



# Philip Bayliss

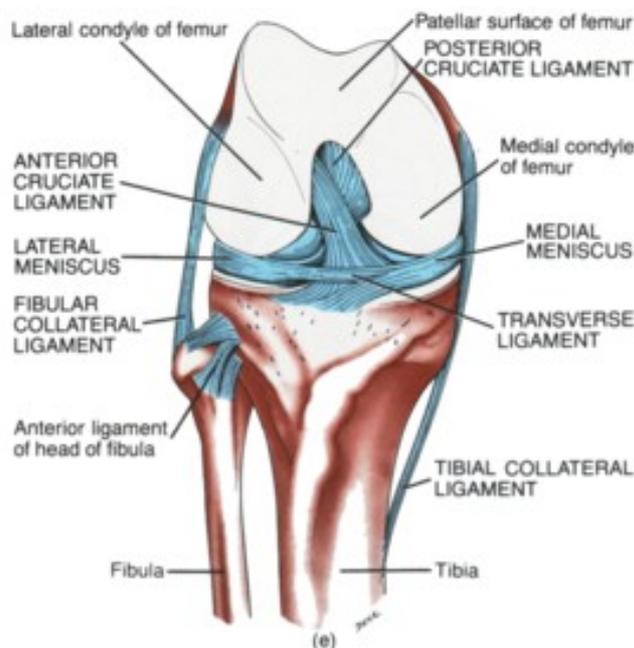
## St Albans Osteopathy

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## Meniscus Tear (Torn Knee Cartilage)

Meniscus tear is another common injury that affects the knee joint. The meniscus are 'C' shaped discs, made of tough cartilage called fibrocartilage. They help to improve the fit between the femur (thigh bone) and the tibia (shin bone) and are important for distributing load and absorbing shock at the knee joint.

### Anatomy of the Knee



There are two meniscus located in the knee joint between the femur (thigh bone) and the tibia (shin bone).

The picture on the right is a front-on view of the bones, tendons and ligaments that make up the right knee. In the middle of the picture there are two round structures called the "Lateral Meniscus" and the "Medial Meniscus." It is this structure that is damaged in a meniscus injury.

### How are the Meniscus Injured?

A meniscus tear is usually the result of either a traumatic incident or degeneration.

Traumatic tears are most common in physically active people under the age of 45, while degenerative tears are more common in the over 40's age group.

The meniscus receive very little blood flow. In fact, most of the meniscus receives no blood flow at all, which makes recovery extremely difficult.

Most traumatic meniscus tears are the result of twisting the knee or a sudden impact to the knee. While degenerative tears are associated with the aging process and result from a breakdown in the collagen fibres that make up the meniscus.

What are the Signs & Symptoms of a Meniscus Tear?

The most common symptoms associated with a meniscus tear are pain and swelling around the knee joint. Tenderness at the injury site is also common.

Another common problem associated with a meniscus tear is 'joint locking.' Joint locking prevents the knee joint from either fully straightening or fully bending and is the result of a piece of the torn cartilage being lodged within the knee joint.

## Meniscus Surgery

Surgery isn't always necessary for a meniscus tear and in some cases the individual can lead a totally normal life without any surgery at all. Your doctor or osteopath can perform a number of tests to help determine the extent of the damage of the torn meniscus. An x-ray and MRI are two common tests used.

If surgery is necessary there are two options: a meniscus repair; or a meniscectomy.

- **Meniscus Repair**

In some cases the meniscus can be repaired with surgery. Surgical repairs are only successful when the tear occurs in the vascular region (where there is blood flow) of the meniscus.

- **Meniscectomy**

If the tear is in a part of the meniscus with no blood supply, (remember that most of the meniscus has no blood supply at all) surgical repair won't be affective. In this case a meniscectomy is performed to remove the torn portion of the meniscus and reform the remaining portion.

After surgery, expect to be on crutches for at least three weeks. Full recovery, using a comprehensive rehabilitation program will generally take about three to four months and athletes involved in high demand sports can be back on the field in about six to eight months.

## Meniscus Injury Prevention

Although it is important to be able to treat meniscus injury, prevention should be your first priority. So what are some of the things you can do to help prevent a meniscus injury?

1. **Warm Up properly**

A good warm up is essential in getting the body ready for any activity. A well-structured warm up will prepare your heart, lungs, muscles, joints and your mind for strenuous activity.

2. **Avoid activities that cause pain**

This is self-explanatory, but try to be aware of activities that cause pain or discomfort, and either avoid them or modify them.

3. **Rest and Recovery**

Rest is very important in helping the soft tissues of the body recover from strenuous activity. Be sure to allow adequate recovery time between workouts or training sessions.

4. **Balancing Exercises**

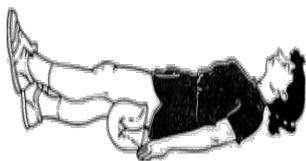
Any activity that challenges your ability to balance, and keep your balance, will help what is called, proprioception: - your body's ability to know where its limbs are at any given time.

5. **Stretching**

To prevent meniscus injury, it is important that the muscles around the knee be in top condition. Be sure to work on the flexibility of all the muscle groups in the leg.

6. **Strengthening**

**Short-arc extensions** are done sitting up or lying down.



Use a rolled-up towel to support your thigh while you keep your leg and foot in the air for 5 seconds. Lower your foot as you bend your knee slowly. Repeat 10 times for each leg, twice a day.

**Straight-leg raises** are done lying down.



Lift your whole lower limb at the hip with the knee extended, and keep it up in the air for 5 seconds. Then lower slowly. Repeat 10 times for each leg, twice a day.

**Quadriceps isometric exercises** are done sitting up, with your legs extended in front of you.



Tighten your quadriceps muscles by pushing the knees down onto the floor. Hold for 5 seconds. Repeat 10 times each leg, twice a day.

**Stationary bicycling** on low tension setting improves your exercise tolerance without stressing your knee. Adjust your seat high enough so that your leg is straight on the down stroke. Start with 15 minutes a day and work up to 30 minutes a day.



#### 7. **Footwear**

Be aware of the importance of good footwear. A good pair of shoes will help to keep your knees stable, provide adequate cushioning, and support your knees and lower leg during the running or walking motion.

#### 8. **Strapping**

Strapping, or taping can provide an added level of support and stability to weak or injured knees.