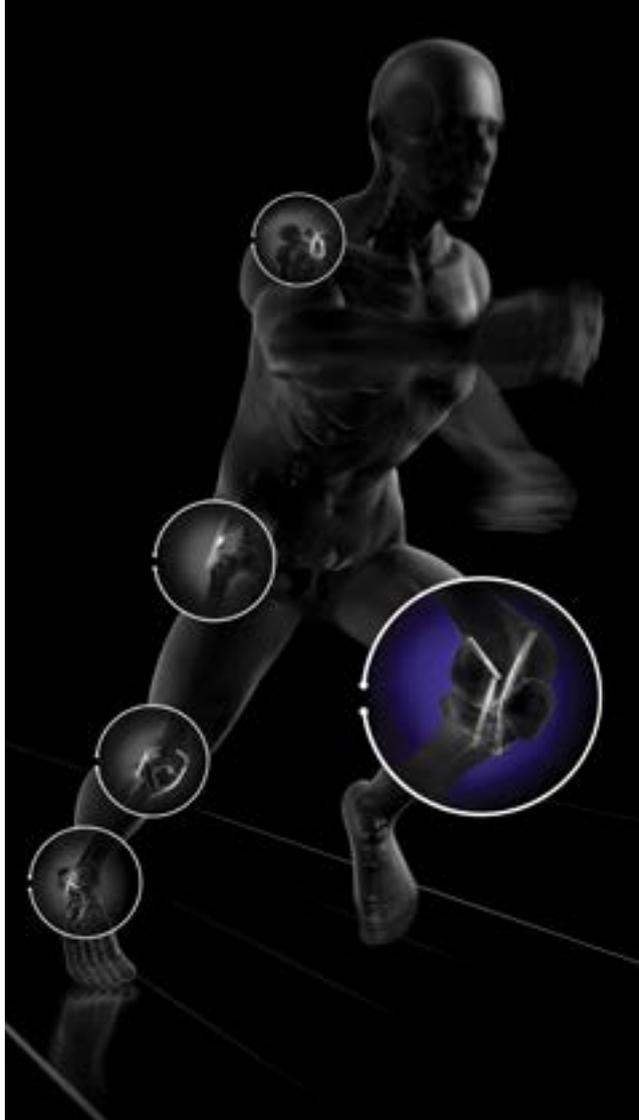


LARS™ Augmented ACL  
A guide for patients



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### Important

Please be aware that the information and guidance provided within this booklet is general in nature and should not be considered as medical advice in any way. You should always seek detailed advice from a qualified medical practitioner.

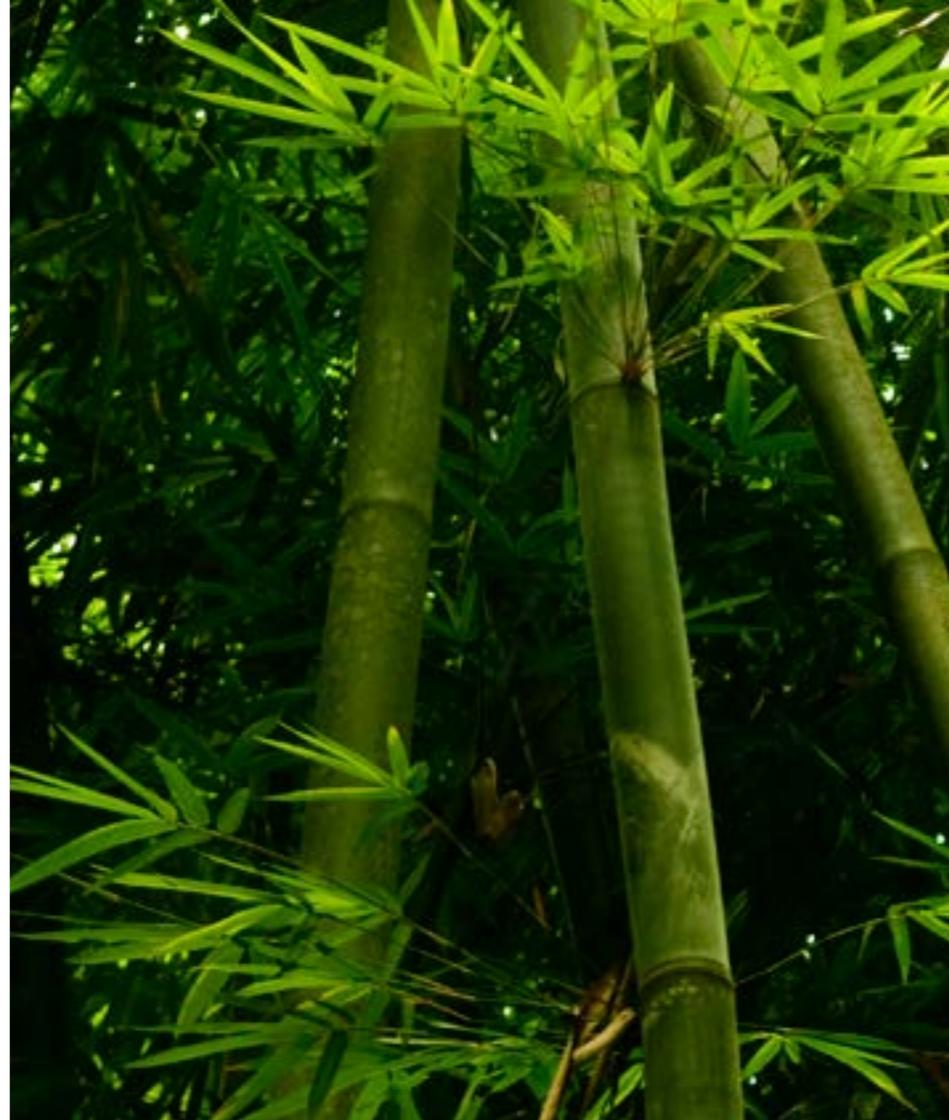
## Your knee

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A knee ligament injury can cause pain, instability and can sometimes limit or restrict your everyday activities including your work and sports participation. The day-to-day effects of the injury can also get you down mentally.

