

greater weekly mean NMT sessions [OR=0.282, (95%CI: 0.090–0.882)].

**Conclusions** Predictors of non-response to NMT in youth include being female, playing basketball, and history of injury. Better balance was associated with lower odds of injury. Higher weekly adherence was protective in female soccer players.

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### OUTCOME PREDICTORS FOR RECOVERY OF ROTATOR CUFF TENDINOPATHY: AN INTERNATIONAL PROSPECTIVE COHORT STUDY

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10.1136/bmjsem-2022-sportskongres.23

**Introduction** There is inadequate data about outcome predictors for rotator cuff (RC) tendinopathy recovery. This international prospective cohort study aimed to determine outcome predictors of RC tendinopathy recovery and build an explanatory model.

**Materials and Methods** After completing the baseline survey, which included over 40 potentially plausible bio-psycho-social and demographic variables, recovery was assessed using the Global Rating of Change scale at monthly follow-ups for one year. Univariate cox proportional-hazards regression was used to analyse individual predictive associations, and multivariate cox regression was used for model building. Bootstrapping was used for internal validity.

**Results** 73 people with RC tendinopathy (43.9±14.0 years; 45 females; Shoulder Pain and Disability Index = 37.7±24.4) provided 15,284 days total analysis time at risk (208±129 days). Recovery rate was 47%, occurring around the 7th month. According to the final model, higher health status (HR = 1.03) and being moderately active (HR = 2.23) were associated with RC tendinopathy recovery. The internal validity showed that there was minimal overestimation in the predicted outcome (average optimism=0.01). The model partially predicted RC tendinopathy recovery with almost acceptable performance (optimism-corrected Harrell's C discrimination = 0.66 and Calibration Slope = 0.99).

**Conclusion** Self-reported online surveys may be useful to understand RC tendinopathy prognosis. The combination of self-reported factors, including activity level and health status, partially predicted RC tendinopathy recovery. Therefore, these modifiable self-reported variables could help guide clinical decision making.

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### CARBOHYDRATE AVAILABILITY IN FEMALE ENDURANCE ATHLETES WITH SYMPTOMS OF RELATIVE ENERGY DEFICIENCY IN SPORT (RED-S)

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10.1136/bmjsem-2022-sportskongres.24

**Introduction** Endurance athletes with high training loads and weight focus have increased risk of low energy and carbohydrate (CHO) availability. This is the first study aiming to investigate the timing of CHO intake in relation to training load in athletes with symptoms of relative energy deficiency in sport (RED-S).

**Materials and Methods** Female endurance athletes (n=12) (25.9 ± 4.4) years, BMI 20.9 ± 2.1), with symptoms of RED-S (Low Energy Availability in Females Questionnaire total score 11.9 ± 2.9) without disordered eating behavior, performed a 7-day weighed dietary and training registration (heart rate monitors, online training logs). CHO intake was analyzed for key (high intensity/>120 min) and easy training sessions (all other sessions >30 min) as well as hard (including >1 key session) and light training days (all other days). Mean difference, 95% confidence intervals (CI) not including 0, and a paired student t-test were used to determine differences between CHO intake and international sport nutrition recommendations.

**Results** None of the participants met the recommended daily CHO intake [CI -1.7 (-2.4 to -0.9)], or CHO intake immediate after [CI -0.7 (-0.9 to -0.5)], between [CI -1.2 (-2.0 to -0.4)] or during [CI -15.2 (-29.1 to -1.3)] key training sessions. CHO recommendations were more difficult to fulfill during hard compared to light training days (p=0.014).

**Conclusion** Female endurance athletes with symptoms of RED-S have difficulties matching CHO intake in relation to training load according to the recommendations. Hence, to prevent RED-S focus on optimizing CHO intake is needed.

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### MENISCAL SURGERY OR EXERCISE THERAPY IN ALLEVIATING PATIENT-REPORTED MECHANICAL SYMPTOMS IN YOUNG ADULTS WITH A MENISCAL TEAR

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10.1136/bmjsem-2022-sportskongres.25

**Introduction** A common treatment strategy to alleviate mechanical symptoms in young patients with meniscal tears is meniscal surgery, however, it is unknown whether this is superior to a non-surgical strategy. Therefore, we aimed to compare meniscal surgery to early exercise therapy and patient education.

**Materials and Methods** In the DREAM trial 121 patients aged 18–40 were randomized to surgery (partial meniscectomy or meniscal repair) or 12-weeks of supervised exercise therapy and patient education, with the option of later surgery if needed. In this secondary analysis we included patients with self-reported mechanical symptoms (yes/no) at