

Sports Injuries

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Injuries in Basketball

In US high school basketball, the incidence of injury is 23% per annum, with the majority (over 65%) of these injuries being to the lower limb (Powel 1999). Most lower limb injuries are to the knee or ankle (Powel). Risk factors for injury include a previous injury history, biomechanical malalignment and anatomical factors, reduced neuromuscular control, dysfunction in foot biomechanics, reduced flexibility, reduced jump height on testing, and poor balance (Hewett et al 2007; Plisky et al 2006). Poor balance was particularly associated with ankle injuries (Plisky et al 2006). Females are also at increased risk compared to males (Hewett, Plisky & Powel). While not all of these risk factors can be modified, there is evidence that neuromuscular control may be the one of the most modifiable for knee injuries (Hewett et al 2007; Plisky et al 2006).

Screening

Athletes can be screened to assist in identifying whether there is an increased injury risk. Traditional tests have emphasized flexibility measurements. More recently, 'functional' tests have become more popular. In one study, a test for measuring balance and stability (star excursion balance test) showed that players at increased risk were more likely to have greater than 4cm side-to-side asymmetry on reach distance (Plisky et al 2006). Other functional testing methods have been shown to be very effective. The Functional Movement Systems™ (Cook 2010) test results have shown that athletes with scores at or below 14 out of 21 were at increased risk (Kiesel 2007).

References:

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