Train the muscles of the thigh in a closed chain to help reflexively protect the knee from the valgus & varus forces of the frontal plane which may damage the collateral ligaments. To help counteract valgus stress and MCL injury, the sartorius, gracilis, semitendinosus, and vastus medialis should be strengthened reflexively. The biceps femoris, tensor fascia lata, and vastus lateralis should be trained to counteract varus stress which may damage the LCL. The hamstrings should be dynamically trained to protect the ACL, while the quadriceps should be trained to protect the PCL. All of these muscles should be trained functionally and reflexively.

Clinical Solution: Use Thera-Band® Resistive Exercisers to generate forces, or “challenges” that must be reflexively counter-balanced by dynamic control of the muscles in a closed chain. This is known as reactive neuromuscular training. Create valgus and varus forces with the tubing or band in the frontal plane while performing functional movements. Create anterior and posterior forces in the sagittal plane to challenge the hamstrings and quadriceps. Use the Thera-Band® exercise mat to increase the proprioceptive challenge. Gradually progress by increasing the repetitions, resistance, or proprioceptive challenge.

Exercise 1: Standing Hip Abduction/Adduction /Flexion/Extension

Stand on uninvolved leg with the band or tubing attached at the ankle. Stand with one side to the attachment. Keeping the knee straight, kick the tubing away from the attachment. Perform in four directions. Progress by bending stance knee or adding foam.

Exercise 2: Minisquat With Thera-Band® Band

Use the gold Thera-Band® band around the waist. Maintain tension as you slowly bend your knees to approximately 45 degrees. Perform in four directions. Progress to unilateral minisquats and add foam for proprioceptive challenge.

Exercise 3: Side-lunges with Thera-Band® Band

Use the gold Thera-Band® band around the waist. Maintain tension as you slowly lunge. Perform in four directions. Progress to foam for proprioceptive challenge.