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Q&A

FOR PATIENTS

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- From treatment to recovery — we've got your questions covered.

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INTRODUCTION

Dr. Vikram Sharma is a specialized Sports Injury Specialist and Orthopedic Surgeon, serving as a Sports Medicine and Anti-Doping Consultant for the BCCI. He holds the position of President of the Thar Association of Sports Medicine and Joint Secretary of the Indian Association of Sports Medicine. He is also associated with the Sports Med Clinic, established by Fortis Escorts Hospital in Jaipur.

At Sports Med, we offer comprehensive solutions for lifestyle and sports injury treatments, providing sports medicine services for the first time in Rajasthan. Our clinic specializes in arthroscopy, a procedure that involves examining joints to diagnose and treat various conditions. Arthroscopy has become one of the most successful and versatile orthopedic procedures. We provide exceptional care for patients dealing with knee pain, knee injuries, or knee stiffness. Whether you're a professional athlete or someone who occasionally participates in sports, injuries can be both painful and debilitating.

At Sports Med, we have a multidisciplinary team of physiotherapists, orthopedic surgeons, and rheumatologists dedicated to helping you recover and return to your active routine. Additionally, we offer advice on training for events like marathons and skiing, as improper training can result in injuries. With the right guidance, unnecessary injuries and doctor visits can be avoided, ensuring that you can participate fully in your athletic activities. At Sports Med, we are dedicated to offering advanced, scientific treatments in sports injury care, arthroscopic services, and sports medicine to deliver the best possible outcomes for our patients.

Professional Qualification

- M.S. Orthopedics
- Graduation in Sports Injuries, Stonebridge College, UK
- Fellowship in Arthroscopy & Sports Medicine, University of Pittsburgh, USA (Freddie H. Fu)
- Graduation in Sports Medicine, International Olympic Committee, Switzerland
- Diploma in Football Medicine, FIFA
- Professional Diploma in Sports Nutrition
- Shoulder Arthroscopy Training, UK
- Many short-term fellowships and courses

Positions Held

- Head, SportsMed - Department of Arthroscopy, Sports Injury, and Sports Medicine, Fortis Escorts Hospital, Jaipur
- President, Indian Association of Sports Medicine
- Founder President, Thar Association of Sports Medicine (Sports Medicine Association of Rajasthan)
- Past Executive Committee Member, Indian Arthroscopy Society
- Dope Control Officer, BCCI (IDTM Switzerland)
- Sports Medicine Consultant for Rajasthan Cricket Association, Badminton World Federation, Rajasthan Weightlifting Association, Rajasthan Para Athlete Association, and others

दुनियाभर से तीन ही एक्सपर्ट लिए गए, डॉ. विक्रम कर रहे भारत का प्रतिनिधित्व

वर्ल्ड बैडमिंटन चैंपियनशिप में स्पोर्ट्स इंजरी एक्सपर्ट के रूप में चुने गए डॉ. विक्रम

समाचार जगत न्यूज

जयपुर. डेनमार्क में चल रही वर्ल्ड बैडमिंटन चैंपियनशिप में जयपुर के सीनियर स्पोर्ट्स इंजरी एक्सपर्ट डॉ. विक्रम शर्मा को बैडमिंटन वर्ल्ड फेडरेशन ने टूर्नामेंट डॉक्टर के रूप में चुना है। दुनियाभर स्वीडन और फिनलैंड के अलावा फेडरेशन द्वारा भारत से डॉ. विक्रम शर्मा को लिया गया है। 21 से 28 अगस्त तक चलने वाली वर्ल्ड बैडमिंटन चैंपियनशिप में वे खिलाड़ियों को होने वाली स्पोर्ट्स इंजरी मैनेज करेंगे।

गौरतलब है कि डॉ. विक्रम शर्मा इंडियन एसोसिएशन ऑफ स्पोर्ट्स मेडिसिन के प्रेसिडेंट होने के साथ ही बीसीसीआई, राजस्थान क्रिकेट एसोसिएशन जैसी महत्वपूर्ण संस्थाओं के भी आधिकारिक स्पोर्ट्स इंजरी एक्सपर्ट हैं। शर्मा ने बताया कि किसी [illegible] आयोजन में टूर्नामेंट [illegible] बड़ी भूमिका [illegible] टर्निंग पॉइंट में ही [illegible] को पूरी [illegible] वैडमिंटन [illegible] संभावना [illegible]

चोट [illegible] बाद जल्दी खेल के लिए [illegible] करना बड़ा चैलेंज

डॉ. विक्रम शर्मा बने इंडियन एसोसिएशन ऑफ़ स्पोर्ट्स मेडिसिन के नेशनल प्रेसिडेंट

जयपुर मिड-डे टाइम्स

जयपुर। जयपुर के प्रख्यात स्पोर्ट्स मेडिसिन व ऑर्थोपेडिक विशेषज्ञ डॉ. विक्रम शर्मा को इंडियन एसोसिएशन ऑफ स्पोर्ट्स मेडिसिन के नेशनल प्रेसिडेंट के रूप में नियुक्त किया गया। जयपुर फोर्टिस एस्कॉर्ट में सेवाएं दे रहे स्पोर्ट्स मेडिसिन व स्पोर्ट्स इंजरी विशेषज्ञ डॉ. विक्रम शर्मा लम्बे समय से इस संस्था में कार्यरत है। ये लम्बे समय से बीसीसीआई राजस्थान क्रिकेट एसोसिएशन, बैडमिंटन वर्ल्ड फेडरेशन आदि संस्थाओं में स्पोर्ट्स मेडिसिन और एक्सपर्ट के तौर पर भी जुड़े हैं। साथ ही डॉ. विक्रम शर्मा थार एसोसिएशन ऑफ स्पोर्ट्स मेडिसिन के संस्थापक भी हैं और इस क्षेत्र में लगभग 20 वर्षों का अनुभव रखते हैं। पहली बार राजस्थान से किसी विशेषज्ञ को इस पद के लिए नियुक्त किया गया है। डॉ. विक्रम ने स्पोर्ट्स मेडिसिन व साइंस के क्षेत्र में ट्रेनिंग और शिक्षा की सुविधा को बढ़ाते हुए न सिर्फ खिलाड़ियों, बल्कि आमजन तक इसे पहुंचाने का संकल्प लिया है। इस कदम से सिर्फ प्रदेश ही नहीं बल्कि पूरे देश में स्पोर्ट्स मेडिसिन सुविधाओं में इजाफा होगा जिससे स्पोर्ट, प्लेयर्स और मेडिकल क्षेत्र को भी बढ़ावा मिलेगा। पिछले एक दशक राजस्थान में स्पोर्ट्स मेडिसिन संबंधित गतिविधियां का आयोजन डॉ. विक्रम करते आ रहे हैं जिनमें दो बार नेशनल कांफ्रेंस विश्वविख्यात एम्स्टर्डम फूट व एंकल कोर्स और कई वर्कशॉप्स का है। हाल ही में आयोजित की वार्षिक कांफ्रेंस के दौरान डॉ. विक्रम को अपनी कार्यशैली, अनुभव और समर्पण को देखते हुए आईएसएम का अध्यक्ष नियुक्त किया गया। एसोसिएशन ऑफ स्पोर्ट्स मेडिसिन भारतवर्ष की अधिकारिक स्पोर्ट्स मेडिसिन व स्पोर्ट्स इंजरी विशेषज्ञों की संस्था है जिसमें देश-विदेश के 3000 से भी अधिक एक्सपर्ट्स शामिल हैं। साथ ही यह संस्था एशियन फेडरेशन ऑफ स्पोर्ट्स मेडिसिन के साथ मिलकर पूरे एशिया में स्पोर्ट्स मेडिसिन सम्बंधित गतिविधियां आयोजित करती है।

खिलाड़ी की मांसपेशियों के दबाव पर अब मशीन रखेगी नजर

- स्पोर्ट्स इंजरी कॉन्फ्रेंस में विशेषज्ञों ने दी नई तकनीकों पर जानकारी

जयपुर। स्पोर्ट्स मेडिसिन में अब ऐसी तकनीक आ गई है जिससे पैर फ्रैक्चर या दूसरे एक्सरसाइज अपनी मांसपेशियों पर एक जैसा दबाव बनाए रखेंगे और उनको बराबर बढ़ा सकेंगे। इस आधुनिकतकनीक टेक्निक तकनीक से खिलाड़ी अपने हर शारीरिक कोण पर समान दबाव बनाकर अपनी पारफॉर्मेंस को बेहतर कर सकते हैं। साथ ही इससे मांसपेशियों में खिंचाव की समस्या भी दूर हो सकेगी। यहीं एक अन्य वीडियो पेश कर तकनीक से खिलाड़ी अपने शरीर की ऑक्सीजन खपत की विस्तृत जानकारी प्राप्त कर अपनी परफॉर्मेंस में सुधार कर सकेंगे। शहर में चल रही नेशनल स्पोर्ट्स इंजरी कॉन्फ्रेंस एंड एक्सपरमेंटल 2020 में शनिवार को देश-विदेश से आए नामी विशेषज्ञों ने ऐसी जानकारी दी। कॉन्फ्रेंस के आयोजक डॉ. विक्रम शर्मा ने बताया कि एसएमएस मेडिकल कॉलेज के ऑडिटोरियम में आयोजित इस कॉन्फ्रेंस में खेल के दौरान लगने वाली चोटों, उनसे बचाव, पारफॉर्मेंस इम्प्रूवमेंट, ट्रेनिंग, न्यूट्रिशन सहित खेलों से जुड़े कई विषयों पर चर्चा की गई। इसमें देश-विदेश के 200 से ज्यादा डॉक्टर्स, फिजियोथेरेपिस्ट, ट्रेनर्स, न्यूट्रिशनिस्ट, खिलाड़ी और स्टूडेंट्स ने हिस्सा लिया।

चलती चोटों व पारफॉर्मेंस को बेहतर बनाने के संदर्भ में सचिन-जडाव भी किये। आयोजन समिति के डॉ. कपिलदेव वर्मा ने बताया कि डॉक्टरों को कॉन्फ्रेंस का विधिवत उद्घाटन हुआ। कार्यक्रम के मुख्य अतिथि पुलीस के सेक्रेटरी डॉ.जयपाल सिंह संधु थे। वहीं डॉ. असीक अहदाद, डॉ.फाहिद हुसैन, डॉ. अरुण मुगल, डॉ. महेश साहू आदि ने विभिन्न सत्रों में स्पोर्ट्स मेडिसिन और इंजरी से जुड़े कई चालुओं पर जानकारी दी।

मांसपेशियों के दबाव पर रहेगी नजर-

हॉकेथन हॉकी टीम के फॉर्टिजोपेडिस्ट डॉ. श्रीकांत अनगेर ने बताया कि आधुनिकतकनीक [illegible]

डॉ. विक्रम शर्मा राजस्थान आर्थो. के निर्विरोध सचिव निर्वाचित

दैनिक भास्कर

स्पोर्ट्स मेड कॉन कॉन्फ्रेंस शुरू

वर्ल्ड बैडमिंटन चैंपियनशिप में ऑफिशियल स्पोर्ट्स इंजरी एक्सपर्ट के रूप में चुने गए जयपुर के डॉ. विक्रम शर्मा

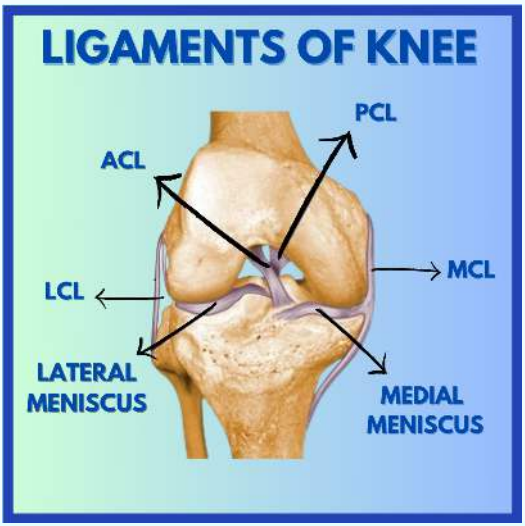
Introduction to ACL Injuries

Q1. What is the normal ACL structure?

