

maintain compression of the iliotibial band onto the lateral femoral epicondyle (Fairclough et al., 2006) and induce high strain rates on the iliotibial band (Hamill et al., 2008). Gait retraining methods that reduce these movement patterns may be beneficial in the treatment of ITBS, such as increasing cadence.

Key Management Strategies

ITBS symptoms in athletes can be effectively reduced using conservative management strategies (Bolia et al., 2020), despite the quality of available evidence being relatively low. Generally, pain management is a primary focus in the acute phases. Exercise or training while managing load should nonetheless be encouraged during this phase. After the pain-dominant phase, clinicians should progress running programmes and exercises to increase load tolerance. Lateral knee pain or irritation the following day should not exceed 2 on a 10-point visual analogue scale during the pain-dominant phase.

Running gait retraining is one strategy that can be used to address hip and knee coordination and running patterns (van der Worp et al., 2012) and can reduce knee loads while running. The gait retraining approaches highlighted in the earlier discussion of patellofemoral pain can be considered for ITBS. Incorporating running retraining using verbal and visual feedback into an 8-week conditioning programme was shown to be more effective than no feedback when attempting to influence some of the proposed risk factors to running-related injury, including average and instantaneous vertical loading rates, peak hip adduction, peak knee internal rotation and peak rearfoot inverter moments (Letafatkar et al., 2020). In this particular study, the feedback provided included running more softly, avoiding a rearfoot strike landing, and running with the knees apart and kneecaps pointing forwards. At the 1-year follow-up, the running gait retraining with feedback group had a lower injury incidence of 66.7% ITBS, 57% PFP, and 66.7% plantar fasciitis (Letafatkar et al., 2020).

Strengthening should also be considered in individuals with ITBS. Progressive hip exercises performed over 8 weeks have demonstrated superior outcomes in terms of pain, function and strength than stretching and conventional exercises (McKay et al., 2020). Complementing interventions with mobilisation and education regarding running surfaces (e.g., avoiding concrete surfaces and downhill running, and incorporating various running surfaces) can also contribute to positive treatment outcomes (van der Worp et al., 2012). Clinicians should prescribe intervention programmes individually, and consider including strengthening, especially the hip abductors; joint mobilisation; orthoses and the management of soft tissues (van der Worp et al., 2012; McKay et al., 2020).

KEY POINTS

- About one in every two runners experiences a running-related injury each year, with 75% of injuries occurring at or below the knee.
- Running-related injuries are multifactorial in nature. The most consistently reported risk factors include a previous injury and recent changes in running training.
- Numerous cross-sectional studies indicate the presence of certain movement patterns once an injury is present, but few prospective studies link specific movement patterns to injury incidence. Changes in movement patterns are often a consequence rather than a cause of injury.
- The key management strategies in treating the most common running-related injuries include patient education on load management, activity modification and footwear; gait retraining; and graded exercise and return-to-running programmes.
- Addressing purely the physical components of running-related injuries might be insufficient in certain cases, requiring a more holistic or interdisciplinary approach and referrals to other healthcare professionals when needed.

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