KNEE

Arthroscopy, Repair & Reconstruction

A Guide to Your Surgery

What is arthroscopic ('key-hole') surgery?

Key-hole surgery is the technique of performing surgery through small (0.5-2cm) incisions rather than the larger incisions of conventional 'open' surgery. On occasion, these incisions must be extended to safely perform your surgery. The operation uses cameras to see inside knee joint so that Professor Moran can carry out the necessary procedure. The advantages of key-hole surgery can include less pain after the operation, smaller scars, lower risk of complications and a faster return to normal activities. Professor Moran has completed extended specialist training in arthroscopic and sports surgery of this nature.

Why do I need the surgery?

There are many conditions that may potentially require surgery. Prior to booking surgery, Professor Moran will explain your diagnosis, the reasons for doing surgery as well as any alternatives. Whilst occasionally arthroscopy is used to help with the investigation of a knee condition, the provisional diagnosis has usually been made by pre-operative examination and investigations. The conditions commonly treated by knee arthroscopy include:

- Cartilage Injury
- Meniscus Tear
- ACL Injury and/or Injury to Other Ligaments
- Patella Instability
- Synovitis and Arthritis

What exercises should I be doing prior to my operation?

If appropriate, you will have undergone a course of physiotherapy prior to being seen by Professor Moran or being listed for surgery. Unless indicated otherwise by Professor Moran, please simply continue with your exercises as directed by your physiotherapist. Rehabilitation is a key aspect of our treatment programmes.

What happens on the day of surgery?

You will have received a letter from our admissions team in advance of your procedure date, explaining which ward to attend and at what time. You will have been asked not to eat or drink anything for at least 6 hours prior to your admission time. Please be aware that the operating lists often last all day. There will be several other patients on the same list and we are unable to guarantee what time of day you will have your operation.

You will be admitted by the medical and nursing staff on the ward to which you are directed. They will perform measurements such as your pulse rate and blood pressure. The medical team will ensure you have signed a consent form and mark the knee you are being operated on with an arrow. Professor Moran will meet with you in the operating suite / anesthetic room and will review this with you. In the anaesthetic room you will also see your anaesthetist who will ensure you are fit for the anaesthetic and discuss anaesthetic options with you.

If you become unwell, or have any new illness (e.g flu, vomiting etc.) in the days before surgery, please contact our office as soon as you can.

Will I be asleep during surgery?

Knee arthroscopy and related procedures are carried out under a general anaesthetic, meaning you will be asleep. The anaesthetic may on occasion be supplemented by injections to the knee joint. This can be helpful for controlling pain after the operation, but is not always possible or suitable. Your anaesthetist will discuss the anaesthetic with you on the day of your surgery.

What will the operation involve?

Once under anaesthetic your knee will be re-examined. You will have between two and four (or more) small incisions made at the back, side and front of the knee. Sometimes additional incisions need to be made. Your knee is then filled with fluid. An instrument known as an arthroscope is passed into the knee. This contains the camera which allows Professor Moran to look around your knee. Other specialised instruments will also be used to carry out your surgical procedure. Further details of this can be found in the specific conditions section of this leaflet. The small keyhole incisions often do not usually require stitches, but heal on their own. However stitches may also be applied. You will have a dressing applied and a brace if appropriate. Most people will not require a brace. On occasion, it will not be possible to complete the repair of damaged structures through a keyhole incision. In this case an open incision will be used by Professor Moran to complete your repair to achieve the best possible outcome. Additional stitches will be required in this case.

How long will I be in hospital?

The majority of knee arthroscopies are performed as day-case procedures, meaning you will go home the same day. This is usually by the early evening, but this will depend on the time of your operation. More complicated knee surgery (e.g. ACL reconstruction, cartilage reconstruction) requires overnight admission. You will not be able to drive immediately after your surgery, even in situations where you go home the same day. For your safety, you must have someone collect you and look after you during the first 24 hours of your arrival home following surgery.

What can I expect after my operation?

