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Original Research

Risk Factors for Self-Reported Exercise-Related Leg Pain in High School Cross-Country Athletes

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Abstract

Context: Prevention of exercise-related leg pain (ERLP) has not been successful because ERLP risk factors are not well known.

Objective: To determine the percentage of high school cross-country (XC) athletes who reported a history of ERLP in their running careers, to identify the percentage of athletes who reported an occurrence of ERLP during 1 XC season, and to investigate the association of selected factors (age, high school year, years of high school running, sex, ERLP history, body mass index [BMI], foot type, and training distance) and the occurrence of ERLP.

Design: Prospective cohort study.

Setting: Six local high schools.

Patients or Other Participants: One hundred twenty-five high school XC athletes (62 females, 63 males).

Main Outcome Measure(s): All athletes completed an initial ERLP questionnaire, and foot type was visually assessed. After the season, athletes were asked to complete a Web-based questionnaire regarding the seasonal occurrence of ERLP. Statistical analyses of differences (*t* tests) and associations (χ^2 , relative risk) were conducted.

Results: A total of 103 of the 125 athletes (82.4%) reported a history of ERLP, with 81 athletes reporting ERLP occurrence within the month preceding completion of the initial questionnaire. Bilateral medial leg pain was the most common ERLP presentation. More than half of the athletes (58.4%) with an ERLP history reported that the pain had interfered with XC participation. Ninety-three athletes responded to the postseason questionnaire, and 45 (48.0%) reported ERLP seasonal occurrence. Most athletes (97.8%) who experienced the seasonal occurrence of ERLP had a history of ERLP. No associations were noted between ERLP history or seasonal occurrence and age, high school year, years of high school running, sex,

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BMI, foot type, or training distance.

Conclusions: Both a history of ERLP and the seasonal occurrence of ERLP were common among these XC athletes. The only risk factor identified for ERLP season occurrence was ERLP history.

Keywords: [shin splints](#), [overuse injuries](#), [running](#), [injury risks](#)

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