Othopaedic Procedure Knee Arthroscopy

1. What is knee arthroscopy?

Knee arthroscopy is a minimally invasive surgical procedure that allows orthopedic surgeons to visualise, diagnose, and treat various knee joint conditions using a specialised instrument called an arthroscope. The arthroscope is a thin, flexible tube equipped with a camera and light source, enabling the surgeon to examine the knee joint's interior on a screen. This procedure is commonly used for diagnostic and therapeutic purposes.

2. Causes and symptoms

- **Causes:** Knee arthroscopy is recommended for a range of knee conditions. Some common causes include meniscus tears, torn ligaments (such as the anterior cruciate ligament or ACL), cartilage damage, synovitis (inflammation of the synovial membrane), and loose fragments within the joint. These conditions can result from sports injuries, trauma, overuse, or degenerative changes in the knee joint.
- **Symptoms:** Symptoms of knee problems that may lead to arthroscopy include pain, swelling, stiffness, and limited range of motion. Patients may also experience instability, locking, or popping sensations within the knee joint. These symptoms can significantly affect an individual's mobility and quality of life.

3. Treatment and surgical approaches

- **Treatment:** Knee arthroscopy can serve both diagnostic and therapeutic purposes. The surgeon can identify the specific issue within the knee joint and address it during the same procedure. This approach allows for targeted treatment and potentially faster recovery.
- Surgical approaches: Knee arthroscopy is performed under local or general anaesthesia. The surgeon makes small incisions around the knee and inserts the arthroscope to visualise the joint's interior. Depending on the diagnosis, the surgeon may perform various procedures, such as:
 - 1. Meniscus repair: In cases of meniscus tears, the surgeon can trim or repair the damaged tissue.
 - 2. ACL reconstruction: For ACL tears, a graft is used to reconstruct the ligament.
 - **3.** Cartilage procedures: Cartilage defects can be addressed through procedures like microfracture, cartilage grafting, or autologous chondrocyte implantation (ACI).
 - **4. Synovectomy:** In cases of synovitis, the inflamed synovial lining is removed. After the procedure, the incisions are closed with stitches or adhesive strips.

Continued overleaf.

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4. What are the potential risks?

Knee arthroscopy is generally considered a safe procedure, but there are potential risks involved, including infection, bleeding, blood clots, and nerve or blood vessel damage. Complications such as stiffness, continued pain, or scar tissue formation can occur. It's crucial for patients to follow post-operative instructions to minimise these risks.

5. What happens after?

Recovery after knee arthroscopy can vary depending on the specific procedure performed and the individual's condition. In most cases, patients can bear weight on the operated knee immediately or within a few days. Physical therapy is often recommended to improve strength and range of motion. Pain and swelling can be managed with prescribed medications and rest.

Patients should closely follow the surgeon's instructions for post-operative care, including wound care and rehabilitation exercises. Gradual return to normal activities and sports is typically possible, but the timeline varies by individual and the nature of the knee condition.

Knee arthroscopy is considered a less invasive alternative to open knee surgery, offering the advantage of quicker recovery and reduced scarring. Patients can expect improved knee function and relief from the symptoms that prompted the procedure, ultimately enhancing their quality of life.