

## Knee arthroscopy

### What is arthroscopy?

It is the minimally invasive, precise, finesse surgical procedure that enables the diagnosis and treatment of intra-articular injuries (e.g. knee) and that involves a shorter hospitalisation and recovery period than classic procedures.

The arthroscope is a tube consisting of an ensemble of lenses and optic fibres. At the end of this tube there is a mini camera that transfers enlarged images from the interior of the joint (e.g. the knee or the shoulder) to a monitor.

### Anatomy of the knee

In general, joints are made up of all the elements that join bones. The knee is the largest joint in the human body and it consists of:

- Joint surfaces covered in cartilage: the distal head of the femur (epiphysis); the proximal head of the tibia and the posterior surface of the patella (knee cap)
- Means of joining: the capsule and the ligaments (medial and lateral collateral, anterior and posterior cruciate, patellar etc.)
- Medial and lateral menisci located between joint surfaces.

### Knee disorders that can be treated with arthroscopy

- Meniscal injuries – the medial and lateral menisci - can be posttraumatic or degenerative. They manifest through moderate or severe pain, tumefaction and joint blockages. The symptoms of meniscal injuries can have spontaneous remissions, but usually they persist and need treatment.
- Anterior and posterior cruciate ligament injuries. They appear after trauma that occurred during sports activities, falling or slipping. The knee tumefies (swells), hurts and has limited movement. In a few weeks these symptoms disappear, but the knee remains unstable with torsion movements or when changing the direction.
- These types of injuries need ligament reconstruction – ligamentoplasty – a more complex procedure, with a longer recovery period (sports activities can restart 3-6 month after surgery).
- Gonarthrosis is characterised by the degenerative injury of the cartilages, the inflammation of the synovium, but it can also be followed by degenerative meniscal injuries. Through arthroscopy we can “clean” the knee; this procedure is called debridement and it consists of smoothing the cartilage injuries, eliminating the separate cartilage fragments (intra-articular loose bodies) and removing the osteophytes.
- Intra-articular loose bodies are osteocartilaginous fragments that float inside the knee. They manifest through blockages, pain and snaps. They can be removed arthroscopically from inside the knee.
- Osteochondritis dissecans – well delimited osteocartilaginous injury that is present in young people. The symptoms of this condition consist of pain that is accentuated during effort (walking, prolonged support), sometimes it also consists of tumefying and a sensation of instability. Depending on the stage in which it is discovered, it can be treated through:
  1. Drilling
  2. Cannulated screw fixation

3. Filling the defects with osteocartilaginous grafts harvested from non-bearing areas of the joint surface (mosaicplasty)
- Patella disorders: chondromalacia, patellar instability.

### **The surgery**

The surgery is performed in an adequately equipped operating room, since it involves anaesthesia. The anaesthetic method is established during the pre-anaesthetic exam.

The knee is usually accessed through 2 incisions, under 1 cm. Through one of the incisions, we introduce the arthroscope and through the other, we introduce the instruments needed to fix the intra-articular injuries. For ligament reconstruction, CLINICCO uses implantable materials (various types of resorbable and biocomposite screws) make Arthrex.

### **Risks of arthroscopy**

The risks can be related either to the anaesthesia or to the surgery itself.

Even though these risks occur rarely, they still need to be mentioned: infection, profound vein thrombosis that can be treated prophylactically (anticoagulation medicines, antibiotics), which decreases its rate of occurrence, muscle weakness, discomfort.

### **Recovery**

The recovery period varies depending on the case, the diagnosis, the patient's age and degree of receptiveness etc. The recovery period is usually short and the patient is able to walk starting on the day of the surgery or on the following day. Kinesiotherapy can help you recover your knee mobility and muscle strength. Throughout the hospitalisation period, CLINICCO patients benefit from the support of a kinesiotherapist. After discharge, the complete recovery program can be done at [CLINICCO centre for medical and sports recovery](#).

For more information about the anatomy of the knee, surgery techniques and recovery, please access Arthrex's website that is dedicated to the patients: [www.orthoillustrated.com](http://www.orthoillustrated.com).

### **Bear in mind!**

If feel pain and your knee tumefies and you need to limp or suffer a joint blockage after some trauma during sports activities, car accidents, or fallings, it is recommended that you see an orthopaedist, who will determine the adequate method of treatment. If your condition requires an arthroscopy, please note that this is not a very traumatic surgical intervention, it has minimal risks and it allows quick recovery.

If you ignore the symptoms and you do not see a physician, simple disorders can have serious consequences that might cause major illnesses.