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Citation:

Partner, R and Francis, P (2018) Playing through the pain: Self-reported shoulder function of uninjured rugby players. In: European Congress of Sports Science, 04 July 2018 - 07 July 2018, Dublin. (Unpublished)

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## **Playing through the pain: Self-reported shoulder function of uninjured rugby players.**

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**Introduction:** The shoulder is the most commonly injured joint in rugby league and among the top 3 in rugby union. Contact injuries make up the majority of shoulder injuries in rugby, but many shoulder pathologies are of insidious onset or linked to training loads. Given that previous injury is the greatest risk factor for future injury in many sports, it is pertinent to develop methods which detect early stage pathology. At present, it is not yet known what the prevalence of players playing with an existing sub-clinical shoulder dysfunction are. The Rugby Shoulder Score (RSS), a uni-dimensional 120-point scale (20 – 140), was developed to monitor shoulder function in players undergoing rehabilitation from shoulder injury. The aim of this study was to use the RSS to estimate the prevalence of sub-clinical shoulder dysfunction in a sample of professional and amateur rugby players.

**Methods:** Following ethical approval from the Leeds Beckett University research ethics committee, 86 uninjured players provided written informed consent. RSS assessments were administered, via paper questionnaire, at the mid-point of the season. All players were participating in training and match play at the time of assessment. The sample consisted of 34 professional and 52 amateur players respectively. A RSS of 20 represents a perfect score. An increasing RSS indicates increasing shoulder dysfunction.

**Results:** The mean RSS score for the entire sample was 35. Professional players demonstrated greater shoulder dysfunction than amateur players (RSS 42 vs. 30;  $P < 0.05$ ). Fifty five percent of all players indicated varying levels of shoulder dysfunction (mean 47, range 22-105). Of players with a recorded shoulder dysfunction, 17 reported it affecting their match play or training despite being classified as uninjured. The mean RSS of this sub group ( $n=17$ ) was 62 (CI 50-75). Players who did not have a perfect RSS but did not report it affecting their match play or training had a RSS of 41 (CI 36-45).

### **Conclusions:**

The results of this study indicate that the RSS can detect sub-clinical shoulder dysfunction in a sample of rugby players classified as uninjured. The prevalence of shoulder dysfunction (RSS  $>20$ ) was more than half of the sample. Professionals tended to have greater shoulder dysfunction than amateurs. A threshold for minimal clinical importance of the RSS does not exist. However, for a sub group of players ( $n=17$ ) an RSS range has been identified which appears to indicate a level of dysfunction which may affect match play and training.

**Key Reference:** Roberts S.B & Funk L (2013) The development and validation of a scoring system for shoulder injuries in rugby players. [Br J Sports Med.](#) 2013 Sep;47(14):920-6.

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