

PATIENT
INFORMATION
LEAFLET

Medial Collateral Ligament (MCL) Injury

Airedale NHS Foundation Trust
Bradford Teaching Hospitals NHS Foundation Trust
Bradford District and Craven Clinical Commissioning Group

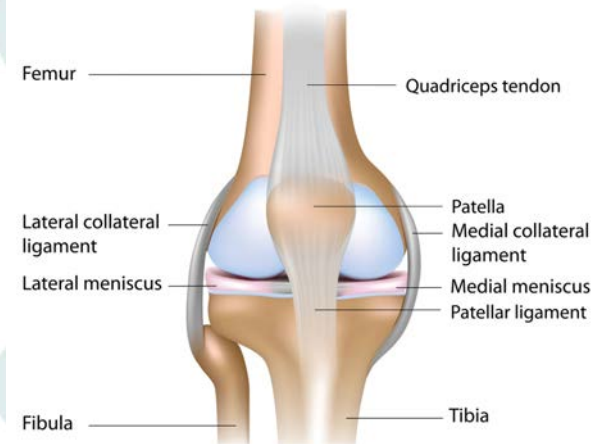
Introduction

The medial collateral ligament is one of the ligaments which lie on the inner aspect of the knee. It connects the femur (thigh bone), to the tibia (shin bone). This ligament, along with others, helps to provide the knee with stability. The MCL, along with the lateral collateral ligament (LCL), controls the sideways movement of the knee joint.

What is an MCL injury?

An MCL injury is a stretch, partial tear or complete tear of the ligament. MCL injuries can be graded on their severity;

- **Grade I** – a few fibres of the ligament are torn, but there is no instability.
- **Grade II** – approximately half of the ligament fibres are torn, with slight instability.
- **Grade III** – complete tear of the ligament, with distinct instability



Causes of a MCL Injury

Injuries to the MCL most commonly occur from a direct trauma to the outer side of the knee, which causes a valgus collapse, meaning the ligaments on the inside of the knee stretch too far causing them to tear. They can also happen through a non-contact injury, such as cutting/change of direction or sudden deceleration. The ligament can also be injured through repeated stress, which causes it to lose its normal elasticity and stretch.

Symptoms of a MCL Injury

Symptoms of an MCL injury can be similar to other problems of the knee; therefore it is important for your knee to be examined by a professional to diagnose the problem.

Symptoms can include;

- A popping sound upon injuring the knee
- Pain and tenderness along the inner part of your knee
- Swelling of the knee, mainly located along the inner part of the knee
- A sensation that your knee is going to give way, or true giving way when you put weight on it
- Locking or catching of the knee joint

Diagnosis of a MCL Injury

The diagnosis of an MCL injury is made by a combination of history taking and a physical examination. You will be asked about the mechanism of the knee injury, including what you were doing at the time, and what position your body was in, in relation to the knee at the time of injury. This helps the professional to determine what stresses have been put upon the knee. You may also be asked if you were able to walk immediately after the injury, whether the knee began to swell and how quickly, and if you heard anything upon injuring the joint.

The physical examination is used to assess; gait (walking pattern), swelling, range of motion, and also any particular areas of tenderness or pain around the knee joint. The ligament can also be stressed to see if the knee is stable, or whether there is any laxity. The test reproduces the mechanism of injury, and will help to give the clinician an idea of the grade of injury sustained.

Plain x-rays may be taken to rule out any fractures and also any osteoarthritis within the joint. However, an MRI may be requested if an MCL tear is suspected with other associated injuries (e.g. anterior cruciate ligament tear or medial meniscus tear), as this is the best way to visualise the ligaments.

Self management of a MCL Injury

If you have a low severity MCL sprain, it can heal on its own, and below are some of the measures you can use to help reduce the pain and inflammation. These measures should be applied for up to 72 hours following the injury.

Relative Rest

Reduce your levels of activity to a point where you do not feel pain. Try and keep mobile as this will preserve strength in your knee.

Ice

Wrap ice (or a bag of frozen peas) in a tea towel and place this over your knee. This will help reduce swelling of the knee. This can be done for 20 minutes every 2 hours.

Compression

Compression, with a compression bandage or tubigrip can help further reduce swelling.

Elevation

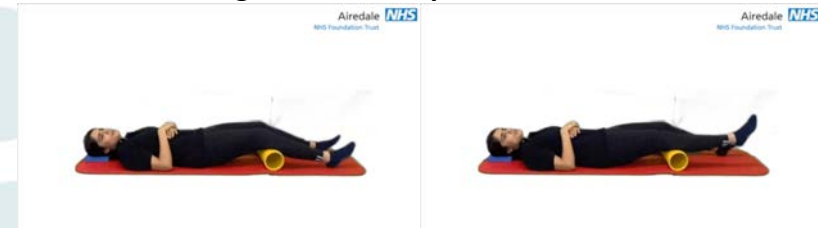
When you are sat down, ensure you elevate the leg. This will encourage blood flow to return up the leg and again reduce the swelling.

Painkillers

Various over the counter pain killers are available for the management of pain. Use pain killers to reduce the pain to a tolerable level.

Exercises for a MCL Injury

Exercise 1: Inner Range Quads in Supine



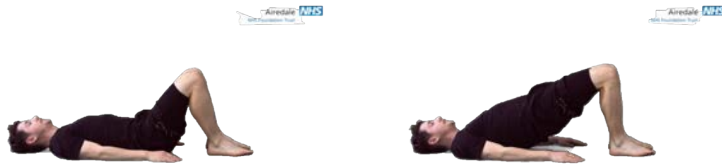
- Place a rolled up towel or other object under your knee.
- Slowly straighten your knee as you raise your foot.
- Keep your knee on the towel at all times.
- Lower back down and repeat.

Exercise 2: Heel Slides



- Lie on your back with your knees bent.
- Slide one heel out to straighten your knee.
- Hold in this position, feeling a gentle stretch in the back of your thigh, then return to the starting position.

Exercise 3: Bridge



- Lie face up on the floor, with your knees bent and feet flat on the ground. Keep your arms at your side with your palms down.
- Lift your hips off the ground until your knees, hips and shoulders form a straight line. Squeeze your buttocks.
- Hold your bridged position for a couple of seconds before easing back down.

Exercise 4: Chair Squat



- Stand in front of chair of an appropriate height (a lower chair increases the difficulty and a higher chair is less difficult).
- With your feet about shoulder width apart, sit with your hips back as if to sit into a chair whilst raising your arms front of you.
- Touch the chair with your bottom and then return to standing whilst lowering your arms.

Exercise 5: Straight Leg Raise



- Lie on your back, raise your leg maintaining a straight knee.
- Hold and return to the starting position.

Exercise 6: Leg lift in side lying (abduction)



- In left side lying
- Lift your right leg up- keeping your knee straight
- Lower down slowly. Repeat

What next?

If you are still experiencing symptoms despite following the above advice, it is important you seek advice from your GP. Your GP may decide to refer you to the musculoskeletal clinic or to a physiotherapist.