

311 **AN ASSESSMENT OF CLINICAL JOINT AND LIMB MEASURES IN PROFESSIONAL FEMALE SOCCER PLAYERS: SCREENING TOOLS FOR INJURY PREVENTION?**

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Background Female soccer has only recently become a professional sport within the UK. The need for accurate and reliable screening and profiling of professional female soccer players could assist in the design of injury prevention programmes.

Objective To evaluate the clinical joint and limb measures during a preseason screening process in professional female soccer players.

Design Cross-sectional, descriptive study.

Setting Sports Therapy clinic.

Participants 32 professional UK-based female soccer players (aged 23 ± 3.60 , mass 62.41 ± 6.37 kg, height 167 ± 6.65 cm) participated in the study.

Assessment of Risk Factors Risk factors were assessed during the English Women's Super League preseason, January 2016. The independent variable was leg dominance.

Main Outcome Measurements The outcome measures were leg length, knee to wall distance, knee flexion and extension, hip flexion and extension, hip internal and external rotation ranges of motion (ROM), straight leg raise hip flexion angle from both dominant and non-dominant legs. A qualified and experienced Sports Therapist subjectively assessed and recorded joint ligament laxity at the knee and ankle.

Results Paired T-Tests revealed significantly reduced ROM in the dominant side compared to the non-dominant side for both hip flexion ($p=0.005$) and hip internal rotation ($p=0.021$). However, all other ROM measurements demonstrated limb symmetry. The most notable findings from the subjective laxity measures was that 35.9% of players had ankle talar inversion laxity.

Conclusions Reduced hip ROM in the dominant side of players may increase the risk of lower limb injury. It may be important to include hip flexibility training into pre-season injury prevention programmes for female soccer players to ensure lower limb symmetry. Furthermore, ankle strengthening, proprioception and single leg change of direction exercises may be included in training programmes due to the high prevalence of ankle laxity in this sample. Future studies should monitor these measurements across a season and correlate them with injury incidence.