

Franklyn-Miller et al (2009) showed that when you stretch a hamstring, more than double the degree of strain applied to the hamstrings is imparted to the Iliotibial tract (with 1.5 times the strain also going to the ipsilateral lumbar fascia). Using the word 'isolated' - together with 'stretching' - is therefore difficult to justify.

Franklyn-Miller A et al 2009 IN: Fascial Research II: Basic Science and Implications for Conventional and Complementary Health Care Munich: Elsevier GmbH

Iliotibial band (ITB) syndrome is the most common cause of lateral knee pain among athletes, however, little is known regarding the elastic properties of the fascia that make up this anatomical structure. The aim of this two-part study was to assess ITB strain both in the presence and absence of neuromuscular activation.

**Methodology:** In experiment one, nine intact lower-limbs from five fresh cadavers were manually manipulated into one of three testing positions. These consisted of two experimental protocols, a modified Obers test (OBER) and a hip abductors stretch (HIP), and a condition protocol simulating limb position during the initial ground contact phase in gait, represented by a straight leg raise to 30° (SLR). Assessment of fascial strain in the ITB during each of these tests was performed using foil-type microstrain gauges.

In experiment two, ultrasound assessment of strain in the ITB of 19 professional rugby league players (age: 19.0 (18–19) yr, ht: 1.8 ± 0.1 m, bm: 90.7 ± 8.8 kg) was performed during a MVC hip abduction. **Results and discussion:** The microstrain values (median (IQR)) for the OBER (15.4 (5.1–23.3) me), HIP (21.1 (15.6–44.6) me) and SLR (9.4 (5.1–10.7) me) showed a marked disparity in the optimal inter-limb stretching protocol. Statistical analysis revealed that the HIP stretch invoked significantly ( $Z = 2.10$ ,  $p = 0.04$ ) greater strain than the SLR. No other significant differences were observed.

Analysis of the hip abduction MVC revealed strain of <1%, with an effect size of 0.04. This negligible strain suggests that the ITB does not undergo considerable lengthening during neuromuscular activation of embedded musculature. These studies provide mechanistic evidence of strain in the ITB.

Clark R Falvey E Franklyn-Miller A et al 2009 Mechanical strain in the iliotibial band during functional tasks Journal of Science and Medicine in Sport 12(1)PS67