

Anterior cruciate ligament reconstruction

A rupture of the anterior cruciate ligament can be caused by twisting or straining the knee joint, a sports activity or accident. The dislocation may just cause a rupture of the anterior cruciate ligament, but often a rupture of the cruciate ligament is accompanied by a rupture of the lateral ligaments or menisci. Similarly, the cartilage can be damaged.

Typically, damage to the cruciate ligament is caused by a sudden change of direction and is accompanied by an audible or palpable snap and acute swelling of the knee joint (blood in the joint), and simultaneously, a sudden looseness can be felt.

On initial medical examination, it may be difficult to detect looseness in the knee joint, but typically there will be severe pain on stretching. With a parallel meniscus tear, the knee joint may not be able to fully extend (locking), and an MRI of the knee will often be needed to complement the medical examination.

As the cruciate ligament does not heal on its own, a rupture will cause the knee joint to become loose after the injury. Looseness of the knee joint can, in some cases, be compensated for by good or improved muscle function, but usually, a reduced ability to control the knee joint is to be expected, especially during physical activity such as sports or other demanding activities (climbing ladders, working on scaffolding, etc.), which manifests itself by sudden knee failure or pain. Knee failure can also lead to damage to the joint cartilage or menisci.

Looseness of the knee joint can generally be improved with anterior cruciate ligament reconstruction, although it is impossible to recreate a normal cruciate ligament. Therefore, an operation is often offered when there is significant looseness, whereas in other cases, attempts at rehabilitation to avoid surgery would be recommended.

Before the operation

After you have been to the outpatient clinic, you will receive a letter telling you when to come for the operation.

Do NOT take Kodimagyl, Magnyl, Treo or any other blood thinning medication 3 days before surgery. Arthritis medication (NSAIDs) must not be taken 5 days before the operation but may be used as painkillers after surgery. Regarding NATURAL MEDICINES, such as Q10, fish oil, garlic pills, vitamin E, etc., we recommend a 1-week break before surgery.

However, it is important that you take any other regular medication as usual, such as blood pressure regulators and heart-strengthening medicines.

It is advisable to stop smoking 3 weeks before the operation and 2 weeks after to ensure optimal blood supply to the tissue and good wound healing.

If you are ill with flu, colds and various inflammatory conditions, it is very important that you call the hospital to find out what to do because the immune system is not in good shape after infectious

conditions. It is a planned operation, and it is essential to minimise factors that may influence the final outcome and not to put your health at risk.

Please take a shower at home before being admitted to the hospital. Please note that there should be no wounds or cuts on or around the knee to be operated on. In this case, you should contact the hospital. The operation is performed either as same-day surgery or with 1-day hospitalisation.

What to bring with you

Usual medicine. Loose-fitting trousers and flat shoes.

On admission

You will be welcomed by a nurse who will show you around the ward, make the necessary preparations before the operation and answer any questions you may have. You will be seen by the anaesthetist and the doctor who will operate on you. There will also be an opportunity to ask questions. You will be given painkillers before the operation.

The operationen

The operation is performed under general anaesthesia combined with local anaesthesia in the knee joint and blockade of the sensory nerve to the knee.

Cruciate ligament reconstruction is performed as an arthroscope-guided operation.

In the case of a meniscus injury that allows for suturing, the meniscus will be plated and fixed with stitches to allow the meniscus to heal in place. To replace the cruciate ligament, either the central third of the femoral tendon with a piece of the kneecap or one of the tendons from the hamstring muscle is removed.

The tendon(s) can be taken out with little risk. However, there is a risk of damaging a small skin nerve that causes sensory disturbances in a small area on the outside of the leg. The flexural strength is reduced by up to 5% when using the knee flexors. The tendon that makes up the new cruciate ligament is introduced into the knee joint via a drill channel through the tibia and fixed upwards in the femur in the drill channel. The tendon is fixed with screws or small metal bars made of titanium, which rarely need removal later.

At the end of the operation, the skin is sutured with nylon stitches, which your doctor must remove after 10-14 days. A local anaesthetic is applied in and around the knee, and the wounds are covered with an absorbent dressing.

After the operation

You will be taken back to the ward and monitored until you are fully awake. An ice bandage will be applied to the operated knee, you will be given painkillers as needed, and you do not need to wear a knee brace.

Once you are sufficiently awake, the surgeon will tell you what was found during the operation and what has been done.

You will also see our physiotherapist, who will help you get back on your feet and instruct you on appropriate behaviour for the first few days.

You will go home and do a light range of motion exercises for the knee to regain full extension. Therefore, you should not lie with a pillow under your knee, but preferably with your foot raised.

Rehabilitation will start immediately after the operation, where you will do exercises from the exercise programme. Do not put weight on the operated leg on the day of the operation. You can put weight on your leg the next day, but you will need to use crutches for the first 2-3 weeks or until you can walk without limping.

You can borrow crutches, which are returned at the 6-week check-up.

Painkillers

In addition to the painkillers given before, during and after the operation, you will be given painkillers to take home and a plan for further pain management.

You will be given an ice pack to take home. Do not place the ice directly on the skin, and it can be used as a supplement to painkillers.

Your doctor will remove the stitches after 12-14 days.

Dressing

After 24 hours, the dressing may be removed and replaced with small plasters.

Travelling home

Because of the medication given during and after the operation, you will not be allowed to drive on the day of the operation or be alone for the first 24 hours. It is recommended that you sit in the back seat with your leg on the seat for the journey home.

Driving a car

You can drive a car when you can react and can drive safely in accordance with the Road Traffic Act.

Usually after 2-6 weeks.

Outpatient checks

Your doctor will remove the stitches after about 14 days - don't forget to book an appointment.

You will have a check-up with your surgeon after about 6 weeks and after 1 year.

Rehabilitation after the operation

It is important to ensure you can fully extend and bend your knee several times a day throughout the post-operative period. Contact us for an extra check-up if you cannot extend your leg.

Training starts after the operation, and you should train for the first 2-3 weeks using the exercises below.

Rehabilitation starts 2-3 weeks after the operation with a local physiotherapist.

[Link to exercises](#)

Throughout the outpatient training programme, your problems in terms of pain, mobility, strength, stability, balance and coordination and walking are identified. Based on this, the physiotherapist will work with you to plan your rehabilitation programme.

Work and sport

Sick leave



Some time off work will usually be necessary. The time is highly dependent on your profession. If you have a job that is not physically demanding, you can expect 4-6 weeks of sick leave, as long as you can allow time for rehabilitation, rest and relief and take care of your knee. Possibly starting from home. If your work is physically demanding on your knee or you walk on uneven ground, 3-4 months of sick leave is recommended.

Approx. 8-10 weeks after the operation, there will often be a reasonably good function with normal walking and cycling.

Sports activities that do not affect the knee with high loads or pivoting movements can usually be resumed first. The following are only indicative, and you should feel that your knee is not being provoked further. Exercise cycling after 2 weeks and road cycling after 6 weeks, Swimming (crawl) can be started after 4 weeks and breaststroke after 3 months. Running on an even surface with good shock absorption after about 3 months, provided it is done smoothly. Other sports may only be resumed after agreement with the physiotherapist.

Resumption of competitive sports involving rotational movement of the knee joint and body contact with other players, such as football and handball, is not advised until 12 months after the operation.

You are always welcome to contact us if you have any questions.