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Injuries in recreational running are common, and an important barrier to overcome for maintaining regular physical activity. This compilation thesis focuses on running-related injuries through the lens of different research goals, namely description, prediction and causal inference. These types of research goals can assist in answering questions such as how many runners sustained an injury over a period of time, who is more or less likely to sustain an injury and, perhaps most important, why do running-related injuries occur? To explore these questions, a prospective cohort study starting with an extensive baseline screening of more than 200 runners was conducted. The 1-year follow-up included injury status and training data from more than 17 000 running sessions.

The results show that the accuracy of describing the injury incidence proportion can be increased by using more advanced analytical approaches, such as censoring. In this study, the 1-year cumulative incidence proportion among recreational runners was 46%. Runners with a history of injury were twice as likely to sustain a running-related injury as runners with no history of injury. Moreover, runners having relatively weak hip abductors sustained 17%-point more injuries than runners having relatively stronger hip abductors. Similarly, runners having a late timing of maximal rear foot eversion sustained 21%-point more injuries than runners having an earlier timing of maximal rear foot eversion. Finally, changes in training load were explored using time-varying exposures and ratio-based measures. However, no causal relationship between changes in training load and running-related injury could be revealed.

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Running-related injuries among recreational runners

How many, who, and why?

Jonatan Jungmalm

UNIVERSITY OF GOTHENBURG