The anterior cruciate ligament (ACL) is a strong, fibrous band that helps to stabilize the knee joint. It is located in the center of the knee, running from the femur (thigh bone) to the tibia (shin bone). The ACL is one of four major ligaments in the knee, along with the posterior cruciate ligament (PCL), medial collateral ligament (MCL), and lateral collateral ligament (LCL).

The main function of the ACL is to prevent the tibia (leg bone) from moving too far forward in relation to the femur (thigh bone). It also helps to stabilize the knee during twisting and cutting movements. The ACL is subjected to significant forces during activities such as sports and other high-impact activities and is therefore prone to injury.

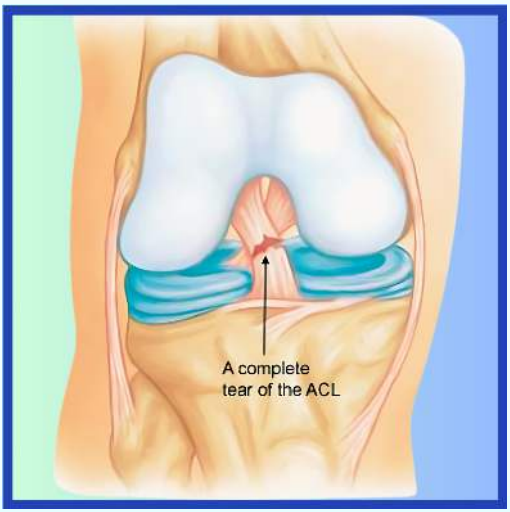
The normal structure of the ACL is a strong, fibrous band made up of collagen fibers. The ACL is surrounded by a layer of synovial fluid, which helps to reduce friction and wear within the joint.



Watch Video

Q2. What is an ACL injury?

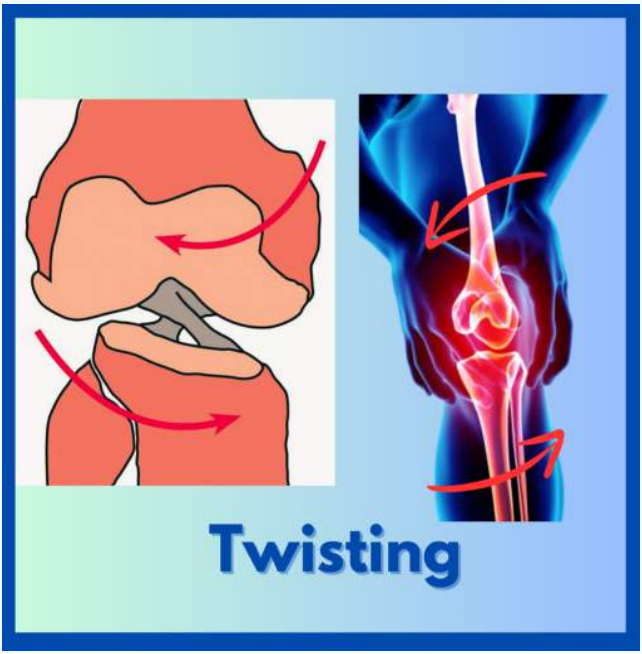
An ACL injury means a tear or sprain of the anterior cruciate ligament (ACL), which is an elastic-like band of tissue that connects the thigh bone to the leg bone and helps stabilize the knee joint. ACL injuries can lead to a loss of stability in the knee joint. The injury may vary from a minor tear to a complete tear of the ligament.



Watch Video

Q3. How do ACL injuries occur?

ACL injuries usually happen during physical activities, such as sports, that involve sudden changes in direction, stopping, or starting. They can also occur due to a direct blow to the knee, such as during a fall or collision. People who participate in high-impact sports, such as soccer, basketball, or skiing, are more likely to suffer from ACL injuries. The most common mechanism of injury is twisting, which can occur due to sports or any routine lifestyle injury, such as slipping from stairs, dancing, or two-wheeler accidents.


Twisting


EFT KNEE
MCL
MENISCUS
ACL Injury
Know How ACL Injury Occurs?
For Free Advise of Ligament Injury,
Share your MRI Reports on Our
WhatsApp Helpline No.
+91-9587077444
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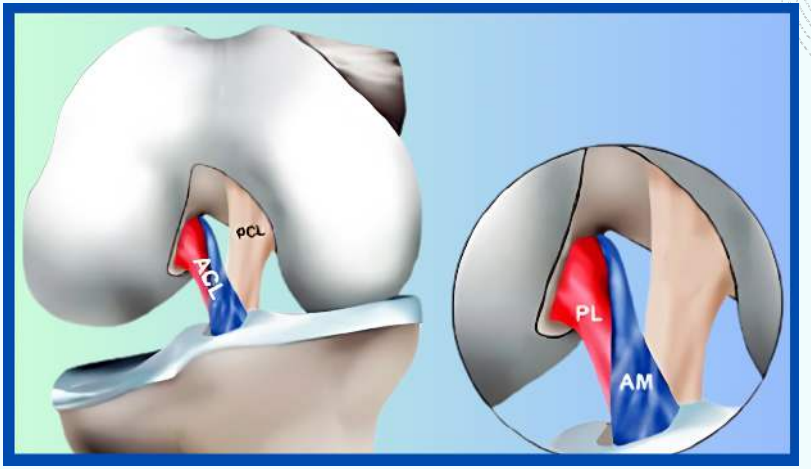
Q4. Why doesn't the ACL heal on its own?

The ACL does not heal naturally for several reasons:

- Poor Blood Supply: The ACL has very little blood flow, which is necessary for healing. Without enough blood, the ligament cannot repair itself.
- Separation of Torn Ends: When the ACL tears, the ligament ends pull away from each other and cannot reconnect on their own.
- Constant Knee Movement: The knee moves frequently, which keeps pulling the torn ends apart, preventing healing.
- Synovial Fluid: The knee joint is filled with a fluid that helps movement but does not support ligament healing, making natural recovery impossible.

Q5. Is ACL made of bundles ?

Yes, the anterior cruciate ligament (ACL) is composed of two primary bundles: the anteromedial (AM) and posterolateral (PL) bundles. These bundles work together to stabilize the knee by controlling different movements, such as forward translation of the tibia and rotational control. The two-bundle structure allows the ACL to perform its complex role in knee stability more effectively. In recent years, surgeons have shifted towards "two-bundle" ACL reconstruction techniques, aiming to replicate the natural anatomy and function of the ACL by addressing both bundles separately. This approach may lead to better long-term outcomes and knee stability.



Symptoms and Diagnosis of ACL Injuries

Q6. What are the symptoms of an ACL injury?

The immediate symptoms of an ACL injury may include pain and swelling in the knee, difficulty bearing weight on the affected leg, and a feeling of instability or “giving out” in the knee. Other symptoms may include limited range of motion, difficulty walking or jumping, and a loud "POP" sound at the time of the injury. Swelling immediately after the injury is also an indicator of an ACL ligament injury.

Watch Video

Q7. How is an ACL injury diagnosed?

ACL injury is usually diagnosed through history taking, clinical examination, and imaging tests, such as an MRI (magnetic resonance imaging) or X-ray. During a physical exam, the doctor will ask about the injury and perform a few tests to assess the knee's stability and range of motion. Imaging tests can help confirm the diagnosis and determine the extent of the injury, and define the grading of the tear.

Watch Video

Q8. What are the common symptoms of an ACL injury that can indicate a tear even without an MRI?

There are several key symptoms that can almost diagnose an ACL injury, even without an MRI:

- Sudden 'Pop' Sound: Many patients report hearing a pop at the time of injury, which is a strong indicator of an ACL tear.
- Immediate Swelling: The knee often swells quickly within a few hours due to bleeding inside the joint.
- Instability or 'Giving Way': A feeling that the knee is unstable or might give out, especially during quick movements, pivoting, or when trying to change direction.
- Difficulty in Walking or Climbing Stairs: Patients may feel pain and difficulty in fully extending or bending the knee.

- Loss of Confidence in the Knee: A sense of not being able to trust the knee, especially during sports or quick movements.

These symptoms, combined with a physical examination by your doctor, can highly suggest an ACL tear even before confirming it with an MRI.

Why are you saying my ACL is torn completely even though I can still walk and run?

It's common for patients to wonder how they can still walk or even run if their ACL is torn. This is because of compensatory mechanisms in your body:

- Muscle Compensation: Other muscles around the knee, like the hamstrings and quadriceps, may compensate for the lack of ACL, giving you some knee stability.
- Cautious Movement: You may subconsciously adjust your walking style to avoid sudden or risky movements, protecting the knee from giving out.

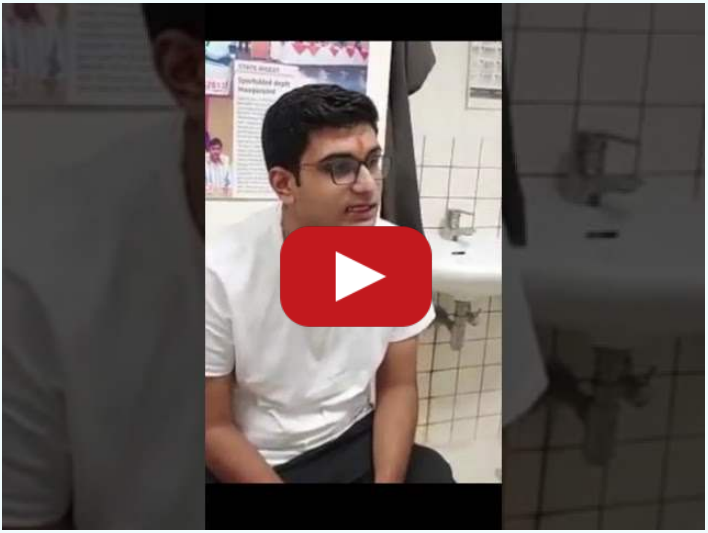
- Body's Adaptation: Over time, your body learns to move in ways that avoid stressing the injured ACL, which can mask the symptoms.
- Avoiding High-Risk Movements: Many people avoid jumping, twisting, or sudden stops, which are the movements most affected by an ACL tear.

These adaptations allow you to perform basic activities like walking and light jogging, but they are not a substitute for a fully functional ACL, especially if you wish to return to sports or higher activity levels. The ACL is crucial for stability during dynamic movements, and without proper treatment, the knee remains at risk for further damage.

Queries Related To Surgery Technique - For ACL Injuries

Q9. Can an ACL injury be treated without surgery?

In some cases, an ACL injury can be treated without surgery ; if the tear is mild (Grade 1-2) , the ACL is not torn [less than 70] and Knee is stable. Non-surgical treatment may include physiotherapy and strengthening of muscles, specifically the hamstring muscle. However, surgery is often recommended for more severe ACL injuries or for those who wish to return to high-impact activities.



Testimonial

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Q10. How long does ACL surgery take?

The length of ACL surgery varies depending on the individual and the severity of the injury. In general, the surgery itself typically takes 30-40 minutes. However, the total time spent in the operating room may be longer due to pre-surgery preparation and after-surgery recovery.

Q11. What kind of anesthesia is given during ACL surgery?

During ACL surgery, you will typically be given either general anesthesia (which puts you to sleep) or regional anesthesia (which numbs the area around the surgery site—Spinal Anesthesia or Epidural Anesthesia). Your anesthesiologist will determine the most appropriate type of anesthesia for you based on your individual needs and preferences. Only in some cases where spinal anesthesia cannot be given, general anesthesia will be administered.

Q12. What is an ACL repair, and how is it done?

An ACL repair involves surgically repairing the torn ACL ligament. This procedure is done very rarely and only when the ACL stump is separated from the bone end but the ligament itself is intact. This process is different from ACL reconstruction as, in this case, the surgeon tries to preserve the original ligament by reattaching it to the bone.

Q13. What is an internal brace, and how is it used in ACL surgery?

An internal brace [fiber tape] is a tape (polyester) that is placed inside the knee joint along with the ACL graft to provide additional support to the graft. Its use must be done very judiciously.

Q14. What is the most common graft used for ACL surgery? add video link

The most common graft used for ACL surgery is the Hamstring [semitendinosus] Graft, which is taken from the patient's own knee. Other options may include a patellar tendon graft, peroneus longus graft, Bone to bone graft or an allograft (tissue from a donor). Allografts are not common in India.

Q15. What are the advances in ACL surgery techniques?

