



The Shrewsbury and
Telford Hospital
NHS Trust

Orthopaedics

Knee Anterior Cruciate Ligament Surgery Patient Information



Version 1 March 2022

The contents of this information has been reviewed and approved by the Orthopaedic Committee of Royal Shrewsbury & Telford Hospital.

Knee Anterior Cruciate Ligament (ACL) Surgery

Whilst you are waiting for your Knee surgery, you may find it useful to read this patient leaflet which we hope you will find helpful. The leaflet has been developed by the expert clinicians carrying out your care. This booklet explains what ACL surgery is, what the benefits and possible complications of surgery are, recovery after surgery and much more.

The COVID-19 pandemic has had a significant impact on the NHS ability to provide routine elective services. We recognise that patients are waiting longer than we would all like and it is not always possible to identify when treatment will take place. This document provides you with information on how you are able to support yourself while waiting to attend the hospital. The guidance has been written by clinicians who are responsible for your care.

Guidance for Patients

Whilst you await your Knee surgery, there are many things that you can do to support your health and wellbeing. It is important to continue with the exercises that your physiotherapist has recommended to you.

The Shrewsbury and Telford Hospital NHS Trust website includes a variety of useful information including health and support with mental wellbeing, addiction, guidance for parents and carers, exercise and practical help that you may find useful. You can find the website using this link: www.sath.nhs.uk

Further links which may help you manage your condition whilst you await treatment:

www.patientaccess.com/ (Connect to your GP services online)

www.nhs.uk/mental-health/self-help/

www.nhs.uk/conditions/

What should I do if my health is deteriorating?

If you have an appointment, and you feel that your symptoms are worsening, then please call our switchboard numbers. If you are yet to receive your outpatient clinic appointment, and you feel that your symptoms are worsening, then see your GP.

Further resources for helping patients manage whilst waiting for treatment;

<https://escape-pain.org/>

<https://weareundefeatable.co.uk/ways-to-move/five-in-five>

<https://www.versusarthritis.org/>

<https://central.movingmedicine.ac.uk/wp->

[content/uploads/sites/5/2021/03/MSK Patient info leaflet 2020.pdf](https://central.movingmedicine.ac.uk/wp-content/uploads/sites/5/2021/03/MSK_Patient_info_leaflet_2020.pdf)

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What is the ACL?

The anterior cruciate ligament (ACL) is one of the main restraining ligaments in the knee. It runs through the centre of the knee, from the back of the femur (thigh bone) to the front of the tibia (shin bone), and it acts as a link mechanism between the thigh and lower leg.

What does the ACL do?

The main function of the ACL is to stabilise the knee, especially during rotation, sidestepping, and pivoting movements.

This means that when the ACL is ruptured or torn, the tibia moves abnormally on the femur and comes out of joint, and the knee buckles. The main feeling is a sense of the knee giving way during twisting or pivoting movements, and a sense of not trusting the knee when turning.



The importance of the ACL

The ACL is the main stabiliser of the knee, and without it fast pivoting and twisting actions become difficult and result in giving way of the knee. It is hard to get back to pivoting type sports without a good ACL. In addition, repeated buckling or giving way of the knee can lead to secondary damage of the other important structures of the knee – namely the smooth bearing surface (articular cartilage) and the protective shim between the surfaces (meniscus or footballers cartilage).

Once these become damaged then there is much higher risk of later problems with the knee such as pain from wear and tear arthritis. Repeated giving way of the knee is therefore not good for the knee.

Why do I need to consider surgery to rebuild the ligament?

After knee injury the swelling and pain will settle, and it is usual to be able to return to walking and straight line running, even following a torn ACL. However, the ACL usually does not heal, and without the ACL it is difficult to trust the knee on rough ground or twisting movements. All too often the diagnosis can be delayed because the knee may recover for straight line activities, giving a false sense of security, but there is no control when returning to pivoting sports.

This can result in the knee giving way again and with repeated buckling there is a risk of further damaging the other key structures in the knee – hence the importance of preventing re-injury by making an early diagnosis.

What are the indications for surgery?

The main indication for ACL reconstruction, therefore, is symptomatic instability of the knee or a desire to compete in high risk activities.

There is no immediate rush to have surgery and it is appropriate to let the knee settle down following injury while a decision is made to consider surgery.

This should be discussed with the treating surgeon, and the risks and benefits can be discussed on an individual basis.

What happens in the future?

There is no hard evidence that reconstruction of the ACL reduces the incidence or progression of degenerative change (arthritis), but it is known that early stabilisation reduces the chance of damage to the meniscus (footballer's cartilage). Although no long term-controlled studies are available, recent evidence suggests that knee wear and tear is much less when the meniscus is intact.

Rehabilitation

Proprioception: The special function of the ACL

As well as providing a restraint to abnormal knee movement, the ACL gives important information to the muscles involved in the reflex control of knee movements. Nerve fibres give the knee a sense of position and movement and this sensory awareness is known as proprioception. It is a normal feature of all joints and helps to give us balance control and confidence in movements.

After reconstruction this key function needs to be relearnt. This involves special rehabilitation exercises for the hamstrings and quadriceps (thigh) muscles along with the core strength from the pelvis and balance control work. It is more than just strength work - it is about the fine control movements in landing and pivoting in order to prevent re-injury.

Overall Rehabilitation Plan

The overall rehabilitation plan emphasises the importance of pre-operative exercises, followed post operatively by early control of swelling and regaining full extension (straightening) and flexion (bending) of the knee. Working on strength can only start once swelling has been controlled and range of movement is nearly normal. Return to function then follows.

Key to Success: Working with your physiotherapist

The key to successful rehabilitation is to regain normal, full straightening of the knee as soon as possible, as well as to control swelling in the early post-operative phase before progressing to strength activities.

For the first six weeks, until the new graft is well bedded in and healed in place, exercises are performed gently with the aim of regaining normal bending and straightening as the swelling settles.

Repetitive cycling of the knee is usually restricted during the first 6 weeks as this may overload the fixation of the ligament and lead to slippage of the graft and effective lengthening of the new ligament.

My Planned Care Patient Information Platform

For urgent health advice about physical or mental health, when it's not an emergency, please call 111 from any landline or mobile phone. You can also visit www.nhs.uk. The NHS 111 service is available 24 hours a day, seven days a week.

Life Threatening Emergencies

If you have severe bleeding, breathing difficulties or chest pains – please dial 999 immediately.

Contact Us

If you have any concerns or questions that you need support with, our Patient Advice and Liaison Service (PALS) is a great place to start.

You can call 01743 261691 for the Royal Shrewsbury Hospital or 01952 641222 ext 4382 for the Princess Royal Hospital.

They will listen to you and advise you how they can help.

If you would prefer to get in touch by email, please contact sath.pals@nhs.net