



Ligaments & Meniscus of the Knee:

Anterior Cruciate (ACL): injured with hyper-extension of the knee or when a bent knee buckles in towards the other with the foot planted.

Medial Collateral (MCL): injured when knee buckles inward towards the other leg.

Lateral Collateral (LCL): injured when the knee buckles outward towards the other leg.

Posterior Cruciate PCL): injured with a hyper-flexion of the knee or when falling on a bent knee.

Ligament injuries can lead to laxity and/or instability of the knee joint. When laxity is present there is slackness or lack of tension in the ligament leading to a loose joint. Instability is used to describe when a joint is giving away and there is excess mobility to the joint. Excess mobility can lead to rapid wear and tear through the joint.

Meniscus injuries lead to changes to the congruity of the knee joint. If the meniscus is torn it may lead to pain, swelling and the joint being blocked or locked with associated loss of range of motion. Damage present here leads to early onset arthritis.

TREATMENT:

Treatment plans are developed following a thorough assessment of all the structures mentioned above. Many of these structures respond well to physical therapy consisting of modalities for pain and swelling, and exercises for mobility, strength and balance. Physical therapist's can also determine the need for a patient to use a knee brace. The initial phase of rehabilitation is to restore range of motion while eliminating swelling and pain. Attached are basic exercises to restore mobility. Please note that the sooner Physical Therapy is commenced, the higher the likelihood for successful recovery.

Notes:

1- Knee flexion with towel AAROM - Sets:3 / Repetition:10 / Hold:5 sec / tempo:Pfree



Lie supine with a towel, belt or a strap behind your thigh, just above your knee.
Pull on the towel, keeping your arms straight at a 45 degree angle to assist the knee flexion.
Hold the flexed position for the recommended time.

2- Assisted knee flexion - Sets:3 / Repetition:10 / Hold:5 sec / tempo:Pfree



Lie on your back, place a towel around your ankle and hold it firmly with your hands.
Bend your knee as far as you can and then pull on the towel with your hands to increase the flexion.
Maintain the position and relax.

3- Knee end range extension - Sets:3 / Repetition:10 / Hold:5 sec / tempo:Pfree



Lie on your back with a towel rolled under your ankle.
Push your knee down towards the bed so as to straighten it as much as possible.
Relax your knee and repeat.

4- Knee overpressure stretch - Sets:3 / Repetition:10 / Hold:5 sec / tempo:Pfree



Lie on your stomach, relax the affected leg over the edge of the bed and allow gravity to straighten it with your kneecap unsupported.
Place the other foot on the ankle of the affected leg and push gently to create more stretch.
Maintain the stretch without lifting your hips off the bed and relax.

5- Knee to chest - Sets:3 / Repetition:10 / Hold:5 sec / tempo:Pfree



Lie on your back and bring one knee up to your chest.
Return to the starting position.