

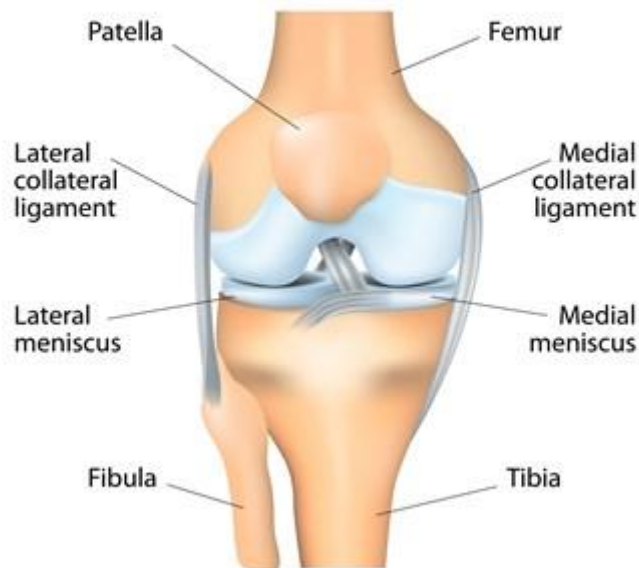


**Working together to achieve the healthiest life possible for everyone in Ayrshire and Arran**

### **What is the Menisci?**

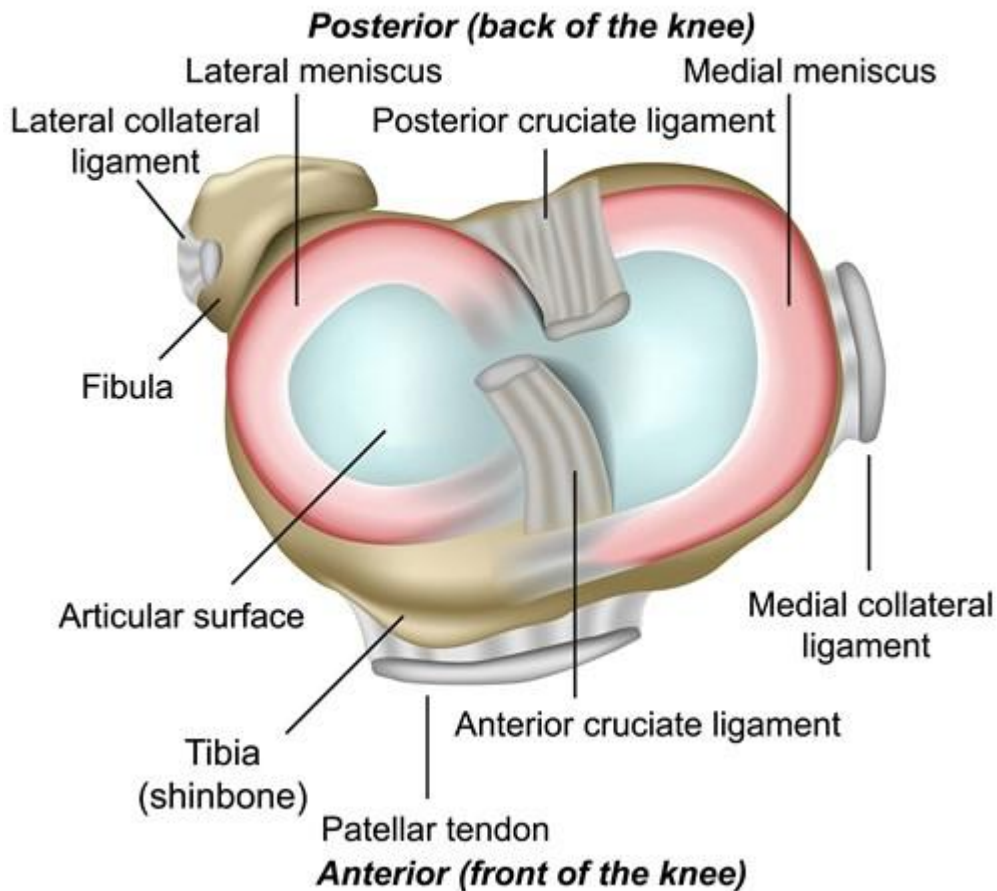
The menisci are C-shaped tissues inside the knee joint, located between the thigh (femoral) and shin (tibia) cartilage surfaces. Both are found in the joint. There is one on the inside of the knee (medial) and one on the outside (lateral).