ACL reconstruction surgery has seen several advances over the years that have improved the success rate and outcomes of the procedure. Some of the most significant advances include:

- Single-bundle Anatomical ACL reconstruction: This is the most common ACL surgery technique used worldwide, where the surgeon tries to fix your graft exactly at the same point to copy natural anatomy.

- All-inside techniques: ACL graft tunnels are made from inside-out ; special surgical instruments are needed, and results are comparable to anatomical ACL reconstruction.

- Biologic augmentation: This involves using growth factors or other biologically active substances like platelet-rich plasma (PRP) to enhance healing and improve outcomes. Long-term results are still awaited.

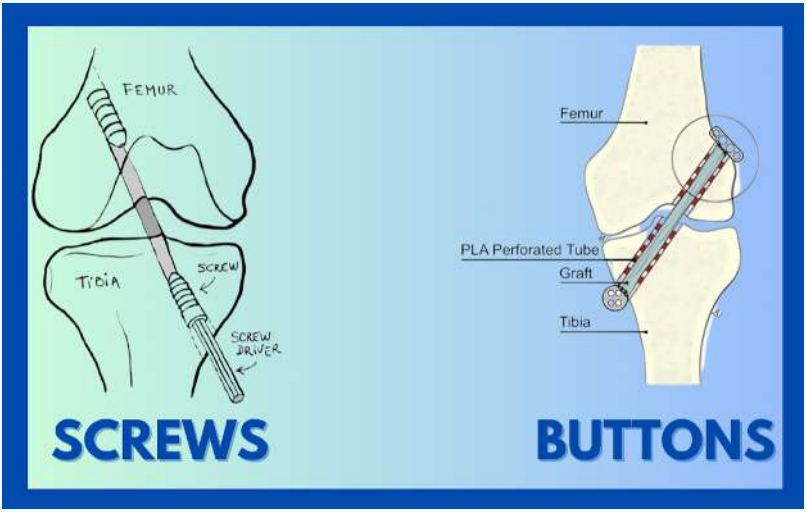
- Using FiberTape: It's a polyester tape applied with the graft. Use must be cautious and only where needed. It has no advantage in early recovery but can be useful for competitive sportpersons and cases where the graft is weak.

Watch Video

Q16. What kind of screws, buttons, and loops are used in ACL surgery?

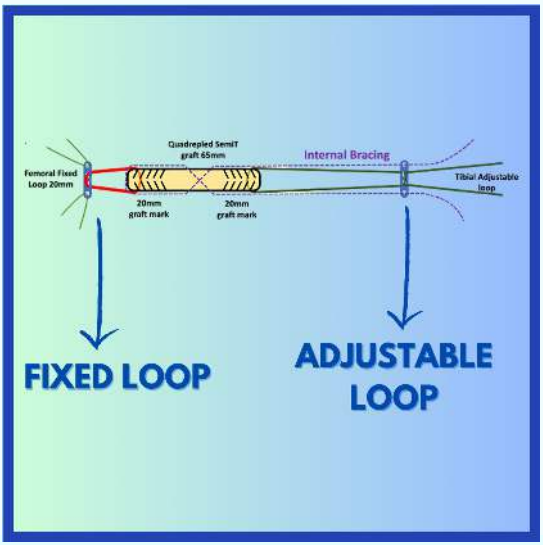
In ACL reconstruction surgery, various types of screws, buttons, and loops are used to help repair or reconstruct the ligament. The specific type of implant used depends on the patient's needs and the surgeon's preferences.

- Bioabsorbable screws: Made of synthetic material, these dissolve in the body over time, holding the ligament in place while it heals.
- Stainless steel screws: Durable and corrosion-resistant, used for long-term stability.
- Titanium screws: Lightweight and strong, commonly used in orthopedic surgery.



Buttons and loops include:

- Titanium buttons: Lightweight and strong, used for stability.
- Adjustable loop: Allows customized tension on the ligament.
- Fixed loop: Set at a specific tension, providing stability.



Watch Video

Q17. Can my ACL be reconstructed more than once? add video link

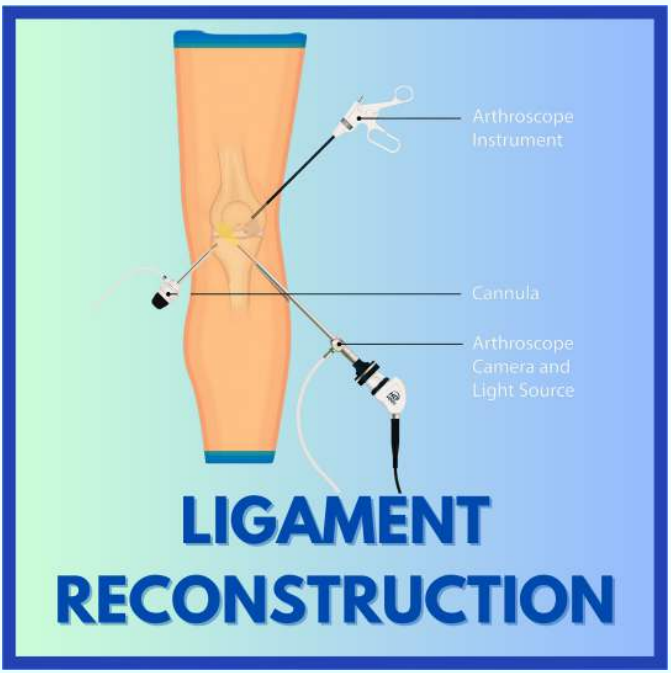
In some cases, it may be necessary to perform revision surgery to repair or reconstruct the ACL again after the initial surgery. This may be needed if there are problems with the initial surgery or if the ACL becomes injured again. However, it is generally more difficult to achieve good results with revision surgery, and the risk of complications may be higher.

How many stitches will be applied, and how long will the incisions be on my knee during ACL surgery?

ACL surgery is performed using arthroscopy, which is a minimally invasive technique. Here's what you can expect regarding stitches and incisions:

- Small Holes for Surgery: The procedure is done through 3-4 small incisions, about the size of a pencil tip (5-7 mm). These tiny holes allow the surgeon to insert a camera and surgical instruments into your knee.
- Incision for Graft Harvest: A slightly larger incision, about 2-3 cm long, will be made where the graft (your own tissue used to make the new ACL) is taken, usually from the hamstring or patellar tendon.
- Stitches: The number of stitches is minimal, as the smaller holes may be closed with just a few stitches or steri-strips (skin tape). The slightly larger graft incision will have more stitches but still be relatively small compared to traditional surgery.

This minimally invasive approach ensures faster healing, less pain, and smaller scars, making the overall recovery smoother and quicker for patients.



Are allografts (cadaver grafts) available in India, and how safe is it to use them? Allografts, also known as cadaver grafts, are tissues taken from a donor (usually a cadaver) and used in surgeries like ACL reconstruction. In India, allografts are not widely available; only 1-2 centers are starting to offer this option. The use of allografts is still limited due to factors such as availability, cost, and regulatory hurdles.

Safety of Allografts: Allografts are generally considered safe when sourced from certified tissue banks, where they undergo rigorous testing for infections and diseases. However, in India, the standards and availability of such grafts are still developing, and their use is relatively new compared to other countries.

What are the disadvantages and risks of using allografts?

While allografts can be an option, especially for patients who do not want their own tissue used, they come with certain disadvantages and risks:

- Risk of Infection: Despite thorough screening, there is always a minimal risk of transmitting infections, such as viral infections or even bacteria, from the donor to the recipient.

- Delayed Healing and Integration: Allografts may take longer to heal and integrate into your body compared to your own tissue (autograft). This can delay the overall recovery process.

- Higher Re-tear Rates: Studies suggest that allografts may have a slightly higher risk of re-tear, especially in younger or more active patients, as they may not be as strong as autografts.

- Immune Reaction: Although rare, your body might react against the foreign tissue, causing inflammation or graft failure.

- Limited Availability in India: Since only a few centers in India offer allografts, accessing them might be difficult, and the cost can be higher compared to traditional autograft options.

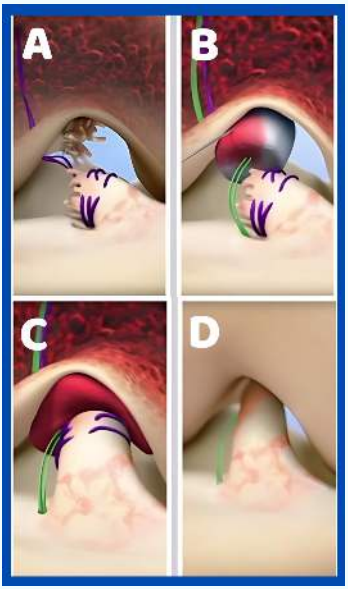
When to Consider Allografts: Allografts can be considered for patients who prefer not to use their own tissue or in cases where previous surgeries have failed. However, discussing the pros and cons with your surgeon is crucial to making an informed decision.

Q&A on Emerging ACL Treatments

Q18. Are there recent research methods that claim ACL recovery without using a graft?

Yes, recent studies have explored an innovative technique known as Bridge-Enhanced ACL Repair (BEAR). This technique does not involve using a traditional graft. Instead, it uses a collagen-based implant that acts as a bridge to help the torn ACL ends reconnect and heal naturally. Here's how it works:

- How BEAR Works: The surgeon places a special collagen implant between the torn ends of the ACL, and the implant is filled with the patient's blood to stimulate healing. The body uses this implant to grow new tissue, bridging the gap between the torn ends of the ligament.
- Advantages: BEAR aims to preserve the native ACL tissue, allowing for a more natural recovery with potentially fewer complications compared to traditional graft methods.
- Current Status: BEAR is still an emerging technique and is not widely available in India. It is currently under study, and more research is needed to confirm its long-term effectiveness and safety compared to traditional ACL reconstruction.



What is stem cell-impregnated ACL reconstruction, and how does it work? Stem cell-impregnated ACL reconstruction is an advanced technique that enhances the healing process by using stem cells, which have the potential to regenerate and repair tissues.

- How It Works: In this method, the graft used for ACL reconstruction is soaked or impregnated with stem cells derived from the patient's own bone marrow or fat tissue. These stem cells are believed to promote faster and more robust healing by supporting the regeneration of ligament tissue and improving graft integration.

- Advantages: This approach aims to enhance graft healing, reduce recovery time, and improve overall outcomes by utilizing the body's natural regenerative capabilities.

- Current Availability: Stem cell-impregnated ACL reconstruction is an experimental technique and is not yet widely available. It is mainly offered in research settings or specialized centers that focus on advanced sports medicine.

- Risks and Considerations: Since these methods are still under study, there are uncertainties about their long-term success and potential risks. Additionally, the cost can be higher, and insurance coverage may not be available.

Q19. What is JEWEL ACL ?

The JEWEL ACL is a permanent polyester implant designed for anterior cruciate ligament (ACL) reconstruction. It has a tensile strength comparable to the semitendinosus hamstring tendon, typically around 1200 N. This implant can be used with or without an additional tissue graft in both Partial Graft Sparing (PGS) and Total Graft Sparing (TGS) ACL reconstruction procedures. While it shows promise, further research is needed to evaluate its long-term effectiveness for widespread use, whether as a standalone implant or in combination with a harvested ACL graft.

Q and A based on hospital course

Q20. How long will I need to stay in the hospital for ACL surgery?

For ACL surgery, you will typically be admitted the evening before your scheduled procedure. This allows time for pre-operative preparations, such as final medical assessments, blood tests, and discussions with the anesthesiologist. The surgery itself usually takes between 1-2 hours, depending on the complexity of the case. After surgery, you will be monitored in the recovery room to ensure your vital signs are stable and there are no immediate complications. Most patients are discharged the day after surgery, usually by the afternoon. On that day, your surgical dressing will be checked, and you'll begin physiotherapy to ensure you're on the right track for recovery. It's important to have someone available to take you home as driving will not be allowed immediately after surgery.

Q21. What happens the day after ACL surgery?

The day after surgery, a series of important follow-ups will take place to ensure your recovery is progressing as expected. Your surgical team will first check your incision and dressing to make sure there are no signs of infection or excessive swelling. You will also have your first physiotherapy session, where you'll be guided through gentle exercises designed to reduce stiffness, prevent blood clots, and maintain mobility in your knee. This is a crucial step in the recovery process, as early movement helps prevent complications and supports faster healing. Your physiotherapist will also explain what exercises to continue at home and discuss any pain management strategies. Before you leave the hospital, you'll be given specific instructions on caring for your knee, using crutches, and scheduling follow-up appointments.

