FOOT AND ANKLE ARTHROSCOPY

Information for Patients

WHAT IS FOOT AND ANKLE ARTHROSCOPY?

The foot and the ankle are crucial for human movement. The balanced action of many bones, joints, muscles and tendons allows our feet to adapt to the shape of the terrain and push off from the ground. The impaired action of any of these structures leads to difficulties with gait, running and jumping. Certain conditions in this region can be treated by surgical procedures, which can be either open or arthroscopic, depending on the location and type of the problem. Arthroscopic procedures are performed with specialised instruments through smaller incisions and are monitored by a camera.

Foot and ankle arthroscopy is used for the diagnosis and treatment of certain post-traumatic conditions (following sprains, dislocations or fractures) and illnesses (degenerative or inflammatory disease). The main indications for surgery are chronic pain, swelling and restricted mobility of the affected joint.

During an arthroscopic procedure on the foot or ankle, we can

- remove from joints loose bodies that occur as a consequence of an injury (sprain or a fracture) or degenerative disease;
- remove bony projections and supernumerary bones that interfere with movement and cause pain in the anterior or posterior part of the ankle;
- treat localised injuries and defects of articular cartilage;
- remove thickened joint capsules in different forms of chronic arthritis (e.g. rheumatoid arthritis);
- remove intra-articular adhesions and contracted joint capsules following sprains or fractures of the ankle;
- remove certain benign tumours of bone, cartilage or joint capsule in the ankle region;
- carry out arthrodesis (surgical fixation) of the upper or lower ankle joint in severe cartilage defects;
- remove inflammatory tissue and bony projections (Haglund's deformity) at the insertion of the Achilles tendon;
- combine above mentioned procedures with other open reconstructive procedures on the foot and ankle.

**WHAT IMPROVEMENTS ARE EXPECTED AFTER FOOT AND ANKLE ARTHROSCOPY?**

A foot / ankle arthroscopy is expected to bring about a reduction of pain and swelling, and improvement in mobility (except in the case of arthrodesis) and joint function. Arthroscopic procedures being less invasive than comparable open surgery, they are generally associated with a faster recovery, better functional outcome, and better cosmetic appearance of the operated region.

**WHAT ARE THE RISKS IN FOOT AND ANKLE ARTHROSCOPY?**

Serious complications after arthroscopic procedures on the foot or ankle are rare, and so the benefits of the procedure outweigh its risks. However, complications can develop during or after the operation.

- During the operation, major nerves or blood vessels can be damaged. Most of these complications are treated at the time of their occurrence. Long-term impairment is possible but extremely rare. The most frequent problem is tingling and impaired sensation in individual areas of the foot due to partial damage to cutaneous nerves coursing in the vicinity of the arthroscopic portals. These injuries can occur in spite of all safety precautions. However, the impairment is generally transient and resolves itself within 6-12 months in 90% of patients.
- Swelling of the operated region in the first weeks after surgery is a normal phenomenon, and its causes are manifold: leakage of irrigation fluid into the
subcutaneous tissues during the procedure, postoperative inflammation and irritation, or minor bleeding into the operative area. Swelling after the procedure is reduced by application of cold packs, rest with the foot elevated, and physiotherapy. With these measures, the swelling usually clears up within a month.

- Postoperative bacterial infection is an extremely rare complication in arthroscopic surgery, but it may have serious consequences. It generally develops within a month after the procedure. It is prevented by maintaining strict aseptic conditions in the operating room. Just before the induction of anaesthesia, you will receive a single prophylactic dose of antibiotics. An infection that develops after the operation is treated by prolonged antibiotic therapy and it often requires additional surgery. The treatment must start as soon as possible. Therefore you should return for a follow-up examination immediately if an infection in the operated area is suspected. You must not take any antibiotics before you are seen by your surgeon. Signs of infection in the operated region include redness, pain, swelling and an unpleasant discharge from the surgical wounds.

- Stiffness in operated joints (except in the case of arthrodesis) may be a consequence of prolonged swelling or excessive scar formation within the joint. A similar problem can develop as a result of impaired function of muscles and tendons in the operated region. The main cause of stiffness is improper rehabilitation.

- All complications connected with general anaesthetic (headache, nausea, vomiting or dizziness) or spinal anaesthesia (headache, lumbar nerve root damage or inflammation at the puncture site) are also possible during an arthroscopic procedure, but are generally rare and transient.

**ARE THERE ANY ALTERNATIVES TO SURGERY?**

If you decide not to have the operation, you can expect the pain and restricted mobility to grow worse over time, leading to progressive loss of function in your foot and ankle, and increasing difficulty with activities. The operation is intended to raise your quality of life. It
will not improve the status of your general health, and your deciding against it can have no life-threatening consequences.

**HOW SHOULD YOU PREPARE FOR ADMISSION TO THE HOSPITAL?**

While waiting for the arthroscopic operation, it is advisable to perform regularly balanced stretching and muscle strengthening exercises for the affected parts of the foot or ankle. Suitable preoperative preparation will speed up and facilitate your postoperative rehabilitation. During this time, try to be as physically active as possible, but avoid those activities that make your problems worse.

