Menisci tears – Treatment

Before going to an orthopeadist, patients need to have a knee X-ray done to rule out other additional post traumatic injuries. Thorough patient's examination is crucial. When in doubt, the doctor will administer ultrasound or MRI tests. If the injury doesn't limit the range of motion, doesn't cause severe lasting pain and is not accompanied by massive collateral ligament damage, the doctor may suggest an immobilization with the use of a stabilizer with gradually introduced rehabilitation. Our bodies in such cases often help us and self-heal the injured meniscus.
When there is a range of motion deficit (most often extention deficit) we may be dealing with the so-called 'bucket handle meniscus tear'. This means only posterior and anterior meniscus attachments remain intact, other parts tear off, dislocate and place themselves around the femoral condyle. In such case, when the range of motion is permanently limited, a surgery must be performed within two weeks. During this surgery doctors are most often able to do the reposition and sew the meniscus in its original anatomic place. If the torn structure is damaged or a weakened meniscus is injured or if the meniscus is torn in a site where it can't heal, doctors must remove the damaged structure. Our team has come up with time-consuming yet giving a great chance of healing methods of sewing both menisci (especially the lateral meniscus). If the case is doubtful or the procedure would last long, we separate ligament procedures from menisci procedures into two surgeries – we first repair menisci and then, during the second (ligament) procedure, we perform assessment of previously repaired menisci. In cases when partial removal of injured meniscus is needed, we remove only its unstable parts likely to cause inflammatory complications and leave even partially injured but crucial to joint functioning structures. Knee arthroscopy is a treatment for all menisci injuries.

Menisci injuries (find out more)

Degenerative leasions and meniscal cyst – Treatment

When ailments appear gradually and it's a case of a degenerative injury, it's always good to try physiotherapy, anti inflammatory drugs or even, in exceptional cases, administer corticosteroid drugs inside the joint. We never perform surgeries immediately because even partially ineffective or injured meniscus is able to function and cause no pain in many years to come. If the symptoms intensify and don't decline after conservative treatment mentioned above, we perform an arthroscopic procedure to remove injured meniscus tissue. When there's a cyst, we widen the entrance (the connection between the cyst and the injury) and the cyst itself. The therapeutic management after knee arthroscopy is, most often, standardized. The recovery is quick – up to six weeks.

Degenerative injury and meniscal cyst (find out more)

Discoid meniscus – Treatment

Symptomatic meniscus requires partial arthroscopic equalization, that is removal of excessive meniscus tissue. If there's no menisco femoral ligament, it's reconstruction is always possible. Asymptomatic meniscus needs to be put under observation, but it's not an indication for a surgery.

Discoid meniscus(find out more)

Medial collateral ligament injury (MCL) – Treatment

Isolated or accompanying additional instabilites of the medial collateral ligament injuries are treated with immobilization, where the range of motion is gradually increased (a stabilizer). Physiotherapy stimulating the healing process, eg. laser or magnetic field, may be of help. In acute injuries, when there's no ligament continuity (soft end point) or in complex injuries, early (up to 14 days) reconstruction or MCL reattachment with the use of anchors, are successful. In the case of chronic instabilites which cause pain ailments or the feeling of knee"insecurity", a reconstructive surgery should be performed. Wide attachments and MCL complexity are the reasons why Artromedical doctors most often use the mini invasive anatomic double bundle reconstruction with the use of Hamstring tendons. This latter procedure is always accompanied by knee arthroscopy. Due to common additional antero medial and postero medial rotative instabilities, the method of inserting the bundles is matched up individually. Isolated chronic instabilities often don't cause any ailments and are well tolerated by organisms. This is why they're not surgical procedure indications. See Post operational management after collateral ligaments reconstruction.

Medial collateral ligament injury (MCL) (find out more)

Anterior cruciate ligament (ACL) injury – Treatment

During injury in adults the anterior cruciate ligament most often separates from its femoral attachment and, in some cases, it can be reattached (when the procedure is preformed in maximum 10 days, there are no other instabilities and there's been no defibration of the ligament). In many cases such procedure is successful. When it's not – the ligament may be reconstructed. The ACL may also be reconstructed when the injury was diagnozed late or the injured ligament has been damaged. After an injury, the organism tries to limit the instability by building ligament scars. In some cases these scars are effective enough and patients don't notice the instability in their daily lives. The choice of treatment depends mostly on the extent of instability, life activity, biological age, other knee injuries and, finally, on patient's expectations. People who don't do "pivoting" sports (sport disiciplines where the knee needs to turn at the speed change) easily adapt to everyday life. Yet we always must take into consideration that premature knee wear or osteochondritis may occur.