Q22. Do I need to prepare anything for my hospital stay?

Yes, since you'll be staying overnight at the hospital, it's a good idea to bring a few personal items for comfort. These might include loose-fitting clothes, such as sweatpants or shorts, that are easy to put on and won't irritate your knee. You should also pack toiletries, any medications you regularly take, and a phone charger. You won't be allowed to drive after surgery, so ensure you arrange for someone to take you home after discharge. Additionally, it's helpful to prepare your home in advance—setting up a comfortable recovery space with easy access to essentials and keeping frequently used items within reach. This will make your transition back home smoother and more comfortable.

Q23. Is it going to be very painful after surgery?

Some level of discomfort and pain is normal after ACL surgery, but it is usually well-managed with medication. Immediately after surgery, while you're in the recovery room, you will likely still feel the effects of the anesthesia, so your pain may be minimal at first. As the anesthesia wears off, your medical team will provide pain relief through oral or intravenous medications. It's common to experience swelling, stiffness, and moderate pain in the first few days, but this should improve over time with proper medication, rest, and rehabilitation exercises along with cold compression . Duty doctors will give you detailed instructions on how to manage pain at home, including the use of ice packs, elevation, and prescribed painkillers. The goal is to keep you as comfortable as possible while promoting healing. Don't hesitate to communicate with our patient management team if the pain feels unmanageable.

Q24. When will I be able to drink water and eat after surgery?

After ACL surgery, you will be monitored in the recovery room as the effects of anesthesia wear off. In most cases, patients are allowed to start sipping water 4-5 hours after surgery, once the medical team is sure you are fully awake and there are no signs of nausea or complications from the anesthesia. If you tolerate water well, you can gradually begin eating light meals later that same day. Your appetite may be slightly reduced immediately after surgery, so starting with soft, easily digestible foods is recommended. It's important to listen to your body and ease into eating solid foods as you feel comfortable.

Q25. Do I have to get my dressings done repeatedly after surgery?

Yes, dressing changes will be an essential part of your post-operative care to ensure your incision heals properly and stays free from infection. The first dressing change will occur the day after surgery while you're still in the hospital. After you are discharged, dressing is done on first follow up only as advised to you - May be 10-14 days , During this time you don't have to open dressing as it is properly packed and safe . After first dressing your crepe bandage will be removed and then you won't require another dressing

Unless you do not encounter any sign and symptoms of Infection like severe Pain and fever you must connect Us immediately .

Q26. Can you explain the post-surgery protocol for my understanding?

After ACL surgery, a structured post-surgery protocol will help guide your recovery and ensure optimal healing. In the immediate postoperative period, your knee will be bandaged, and you'll likely have a brace to keep it stable. You'll be advised to rest with your leg elevated to reduce swelling. Within the first 24 hours, a physiotherapist will begin gentle exercises to maintain mobility and prevent stiffness. Once discharged, you'll continue these exercises at home or in an outpatient setting. Your doctor will provide you with specific rehabilitation guidelines, including how to use crutches, managing your pain, and the exercises you need to follow. It's crucial to adhere to these instructions, as the early phase of recovery is critical for long-term success. Regular follow-up appointments will help track your progress, and adjustments will be made based on how you're healing.

You will be assessed for 3 things : Patellar mobility , Quadriceps contraction , knee flexion [knee bending] and knee extension [knee straightening] .

Q27. Will you advise medication after discharge and guide me on how to take them?

Yes, after you are discharged, you will be given detailed instructions on the medications you need to take. These typically include pain relief medications, anti-inflammatory drugs, and possibly antibiotics to prevent infection. Your doctor will explain the dosage, frequency, and any special instructions related to these medications. For example, you may be advised to take painkillers at regular intervals, especially during the first few days post-surgery, to stay ahead of any discomfort. If you have any questions or concerns about your medications, it's important to discuss them with your medical team. They will also guide you on how to taper off the medication as your pain decreases over time.

Q28. When should I visit you after discharge?

Your first follow-up visit will generally be scheduled within 7-10 days after surgery. During this visit, your surgeon will assess your incision, check the dressing, and evaluate how your knee is healing. They will also review your progress with mobility and the initial phase of your rehabilitation program. Depending on your recovery, you may need additional follow-up visits to monitor your progress and make any necessary adjustments to your treatment or physiotherapy. It's important to attend these appointments so that your surgeon can ensure that you're healing properly and on track with your recovery plan.

Q29. My room is on the second floor. Can I climb stairs immediately after discharge?

Climbing stairs can be challenging immediately after ACL surgery, but it is possible with the proper precautions and technique. Initially, you will be using crutches to help keep weight off your operated leg, and your physiotherapist will teach you how to safely go up and down stairs using them. It's important to take it slow and avoid putting too much strain on your knee. If possible, it's recommended to set up a temporary recovery space on the ground floor for the first few days to minimize stair use. If this isn't an option, make sure to have someone assist you when navigating stairs in the early stages of your recovery.

Post-Surgery Recovery and Rehabilitation

Q30. What is the recovery time for ACL surgery?

The recovery time for ACL surgery depends on the individual and the severity of the injury. On average, it takes about 6-9 months to fully recover and return to pre-injury activity levels. The first few weeks after surgery typically involve rest and limited activity, followed by a gradual return to activity with physiotherapy exercises.

For isolated ACL surgery, daily home activities can usually be resumed from day 1-2. It takes about 3 weeks to remove the long knee brace and apply short knee brace [hinged] and move without support . For normal sports, recovery takes about 6 months, and for collision sports like football, it takes about 8 months. This is a tentative recovery period and is generally the same regardless of the technique used, such as All-Inside or FiberTape.

Q31. What precautions should be taken during the immediate post-surgery days (up to 10 days)?

During the immediate post-surgery days (up to 10 days), it is important to follow your doctor's instructions and take precautions to protect the affected knee and support the healing process. This may include:

- Resting and elevating the affected leg as much as possible.
- Using pain medications as directed.
- Following a physical therapy program to improve strength and mobility.
- Avoiding activities that put strain on the affected leg, such as bending or twisting the knee or carrying heavy objects.
- Wearing a knee brace as prescribed.
- Protecting the incision site from injury or infection.

Q32. What kind of support will I need for walking initially?

Immediately after surgery, support of a knee brace, walker, crutches, and sticks may be needed depending on the stage of recovery. Gradually, you will be able to walk without any support depending on the advice of your doctor.

0-3 weeks: Long knee brace or ROM brace, with a walker preferred over crutches or stick at this phase of recovery.
3-6 weeks: Short knee brace usually advised with stick for 5-7 days support to walk.

Post 6 weeks : Brace and walk support both removed - Short hinged knee brace may be required for challenging conditions.

Q33. How can I manage pain after ACL surgery?

Pain after ACL surgery can be managed through a combination of over-the-counter or prescription pain medications, ice, and elevation of the affected leg. Immediately after surgery, pain management is done with intravenous analgesics, and sometimes painkiller patches are also given.

Q34. How long will I need to wear a knee brace after ACL surgery?

The length of time you will need to wear a knee brace after ACL surgery varies depending on your individual recovery and the recommendations of your doctor. In general, a knee brace is typically worn for at least the first few weeks after surgery to help protect the knee. Routinely, a long knee brace is used for the first 3 weeks, and then a short knee brace with a hinge is suggested for the next three weeks.

Q35. How should I take a bath after ACL surgery?

It is important to follow your doctor's instructions for bathing after ACL surgery. Generally, you should avoid soaking the affected leg in water until the incision has healed. Plaster covers can be used to protect the operated area and brace. You may be able to take a sponge bath or use a handheld showerhead to gently rinse the incision site and surrounding area. After the incision site has healed, you can take a bath as guided by your doctor. Most importantly, do not walk without a brace as directed by your doctor.

Steps for safe bathing:

- Move inside the bathroom with the help of support.
- Sit on a plastic chair or stool with the brace on.
- Once set, remove the brace (only if allowed by your doctor) and wear a plaster cover. If the brace is not allowed to be removed, keep the plaster cover over the brace.
- Once the bath is over, place the brace back on your knee.
- Move with the help of a walker outside.

Q36. What should I eat to recover after ACL surgery?

A well-balanced diet that includes plenty of protein, fruits, vegetables, and whole grains can help support recovery after ACL surgery. Your doctor or a nutritionist can recommend specific foods and supplements to support your recovery. Initially, as your movement will be limited, avoid eating spicy and heavy foods.

Q37. What is the immediate post-surgery protocol at the hospital after ACL surgery?

The post-surgery protocol at the hospital after ACL surgery may include pain management, physical therapy, and follow-up appointments with your doctor. Your care team will provide specific instructions and recommendations for your recovery.

Watch Video - Post Surgery Protocol

We have new videos - insert

Watch Video - Hospital Course after ACL

Q38. What precautions are needed after spinal anesthesia during the first 24 hours after surgery?

Spinal anesthesia is a type of regional anesthesia used to numb the lower half of the body during surgery. After spinal anesthesia, it is important to take certain precautions to ensure a safe and successful recovery:

- Avoid standing or walking for the first several hours after surgery: It is important to avoid standing or walking for the first several hours after spinal anesthesia to reduce the risk of falls and injury. You should remain in bed or on a couch and have someone assist you with any necessary movements.

- Drink fluids: It is important to drink fluids after spinal anesthesia to help prevent dehydration and maintain good hydration. Drink plenty of water, juice, or other non-alcoholic beverages as directed by your healthcare provider.

- Use the bathroom with caution: You may experience numbness or weakness in your lower body after spinal anesthesia, which can make it difficult to use the bathroom. It is important to use caution when using the toilet and to have someone assist along with a walker for better support.

- Avoid heavy lifting or strenuous activity: It is important to avoid heavy lifting or strenuous activity for the first 24 hours after spinal anesthesia to give your body time to recover. You should also avoid driving or operating heavy machinery during this time.
- Avoid constipation: You may be more prone to constipation after spinal anesthesia due to the medications used and the temporary loss of muscle function. Drink plenty of fluids and eat a high-fiber diet to help prevent constipation. If necessary, you may also take a mild laxative as directed by your healthcare provider.

It is important to follow your healthcare provider's instructions and take all necessary precautions after spinal anesthesia to ensure a safe and successful recovery. If you have any questions or concerns, be sure to speak with your healthcare provider.

Q39. Why have I been advised not to use a pillow under my head for the first 24 hours?

Avoiding the use of a pillow under your head for the first 24 hours post-surgery is typically to promote better circulation and reduce the risk of complications, such as Post Spinal Headache . Keeping your body in a flat or slightly elevated position helps maintain proper blood flow, particularly to your lower extremities, including your operated knee. Your healthcare team may also want to monitor your breathing and overall vitals more closely during this initial recovery period, which can be easier when you're lying flat.

Q40. Can I sleep on my side after ACL surgery?

It is generally recommended to sleep on your back or your unaffected side after ACL surgery to help protect the affected knee and reduce pressure on the incision site. You can place a pillow as suggested by your doctor.

Q41. What kind of braces are needed after ACL surgery?

After ACL surgery, you may be prescribed a knee brace to help protect the affected knee and provide stability. There are several different types of knee braces that can be used after ACL surgery:

- Long knee braces: These braces extend from the ankle to the upper thigh and are typically used to provide support and stability for the entire lower leg. They are applied immediately after surgery and remain on for 2-3 weeks post-surgery. Sometimes, these long knee braces have hinges (ROM Brace) that allow limited knee bending while keeping the brace on.
- Hinged knee braces: These braces have hinges on either side of the knee joint that allow for movement while still providing support and stability. They may be recommended during the late recovery phase.

Your doctor will recommend the most appropriate type of knee brace for your needs and the activities you will be participating in.

Watch Video

Q42. Does cold compression help immediately after ACL surgery?

Cold compression can be helpful immediately after ACL surgery to reduce swelling and pain in the affected knee. It is generally recommended to apply cold to the knee for 10-20 minutes at a time, several times a day, for the first few days after surgery. This can be done with properly wrapped ice packs or cryotherapy. Be sure to wrap the ice pack in a towel or cloth to protect your skin, and do not keep it on for too long to avoid cold blisters.


