health, Luxembourg Institute of Health, Luxembourg

**Conflicts of interest**

None of the authors have any conflicts of interest, including relevant financial interests, activities, relationships, and affiliations.