

may indicate a need for higher activation of core muscles. Therefore, GS-EE exercises could also develop core muscles that have protective mechanism on low back.

134 WHAT ARE THE MOVEMENT PATTERNS ASSOCIATED WITH GOOD AND POOR LUMBOPELVIC STABILITY?

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Background Poor lumbopelvic stability (LPS), defined as the lack of optimal alignment of the spine, pelvis, and thigh, is a risk factor for sports injury. Clinicians can validly assess LPS using rating criteria for two movement tests: single leg squat (SLS) and dip test (DT) to assess movement pattern errors. LPS is typically categorised as good, poor or neither but simplistic categories are not sensitive to change nor provide direction for management. Specific movement errors made in each test may be more sensitive to change after exercise interventions than the three-category rating and require investigation.

Objective To establish which movement errors and demographic factors are associated with LPS categories.

Design Observational study.

Setting Adult recreational athletes.

Participants Recreational athletes (n =122, 50 men, 73 women) 18–49 years, playing land-based sports, with no conditions preventing performance of movement tests.

Assessment of Risk Factors Independent variable: LPS rating category: good, neither, poor.

Main Outcome Measurements Athletes were filmed performing SLS and DT on each leg. Two physiotherapists independently categorised their LPS, noting the presence of movement errors defined in the rating criteria. Dependent variable: movement errors, demographic factors.

Results Good LPS was associated with the absence of specific movement errors: trunk lateral flexion or rotation, hip adduction and jerky movement in SLS and pelvic obliquity and jerky movement in DT (sensitivity 0.97, specificity 0.94). Poor LPS was associated with hip abduction (non-trial leg) in SLS, jerky movement in DT and limited ankle dorsiflexion (sensitivity 0.80, specificity 0.75). An increase of 2° dorsiflexion reduced the risk of being categorised as having poor LPS by 26%. Increasing age was associated with sub-optimal LPS (p = 0.014).

Conclusions Specific movement errors, and limited dorsiflexion and increasing age are associated with sub-optimal LPS. Strength programs improving movement control and mobility exercises improving ankle dorsiflexion should be implemented. As athletes age they should give more attention to maintaining optimal LPS.

135 ABSTRACT WITHDRAWN

136 PSYCHOSOCIAL FACTORS ARE ASSOCIATED WITH LOWER RE-INJURY RISK IN COMPETITIVE ATHLETES

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Background Psychosocial factors have achieved growing acceptance in their role in successful return to sport. However, as yet, few studies have demonstrated which of the commonly cited psychosocial variables can most strongly predict re-injury rates in competitive athletes. Understanding this could support clinicians in best directing valuable resource towards the holistic support of injured athletes, with a view to facilitating a successful return to sport.

Objective To examine whether social support, psychological readiness to return to sport and re-injury anxiety can predict re-injury in competitive athletes

Design Retrospective, cross-sectional study.

Setting Competitive sport.

Participants 141 competitive athletes, from a range of sports, aged 19 to 24 years (mean age: 20.1 years; SD 1.1 years; 72 male and 69 female).

Interventions (or Assessment of Risk Factors) Independent variables injury time-loss, perceived availability of social support, psychological readiness to return to sport and re-injury anxiety.

Main Outcome Measurements Re-injury.

Results There was a significant difference ($p = <0.001$) between competitive athletes who re-injured the same injury versus those who didn't. Specifically, re-injury anxiety was lower in athletes who did not re-injure, and perceived availability of social support and psychological readiness to return to sport were higher in athletes who did not re-injure. Athletes who did not re-injure also had a longer return to sport. There was no significant difference in injury rates between male and female athletes ($p = .105$). Regression analysis indicated that 61.9% of variance in re-injury rates was predicted by the included predictor variables, with the most significant predictors of reduced re-injury risk being perceived availability of informational support ($p = 0.003$) and time out of sport ($p = 0.003$).

Conclusions Clinicians seeking to reduce the risk of re-injury in competitive athletes should consider strategies to reduce reinjury anxiety and facilitate the provision of social support, specifically the provision of high-quality informational support. Delayed return to sport is also important in reducing the risk of re-injury.

137 PSYCHOLOGICAL DISTRESS AND WELLBEING IN UK OLYMPIC AND PARALYMPIC ATHLETES

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Background Despite the known mental health benefits of exercise the prevalence of mental health symptoms and disorders in high performance athletes appears to be slightly higher than in the general population and athletes with disabilities