

What Disorders or Situations is Arthroscopy Procedures Used for?

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Arthroscopy is a surgical procedure that involves utilising tubelike viewing equipment called an arthroscopy to inspect the interior structure of a joint for diagnosis and/or treatment. Arthroscopy became popular in the 1960s with the introduction of fibrotic technologies, and it is currently used all over the world. It is usually done in an outpatient setting by orthopaedic surgeons. Patients can usually return home the same day as the procedure if it is done in an outpatient environment [1].

Arthroscopy is a procedure that includes inserting a thin tube containing optical fibres and lenses into the joint to be inspected through tiny incisions in the skin. The arthroscopy is linked to a video camera, which displays the interior of the joint on a television monitor. The arthroscopy's size is determined by the size of the joint being examined [2]. An arthroscopy with a diameter of around 5 millimetres, for example, is used to inspect the knee. Arthroscopic as small as 0.5 millimetres in diameter are available for examining minor joints like the wrist.

Arthroscopic surgery is when operations are conducted in conjunction to an arthroscopy examination of the joint. A variety of treatments are carried out in this manner. When a surgery can be performed arthroscopically rather than using traditional surgical techniques, it usually results in less tissue trauma, less pain, and a faster recovery [3].

Many non-inflammatory, inflammatory, and viral kinds of arthritis, as well as numerous traumas within the joint, can be diagnosed and treated by arthroscopy [4].

The arthroscopy can reveal torn and uneven cartilage in no inflammatory degenerative arthritis, or osteoarthritis. A new approach uses a "paste" of the patient's own cartilage cells to treat younger individuals with an isolated injury to the cartilage covering the bone ends within a joint [5]. The cells are extracted and cultured in the lab before being re implanted in the knee using an arthroscopy at a later date.

Some patients with isolated chronic joint swelling in inflammatory arthritis, such as rheumatoid arthritis, may benefit from arthroscopic excision of the inflamed joint tissue (synovectomy). Biopsies of the tissue lining the joint (synovium) can be taken and analysed under a microscope to figure out what's causing the inflammation and to look for diseases like tuberculosis [6]. Arthroscopy can provide more information in circumstances where aspirating (drawing fluid with a syringe) and analysing joint fluid is not enough.

Cartilage tears (meniscus tears), ligament strains and rips, and cartilage degradation beneath the kneecap are all common knee joint ailments for which arthroscopy is explored (patella). Arthroscopy is most typically used to evaluate and treat knees and shoulders, but it can also be used to examine and treat hips, wrists, ankles, foot, spine, and elbows [7].

Finally, arthroscopy can be used to remove loose tissues such as bone chips or cartilage chips, as well as foreign things such as plant thorns or needles that have been lodged within the joint.

The five most common reasons for knee arthroscopy include

Torn meniscus

The meniscus is a piece of cartilage in the knee, made up of collagen fibres that run in opposite directions. Each knee has two meniscal pads that are shaped like crescents, surrounded by tendons and soft tissues. When the meniscus is torn, the ability to easily repair the damage depends to a large extent on the location and the shape of the tear. Small tears sometimes heal without intervention; at other times, the repair can be challenging, particularly when caused by degenerative conditions. Arthroscopic surgery has revolutionized meniscal tear treatment. Typically performed on an outpatient basis and under local anaesthesia, post-operative pain is lessened and patients generally are able to resume normal activity within a few weeks, even though rehabilitative therapy is usually a part of the recovery process [8].

Removal of bone or cartilage fragments

Arthroscopic surgery is often the treatment of choice to clear a joint of bone, cartilage and tissue fragments that accumulate as a result of injuries, inflammation and tissue tears. With a trained orthopaedic specialist, the procedure is a simple one. Debris left floating free in the joint area can result in pain, swelling and locking [9].

Swollen synovium

The synovium is a membrane that functions to lubricate and nourish knee and shoulder joints. It creates synovial fluid, but the membrane itself is distinguished by irregular folds and it can become painfully inflamed. When this happens, the surgeon can insert an arthroscope to facilitate removal of the tissue that is causing the pain and swelling. It is a minimally invasive procedure that promises fast relief and requires little recovery time [10].

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Conflict of Interest

None

References

 Millar NL, Wu X, Tantau R, Silverstone E, Murrell GA (2009) Open versus two forms of arthroscopic rotator cuff repair. Clin Orthop Relat Res 467(4): 966-978.

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- Siemieniuk RA, Harris IA, Agoritsas T, Poolman RW, Brignardello-Petersen R, et al., (2017) Arthroscopic surgery for degenerative knee arthritis and meniscal tears: a clinical practice guideline. Bmj 357.
- Jameson SS, Dowen D, James P, Serrano-Pedraza I, Reed MR, et al., (2011) The burden of arthroscopy of the knee: a contemporary analysis of data from the English NHS. J. Bone Jt Surg. British volume 93(10): 1327-1333.
- 4. Järvinen TL, Guyatt GH (2016) Arthroscopic surgery for knee pain. Bmj 354.
- Kise NJ, Risberg MA, Stensrud S, Ranstam J, Engebretsen L, et al., (2016) Exercise therapy versus arthroscopic partial meniscectomy for degenerative meniscal tear in middle aged patients: randomised controlled trial with two year follow-up. bmj 354.
- Yim JH, Seon JK, Song EK, Choi JI, Kim MC, et al., (2013) A comparative study of meniscectomy and nonoperative treatment for degenerative horizontal tears of the medial meniscus. Am J Sports Med 41(7): 1565-1570.

- Moseley JB, O'malley K, Petersen NJ, Menke TJ, Brody BA, et al., (2002) A controlled trial of arthroscopic surgery for osteoarthritis of the knee. N Engl J Med 347(2): 81-88.
- Merchan ECR, Galindo E (1993) Arthroscope-guided surgery versus nonoperative treatment for limited degenerative osteoarthritis of the femorotibial joint in patients over 50 years of age: a prospective comparative study. Arthrosc J Arthrosc Relat Surg 9(6): 663-667.
- Kirkley A, Birmingham TB, Litchfield RB, Giffin JR, Willits KR, et al., (2008) A randomized trial of arthroscopic surgery for osteoarthritis of the knee. N Engl J Med 359(11): 1097-1107.
- Chang RW, Falconer J, David Stulberg S, Arnold WJ, Manheim LM, et al., (1993) A randomized, controlled trial of arthroscopic surgery versus closedneedle joint lavage for patients with osteoarthritis of the knee. Arthritis Rheumatol American College of Rheumatology 36(3): 289-296.