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### Meniscal knee pain

The meniscus is a crescent-shaped cartilage inside either side of the knee. It acts as a shock absorber in the knee, between the long bones of the leg.

Meniscus pain can be caused by injury or overuse, causing pain, swelling and locking of the knee.

Meniscal knee pain can be common in sports due to twisting/rotational movements of the knee when playing them, accounting for 12-14% of knee injuries. However it is also recognised that the meniscus weakens with age, and degenerative changes are common constituting for 30% of all meniscal

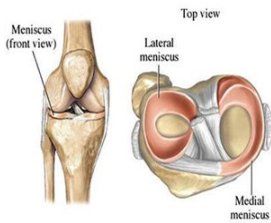
tears. Research has shown that those older than 40 yrs old, are 4 times more likely to experience meniscal knee pain, and more than 40% of those older than 65 yrs old will experience pain associated with the meniscus of the knee.

### Symptoms of a meniscus injuries can include:

- Pain
- Swelling
- Stiffness
- A popping sensation during the injury
- Difficulty bending and straightening your knee fully
- A feeling that your knee is lock 'stuck' in place when you try to move it

### Management

- Initial treatment may include offloading the meniscus through avoiding/resting from any sports or activities, which maybe the cause and/or contributing to the cause of the injury. Initial use of ice to help reduce any swelling and pain for 15-20 mins at a time (but not longer than 20 mins) and up to 3-4 times a day with at least 30 mins between each time.
- Well-structured exercises aiming at increasing the activation and strength, particularly of the quadriceps and gluteal muscles.
- Exercise can often be challenging and uncomfortable. However it is advisable that you do not push into pain or experience large increases in pain levels that stays for more than 24 hrs after exercise.
- Considering the use of orthotics may help to offload stress on the meniscus
- Try and avoid deep knee flexion (bending), twisting, rotating particularly when weight bearing
- kneeling
- Try and avoid high impact activities and excessive forces being put through the knee



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### Do I need an MRI?

A Magnetic resonance imaging (MRI), can be used to help investigate meniscal knee pain. Research has shown experienced examiners are able to identify patients for surgery with meniscus tears just as well, if not better than an MRI. Research has shown a lot of changes occur with in the meniscus in those without symptoms, which indicate that changes in the meniscus can a normal phase that the knee passes through. About 19% of over 40 years have meniscus tears that do not cause any problems. It is important to note that meniscus tears occur naturally.

This understanding promotes confidence in the examiners clinical findings when assessing the knee and can help provide the most appropriate treatment pathways to you quicker.

### Do I need surgery?

This is not always a straightforward question if your knee is locking 'getting stuck' or you cannot fully extend your knee then this maybe something that is discussed in further detail. However research shows that in the absence of your knee locking then when reviewing long term outcomes of surgery vs conservative management, there is minimal difference and managing conservatively is reported to lower the risk of osteoarthritis later in life. Further to this there is no strong evidence to demonstrate surgery is more effective as a treatment than physiotherapy for degenerative meniscal tears.

#### Knee End-range Extension in Supine



Lie on your back with one leg bent and the other leg straight. Place a towel roll under the straight knee.



Bend your ankle and straighten the knee using your front thigh muscles. Keep the back of your knee against the towel roll. Keep the tension for a moment and then relax.

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Repeat 8 - 15 times x3 every other day.

#### Straight Leg Raise in Supine



Lie on your back with one leg bent and foot on the floor, the other leg is straight.



Bend the ankle of the straight leg, contract the muscles of your front thigh and lift the leg off the floor keeping it straight. In a controlled manner, return to the starting position.

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Repeat 8 - 15 times x3 every other day.



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### Knee Extension in Sitting

Sit up straight on a sturdy chair, so that your feet are supported on the floor.

Bend your ankle and straighten your knee using your front thigh muscles. In a controlled manner, return to the starting position.

Repeat 8 - 15 times x 3 every other day.



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### Mini-Squat with Support

Stand and take support if needed.

Squat down and at the same time move your pelvis slightly backwards. Straighten your hips and return to the starting position.

Repeat 8 - 15 times x 3 every other day.



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### Bridge

Lie on your back, with knees bent and feet hip-width apart.

Draw in your abdominals and tighten your buttocks. Tilt your pelvis backwards and lift your pelvis and back up one vertebrae at a time. Lift only as high as you can while maintaining the pelvis position. Lower your pelvis down in a controlled manner.

Note: Don't let your lower back arch during the lift.

Repeat 8 - 15 times x3 every other day.



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### Hip Abduction in Sidelying

Lie on your side, with the lower leg bent and the upper leg straight.

Lift the upper leg straight up with ankle flexed. Return to the starting position.

Repeat 8 - 15 times x 3 every other day.



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### Heel Raise

Stand tall, with your weight distributed evenly on both feet, and take support if needed.

Rise up onto your toes and in a controlled manner return to the starting position.

Repeat 8 - 15 times x 3 every other day.



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### Single-leg Standing

Balance on one leg.

Remember to stand tall, with weight evenly on your foot and toes pointing forwards.

Aim to hold for 30 secs but you may need to build up to this.

Repeat 3 - 5 times every other day.



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### Step-Up With Thigh Thrust

Stand in front of a step.

Push up on one leg.

As you push up on one leg bring the other leg through and raise your thigh so that you bring your knee as high as possible.

Step back down using the leg which you raised into the air.

Repeat 8 - 15 times x3 every other day.