

# DR. AZIZ BHIMANI

Hip and Knee Surgeon

For all appointments and enquiries please call (02) 4229 9116



**Disclaimer:** This document is an educational resource only and should not be used to make a decision on knee arthroscopy or about arthritis management. All decisions about knee arthroscopy or about arthritis management must be made in conjunction with your surgeon or a licensed healthcare provider.

## Knee Arthroscopy

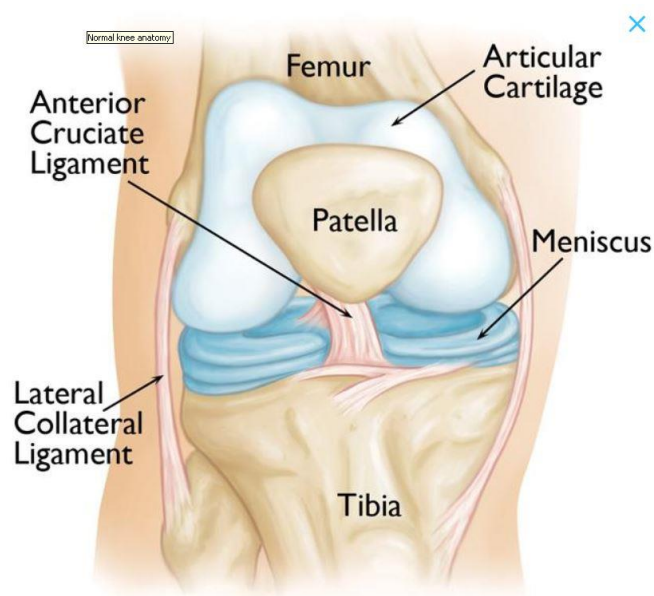
Knee arthroscopy is a surgical procedure that allows Dr Bhimani to view the knee joint without making a large incision (cut) through the skin and other soft tissues. Arthroscopy is used to diagnose and treat a wide range of knee problems.

During knee arthroscopy, Dr Bhimani inserts a small camera, called an arthroscope, into your knee joint. The camera displays pictures on a video monitor, and Dr Bhimani uses these images to guide miniature surgical instruments.

Since the arthroscope and surgical instruments are thin Dr Bhimani can use very small incisions, rather than the larger incision needed for open surgery. This often results in less pain for patients, less joint stiffness, and often shortens the time it takes to recover and return to favourite activities.

### Anatomy

Your knee is the largest joint in your body and one of the most complex. The bones that make up the knee include the lower end of the femur (thighbone), the upper end of the tibia (shinbone), and the patella (kneecap).



Normal anatomy of the knee. Arthroscopy is commonly used to diagnose and treat problems that damage the articular cartilage, ligaments, and other structures around the joint.

Other important structures that make up the knee joint include:

# DR. AZIZ BHIMANI

## Hip and Knee Surgeon

For all appointments and enquiries please call (02) 4229 9116



### Articular cartilage

The ends of the femur and tibia, and the back of the patella are covered with articular cartilage. This slippery substance helps your knee bones glide smoothly across each other as you bend or straighten your leg.

### Synovium

The knee joint is surrounded by a thin lining called synovium. This lining releases a fluid that lubricates the cartilage and reduces friction during movement.

### Meniscus

Two wedge-shaped pieces of meniscal cartilage act as "shock absorbers" between your femur and tibia. Different from articular cartilage, the meniscus is tough and rubbery to help cushion and stabilize the joint.

### Ligaments

Bones are connected to other bones by ligaments. The four main ligaments in your knee act like strong ropes to hold the bones together and keep your knee stable.

- The two collateral ligaments are found on either side of your knee.
- The two cruciate ligaments are found inside your knee joint. They cross each other to form an "X" with the anterior cruciate ligament in front and the posterior cruciate ligament in back.

## When does Dr Bhimani recommend a Knee Arthroscopy?

Dr Bhimani may recommend knee arthroscopy if you have a painful condition that does not respond to non-surgical treatment. Non-surgical treatment includes rest, physical therapy, and medications or injections that can reduce inflammation. Knee arthroscopy may relieve painful symptoms of many problems that damage the cartilage surfaces and other soft tissues surrounding the joint.