## **THE HUMAN KNEE**



**Diagram 1: Picture of the Lateral (Outer) and Medial (Inner) Menisci of Human Knee**

# The meniscus



**Diagram 2: Anterior of Knee Showing Medial and Lateral Menisci**

The outer parts have adequate blood supply, but the middle and inner parts have poor blood supply. Because blood supply can affect healing, the location of a tear will affect treatment options.

## **What does the Meniscus do in Your Knee?**

The menisci are tissues that respond to the forces and loads that you put into the knee. They have several important functions:

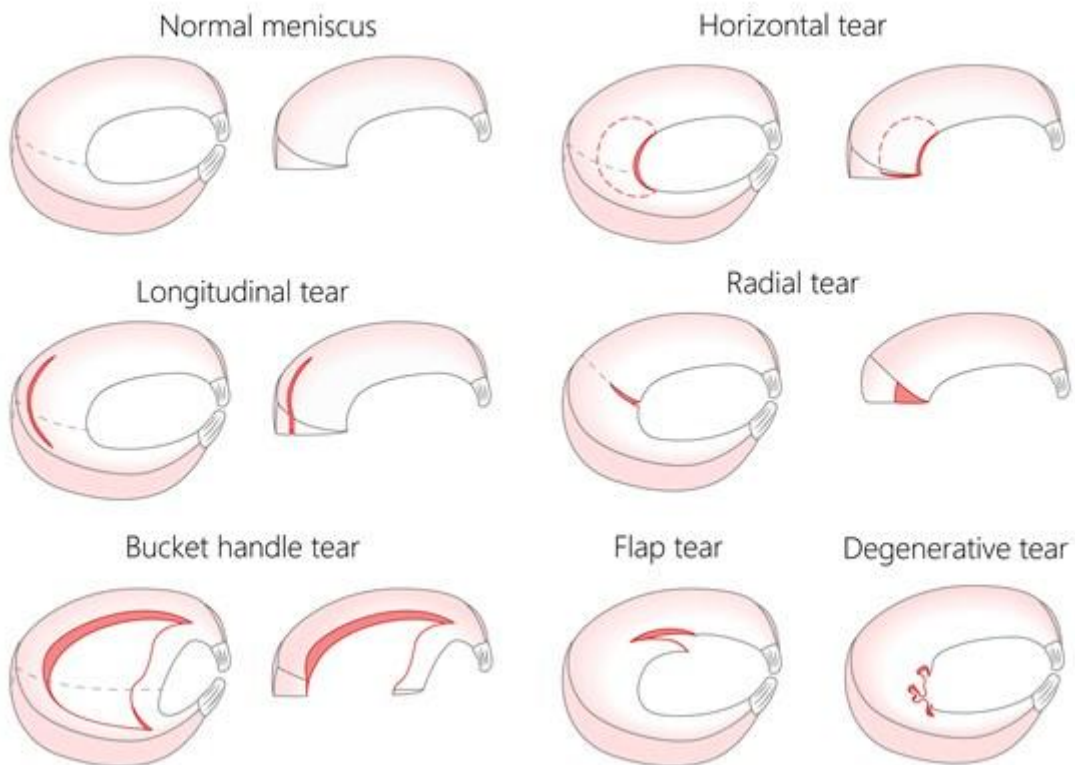
- Shock absorption
- Load Transmission (spreading weight more evenly into the knee joint)
- Increasing knee joint stability
- Joint Lubrication

## What are the Types of Meniscal Injuries?

The menisci are a commonly injured part of the knee joint. There are two types of injury:

- Acute Meniscal tears (due to a specific injury)
- Degenerative Meniscal Tears (not due to a specific injury)

It is important to know the difference between these two types of injuries, because their management is very different.



