

ARTHROSCOPY

The knee sometimes develops injuries to the rubbery shock absorption c-shaped disks of meniscal cartilage between the 2 main bones of the knee (femur, tibia) or to the load bearing articular cartilage located on the ends of all 3 bones (femur, tibia, patella). These structures can be readily visualised using a small cylindrical fibre optic camera or arthroscope, passed via 2 small keyhole sized incisions of 1cm or less at the front of the knee during arthroscopy. Small hand held instruments can be introduced via these keyholes to remove loose bodies and to trim torn meniscal cartilage in a meniscectomy or remove loose flaps of articular cartilage in a chondroplasty. The loose cartilage flaps are trimmed and smoothed off using any or all of the following three devices - arthroscopic punches, oscillating suction shavers and /or a heat ablation chondrotome.

Occasionally, the type of meniscal tear will be suitable for meniscal repair, which can almost always be performed using “all-inside” minimally invasive sutures passed through the two small keyhole arthroscopy portals without need for any other incisions. Focal articular cartilage damage can sometimes be like a small cartilage pothole in an otherwise good cartilage road, leading to bruising within the bone, and these lesions can sometimes be treated at the time of arthroscopy with microfracture, where a series of small holes are created to stimulate the underlying bone marrow, to encourage new fibrocartilage to fill the defect. Other procedures include cartilage transplant, with cartilage biopsy performed arthroscopically and reimplanted one month later via a second incisional procedure, or stem cell therapy, with stem cells harvested at the time of the knee arthroscopy and delivered later the same day via an injectional procedure.

Common causes for knee injury include stop and start sports such as touch football, netball and martial arts as well as change in direction sports such as soccer, rugby league and rugby union. Often, injuries can occur without a memorable single episode of “macro” trauma but rather from repetitive micro trauma experienced during activities such as jogging, pump class and boot camp. Also, as our age improves, the quality of our collagen often does the exact opposite and our meniscal cartilage may begin to develop degenerate tears, and / or the articular cartilage begins to develop unstable flaps. Common signs and symptoms of an injured knee with unstable cartilage (chondral tears and flaps) include swelling, pain, catching, giving way and locking. As the cartilage in the knee has a poor blood supply, more often than not, it will not heal of its own accord and will likely persist or deteriorate with time and can damage surrounding structures inside the knee. Thus, if your knee has stopped behaving normally and has pain or swelling, it is time to let your physiotherapist or GP look at your knee, and if it persists, then consideration of an MRI and / or review by an orthopaedic knee surgeon is appropriate.

If an arthroscopy is required, it may be comforting to know that it is a common procedure that is almost always performed as day surgery and that you will most likely be able to walk out of hospital without crutches (unless having a meniscal repair, microfracture or lateral release). This keyhole surgery can be performed with minimum disruption to the surrounding tissue of the knee, allowing for a swift recovery from nothing more than two small incisions which usually heal within a week or two and is able to be coupled with other procedures such as meniscal suture repairs, microfracture, cartilage transplant and stem cell therapy. Patients can usually return to work within a week or so, sometimes within a few days, depending on the individual’s pathology and circumstances and often patients are able to resume more vigorous activities including sports activities within three weeks or so.