Common arthroscopic procedures for the knee include:

- Removal or repair of a torn meniscus
- Reconstruction of a torn anterior cruciate ligament
- Removal of inflamed synovial tissue
- Trimming of damaged articular cartilage
- Removal of loose fragments of bone or cartilage
- Treatment of patella (kneecap) problems
- Treatment of knee sepsis (infection)

### Meniscal Cartilage Tears

Following a twisting type of injury the medial (or lateral) meniscus can tear. This results either from a sporting injury or may occur from a simple twisting injury when getting out of a chair or standing from a squatting position. Our cartilages become a little brittle as we get older and therefore can tear a little easier. The symptoms of a torn cartilage include

- Pain over the torn area i.e. inner or outer side of the knee

# DR. AZIZ BHIMANI

## Hip and Knee Surgeon

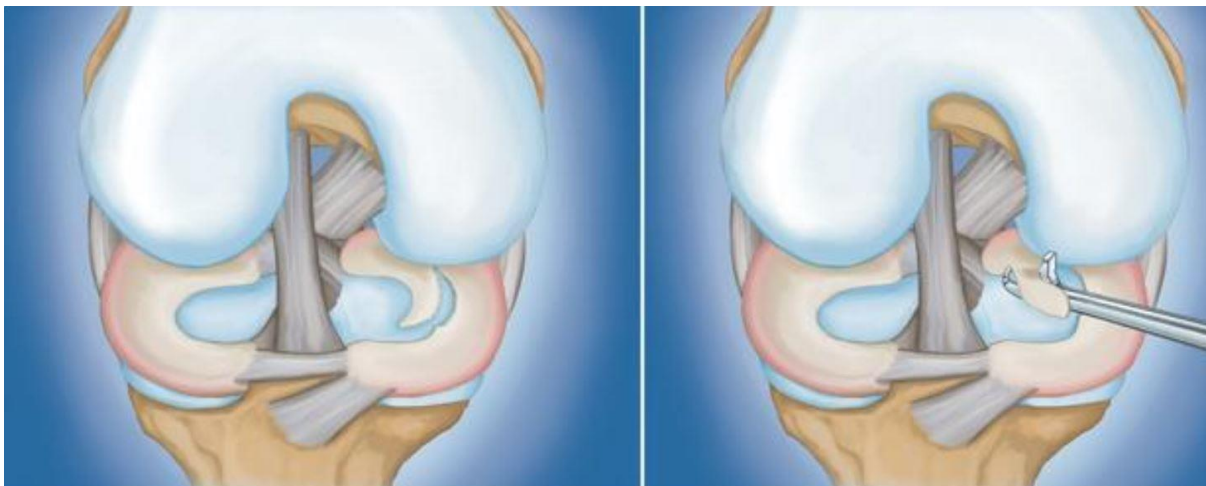


For all appointments and enquiries please call (02) 4229 9116

- Knee swelling
- Reduced motion
- Locking if the cartilage gets caught between the femur and tibia

Once a meniscal cartilage has torn it will not heal unless it is a very small tear that is near the capsule of the joint. Once the cartilage has torn it predisposes the knee to develop osteoarthritis (wear and tear) in 15 to 20 years. It is better to remove torn pieces from the knee if the knee is symptomatic.

Occasionally, provided the knee is stable and the tear is a certain type of tear in a young patient (peripheral bucket handle tear), the meniscus may be suitable for repair. If repaired, one has to avoid sports for a minimum of three months.



**(Left)** A large meniscal tear called a "flap" tear.

**(Right)** Arthroscopic removal of the damaged meniscal tissue.

### Articular Cartilage (Surface) Injury

If the surface cartilage is torn, this is most significant as a major shock-absorbing function is compromised. Large pieces of articular cartilage can float in the knee (sometimes with bone attached) and this causes locking of the joint and can cause further deterioration due to the loose bodies floating around the knee causing further wear and tear. Most surface cartilage wear will ultimately lead to osteoarthritis. Mechanical symptoms of pain and swelling due to cartilage peeling off can be helped with arthroscopic surgery. The surgery smooths the edges of the surface cartilage and removes loose bodies.

