Iliotibial Band Syndrome in Runners

*Quick Reference Guide for Physical Therapists*

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| *Topic* | *Description* | |
| Pathophysiology in Runners | * Overuse injury of lateral knee; usually presents with insidious onset1 * 2nd most common cause of all knee pain in runners; most common cause of lateral knee pain in runners2,3 * Exacerbated in stance phase with knee in approximately 20-30o flexion3 * Increased tension of ITB especially with eccentric contraction of Gluteus Maximus (GMax) and Tensor Fascia Lata (TFL) results in friction and compression of ITB over lateral femoral epicondyle (LFE)3,4 | |
| Anatomy and Biomechanics | * The ITB is a dynamic structure; spans iliac crest to Gerdy’s Tubercle2 * The GMax and TFL insert into the ITB and exert forces through it2 * During the gait cycle, the ITB translates across the LFE which may cause frictional abrasion5 * There are two different biomechanical theories: the friction/impingement theory and the compression theory – however, the bottom line is excessive tension in the ITB that causes pain and inflammation at the LFE2,6,7 | |
| Risk Factors | * Increased knee internal rotation (IR) and tibial IR during stance phase1,3,4 * Increased hip adduction during stance phase1,3,4 * Hip abductor weakness8 * Running style, shoe wear, running frequency and distance, running surface1,4,5 * Excessive foot pronation or forefoot varus1,5 | |
| Differential Diagnosis9 | * Biceps Femoris Tendinopathy * LCL Sprain * Lateral Meniscus Pathology * Patellofemoral Pain Syndrome * Popliteal Tendinopathy | * Degenerative Joint Disease (OA) * Myofascial Pain Syndrome * Referred Pain from L-Spine * Stress Fracture * Superior Tibiofibular Joint Sprain |
| Evaluation/Assessment5,10 | * Gait Assessment/Running Mechanics * Shoe Wear – worn-out or inappropriate for biomechanics * Strength * Flexibility | * Neurological Testing * Palpation * Foot/ankle biomechanics * Special Tests   + Ober’s Test   + Noble’s Compression Test |
| Interventions | * Acute Phase – reduce pain and inflammation; rest; activity modification2,4,10,11 * Subacute Phase – address biomechanical abnormalities (stretching ITB *if* it is tight, stretching TFL and GMax, myofascial release)2,10,11 * Recovery/Strengthening Phase – graded strengthening exercise program2,11 * Return to Running Phase – gradual return over 3-4 weeks; running every other day; slowly increase frequency/distance/intensity; monitor pain2,11,7 | |

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