ICE COMPRESSION


CORRECT METHOD OF
COLD COMPRESSION
AND MISTAKES
TALK
BY SPORTS
MEDICINE DOCTOR
IN –हिंदी

Watch Video

Q43. Which is better after ACL surgery: crutches or a walker?

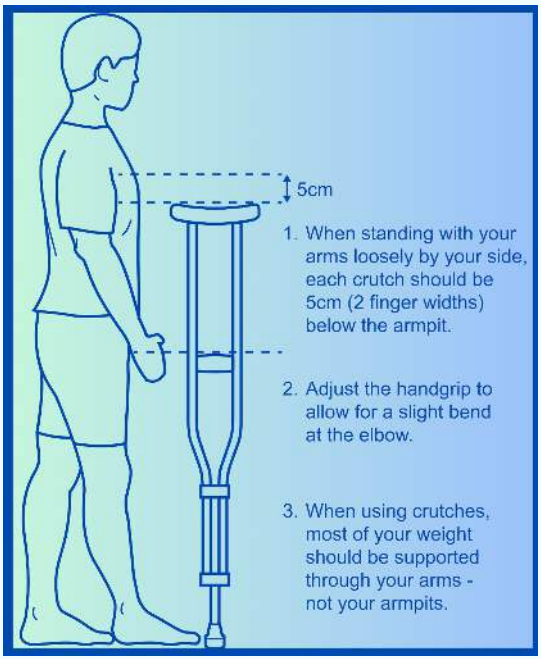
The choice between crutches and a walker after ACL surgery depends on your individual needs and preferences. Crutches can help reduce weight-bearing on the affected leg, while a walker can provide additional stability. In our practice, we suggest a walker for this support.

Q44. What is the correct method to use crutches after ACL surgery?

Crutches are often used after ACL surgery to help patients walk and move around during the recovery process. Here are some tips for using crutches properly after ACL surgery:

1. Adjust the crutches to the proper height: The top of the crutch should be level with your armpit when you are standing upright. This will help you maintain good posture and reduce the risk of injury.
2. Hold the crutches correctly: When using crutches, hold the handles with your arms bent at a comfortable angle. Avoid holding the crutches too tightly, as this can cause fatigue.
3. Step correctly: Take small, controlled steps and avoid swinging your body or leaning too far forward. Use your arms to push yourself forward and keep your weight evenly distributed on both feet.
4. Use the crutches on both sides: It is important to use crutches on both sides of your body to avoid overloading one side. This promotes balance and reduces the risk of injury.
5. Avoid stairs: It is generally recommended to avoid stairs during the first few days after ACL surgery. If you need to go up or down stairs, use a handrail and take extra care to maintain your balance.

It is important to follow your doctor's or physiotherapist's instructions on how to use crutches safely and effectively during your recovery from ACL surgery.



Q45. What is the correct method to use a walker after ACL surgery?

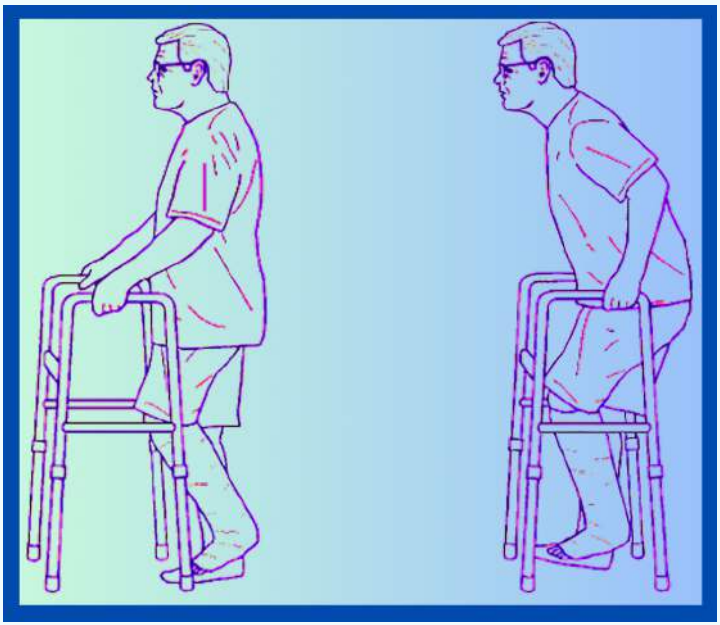
A walker is a mobility aid that can be used after ACL surgery to help patients walk and move around during the recovery process. Here are some tips for using a walker properly after ACL surgery:

- Adjust the walker to the proper height: The top of the walker should be level with your hips when you are standing upright. This helps you maintain good posture and reduce the risk of injury.

- Grip the walker correctly: Grip the handles with your palms facing down and your elbows bent at a comfortable angle. Avoid gripping the handles too tightly to prevent fatigue.

- Step correctly: Take small, controlled steps and avoid swinging your body or leaning too far forward. Use your arms to push the walker forward and keep your weight evenly distributed on both feet.
- Use the walker on both sides: It is important to use the walker on both sides of your body to avoid overloading one side. This promotes balance and reduces the risk of injury.
- Avoid stairs: It is generally recommended to avoid stairs during the first few days after ACL surgery. If you need to go up or down stairs, use a handrail and take extra care to maintain your balance.

It is important to follow your doctor's or physiotherapist's instructions on how to use a walker safely and effectively during your recovery from ACL surgery.



Q46. How will I use the commode for my daily routine ?

Post-surgery, it's important to consider mobility limitations when using the commode. A raised toilet seat can reduce the strain of sitting and standing. Grab bars or handrails near the toilet provide support and stability. If necessary, a bedside commode or commode chair can be used to minimize walking. Depending on your surgery, you may have restrictions on bending, twisting, or weight-bearing, so follow these guidelines to prevent injury. If assistance is required, having someone nearby can help with transfers. Additionally, using tools like reachers or long-handled hygiene aids can ensure you maintain proper hygiene without overexertion.

Q47. When can I Travel back to home post surgery ?

The timeline for traveling back home after surgery depends on the type of procedure, your recovery, and how well you're managing post-operative care. Typically, for most surgeries, patients can travel home within a few days to a week, provided they are stable and able to move comfortably. It’s crucial to avoid long periods of sitting or standing during travel to prevent complications like blood clots. You should have follow-up care in place and a clear understanding of any mobility restrictions.

Q48. Do I need any documents to Fly back after surgery ?

After surgery, you may need specific medical documents for your flight. This could include a letter from your surgeon stating that you’re fit to travel, any prescriptions or medical records, and details of post-operative care instructions. It’s also wise to have information about your surgery in case you need medical assistance while traveling. If you have any mobility restrictions, carrying a mobility aid letter or clearance for flying might be necessary. Check with your airline for specific requirements for post-surgery passengers.

Q49. When can I join my school / college post surgery ?

After isolated ACL reconstruction, most students can return to school within 2–4 weeks, provided they can manage pain and mobility with minimal assistance. During the first few weeks, focus on reducing swelling and regaining basic movement. Avoid sports or intense physical activities for at least 3–6 months. If needed, use crutches or a brace for mobility support. It's essential to follow your rehabilitation plan closely and avoid overexertion to ensure proper healing. Follow-up visits will help track your progress and determine when you can safely resume more demanding activities. Always consult with your surgeon before making decisions on resuming physical tasks.

Q50. How many times do I need to follow up post surgery - as I am coming from a distant place - will it be an issue ?

After surgery, follow-up visits are crucial to monitor healing. Typically, you will need to come back for a check-up within 1-2 weeks post-surgery to assess progress and remove stitches, if applicable. After that, follow-up visits might be required every few weeks or months, depending on your recovery. Monitoring can also be done through telemedicine consultations for convenience. If you live far away, we can discuss a plan to ensure your recovery is on track, including remote check-ins and any necessary tests to assess healing. Follow-up consultations via online video calls are used to assess your recovery, answer any concerns, and make adjustments to your treatment plan as needed. You may be asked to share images of the surgical site or provide updates on your symptoms.

Q51. What is the correct method to use a stick after ACL surgery, and what type of stick is recommended? video

A stick (also known as a cane) can be used after 7-10 days post ACL surgery after a patient is on full weight bearing and doesn't need a walker to help patients walk and move around during the recovery process. Here are some tips for using a stick properly after ACL surgery:

1. Adjust the stick to the proper height: The top of the stick should be level with your wrist when you are standing upright. This helps you maintain good posture and reduce the risk of injury.
2. Grip the stick correctly: Grip the handle with your dominant hand and your elbow bent at a comfortable angle. Avoid gripping the handle too tightly to prevent fatigue.
3. Step correctly: Take small, controlled steps and avoid swinging your body or leaning too far forward. Use the stick to help you balance and keep your weight evenly distributed on both feet.
4. Use the stick on the opposite side of your injured leg: It is important to use the stick on the opposite side of your injured leg to help support your weight and reduce the load on your injured knee.
5. Choose the right type of stick: There are several different types of sticks available, including straight sticks, offset sticks, and quad sticks. The best type of stick for you will depend on your individual needs and preferences. It is generally recommended to use a stick with a wide, stable base for added stability.

It is important to follow your doctor's or physiotherapist's instructions on how to use a stick safely and effectively during your recovery from ACL surgery.

Watch Video

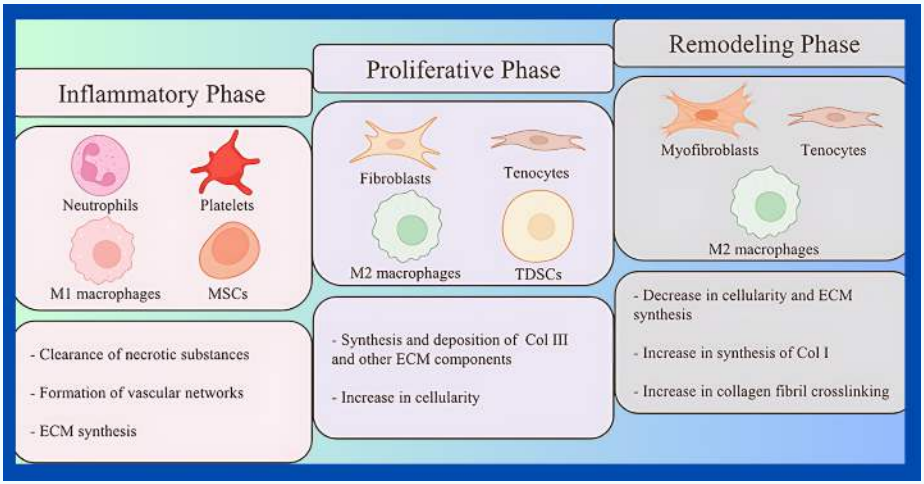
Q52. How does ACL ligament graft healing take place?

After ACL reconstruction surgery, the body's natural healing process begins to repair and integrate the graft material into the surrounding tissues. Here is a general overview of how the ACL ligament graft healing process works:

- Inflammation: Immediately after surgery, the body's immune system responds to the injury by releasing immune cells and signaling molecules to the affected area. This process, known as inflammation, typically lasts for the first few days after surgery and helps to clean up damaged tissue and initiate the healing process.
- Primary Union: Over the next few weeks, the body begins with the primary union of the graft with collagen fibers, helping to stabilize the graft.
- Remodeling: As the graft tissue begins to mature, the body starts to remodel it into healthy, functional tissue. This process typically begins around 3-6 months after surgery and involves the breakdown and reformation of collagen fibers and the incorporation of the graft material into the surrounding tissue.

- Maturation: As the healing process continues, the graft material becomes more integrated with the surrounding tissue, and the ligament becomes stronger and more functional. This process can take several months to a year or more to complete, depending on the individual patient and their specific needs.

This should be changed



Q53. During which time period of healing is the ACL the weakest?

During the early stages of healing after ACL reconstruction surgery, the ligament is typically at its weakest. This is due to the fact that the graft material is not yet fully integrated into the surrounding tissue and the ligament has not yet regained its full strength.

In general, the ligament is weakest during the first few weeks after surgery, as the body is still in the early stages of inflammation and scar tissue formation. As the healing process continues and the scar tissue begins to mature, the ligament becomes stronger and more functional. However, it typically takes several months to a year or more for the ligament to reach its full strength and for the graft material to be fully integrated into the surrounding tissue.

