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The investigation of prevalence of lower extremity injuries in Iranian elite female artistic gymnasts: study on two women's artistic gymnastics apparatus (floor exercise & uneven bars)

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The purpose of this study was to examine the incidence, localization of lower injuries in Iranian elite female artistic gymnasts. 40 elite female gymnasts were included in the study; which consisted of written questionnaire reporting data concerning the injuries. Method: the method of this investigation was retrospective analysis of injury incidence and localization of lower injuries in Iranian elite girl's artistic gymnasts. Results: Our cases sustained 702 lower extremity injuries in floor exercise followed by uneven bars 445 lower extremity injuries. The analysis of type of injuries during floor exercise revealed muscle injuries (62.2%) as the predominant injury, skin injuries (13%), joint injuries (8%), bone injuries (0.7%) and chronic and acute pain (14%). Uneven bars injuries distributed among muscle injuries (64%), skin injury (20.9%), joint injury (2.7%), bone injuries (0.2%) and chronic and acute pain (12.1%). A majority of injuries during floor exercise was hip and groin (31.7%) and hip muscle cramp (18.4%) also most common injuries on uneven bars was hip and groin (28.1%). 65% of elite gymnasts reported that their injuries occurred at training time. Conclusion: Our results indicated that most of lower injuries occurred in floor exercise. Gymnastics coaches should be more considerate to the floor exercise event and training phase.

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Overuse injury incidence, severity and risk factors in British National Squad triathletes: a retrospective gender comparison

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Overuse injury incidence, severity and antecedents were compared between 7 elite female, 11 sub-elite female, 12 Elite male and 22 sub-elite male British 'Olympic distance' (OD) triathletes (i.e. 54, 53, 75 and 92% of the respective National Squads), using a five-year retrospective questionnaire. The number of overuse injuries sustained (1.96 ± 1.95) did not differ with gender or ability (ns). However, males reported less injury recurrence within one year than females (16.7 vs. 71.9% of elites, 23.5 vs. 60.0% of sub-elites, respectively). Gender differences existed in number of swim sessions (4.49 ± 1.69 vs. 3.66 ± 0.7 , $p < 0.02$), bike 'hill repetition' sessions (0.26 ± 0.45 vs. 0.75 ± 0.86 , $p < 0.05$), 'speed bike' sessions (1.51 ± 0.98 vs. 0.88 ± 0.50 , $p < 0.01$) and 'other' run sessions (2.12 ± 1.59 vs. 1.33 ± 0.62 , $p < 0.02$) done over one race training week. In females only, the number of overuse injuries correlated with % of training time spent doing 'hill repetition' run sessions ($r = 0.63$, $p < 0.03$) and frequency of 'other run' sessions ($r = 0.63$, $p < 0.02$). In sub-elite males, but not females, running injury number negatively correlated with both 'long run' total time ($r = -0.76$, $p < 0.01$) and individual session duration ($r = 0.76$, $p < 0.02$). Elite female triathletes sustained less running injuries, the more time they spent per week doing 'long runs' ($r = 0.90$, $p < 0.04$). Although these findings indicate that gender differences may exist in injury recurrence rates and risk factor influence in triathletes, further investigation using larger subject groups and a prospective longitudinal survey design is warranted.