The reconstructive procedure may be performed in several ways, but knee

arthroscopy is always the basis.

The first thing to consider is the kind of graft material.
In most cases we use autologous grafts (from patient's own body). We can use flexors tendons, patellar tendon and quadriceps muscle joint. There have been attempts of reconstructions of autologous Achilles tendon, but latest research shows this kind of procedure is degenerative to the ankle joint. Medial one third of patellar tendon (BPTB) is often used and considered to be the golden standard. It's got two bone plugs and gives secure fixation in the bone. This material should not be harvested, however, from overloaded patello femoral joints, as the ligament produces a scar, which shortens it. After the procedure, patient needs to be under care of a physiotherapist. Donor site morbidites often occur, especially when the patient is kneeling. This BPTB is a good material to use at revision procedures.

Flexor muscle tendons (STG) are an easy way to harvest grafts for ACL reconstruction. There are rare cases of donor site morbidity. These ligaments are however prone to stretching. This is why they're not advisable for professional sports people who wish to take up their training sessions fast and for active people who won't give their graft ligamentization enough time to complete. As these tendons give important dynamic medial stabilization, they should not be harvested when co-existing medial collateral ligament instability occurs.

Quadriceps muscle tendon (QTB) is the strongest possible autologous graft with a bone plug, completely filling up bony tunnels, unlike the patellar tendon. It's recommended for multiligamnt injuries. It's not a first pick for orthopaedists because it's more difficult to harvest.

In exceptional cases (eg. complex multiligament injuries), grafts from the allogenic tissue bank can be used. It was claimed that diseases could be carried through this kind of tissues. This is impossible nowadays. However, frozen or liofilizated tissue is less likely to remodel and heal.

In few cases (of professional sportsmen, heavily worn joint stabilization, when organism isn't likely to remodel and heal or when a patient is known not to follow post surgical physiotherapy), we may use synthetic ligaments. These ligaments however don't undergo the process of ligamentization.

The choice of graft, surgery method and the kind of stabilization are important in the reconstruction procedure. The most crucial is, however, the correct localization of bone tunnels for the graft and treatment of all additional instabilities. This, according to research, is the most frequent reason for problem recurrence.

Correctly performed reconstructive surgery gives 90% of chances to go back to previous lifestyle and activity. The revision surgery gives only 60%. This is why it's always worth to consult an experienced specialist.

Anterior crucial ligament (ACL) injury (find out more)

Posterior cruciate ligament (PCL) injury – Treatment

It's most difficult to qualify the posterior cruciate ligament injury. What does it mean? The expected effectiveness of this procedure is lower in comparison with the ACL (we have 70-80% of good and very good results) and that's why we don't perform surgeries when posterior instability is smaller than 4mm. If it's smaller, we try to (with the use of rehabilitation) gain quadriceps muscle domination (it cooperates with PLC) and to avoid posterior capsule contraction and/or fixed subluxation of the tibia. If the instability is greater, multi directional or causing degenerative ailments we perform an arthroscopic procedure and use own STG as grafts.The process of convalescence lasts longer and is more difficult than after ACL reconstruction – see Post operative management after PCL reconstruction – and requires tranquil physiotherapy and full cooperation between the patient, doctor and physiotherapist. Doctor's examination and knee arthroscopy diagnose precisely the kind of PCL injury. Artomedical doctors usually perform "double bundle" PCL reconstruction or reconstruct the damaged structure.

Posterior cruciate ligament (PCL) injury (find out more)

Lateral collateral ligament (LCL) injury – Treatment

In the case of acute LCL injuries, especially when they accompany other ligament injuries, good effects are brought by immediate repair of damaged structures together with (if necessary) strengthening it. In such cases we always take into consideration popliteous muscle injuries.
Chronic isolated instabilities of little degree or asymptomatic (the limb aligment is very important) are put under observation because there aren't any muscles that give significant lateral stabilization. We can also think about shoe inserts decreasing load on the lateral knee compartment. It's important to work on the sensomotorics and muscle balance with an experienced physiotherapist.

Chronic instabilities should be treated with surgeries that consist in either the reconstruction of LCL itself (e.g. modified Larson method) or the anatomic reconstruction of all lateral and postero lateral structures (the anatomic reconstruction method by La Prade). During such surgeries we use autologous flexor muscles tendons. It's very important to treat other coexisting instabilities. The post operational management requires careful rehabilitaion due to the possibility of stretching the grafts – See Post operative management after LCL reconstruction.

As the lateral collateral ligament is localized outside the joint, the procedure is always completed with knee arthroscopy.

Lateral collateral ligament (LCL) injury (find out more)

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- Leczenie

Knee - Treatment