During this time, it is important to follow your healthcare provider's recommendations and to participate in a comprehensive rehabilitation program to support the healing process and optimize the outcome. This may include physical therapy exercises to improve strength, flexibility, and stability in the knee. It is also important to avoid activities that put excessive strain on the ligament, such as high-impact sports or activities that involve cutting or pivoting, until the ligament has fully healed and regained its strength.

Q54. What is the role of muscle strength surrounding the knee in healing and recovery?

The muscles surrounding the knee play an important role in healing and recovery after ACL reconstruction surgery. Strong muscles can help to support the knee joint, improve stability, and reduce the risk of further injury.

During the rehabilitation process after ACL reconstruction surgery, it is important to focus on exercises that improve the strength of the quadriceps and hamstring muscles, as well as the muscles of the hip and core. These exercises can help to improve the stability and function of the knee joint and reduce the risk of further injury.

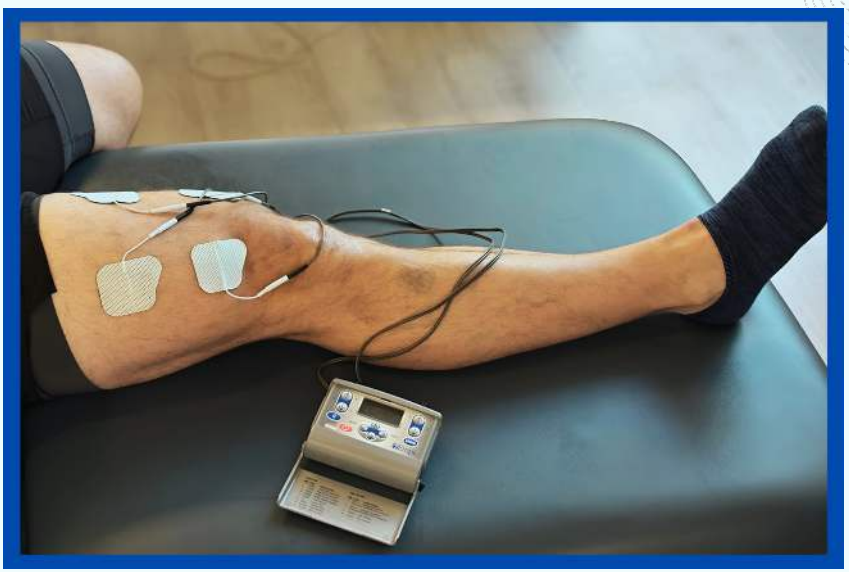
In general, it is recommended to progress slowly and cautiously when returning to physical activity after ACL reconstruction surgery. It is important to follow your healthcare provider's recommendations and to participate in a comprehensive rehabilitation program to ensure that the muscles surrounding the knee are properly conditioned and prepared for the demands of physical activity.

Q55. What should I do if my thigh muscles are weak despite continuous exercise ?

If you are experiencing weakness in your thigh muscles despite participating in a rehabilitation program after ACL reconstruction surgery, a few modalities as below can help but should only be used with the guidance of a healthcare professional:

1. Resistance training: Involves using weights or other resistance equipment to strengthen the muscles. This type of exercise can be particularly effective in improving muscle strength and function after ACL reconstruction surgery. Resistance can be applied manually, with weight cuffs, or TheraBand.
2. Neuromuscular electrical stimulation (NMES): Involves using electrical impulses to stimulate muscle contractions. This modality can be useful in improving muscle strength and function after ACL reconstruction surgery, particularly in cases where muscle weakness persists despite traditional rehabilitation efforts.
3. Neuromuscular retraining: Involves using specific exercises and techniques to improve muscle activation and coordination. This modality can be helpful in improving muscle strength and function after ACL reconstruction surgery, particularly in cases where muscle weakness is due to impaired muscle activation.

Moreover, nutritional supplements like L-arginine and other amino acids may be useful if advised by your doctor.



Q56. For resistance exercises, which is better: TheraBand or weight cuffs?

Both TheraBand and weight cuffs can be effective tools for resistance training after ACL reconstruction surgery. The specific type of resistance exercise equipment that is best for you may depend on your individual needs and goals, as well as your current level of strength and function.

- TheraBand: A brand of elastic resistance bands that can be used to perform a variety of exercises to improve strength, flexibility, and stability. These bands are portable and can be easily adjusted to provide different levels of resistance, making them a convenient and versatile option for resistance training.
- Weight cuffs: Wearable weights that can be used to add resistance to lower body exercises. These weights can be particularly effective in improving muscle strength in the lower body, including the thigh muscles, but may be less versatile than TheraBands for upper body or core exercises.

It is important to follow your healthcare provider's recommendations and to progress slowly and cautiously when starting a new resistance training program after ACL reconstruction surgery. Such exercises must always be done under the guidance of a doctor.

Q57. What is the relation of color-coding and resistance level of TheraBand?

TheraBand is a brand of elastic resistance bands commonly used in rehabilitation and exercise programs to improve strength, flexibility, and stability. These bands are available in a range of resistance levels, typically indicated by color-coding. The color-coding system helps users select the appropriate resistance level for their specific needs and goals.

Here is a general guide to the color-coding system for TheraBand resistance bands:

- Yellow: Light resistance (approx. 2-4 lbs)
- Red: Medium resistance (approx. 4-6 lbs)
- Green: Heavy resistance (approx. 10-12 lbs)
- Blue: Extra heavy resistance (approx. 15-20 lbs)
- Black: Special heavy resistance (approx. 25-30 lbs)

It is important to note that the resistance levels provided by TheraBand resistance bands are approximate and may vary slightly depending on the specific product and manufacturer. It is always a good idea to check the packaging or product information to confirm the specific resistance level of the band you are using.

COLOR	THICKNESS	RESISTANCE AT 100% ELONGATION	RESISTANCE INCREASE
	Max	28.4 lbs 13 kg	40%
	Super heavy	20.4 lbs 9.2 kg	40%
	Special heavy	14.6 lbs 6.6 kg	25%
	Extra heavy	11.6 lbs 5.3 kg	25%
	Heavy	9.2 lbs 4.2 kg	25%
	Medium	7.4 lbs 3.4 kg	25%
	Thin	6 lbs 2.7 kg	25%

Q58. How many repetitions & sets are recommended for resistance training?

The number of repetitions and sets recommended for resistance training after ACL reconstruction surgery depends on various factors, including the specific exercise being performed, the individual's current level of strength and function, and their goals.

Here are some general guidelines:

1. Repetitions: Start with 8-12 repetitions per set for most exercises. As you progress, you may be able to increase the number of repetitions to 12-15 or more, depending on your goals and current level of strength and function.
2. Sets: Start with 1-2 sets of each exercise and gradually increase the number of sets as your strength and function improve. For most exercises, 2-3 sets per exercise is a good goal to aim for.
3. Rest intervals: Allow sufficient rest between sets to let your muscles recover. A rest interval of 30-60 seconds is appropriate for most exercises.

It is important to follow your healthcare provider's recommendations and to progress slowly and cautiously when starting a new resistance training program after ACL reconstruction surgery.

Q59. Taking whey protein immediately after exercise will be helpful. Please suggest?

Protein is an essential nutrient that plays a key role in muscle repair and recovery after exercise. Some research suggests that consuming protein after exercise may help to support muscle recovery and improve strength and function over time.

Whey protein is a type of protein derived from milk and is commonly used as a dietary supplement. It is a high-quality protein rich in essential amino acids, making it a popular choice for athletes and active individuals.

There is some evidence to suggest that consuming whey protein immediately after exercise may be helpful in supporting muscle recovery and promoting strength and function. However, the optimal timing and dosage of protein intake may vary depending on the individual's specific needs and goals.

It is generally recommended to consume protein within 1-2 hours after exercise to support muscle recovery and repair. The specific amount of protein recommended may vary depending on the individual's age, sex, body size, and activity level, as well as the intensity and duration of the exercise.

If you are interested in using whey protein as a dietary supplement, it is important to speak with your healthcare provider or a registered dietitian to determine the appropriate timing and dosage for your specific needs and goals.

Q60. What are natural sources of such proteins that I can use after exercise in ACL recovery?

There are many natural sources of protein that can be incorporated into your diet to support muscle recovery and repair after exercise, including those that are specifically beneficial during ACL recovery. Some examples of natural sources of protein that may be particularly useful during the recovery process include:

1. Lean meats: Chicken, turkey, and fish are high in protein and rich in essential amino acids important for muscle repair and recovery.
2. Dairy products: Milk, yogurt, and cheese are good sources of protein and also contain important nutrients such as calcium and vitamin D, which are important for bone health.
3. Beans and legumes: Lentils, chickpeas, and black beans are high in protein and are also a good source of fiber and other important nutrients.
4. Nuts and seeds: Almonds, peanuts, and chia seeds are high in protein and are also a good source of healthy fats and other important nutrients.
5. Eggs: Eggs are a good source of high-quality protein and are also rich in essential amino acids that are important for muscle repair and recovery.

It is important to note that while these natural sources of protein can be beneficial in supporting muscle recovery and repair after exercise, it is also important to consume a balanced diet that includes a variety of other nutrients to support overall health and well-being. If you have any questions or concerns about your protein intake or any other aspect of your diet during the recovery process, it is important to speak with your healthcare provider or a registered dietitian. They will be able to provide you with more specific guidance and recommendations based on your individual situation.

Complications and Retears

Q61. What is extension lag in my operated leg?

Extension lag is a term used to describe the inability of a joint to fully extend or straighten. It can occur after certain types of surgery, such as ACL reconstruction surgery, and can be caused by a variety of factors, including muscle weakness and tightness of the back side muscles of the thigh.

In the case of ACL reconstruction surgery, extension lag mostly appears due to a lack of proper physiotherapy and faulty walking techniques. Extension lag may also be caused by nerve damage or other complications from the surgery.

The solution is mostly through physiotherapy, and only in some cases, re-surgery may be needed if the cause is mechanical.

Watch Video

Q62. What are the causes of ACL surgery failure?

There are several factors that can contribute to the failure of ACL reconstruction surgery. Some of the most common causes of ACL surgery failure include:

1. Poor surgical technique: This can be caused by a variety of factors, such as inadequate implant placement or improper ligament tension.
2. Incomplete rehabilitation: If the patient does not complete the recommended rehabilitation program after surgery, the ACL reconstruction may fail. Rehabilitation is an important part of the recovery process and is necessary to help the ligament heal properly and regain strength.
3. Return to sports too soon: If the patient returns to high-impact activities or sports before the ligament has fully healed, the ACL reconstruction may fail. It is important to follow the recommended timeline for return to sports to ensure that the ligament has sufficient time to heal.
4. Overuse: If the patient overuses the knee after surgery, the ACL reconstruction may fail. This can be caused by returning to high-impact activities or sports too soon, or by participating in activities that put too much strain on the knee.
5. Medical complications: In rare cases, medical complications such as infection, blood clots, or nerve damage can occur after ACL reconstruction surgery and may lead to failure of the procedure.
6. Structural abnormalities: In some cases, the patient may have structural abnormalities in the knee that increase the risk of ACL surgery failure. This can include issues with the bone or cartilage in the knee or abnormalities in the shape or alignment of the knee joint.

Most importantly, nowadays, due to some marketing gimmicks of early return to sports with FiberTape, many patients encounter retearing of the ACL as they start early vigorous activities due to the misconception related to FiberTape.

It is important to discuss the potential causes of ACL surgery failure with your healthcare team and to follow their recommendations for post-operative care to minimize the risk of failure. If you have any concerns about the success of your ACL reconstruction surgery, it is important to speak with your healthcare provider.

Watch Video

Q63. Is it possible to fully recover from an ACL injury?

Yes, full recovery from an ACL injury is achievable with appropriate medical care, including surgical reconstruction if necessary and a structured rehabilitation program. Recovery involves restoring the knee's stability, strength, and function to pre-injury levels. The recovery timeline typically spans 6-12 months, depending on the severity of the injury and adherence to physical therapy. Athletes often return to their sports after completing rehab, though the process requires patience and consistent effort.

Q64. What is the success rate of ACL surgery, and why is it considered high?

