**463** CAN WE PREVENT INJURIES IN RECREATIONAL RUNNERS? A RANDOMIZED CONTROLLED TRIAL

To examine the effectiveness of an online injury prevention program on the number of running-related injuries (RRI). Although this program showed no effect on the number of injuries, new insights from this study were used to design an enhanced prevention program.

**Objective** To examine the effectiveness of an online injury prevention program on the number of RRs in recreational runners.

**Design** Randomized controlled trial.

**Results** During follow-up, 35.5% (95% CI 33.5;37.6) of the participants in the intervention group compared to 35.4% (95% CI 33.3;37.5) of the participants in the control group, with no differences between groups (OR 1.03; 95% CI 0.90;1.17). No significant differences in injury proportions were found in participants per injury location and in participants with an RRI in the 12 months before baseline.

**Conclusions** An enhanced online injury prevention program including 10 steps to outrun injuries had no effect on the number of RRs in recreational runners.

**Background** Comparison of between-limb loading asymmetry during running is often used to assess injury risk or return to run criteria. With the increased use of inertial measurement units (IMUs) in clinical and consumer contexts, it is important to determine normative values for impact asymmetry. For some metrics, such as strength, asymmetries of less than 10% are considered normal, but normal values of impact asymmetry and whether they vary depending on the runner’s sex, running speed, or footwear is unknown.

**Objective** The purpose of this investigation was to describe the magnitude of asymmetries of peak positive vertical accelerations (PPA) during running among healthy runners and to determine the influence of sex, speed, and footwear.

**Methods** Seventeen runners (8 female) were included. The mean asymmetry across all trials was 16.0 ± 23.5%, with an SEM of 2.6%. No significant interactions occurred with footwear or speed, but there was a significant difference between sexes (13.1%; p < .013). However, the effect sizes were very small based on Z-score comparison (-0.325 ≤ z ≤ 0.232) and unlikely to be meaningful.

**Conclusions** The magnitude of asymmetry varies considerably across individuals, but does not seem to be substantially affected by sex, speed, or footwear. Future studies should include a larger sample size and detailed running history variables in an effort to determine population norms and effect of training- and injury-related variables on impact asymmetry.

---

**465** LONG-TERM MEDICAL CONDITIONS (LTMCs) IN MARATHON PARTICIPANTS

**Background** The average age of participants in mass-participation community-based endurance running events is slowly increasing. The prevalence of long-term medical conditions in marathon participants can inform medical planning for such events.

**Objective** To describe the prevalence of long-term medical conditions (LTMC), including cardiovascular disease (CVD) risk factors, in participants of mass-participation community-based marathon events.

**Methods** Two large UK city mass-participation marathon events.

**Results** All registered participants were invited to complete an online questionnaire in the week preceding the event. 11809 runners completed the survey.