**Diagram 3: Types of Meniscal Tears**

## Degenerative Meniscal Tears

Some key features are:

- They happen in middle-aged or older people
- There is no specific injury or incident
- They can gradually come on and get worse
- Knee pain that can be difficult to pin point

## **What are the Causes of Degenerative Meniscal Tears?**

There is no one specific cause of degenerative meniscal tears. They are probably an early sign of osteoarthritis (the normal aging process of joints), rather than a completely separate diagnosis.

However, a lot of middle-aged and older people have degenerative meniscal tears without knee pain because changes within the menisci are perfectly normal aged related changes and responses that happen within the knee as we get older.

While there is no one cause, there are a range of contributory factors which may increase the risk of developing degenerative meniscal tears such as:

- Overweight
- Poor exercise fitness
- Weakness in the muscles of the thigh and bottom
- Tightness of the lower limb muscles
- Over-activity

Magnetic Resonance Imaging (MRI) research studies report a 35% prevalence of degenerative meniscal tears in people over 50 years of age.

Most of these meniscal tears are Asymptomatic (meaning that the person has no pain or symptoms) and prevalence is similar in those with and without knee pain (20%vs 25%).

Degenerative Meniscal tears are closely related to tissue aging and is a process in osteoarthritis in the knee.

## **How long will it take to Get Better?**

There are no quick fixes for a degenerative meniscal tear due to the reduced blood flow into the area making healing a slow and gradual process.

However, with exercises and following lifestyle changes you may see some improvements at 3-6 months, although this can take longer depending on the persons overall health and long-term compliance to the advice.

## **Do I need a Scan?**

MRI (Magnetic Resonance Imaging) scans give a very detailed picture of the knee and may form part of the **eventual** investigating process of your knee pain. However as already stated there is poor correlation between MRI findings of degenerative meniscal tears and level of pain experienced by patient. The best way to understand your symptoms is a detail assessment by your physiotherapist, GP or consultant.

Degenerative meniscus tears commonly exist in people without knee pain, so it is important that treatment deals with your contributory factors and not just the picture generated from the MRI scan. It is important to treat the person rather than the picture of the scan because many images show incidental findings.

An MRI scan will only be needed if surgery is being considered and that you have fully exhausted the physiotherapy management and lifestyle changes you need to make. However it is important to note that in middle aged and older people research studies have shown that the outcomes from Arthroscopy surgery (Key hole surgery) on degenerative meniscal tears were no better than those who opted to self-manage.

An Xray can be help to determine whether there is any significant level of Osteoarthritis within the knee. This is important as if this is the case surgery in the form of Arthroscopy (Key hole surgery) is often ineffective in relieving pain in the long term and likely speed the Arthritis process due to loss of the Meniscus. This will often lead to the need for Arthroplasty (knee joint replacement) in the future of the patient.

### **Will I need Surgery?**

From the most up-to-date evidence surgery is not recommended for degenerative tears in the meniscus because the removal of this shock absorber will expose the bone that can eventually increase the risk of osteoarthritis.

Osteoarthritis is common following an Arthroscopy which can potentially lead to the need for Arthroplasty(knee replacement surgery).Therefore, it is suggested that leaving as much of the meniscus as possible will help you knee in the long-term.

However, if there is true 'locking' of the knee following a traumatic injury there may be an acute meniscal tear. Removal of the tissue (known as a meniscectomy) may be indicated. The goal is to improve the function and range of movement of the knee.