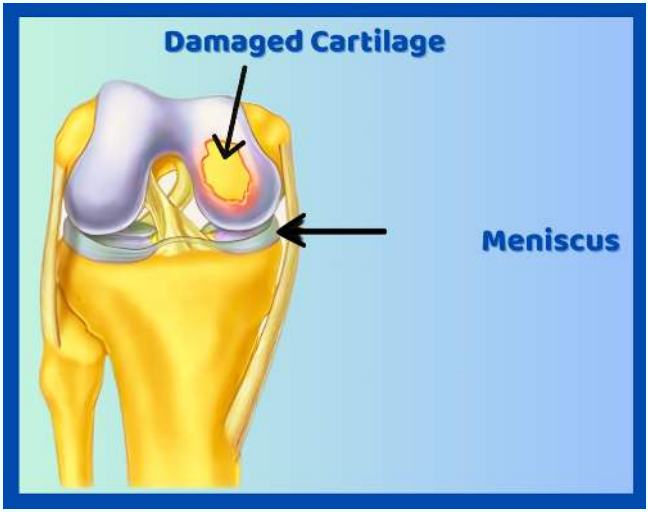
ACL reconstruction surgery has a success rate exceeding 85-90%. The procedure is highly effective because it involves advanced surgical techniques, such as arthroscopy, which minimize invasiveness and improve precision. Additionally, modern graft options (like patellar tendon or hamstring grafts) and personalized rehabilitation programs contribute to restoring knee stability and function. Most patients regain their ability to perform daily activities and even return to sports.

Q65. Can an ACL injury cause long-term problems?

Untreated or improperly managed ACL injuries can lead to chronic instability, which increases the likelihood of further knee injuries. Over time, this instability can cause wear and tear on the cartilage and meniscus, eventually leading to osteoarthritis. However, timely intervention, whether surgical or conservative, coupled with a rigorous rehabilitation program, can significantly mitigate these risks.

Q66. Can an ACL injury lead to other knee injuries?

An ACL injury destabilizes the knee joint, making it more susceptible to secondary injuries like meniscal tears, ligament sprains, and cartilage damage. Without the ACL's stabilizing role, the knee is prone to abnormal movements, particularly during pivoting or twisting activities, further compounding the damage.



Q67. Can an ACL injury occur in both knees at the same time?

While rare, simultaneous ACL injuries in both knees can occur in traumatic events such as car accidents or high-impact sports collisions. These cases require specialized surgical intervention and extended rehabilitation to address the complex nature of bilateral injuries.

Q68. What happens if I delay my ACL surgery?

Delaying ACL surgery can result in worsening knee instability and an increased risk of secondary injuries, such as meniscal tears and cartilage damage. Chronic instability may also lead to early-onset arthritis. However, in some cases, a short delay is necessary to allow swelling to subside and improve range of motion for better surgical outcomes.

Q69. Is there any chance of getting an injury to the other knee if I leave my ACL tear untreated?

Yes, compensatory movements due to instability in the injured knee can place undue stress on the uninjured knee, increasing its risk of injury. Overuse and altered biomechanics are common reasons for secondary injuries.

Q70. What causes knee pain in the other knee after an ACL tear in one knee?

Pain in the uninjured knee often stems from compensatory weight-bearing and altered gait mechanics. The additional stress placed on the healthy knee to support daily activities can lead to muscle fatigue, joint strain, or even overuse injuries.

Returning to Sports and Daily Activities

Q71. Is it possible to fully recover from an ACL injury?

Yes, with proper treatment and rehabilitation, it is often possible to fully recover from an ACL injury and return to normal activities. However, it is important to follow the recommendations of your doctor and physiotherapist, and to be patient with the healing process. It may take several months or even up to a year to fully recover, depending on the severity of the injury and the individual's response to treatment.

Q72. What is the success rate of ACL surgery, and why is it considered to be high?

The success rate of ACL surgery is generally high, with most people experiencing significant improvement in symptoms and function after the procedure. This is due to advances in surgical techniques and rehabilitation, which allow the ACL to heal properly and restore stability to the knee. Additionally, careful preoperative planning, accurate surgical technique, and thorough postoperative rehabilitation play a crucial role in ensuring a successful outcome.

Q73. Can an ACL injury cause problems with walking or running?

Yes, an ACL injury can cause problems with walking or running if it leads to instability or weakness in the affected leg. This can result in pain, discomfort, and difficulty performing daily activities, as well as decreased physical ability and mobility.

Q74. Can an ACL injury cause problems with driving?

An ACL injury can cause problems with driving if it affects your ability to operate the pedals or if it causes pain or instability while sitting for long periods. However, most individuals are able to resume driving within a few days to a few weeks after the injury, as their efficiency increases to a normal level. These varying symptoms sometimes cause a false belief of recovery among patients as well.

Q75. Can an ACL injury cause problems with work?

During the initial days after an ACL injury, it is possible to experience some difficulty with work if the injury affects your ability to perform job duties or causes pain or instability while sitting or standing for long periods. However, with less invasive surgery and a focus on rehabilitation, most individuals are able to return to work relatively quickly.

Q76. Can an ACL injury cause problems with sleep?

Yes, an ACL injury can cause problems with sleep if it causes pain or discomfort that disrupts your ability to fall asleep or stay asleep.

Q77. Can an ACL injury cause problems with relationships?

An ACL injury can cause problems with relationships if it affects your ability to participate in activities that you enjoy with your loved ones or if it causes frustration or resentment due to the limitations it imposes. This can result in decreased intimacy and decreased overall enjoyment of activities and social interactions.

Q78. Can an ACL injury affect my mental health?

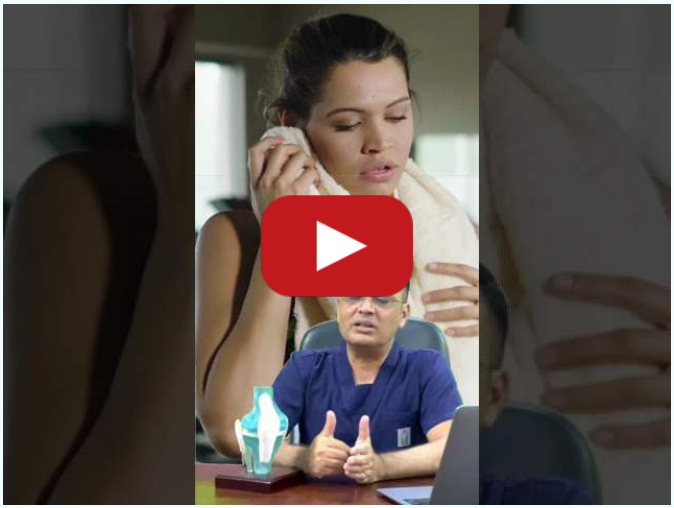
An ACL injury can cause emotional distress and mental health issues such as depression and anxiety. The physical limitations and lifestyle changes brought on by the injury can be challenging to adjust to and can take a toll on one's emotional well-being. It is important to reach out to loved ones and a mental health professional for support if you are struggling emotionally after an ACL injury.

Q79. Can an ACL injury cause problems with pregnancy or childbirth?

An ACL injury can cause problems with pregnancy or childbirth if it affects your physical ability to carry a pregnancy or deliver a baby.

Q80. Is it possible to prevent an ACL injury?

While it is not always possible to prevent an ACL injury, there are steps that can be taken to reduce the risk. These may include warming up before physical activity, using proper technique, and wearing appropriate footwear. Additionally, strength training and stretching exercises can help improve the stability and flexibility of the knee. For female sports persons, landing techniques also matter a lot.



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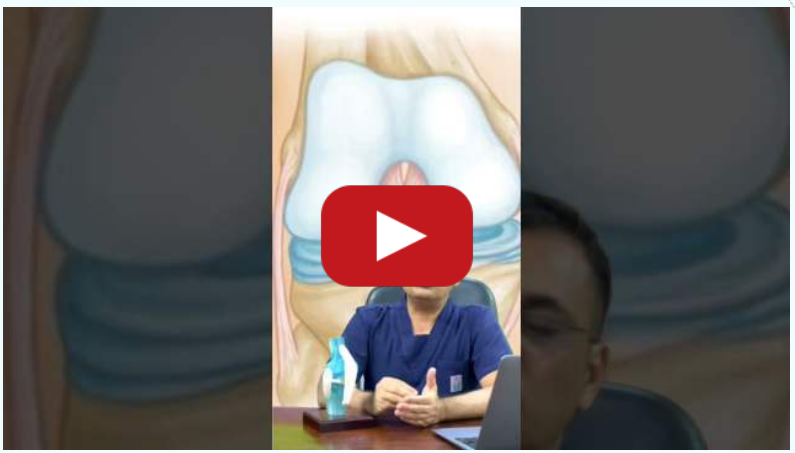
Q81. Can an ACL injury cause long-term problems ?

Yes, if an ACL injury is left untreated, it can lead to long-term problems. Over time, the instability caused by an ACL injury can lead to degeneration of the knee joint (OA Knee), causing pain and difficulty with activities of daily living. The knee may also become more susceptible to other knee injuries, such as meniscal tears or damage to the cartilage. It's important to seek proper treatment for an ACL injury to prevent these long-term problems and ensure a successful recovery.

Watch Video

Q82. Can an ACL injury lead to arthritis?

If an ACL injury is not treated properly, it can increase the risk of developing osteoarthritis. Over time, instability caused by an ACL injury can lead to degeneration of the knee joint, causing pain and difficulty with activities of daily living. To reduce the risk of developing arthritis, it is important to seek proper treatment for an ACL injury and follow a physiotherapy and rehabilitation program.



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Q83. Can an ACL injury lead to other knee injuries?

An ACL injury can increase the risk of other knee injuries, such as meniscal tears or damage to the cartilage (smooth glistening cover over bones). This is because the ACL provides stability to the knee, and when it is injured, the knee becomes more susceptible to further injury. To reduce the risk of additional knee injuries, it's important to seek proper treatment for an ACL injury, getting injured in the other knee due to the tendency of imbalance and falling.

Q84. Can an ACL injury cause permanent damage to the knee?

If an ACL injury is not treated properly, it can lead to long-term instability and degeneration of the knee joint, which can cause permanent damage. This can result in difficulty with activities of daily living and increased risk of developing osteoarthritis. It is important to seek prompt treatment for ACL injuries.

Watch Video

Q85. What if I delay my surgery for the ACL—is it okay, or can it damage my knee?

ACL (anterior cruciate ligament) injuries can be treated with either non-surgical or surgical methods, depending on the severity of the injury and the individual's specific needs and goals. Non-surgical treatment options may include rest, physical therapy, and the use of assistive devices such as crutches or a knee brace.

Surgical treatment for ACL injuries typically involves reconstructing the ligament using a tissue graft. This surgery is typically recommended for individuals with severe ACL injuries or for those who are unable to return to their desired level of activity with non-surgical treatment.

If you have an ACL injury and are considering surgical treatment, it is generally recommended to have the surgery as soon as possible after the injury. This is because ACL injuries can cause instability in the knee joint, which can lead to further damage and decreased function if left untreated.

In addition, the longer an ACL injury goes untreated, the more difficult it may be to return to your pre-injury level of activity.

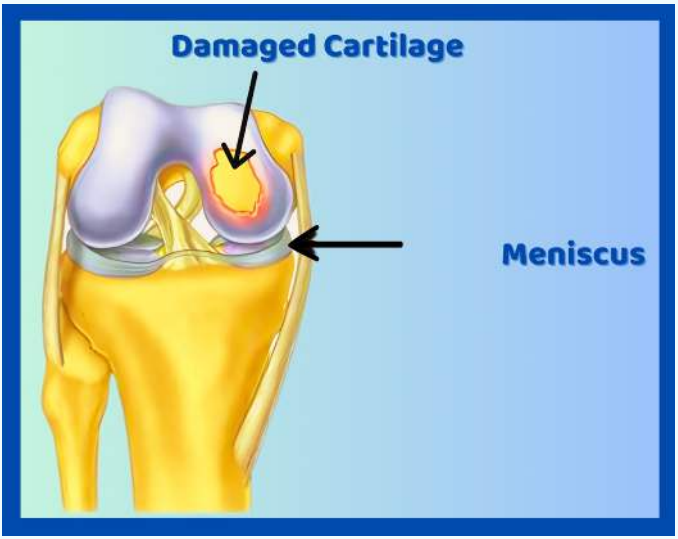
If you are considering surgery for your ACL injury and have concerns about the timing of the procedure, it is important to speak with your healthcare provider. They will be able to provide you with more specific guidance and recommendations based on your individual situation and the severity of your injury.

