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The effectiveness of the concentric versus balance exercises in preventing Achilles' tendinopathy in healthy footballers and runners and in a healthy living population. A prospective study

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Introduction: Achilles tendinopathy is a common musculoskeletal disorder with various pathological manifestations in both athletes and non-athletes. **Objective:** The aim of this prospective study was to investigate the effectiveness of concentric exercises versus balance exercises in preventing Achilles tendinopathy on healthy footballers/runners and in a healthy living population. **Methods:** Research will be conducted through the electronic databases pubmed, Science Direct, MEDLINE and Proquest. The search will be limited to English articles. The study will be randomly sampled from the county of Argolida, Greece. A sample of 60 people over 18 years old will be taken by men and women footballers and runners, as well as 30 people from the general population. The evaluation of the sample will be done if crash diaries are provided to each participant where each participant has to record daily injuries or annoyance on the Achilles tendon. Also, the strength will be measured with the maximum repeat (RM), the ankles motion range with a simple goniometer, and the muscular activity of electromyography (EMG) gastrocnemius. Chi-square and exact Fisher test for nominal data on Achilles tendon injury are used and the descriptive data will be calculated with mean and standard deviation. ANOVA analysis and Correlation analysis with the Pearson correlation coefficient for the relationship between exercise and occurrence groups of tendinopathy and equilibrium exercise groups in relation with the occurrence of tendiopathy will be used. The level of statistical significance will be set at $P < 0.05$. Finally, SPSS, version 20 for Windows, will be implemented.