Collagen Meniscus Implant

The knee joint is the largest and most heavily loaded joint in the body. It connects the upper leg with the lower leg and transfers the entire weight of the body to the lower leg. Especially during sports activities involving rotational and transverse movements, strong forces act on the knee joint. This often leads to excessive strain and painful injury to the knee structures, in particular the cruciate ligaments, cartilage surfaces, and menisci.

The menisci are two crescent-shaped disks consisting of fibrous cartilage located in the knee joint between the femur and the tibia. There is a medial and a lateral meniscus. The menisci play an important role in knee function. In particular, they transfer the load from the upper to the lower leg and stabilize the knee during bending, stretching and torsional movements. In addition, the menisci distribute the load on the articular surfaces, act as shock absorbers, and help lubricate and nourish the knee joint. In view of these important functions it makes good sense to keep the menisci intact for as long as possible.

The Collagen Meniscus Implant is designed for patients with an irreparable meniscus tear or loss of meniscus tissue. Meniscal tears are one of the most common injuries of the knee. In younger patients meniscal tears tend to be caused by sports injuries. In older people, the meniscal cartilages can degenerate and may tear spontaneously. Research has shown that with the Menaflex Collagen Meniscal Implant, about 75% of the missing tissue grows back, pain levels are improved, function is improved and the number of future operations required on the knee are reduced.

Today, nearly all knee injuries can be treated by a minimally invasive approach. For such arthroscopic surgery, a miniature camera is introduced in the knee joint through a small skin incision, permitting examination of the affected knee. The surgery itself is then performed through 1–2 additional small access openings allowing insertion of surgical instruments and, if necessary, implants for repairing the injured structures. These surgical procedures are generally very well tolerated by the patient.

Dr Ockie van Zyl was the first surgeon to introduce the Menaflex collagen meniscus implant to South Africa in 2008. Only surgeons who have gone the appropriate training on the technique may perform this non-invasive procedure.

The Menaflex collagen meniscus implant (CMI) is a biological, resorbable implant with a spongy texture consisting of a highly purified collagen. The body’s own cells progressively migrate into the implant and build up meniscus-like tissue. After about one year the CMI is largely resorbed and has been replaced by new native tissue.

Between 2003 and 2008 more than 2000 Menaflex implants were surgically implanted worldwide. The outcome studies have shown that about 90% of patients have regrowth of meniscal tissue, regaining over 70% of their original meniscus tissue volume.

For more information please download the CMI meniscus implant brochure