You will have a dressing as described. In the hours after key-hole surgery to the knee, it is possible that you will experience some blood-stained discharge from the incision sites. Your dressings will therefore usually be changed on the ward prior to your discharge. Professor Moran or a member of his medical team will review you before being discharged from the hospital. In many cases, you will also be seen by a physiotherapist after your operation & be given specific exercises to perform.

If required, you will be given painkillers to take home with you. It is important that you start to take these at the prescribed times as soon as you get home in order to keep your pain controlled and to maximize the benefits of your surgery. After discharge, you will be provided with specific rehabilitation guidelines for your physiotherapist. Your rehabilitation programme will depend on exactly what was found and done during your operation.

Depending on the procedure performed, Professor Moran will review you at his private rooms between 2 and 6 weeks following surgery.

PLEASE NOTE: PHYSIOTHERAPY AND REHABILITATION

Rehabilitation is essential to achieving the best possible outcome for your knee condition. It is also vital to regaining motion, strength and function of the knee after surgery. We will work closely with your local physiotherapist, and provide rehabilitation guidelines in this regard. You must arrange a post-operative appointment with your physiotherapist and share these rehabilitation guidelines with them. The exact programme is dependent on your condition and will be discussed again with you by Professor Moran and his team. For those patients who do not have a physiotherapist, we can help you find one suitable for you.

Will the surgery definitely make my knee better?

No surgery is guaranteed to cure a condition. The outcome rates vary depending on the specific injury or condition you presented with, the duration of symptoms, where and how and injury occurred, any other medical conditions you may have, and finally the precise surgical procedure you have had. Usually (but not always) in knee surgery, many patients will be 75% better 3-4 months after surgery and will continue to improve for up to 12-18 months after surgery. This is quicker for the more minor procedures and longer for the major procedures. Overall we expect eight-out-of-ten of our patients to have a good-to-excellent outcome at 12-18 months.

What are the potential risks of surgery?

Any surgical procedure carries certain risks that could potentially harm you. These are uncommon in knee arthroscopy, but can occur in any patient. Again the specific risks differ according to the particular surgery you will be having, but the overall risks we would like to warn you of include:

- Infection
- Bleeding
- Change to Knee Stiffness and/or Pain
  (this occurs to some degree in up to 10% of cases)
- Failure/Recurrence
- Injury to Blood Vessels or Nerves (including permanent nerve damage)
- DVT (clot), Cardiac (heart) or Respiratory (Lung) Complications
- Numbness
- Fractures of bones affected by the surgery

You will be required to sign a Consent Form indicating that you are aware of these risks.

When can I return to driving, work and sport ?

This depends on the procedure and your occupation but the chart on this page may be used for an initial estimate:

	Debridement Procedures Knee Arthroscopy Cartilage and/or Meniscus Debridement	Repair Procedures ACL Reconstruction Cartilage Reconstruction/Repair Ligament Repair
Driving	Usually within 2-3 weeks post surgery When pain allows sufficient control of steering wheel and to perform emergency stop.	Usually 6-10 weeks post-surgery When pain allows sufficientcontrol of steering wheel and to perform emergency stop.
Return to Work	As pain allows: (a) Sedentary/Office Work – usually within 1-2 weeks (b) Manual Work - usually within 6 weeks	Sedentary/Office Work – usually within 6 weeks Manual Work - usually within 3 months
Return to Sport	Swimming: 2-3weeks Golf: 6 weeks Contact Sports: 6 weeks	Swimming: 6-12 weeks Golf: 3-6 months Contact Sports: 8 -12 months

Specific arthroscopic conditions and procedures:

Cartilage and/or Meniscus Debridement

Cartilage and the meniscus of the knee provide the soft rubbery bumper cushion that sits between the thigh bone and the leg bone. Injuries to these structures are quite common and occur in patients of all ages. An injury can occur as a result of squatting, turning or twisting during almost any activity. Once damaged, symptoms like locking, clicking and catching may occur. In addition, patients will frequently notice swelling in the knee. The pain is often localised along the joint line on the inside or the outside of the knee depending on the injury. The diagnosis is made based upon a history and physical exam and frequently special tests. Symptomatic injuries usually ultimately require treatment if they interfere with activities of daily living or sports and recreation activities. 90% of the time, the appropriate treatment is arthroscopy to remove the torn fragments. This is typically very successful in decreasing symptoms and allowing patients to return to their normal activities. The fact that the patient has damaged cartilage or meniscus may increase their risk of arthritis over the next 15 to 20 years. It is important to note however that removing the torn fragments does not increase this risk, but may be an important aspect in improving the symptoms arising from the damaged cartilage or tear.