**WHAT HAPPENS ON THE DAY OF SURGERY?**

You will be admitted to the hospital on the day before the operation. You should bring to the hospital your health insurance card, and a referral note and examination findings received from your doctor. Before the operation, you will be asked to sign a consent form for the surgery and anaesthesia, and you will meet your surgeon, who will answer any questions you may have. During the morning ward round on the day of surgery, for your safety, the surgeon will mark the limb on which the operation is to be performed with a pen. You will be asked not to eat or drink anything for at least 6 hours before the procedure. Before the operation, you will remove all your jewellery and take a bath or a shower. Your doctor will tell you which of your regular medicines you may take on the day of the operation. A nurse from the ward will take you to the operating suite and leave you with the anaesthesia team. An anaesthesiologist and a nurse anaesthetist will check your identity and your health status and prepare you for the operation. Arthroscopy of the foot and ankle is performed in the operating room under general anaesthetic with the patient fast asleep, or under spinal anaesthetic (injection of anaesthetic into the spinal canal). The type of anaesthesia is selected with regard to the type of the procedure, concomitant diseases, expected postoperative pain and your preferences.
HOW IS FOOT AND ANKLE ARTHROSCOPY PERFORMED?

An arthroscopy of the foot or ankle can last from 30 to 90 minutes, depending on the type of the procedure and extent of pathological changes. Certain procedures are performed with the patient lying supine and others in the prone position. Sometimes, the two positions are combined, so that you are turned during surgery. Throughout the operation, the joint is continually irrigated with an electrolyte solution, which distends it, controls bleeding and washes out loose debris; this ensures good visibility. Generally, two to three arthroscopic incisions are made above the site of surgery. Through them, the arthroscope and the necessary instruments (forceps, probes, knives, shaver, graspers and curettes) are introduced. At the end of the procedure, a drainage tube is sometimes inserted to allow excess fluid and blood to drain from the operated area. The drain is left in place for a day.

HOW LONG WILL I STAY IN THE HOSPITAL?

The length of the hospital stay depends on a number of factors. If there are no complications, most patients are discharged 1 to 3 days after the procedure.

After the operation, you will return to the ward, where you will start to receive infusions of fluids and pain medication. Occasionally, you may also be given a preventive antibiotic and injections to protect you against venous blood clots.

Over the next days, your pain medication will be gradually reduced, so that by the time of discharge you will receive it only in the form of pills. The day after surgery, you will start with basic non-weight bearing range-of-motion exercises. You will be encouraged to put ice on the operated area and keep it elevated as long as possible. Following arthroscopic surgery on the foot and ankle, the patient must walk on crutches, using a non-weight bearing gait for 3 to 6 weeks, depending on the type of surgery. Detailed instructions will be provided by your attending physician and physiotherapist. Immobilisation is generally not required after
arthroscopic procedures on the foot and ankle, except after arthrodesis, which calls for a cast to be worn for 6 to 8 weeks.

During the hospital stay, your wound dressings will be changed regularly, and blood tests will be performed as required. You will be taking all your regular medication that you take at home, with the exception of some diuretics (drugs that promote the excretion of water from your body) and certain blood pressure lowering drugs on the day of surgery and in the first postoperative days. (Detailed instructions will be given to you by your doctor.)

WHAT SHOULD YOU DO AFTER DISCHARGE FROM HOSPITAL?

After discharge, your wound dressings will be changed every 2 to 3 days by your primary care doctor, who will also remove the sutures from your wounds about 10 to 14 days after the operation. You will continue to take your pain medication when needed. Patients at an increased risk of deep vein thrombosis must receive anticoagulants for another 10 days, administered either by self-injection or in the form of pills.

On returning to your home environment, you will continue to perform the exercises, apply ice-packs, and walk on crutches. Instructions for the early phase of your rehabilitation (the first 3 to 4 weeks after the procedure) will be given in your discharge summary. For the second phase of rehabilitation (when the postoperative inflammation and swelling have cleared, the wound has healed and crutches are no longer used), you will join an intensive programme of supervised physiotherapy.

Follow-up examinations in the orthopaedic outpatient clinic are carried out at 1 month and 3 months after the operation. Additional follow-up visits are scheduled as necessary.

You can start driving once the pain has subsided and strength and mobility in the operated foot and ankle have been restored, which usually takes about 4 to 6 weeks. The same restrictions apply to light and moderate activities of daily life and work. A return to heavy physical work is possible 2 to 5 months after surgery. Sports activities can generally be
resumed after 3 to 6 months, depending on the type of activity and type of operation. For more precise time frames, consult your surgeon during your follow-up visits.

**WHO SHOULD I CONTACT IN CASE OF DIFFICULTIES AFTER DISCHARGE?**

If you experience any kind of problems after discharge from hospital, first consult your GP or, outside regular working hours, the doctor on duty in your health centre. When seeing a doctor, always bring with you your discharge summary from the hospital. In case of a major complication, your doctor will arrange an urgent appointment with an orthopaedic surgeon. If a bacterial infection is suspected, you **should not** take any antibiotics before seeing an orthopaedic surgeon.