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RETURN TO PLAY AFTER ANKLE INJURIES

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Return-To-Play (RTP) decisions in sport medicine are, in most cases, made in a team environment that may include one or several clinicians (e.g. physicians, physiotherapists and/or athletic trainers) and the athlete. In elite sports, coaches and sports scientists are often involved in decision making. Together, these stakeholder weigh the benefits and risks of returning an athlete to play, which include injury-related and non-injury-related risk assessments (Shrier et al, Br J Sports Med 2014; 48(5): 394-401).

The ankle is the most commonly injured joint in many sports. More than 10% of all traumatic sports injuries are ankle injuries, two thirds of which are ligament sprains (Kaminski TW et al, J Athl Train 2013; 48: 528-545). The decision to RTP following and ankle injury is a multifactorial process involving both physical and psychological aspects. There are few evidence-based guidelines to assist the decision-making process (Clanton TO et al, Sports Health 2012; 4: 471-474). However, the US National Athletic Trainer's Association suggests guidelines for the management, RTP and prevention of ankle sprains in athletes (Kaminski TW et al, J Athl Train 2013; 48: 528-545).

Functional performance testing should be a component of the RTP decision making. Before the injured athlete returns to sport-specific tasks, the injured limb's functional performance should measure > 80-90 % of the uninjured limb (Hupperets et al, BMJ 2009; 339: b2684; Thomeé R et al, Knee Surg Sports Traumatol Arthrosc 2011; 19(11): 1798-1805). Several tests may help to determine the athlete's ability to RTP, including range of motion, balance, and proprioception, measures of strength and agility tests. Range of motion tests may include The Dorsiflexion Lunge Test (Bennell K et al, Aust J Physiother 1999; 45: 103-109), balance and proprioception test may include The Star Excursion Balance Test (SEBT)(Olmsted LC et al, J Athl. Train 2002; 37: 501-506), strength tests may include single-limb hopping tests (Caffrey E et al, J Orthop Sports Phys Ther 2009; 39: 799-806), the Sargent/vertical jump test (Munro AG and Herrington LC, J Strength Cond Res 2011; 25: 1470-1477), and agility tests may include Agility T-Test (Sheppard & Young, J Sports Sci 2006; 24: 919-932).

Athletes experience psychological distress following an injury and stress increases the risk of an athletic injury. There is preliminary evidence that positive psychological responses are associated with a higher rate of returning to sport following athletic injury (Ardern CL et al, Br J Sports Med 2013; 47(17): 1120-1126). An athlete should demonstrate psychological readiness prior to RTP. Scoring systems can assess this component, such as The Injury-Psychological Readiness to Return to Sport Scale (I-PRRS) (Glazer, J Athletic Train 2009; 44: 185-189).

To reduce the risk of re-injury clinicians should implement a multi-intervention ankle-injury prevention program lasting at least 3 months that focuses on balance, neuromuscular control and strength (Tropp H et al, Am J Sports Med 1985 13: 259-262; Hupperets et al, BMJ 2009; 339: b2684).

In summary: functional testing provides objective measures for testing the progression of an athlete through the rehabilitation phases. Testing range of motion, balance, proprioception, strength, and agility together with psychological assessments help determining readiness for RTP after ankle injury.