Recovery from an arthroscopy in fit and active patients is usually relatively short. It is a minimally invasive outpatient surgery with typically 2 to 3 small puncture wounds to perform the surgery. You will typically be weight bearing as tolerated, but may need to use crutches for a few days following the surgery. Swelling typically improves during the first week. Patients with sedentary jobs can return within one to two days. More physical labourers may require a longer period off work. Patients typically return to sports or exercise by 4 to 6 weeks following a period of physiotherapy.

ACL (Anterior Cruciate Ligament Reconstruction)

ACL reconstruction is surgery to replace a torn anterior cruciate ligament (ACL) — one of the major ligaments in your knee. ACL injuries most commonly occur during sports that involve sudden stops and changes in direction — such as gaelic games, rugby, basketball, soccer, football, tennis, downhill skiing, volleyball and gymnastics. In an ACL reconstruction, the torn ligament is removed and replaced with a piece of tendon from another part of your knee (hamstring or patella tendon) or from a deceased donor. This surgery is a procedure that is performed through small incisions around your knee joint. Professor Moran and his colleagues perform many ACL reconstructions annually and continue to analyse their research to ensure the best possible outcomes for patients with this injury. The details of your ACL Reconstruction will be covered with you by Professor Moran and his team.

Cartilage Reconstruction

Though the various articular cartilage procedures differ in the technologies and surgical techniques used, they all share the aim to repair articular cartilage whilst keeping options open for alternative treatments in the future. Common procedures performed by Professor Moran include:
(a) MarrowStimulation/ Microfracture and (b) Osteochondral Autograft Transfer (OATS). Professor Moran and his colleagues at Trinity College Dublin, Royal College of Surgeons

in Ireland and related institutes participate in international clinical trials in this area. Further information is available at www.cartilage.ie

Patella Stabilisation

Recurrent patella dislocation is an uncommon but disabling condition usually treated by surgery to stabilise the kneecap. Most patients are suitable for soft tissue surgery designed to recreate the injured ligament that tethers the inside of the kneecap to the inside of the thigh bone. This ligament, called the medial patellofemoral ligament, is usually reconstructed using hamstring tendon harvested from your own knee. The procedure involves a combination of keyhole and open techniques.

Ligament Reconstruction

In addition the care of ACL injuries described above, Medial Collateral Ligament (MCL) and Lateral Collateral Ligament (LCL) injuries of the knee are also common. In fact, injury to the MCL is the most common ligamentous knee injury. Grade 1 and 2 sprains are routinely treated non-operatively. They may be braced with a knee sleeve or a double-upright hinged knee orthosis, individualised to the patient's discomfort. Crutches are only necessary for a few days. These injuries represent incomplete tears and allow for a faster return to activities. Historically, grade 3 tears were treated with surgery, but are now routinely treated non-operatively. Bracing with a hinged knee orthosis for a number of weeks is often recommended, alongside physiotherapy/rehabilitation. Persistent instability and laxity may require surgical treatment. Surgery is often also required in the case of severe LCL or multi-ligament knee injuries. The procedure involves a combination of keyhole and open techniques.

DISCHARGE INSTRUCTIONS AND PRECAUTIONS

You will be provided with further discharge instruction before you leave the hospital.

In the event of an emergency, please contact our office/the hospital and/or your GP. If your problem occurs out of hours, please contact your local A&E Department.

Please also make contact if;

- **Severe pain persists / worsens in the initial few days to weeks after surgery**
- **You notice excessive redness / heat around the wounds and surrounding area**
- **You notice any excessive oozing of the wounds**
- **You have a temperature > 38.5°**
- **You have excessive pain/swelling/numbness or weakness in your lower leg / foot.**

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