### Anterior Cruciate Ligament Injuries

Rupture of the Anterior (rarely the posterior) Cruciate Ligament (ACL) is a common sporting injury. Once ruptured the ACL does not heal and usually causes knee instability and the inability to return to normal sporting activities. An ACL reconstruction is required and a new ligament is fashioned to replace the ruptured ligament. This procedure is performed using the arthroscope.

# DR. AZIZ BHIMANI

## Hip and Knee Surgeon

For all appointments and enquiries please call (02) 4229 9116



### Patella (knee-cap) Disorders

The arthroscope can be used to treat problems relating to kneecap disorders, particularly mal-tracking and significant surface cartilage tears. Patients may need to stay overnight if a lateral release has been performed as knee swelling is quite common. The majority of common kneecap problems can be treated with physical therapy and rehabilitation.

### Inflammatory Arthritis

Occasionally arthroscopy is used in inflammatory conditions (e.g. Rheumatoid Arthritis) to help reduce the amount of inflamed synovium (joint lining) that is producing excess joint fluid. This procedure is called a synovectomy. After the surgery a drain is inserted into the knee and patients generally require one or two nights in hospital.

### Bakers Cysts

Bakers cysts or popliteal cysts are often found on clinical examination and ultrasound / MRI scan. The cyst is a fluid filled cavity behind the knee and in adults arises from a torn meniscus or worn articular cartilage in the knee. These cysts usually do not require removal as treating the cause (torn knee cartilage) will in most cases reduce the size of the cyst. Occasionally the cysts rupture and can cause calf pain. The cysts are not dangerous and do not require treatment if the knee is asymptomatic.

## Preparing for Surgery

### Evaluations and Tests

Dr Bhimani may recommend that you see your primary doctor to assess your general health before your surgery. He or she will identify any problems that may interfere with the procedure. If you have certain health risks, a more extensive evaluation may be necessary before your surgery.

To help plan your procedure, Dr Bhimani may order preoperative tests. These may include blood tests or an electrocardiogram (EKG).

### Admissions Instructions

If you are generally healthy, your knee arthroscopy will most likely be performed as an outpatient. This means you will not need to stay overnight at the hospital.

Be sure to inform Dr Bhimani of any medications or supplements that you take. You may need to stop taking some of these before surgery.

The hospital or surgery centre will contact you ahead of time to provide specific details of your procedure. Make sure to follow the instructions on when to arrive and especially on when to stop eating or drinking prior to your procedure.

### Anesthesia

Before your surgery, a member of the anesthesia team will talk with you. Knee arthroscopy can be performed under local, regional, or general anesthesia:

# DR. AZIZ BHIMANI

Hip and Knee Surgeon

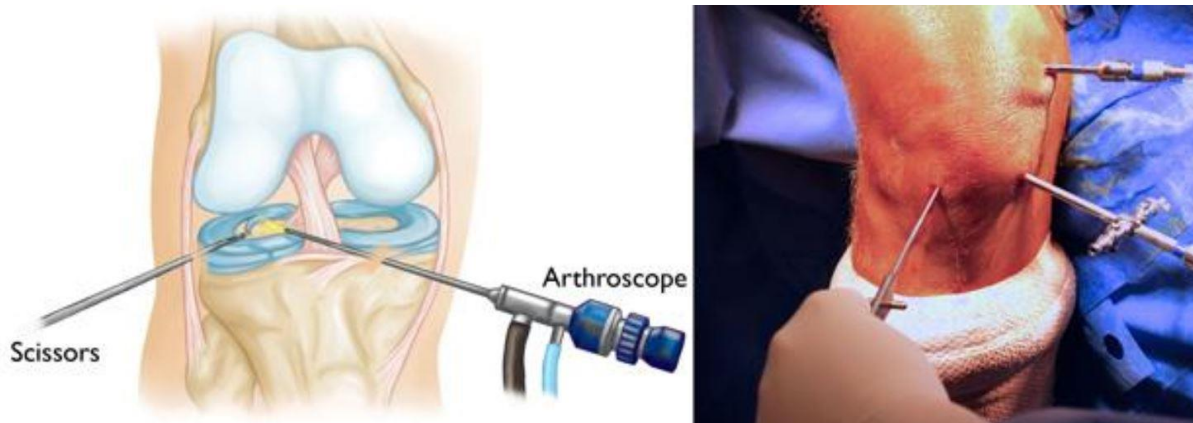


For all appointments and enquiries please call (02) 4229 9116

- Local anesthesia numbs just your knee
- Regional anesthesia numbs you below the waist
- General anesthesia puts you to sleep

Dr Bhimani and your anaesthesiologist will talk to you about which method is best for you.

## Surgical Procedure



Your surgeon will insert the arthroscope and surgical instruments through small incisions called "portals."

Once you are moved into the operating room, you will be given anesthesia. To help prevent surgical site infection, the skin on your knee will be cleaned. Your leg will be covered with surgical draping that exposes the prepared incision site.

At this point, a positioning device is sometimes placed on the leg to help stabilize the knee while the arthroscopic procedure takes place.

Dr Bhimani's first task is to properly diagnose your problem. Dr Bhimani will insert the arthroscope and use the image projected on the screen to guide it.

Specialised instruments are used for tasks like shaving, cutting, grasping, and meniscal repair.

Most knee arthroscopy procedures last less than an hour. The length of the surgery will depend upon the findings and the treatment necessary. A soft bandage will protect your incisions while they heal. Dr Bhimani may close each incision with a stitch or steri-strips (small bandaids), and then cover your knee with a soft bandage.

## Complications

The complication rate after arthroscopic surgery is very low. If complications occur, they are usually minor and are treated easily. Possible postoperative problems with knee arthroscopy include:

- Infection
- Blood clots

# DR. AZIZ BHIMANI

## Hip and Knee Surgeon



For all appointments and enquiries please call (02) 4229 9116

- Knee stiffness
- Accumulation of blood in the knee

### Recovery

After surgery, you will be moved to the recovery room and should be able to go home within 1 or 2 hours. Be sure to have someone with you to drive you home and check on you that first evening.

While recovery from knee arthroscopy is faster than recovery from traditional open knee surgery, it is important to follow Dr Bhimani's instructions after you return home.

### Pain Management

After surgery, you will feel some pain. This is a natural part of the healing process. Dr Bhimani and nurses will work to reduce your pain, which can help you recover from surgery faster. Treating pain with medication can help you feel more comfortable, which will help your body heal and recover from surgery faster.

### Medications

In addition to medicines for pain relief, Dr Bhimani may also recommend medication such as aspirin to lessen the risk of blood clots.

### Swelling

Keep your leg elevated as much as possible for the first few days after surgery. Apply ice as recommended by Dr Bhimani to relieve swelling and pain.

### Dressing Care

You will leave the hospital with a dressing covering your knee. Keep your incisions clean and dry. Dr Bhimani will tell you when you can shower or bathe, and when you should change the dressing.

### Bearing Weight

Most patients need crutches or other assistance after arthroscopic surgery. Dr Bhimani will tell you when it is safe to put weight on your foot and leg. If you have any questions about bearing weight, call Dr Bhimani.

### Rehabilitation Exercise

You should exercise your knee regularly for several weeks after surgery. This will restore motion and strengthen the muscles of your leg and knee. Therapeutic exercise will play an important role in how well you recover. A formal physical therapy program may improve your final result.

### Driving

Dr Bhimani will discuss with you when you may drive. Typically, patients are able to drive from 1 to 3 weeks after the procedure.



# DR. AZIZ BHIMANI

Hip and Knee Surgeon

For all appointments and enquiries please call (02) 4229 9116



## Outcome

Many people return to full, unrestricted activities after arthroscopy. Your recovery will depend on the type of damage that was present in your knee.