There are many treatments available to help alleviate the causes of knee pain. The information within this booklet is intended to act as a general guide to take you through the steps so you can make an informed decision.

At Corin, in partnership with your surgeon, we strive to get you back on your feet and enjoying an active lifestyle as soon as possible. With our wide range of hip, knee and ankle implants, we aim to help restore your quality of life through our commitment to Responsible Innovation.



## Your anatomy

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Three bones meet to form your knee joint: your thigh bone (femur), shin bone (tibia), and knee cap (patella).

Bones are connected to other bones by ligaments. There are four primary ligaments in your knee. They act like strong bands holding the bones together, keeping your knee stable. They form a capsule around the knee, allowing normal range of movement within the joint while preventing excessive motion or movement in the wrong direction.

The anterior cruciate ligament (ACL) is one of the four main ligaments within the knee that connect the femur to the tibia.

Knees are essentially a 'hinge' joint held together by the medial collateral ligament (MCL), lateral collateral ligament (LCL), anterior cruciate ligament (ACL) and posterior cruciate ligament (PCL). The ACL runs diagonally through the middle of the knee, preventing the tibia from sliding out in front of the femur and providing rotational stability to the knee.

Knee Figure



## ACL injury

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Although your ligaments are very strong, a ligament tear can be sustained in a sporting incident, motor vehicle accident or even during daily activity.

The severity of the injury is related to the extent of the tear. Unfortunately, because the ACL is surrounded by joint fluid, it may be less likely to heal properly by itself<sup>1</sup>. Therefore, if your injury has resulted in a severe or complete tear of the ACL, surgery may be required.

ACL reconstruction is usually performed to restore stability, range of movement and proper function. It may reduce the possibility of developing degenerative osteoarthritis in the knee joint<sup>2</sup>.

Restoring function as early as possible aims to allow you to return to your daily activities and lifestyle, minimising pain and muscle wasting.

## Causes of ACL injury

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The ACL can be injured in several ways:

- Changing direction rapidly
- Stopping suddenly
- Slowing down while running
- Landing from a jump awkwardly
- Direct contact or collision, such as a football tackle

While injuries to the collateral and posterior cruciate ligaments typically occur as a result of direct impact to the knee, ACL injuries occur most often without direct contact to the affected knee. Common symptoms of ACL injury include joint swelling, pain, and a sensation that the knee “gives way” during certain movements, especially when changing direction.

## Surgical treatment

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Non-surgical or 'conservative' treatment, such as physiotherapy, rest and pain-killing injections should always be considered in consultation with your health care professional. When conservative treatments no longer offer sufficient pain relief and the discomfort and disability is affecting your daily activities, it may be time to consider surgery. Surgical options will vary depending on the nature, severity and location of your injury.

One option for ACL surgery is to reinforce or 'augment' the graft taken from your body ('autograft') with a thin but high-strength LARS™ ligament to create a "hybrid" graft. This small addition is designed to add stability and protection to the graft while it is healing and may allow a quicker return to work and/or sport<sup>3</sup>.

## Risks and benefits

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It is important to weigh up the risks and benefits before deciding to proceed with surgery. Potential benefits may be significant, including pain reduction, an improvement in mobility and a return to a more active lifestyle. All surgery, however, involves some element of risk and complications can occur, e.g. pulmonary embolism, deep vein thrombosis (DVT), infection etc. It is important to discuss these with your surgeon before you make a decision. The specific risk for any ligament reconstruction is re-injury, particularly if engaging in high-demand occupational or sporting activities. Your reconstructed ligament or tendon may fail under excessive force or strain.



## Preparing for surgery

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Remaining active while you are waiting for your surgery is important and may improve recovery. Moderate exercise such as walking or swimming can help prevent muscle wasting or weakening.

If you are a smoker, you should try to quit at least six weeks before the operation to help reduce the risk of complications. You must inform your surgeon if you suspect you have an infection as your surgery may need to be rescheduled.

Ensure you arrange transport back from the hospital as you will not be allowed to drive yourself home; arrange a friend or relative to help you at home while you recover.



## The operation

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The length of surgery may vary.

The leg being operated on will be scrubbed with an antiseptic solution and your whole body covered in sterile drapes. Once ready to start, the surgeon will make several small incisions at the front of the knee and may harvest a graft of your own tissue, such as hamstring tendon, to form a graft for your new ACL.

If deemed appropriate by your surgeon, the augment ligament will then be added to the graft before it is fastened inside your knee.

## Following surgery & rehabilitation

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To manage your own expectations about how quickly you will be 'back on your feet', it is important to understand what will happen both immediately after your surgery and in the months that follow. Normal recovery from any operation varies from patient to patient and is partly dependent on pre-operative health. Post-operative rehabilitation regimes also vary, your surgeon will advise you about this.

You may see a physiotherapist during your hospital stay to help you with exercises to strengthen your muscles. The exercises are a crucial part of your recovery and it is important to continue doing them when you return home. Adhering to your rehabilitation program is a significant predictor of a positive outcome following surgery<sup>4</sup>.

You should contact your doctor immediately in the case of any undue pain, severe redness, swelling and/or weeping from the wound.

As part of your rehabilitation program after surgery, you may wish to gradually return to sporting activities.

Your initial level of exercise may be determined in consultation with your physiotherapist. Your return to sport may begin around six to nine months after surgery, when you and your physiotherapist are satisfied that your personal and physical goals have been met.

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