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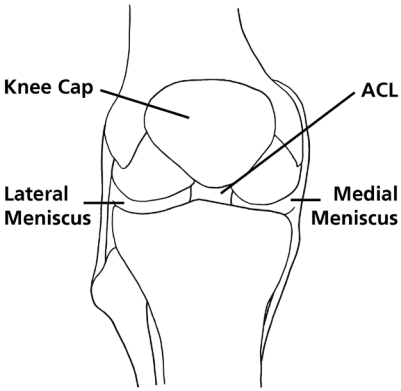
Anterior Cruciate Ligament Reconstruction Surgery

Information for patients

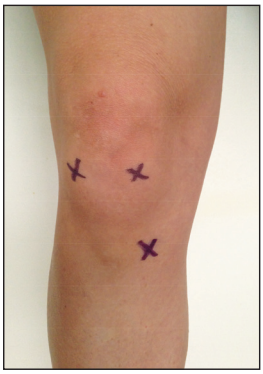
The ACL, injury and reconstruction

The anterior cruciate ligament (ACL) is a ligament in the knee that provides it with stability. Injury can result in the knee giving way and sometimes meniscus or cartilage damage.



The aim of surgery is to restore the functional stability of the knee whilst retaining range of movement. Approximately 90% of patients have a successful outcome.

If an ACL is completely torn, the ends of the torn ligament will not heal back together, even if the torn ends were repaired or stitched together. A reconstruction involves removing the torn ends and replacing it with a graft which is tissue that is harvested through a small (less than 5cm) incision usually from the hamstring tendons (which come from the muscles in the back of the thigh and attach to the front of the shinbone). There are other graft alternatives which your surgeon will discuss with you if necessary.



With the help of an arthroscope (camera) placed through 'keyhole' incisions on the front of the knee, tunnels are made in the shin bone (tibia) and thigh bone (femur). The graft is passed through and secured in these tunnels with special buttons and/or screws to form your new ACL. If meniscal or cartilage surgery is required this can usually be performed at the same time.

Advice prior to surgery

Your operation will be performed by a specialist knee surgeon, usually as a day case procedure at Chapel Allerton hospital.

Whilst waiting for your operation your physiotherapist will contact you to outline what exercises you should be doing whilst you are waiting for surgery. This will help you to to regain full range of movement, reduce the swelling and restore strength back into the muscles around the knee joint.

On the day of your operation

You will have the opportunity to ask questions. You will be reviewed by a physiotherapist and your anaesthetist will explain the anaesthesia process.

Your surgeon will discuss the indications, benefits and risks of surgery. The knee undergoing surgery will be marked and you will be asked to sign a consent form. The operation can take up to 1½ hours.

Risks of surgery

These include infection, stiffness, swelling, scarring, scar tenderness, pain, graft re-rupture, nerve injury and sensory loss (particularly around the graft harvest site scar), loss of muscle strength (especially quadriceps or hamstring if this tendon is harvested) and bruising at the back of the knee or thigh. The risk of deep venous thrombosis is very low and prevention is not routinely indicated.

After your operation

The wound will be covered by a simple dressing and a bandage will be wrapped around the knee. An x-ray will be performed for your surgeon to review. You will be discharged after physiotherapy review and when your pain is under control.

It is normal to have some pain, swelling and bruising to your thigh, knee and leg following surgery. Good pain relief is important to ensure adequate range of movement and prevent stiffness. You will be able to move your knee and weight bear as your pain allows but crutches are generally required for up to three weeks.

If meniscal surgery is also performed, you may need to use a knee brace and crutches. As the meniscal repair will need to be protected you will be instructed not to put any weight through the operated knee for six weeks. An outpatient appointment will be made for you to return to see the doctor and a sick note will be provided, if required to cover the period from your operation until your return to clinic.

Rehabilitation

ACL reconstruction requires a lot of dedication from the patient towards rehabilitation. You should commit to doing your exercises daily and attend physiotherapy on a regular basis for assessment and exercise progression.

0-3 weeks post surgery

Your physiotherapist will advise on swelling, range of movement and stretches. You are advised to walk with crutches at this stage.

1-3 months post surgery

You should be walking without crutches and have full range of movement. You will begin more specific lower limb exercises as advised by your physiotherapist. You will be referred to our rehabilitation group in this period, where you will start an exercise circuit specific to your needs. Some types of exercise are restricted up until this point to ensure full protection of the ACL graft. It is important that you only do the exercises advised by your physiotherapist.

3-6 months post surgery

More vigorous strengthening exercises will be started at this stage. Your physiotherapist will assess your muscle strength and ONLY when 80% muscle strength has been calculated and you can demonstrate good exercise technique will you be able to start gentle plyometric exercises (running, hopping, jumping).

6 months+ post surgery

If appropriate, more vigorous plyometric training will be started at this stage, with the introduction of more sport specific exercise. Your physiotherapist will advise when this is appropriate depending on strength and plyometric scores.

9-12 months post surgery

Return to sport is possible if a high level of strength and plyometric training has been achieved. To protect the graft and get the maximum benefit from the reconstruction it is highly important that you follow the exercise prescription given to you by your physiotherapist.

Return to driving, work and activity

Rehabilitation rates vary from person to person and depending on whether meniscal surgery was performed. As a general guide, depending on your range of motion and ability to perform an emergency stop, you should refrain from driving for around four weeks. You need to inform your car insurer about your surgery.

Return to office work should be possible after approximately 2-3 weeks. If you have a job that involves heavy physical work you should leave 8-12 weeks before going back to work.

Swimming (but not breast stroke) can usually be started by 3-4 weeks, riding a stationary bicycle by six weeks, light jogging by 12 weeks (depending on muscle strength and control), followed by return to sport specific drills and light training.

A return to full training can start after six months. Many surgeons recommend waiting at least nine and sometimes even 12 months before returning to competitive sport.

If you have any concerns following surgery

Please feel free to contact ward C3 for advice and assessment if indicated. Alternatively, contact your GP or your local Emergency Department.

Useful contact numbers

Pre-assessment	0113 392 4689
Theatre scheduler	0113 392 4689
Ward C3 post-op	0113 392 4503
Ward C3	0113 392 4203

Further information

www.nhs.uk/conditions/knee-ligament-surgery

What did you think of your care?

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Your views matter

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