Unless you have had a ligament reconstruction, you should be able to return to most physical activities after 6 to 8 weeks, or sometimes much sooner. Higher impact activities may need to be avoided for a longer time.

If your job involves heavy work, it may be longer before you can return to your job. Discuss when you can safely return to work with Dr Bhimani.

For some people, lifestyle changes are necessary to protect the joint. An example might be changing from high impact exercise (such as running) to lower impact activities (such as swimming or cycling). These are decisions you will make with the guidance of Dr Bhimani.

The vast majority of Dr Bhimani's patients who undergo arthroscopic surgery experience highly favourable long-term outcomes, however the damage to your knee can be severe enough that it cannot be completely reversed with surgery.

While surgery is not a pleasant prospect for anyone, for some people with ongoing debilitating issues, surgery can mean the difference between leading a happier normal life. Dr Bhimani believes that surgery should only be considered once non-operative treatment has failed, and that the decision to have surgery should be a considered one. It is important you understand these potential complications and if you have any questions to speak with Dr Bhimani. If you are undecided, it is best to wait until you are sure this is the procedure for you.

## Frequently asked questions

### How long am I in the Hospital?

A: Approximately 4 hours

### Do I need crutches?

A: Usually not required (Unless you are having Anterior Cruciate Ligament Reconstruction)

### When can I get the knee wet?

A: After 24 hrs remove the bandage and apply a waterproof dressing.

### When can I drive?

A: After 24 hrs if the knee is comfortable.

### When can I return to work?

A: When the knee feels reasonably comfortable.

### When can I swim?

A: After removal of the stitches.

# DR. AZIZ BHIMANI

Hip and Knee Surgeon

For all appointments and enquiries please call (02) 4229 9116

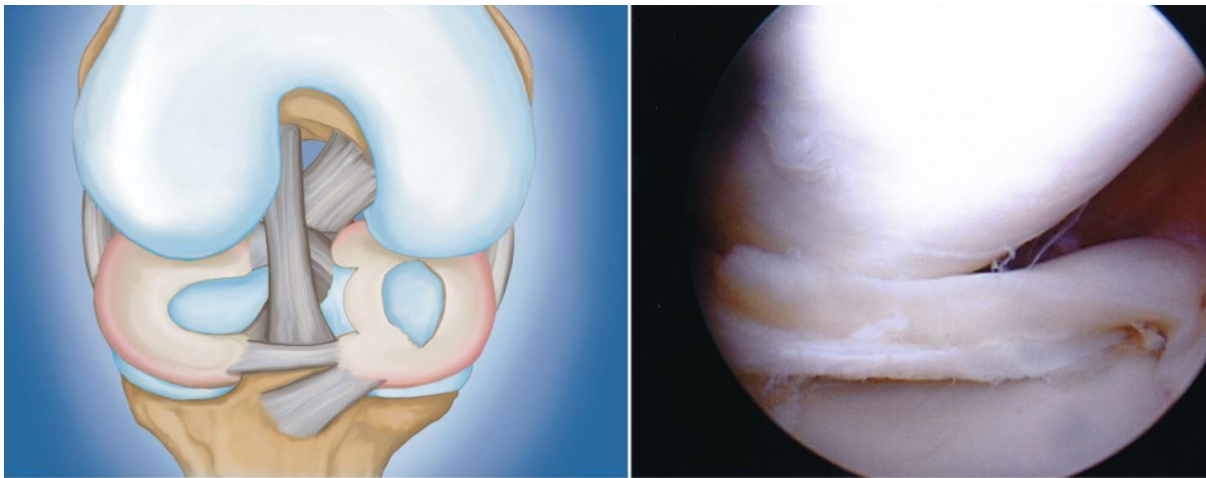


## How long will my knee take to recover?

A: return Depending on the findings and surgery, usually 4 to 6 weeks following the surgery.

## When Can I to Sports?

A: Depending on the findings, 4-6 weeks after surgery.



**(Left)** A common type of meniscal tear is a "bucket handle" tear.

**(Right)** A photo of a bucket handle tear taken through an arthroscope.