Q86. Is there any chance of knee joint cartilage degeneration if I delay surgery?

ACL injuries can cause instability in the knee joint, which can lead to further damage and decreased function if left untreated. In particular, untreated ACL injuries may increase the risk of degeneration of the cartilage in the knee joint.

Cartilage is a type of connective tissue that cushions and protects the bones in the joint. Degeneration of cartilage, also known as osteoarthritis, is a common condition that occurs when the cartilage in the joint wears down over time, leading to pain, stiffness, and decreased mobility.

Untreated ACL injuries may increase the risk of cartilage degeneration in several ways. First, the instability caused by the injured ligament may put additional stress on the cartilage, leading to wear and tear. In addition, the instability caused by an untreated ACL injury may also lead to abnormal movements or alignment of the joint, which can also contribute to cartilage degeneration.



Watch Video

Q87. What are other side effects or complications that may happen if I leave my ACL complete tear untreated?

ACL injuries can cause instability in the knee joint, which can lead to further damage and decreased function if left untreated. Some of the other potential side effects or complications of untreated ACL injuries may include:

1. Increased risk of further injury: An untreated ACL injury may increase the risk of further injury to the knee joint, such as damage to the cartilage, ligaments, or bones.
2. Pain and swelling: Untreated ACL injuries may cause persistent pain and swelling in the affected knee, which can interfere with normal daily activities.
3. Decreased mobility: An untreated ACL injury may lead to decreased mobility and flexibility in the affected knee, which can affect your ability to walk, run, or engage in other physical activities.
4. Decreased muscle strength: An untreated ACL injury may lead to decreased muscle strength in the affected leg, which can affect your ability to perform certain activities and may increase the risk of further injury.
5. Difficulty returning to pre-injury level of activity: An untreated ACL injury may make it more difficult to return to your pre-injury level of activity and may require a longer recovery period.

If you have an ACL injury and are considering surgical treatment, it is generally recommended to have the surgery as soon as possible after the injury to reduce the risk of further damage and complications. If you have concerns about the timing of the surgery or the potential risks of delaying the procedure, it is important to speak with your healthcare provider.

Q88. Is there any chance of getting injured in the other knee also if I leave my ACL tear untreated?

ACL injuries can cause instability in the knee joint, which can lead to further damage and decreased function if left untreated. While an untreated ACL injury may not directly increase the risk of injury to the other knee, it may increase the risk of developing muscle imbalances or other functional impairments that could potentially increase the risk of injury to the other knee or other joints.

For example, an untreated ACL injury may cause weakness or muscle imbalances in the affected leg, which may affect your gait or ability to perform certain activities. This may put additional stress on the other knee or other joints, increasing the risk of injury.

In addition, an untreated ACL injury may affect your ability to engage in physical activities or sports, which may increase the risk of injury to the other knee or other joints if you attempt to participate in these activities without proper treatment or rehabilitation.

If you have an ACL injury and are considering surgical treatment, it is generally recommended to have the surgery as soon as possible after the injury to reduce the risk of further damage and complications. If you have concerns about the timing of the surgery or the potential risks of delaying the procedure, it is important to speak with your healthcare provider. They will be able to provide you with more specific guidance and recommendations based on your individual situation and the severity of your injury.

Q90. In case of my ACL tear of one knee, what is the cause of knee pain in the other knee?

There are many potential causes of knee pain in individuals who have had an ACL injury in one knee. Some possible causes of knee pain in the other knee may include:

1. Overuse or strain: If you have had an ACL injury in one knee, you may be using the other knee more to compensate for the injured knee. This can lead to overuse or strain on the other knee, which may cause pain.
2. Muscle imbalances: An ACL injury may cause muscle imbalances or weakness in the affected leg, which may affect your gait or ability to perform certain activities. This can put additional stress on the other knee, potentially leading to pain.
3. Osteoarthritis: Osteoarthritis, a common condition that causes degeneration of the cartilage in the joint, may be more likely to develop in individuals who have had an ACL injury. This condition can cause pain and stiffness in the affected knee.
4. Other knee injuries: It is also possible to sustain an injury to the other knee, either as a result of compensating for the injured knee or due to other factors such as a direct injury or overuse.

If you have had an ACL injury in one knee and are experiencing pain in the other knee, it is important to speak with your healthcare provider. They will be able to evaluate your symptoms and help determine the cause of the pain and recommend appropriate treatment.

Q91. Can you share references and studies showing that delaying ACL surgery can be damaging for my knee?

There is evidence to suggest that delaying surgical treatment for ACL injuries may increase the risk of further damage to the knee joint and decreased function. Here are a few studies that have addressed this issue:

- A study published in the Journal of Orthopaedic & Sports Physical Therapy in 2002 found that individuals who delayed surgical treatment for ACL injuries had a higher risk of developing osteoarthritis in the affected knee compared to those who received surgery within three months of the injury.

- A review published in the Journal of Bone and Joint Surgery in 2008 analyzed the results of several studies and found that individuals who delayed surgery for more than six months after an ACL injury had a higher risk of developing knee osteoarthritis and a lower likelihood of returning to their pre-injury level of activity compared to those who received surgery sooner.

- A study published in the Journal of Orthopaedic & Sports Physical Therapy in 2015 found that individuals who delayed surgery for ACL injuries had a lower likelihood of returning to their pre-injury level of activity and a higher risk of developing knee osteoarthritis compared to those who received surgery within six months of the injury.

It is generally recommended to have surgery for ACL injuries as soon as possible after the injury to reduce the risk of further damage and complications. If you have concerns about the timing of the surgery or the potential risks of delaying the procedure, it is important to speak with your healthcare provider. They will be able to provide you with more specific guidance and recommendations based on your individual situation and the severity of your injury.

References:

1. Shelbourne KD, Gray T. Osteoarthritis after anterior cruciate ligament reconstruction. Journal of Orthopaedic & Sports Physical Therapy. 2002;32(6):234-241.
2. Spindler KP, et al. Anterior cruciate ligament reconstruction timing: a systematic review. Journal of Bone and Joint Surgery. 2008;90(3):481-487.
3. Hewett TE, et al. Delay in surgical treatment of acute anterior cruciate ligament injury is associated with a lower likelihood of returning to prior level of play. Journal of Orthopaedic & Sports Physical Therapy. 2015;45(5):365-371.

Special Considerations

Q92. Is it possible for children to experience ACL injuries, and what are the causes?

Children can also experience ACL injuries, especially if they participate in sports or other high-impact activities. Children are at increased risk for ACL injuries due to factors such as rapid growth, underdeveloped muscle control, and a greater risk for sudden twisting or impact forces. It is important for parents and coaches to be aware of the signs and symptoms of ACL injuries in children and to seek prompt medical attention if an injury occurs.

Q93. Can children fully recover from an ACL injury, and what steps can be taken for the same?

With proper surgical treatment and rehabilitation, it is often possible for children to fully recover from an ACL injury and return to normal activities. This may involve physiotherapy and rehabilitation exercises to strengthen the muscles around the knee and improve stability. In some cases, surgery may be recommended to repair the ACL and restore stability to the knee. The goal of treatment is to help the child recover as fully as possible and return to normal activities as soon as safely possible.

Q94. Can an ACL injury in children lead to growth problems, and why?

Yes, an ACL injury can cause problems with growth in children if it leads to instability or degeneration of the knee joint. This is because the knee joint is an important growth plate for children, and injury or instability can result in improper growth or alignment of the bones. It is important to seek prompt medical attention and follow a thorough rehabilitation program after an ACL injury in children to minimize the risk of growth problems.

Q95. How is an ACL injury in children treated, and what is the goal of the treatment?

Treatment for an ACL injury in children may include physiotherapy if the tear is less severe. In the case of complete tears, surgery is recommended with special techniques.

It should be emphasized that in children, the pattern of ACL injury differs, and this may include avulsion of a bone piece along with the ligament. In these cases, it is considered an emergency and should be treated within a time frame to save the ACL ligament.

Q96. Can an ACL injury cause long-term problems in children?

Yes, if left untreated, an ACL injury in children can lead to instability and degeneration of the knee joint, causing long-term problems such as knee pain, joint stiffness, and decreased range of motion. These issues can impact the child's ability to participate in physical activities and could potentially lead to the development of osteoarthritis later in life.

Q97. Is it possible to prevent an ACL injury in children?

Yes, there are steps that can be taken to reduce the risk of ACL injuries in children. These include teaching proper techniques during physical activities, wearing appropriate footwear, and ensuring that children engage in regular strength training and stretching exercises. Overuse injuries can be prevented by limiting the amount of repetitive activities, such as jumping, running, and twisting, that put stress on the ACL.

Q98. What is an ACL avulsion fracture, and how is it treated?

An ACL avulsion fracture is a type of injury in which a piece of bone is pulled away from the rest of the bone by the ACL ligament. This is common in the adolescent population. Treatment may include surgery to fix the fracture fragment and stabilize the knee joint.

Avulsion injuries are considered more of an emergency condition and should be treated within 7-10 days to save the ACL ligament in children.

Q99. What is the grading of an ACL avulsion fracture?

The grading of an ACL avulsion fracture is based on the size and location of the bone fragment that has been torn off. This grading is done based on X-rays, and sometimes an MRI may be needed.

- Type I: The bone fragment is small and does not significantly affect the stability of the knee joint.
- Type II: The bone fragment is larger and may cause some instability in the knee joint.
- Type III: The bone fragment is large and causes significant instability in the knee joint.

Treatment will vary depending on the grading of the fracture and the individual case but may include surgery to repair the fracture and stabilize the knee joint.

Q100. Are ACL injuries more common in females?

Some studies have found that females are at higher risk for ACL injuries compared to males, possibly as much as 4-5 times more prone to ACL injuries than their male counterparts, especially in certain sports such as soccer and basketball. This may be due to differences in muscle strength, hormonal factors, and joint anatomy.

Watch Video

Q101. How can ACL injuries be prevented in females?

There are steps that can be taken to reduce the risk of ACL injuries in females, such as strengthening the muscles around the knee, using appropriate footwear. It is also important to warm up before physical activity and avoid overexertion. Most importantly, proper landing technique is crucial.

Q102. How does ACL reconstruction differ in female athletes?

ACL reconstruction surgery may differ in female athletes due to differences in muscle strength, ligament size, and bone shape.

To be more precise, we prefer to use the Peroneus Longus Graft along with FiberTape in female patients. The reason is that the hamstring graft harvested is sometimes not sufficient in female patients, so to give extra strength, we use the PL graft and provide extra stability in case of re-injury by adding FiberTape to it as well.

Additionally, as the notch inside the thigh bone—Intercondylar Notch—is sometimes narrow in female patients, extra bone can be removed to accommodate the graft, a procedure known as notchplasty.

Myths and Misconceptions

Q103. Is it necessary to remove ACL implants later?

It is generally not necessary to remove ACL implants after surgery. ACL implants, such as screws or buttons, are typically made from materials like titanium or bioabsorbable polymers, which are safe to remain in the body. Titanium implants are durable and do not interfere with MRI scans, making them a long-term solution. Bioabsorbable implants gradually dissolve over time, eliminating the need for removal. However, in rare cases where the implants cause irritation or other issues, removal may be considered by your healthcare provider.

Q104. Can I return to play in 3 months if Fiber Tape is used in ACL surgery?

Returning to play within 3 months of ACL surgery, even with the use of FiberTape, is generally not recommended. FiberTape is a strong, synthetic reinforcement used in some ACL reconstructions to provide additional support to the graft. However, it does not accelerate the biological healing process required for the ACL graft to fully integrate and strengthen. Most experts recommend a gradual return to sports over 6 to 12 months, depending on the individual's progress, to ensure the knee has regained sufficient strength and stability to handle the demands of high-impact activities.

Q105. What are the claims for early return to sports with Fiber Tape?

There have been claims that using FiberTape in ACL reconstruction can lead to an earlier return to sports, sometimes within 3 months post-surgery. These claims are primarily marketing strategies and should be approached with caution. While FiberTape provides additional mechanical support to the graft, it does not change the underlying biological healing timeline of the reconstructed ACL. Rushing the recovery process can increase the risk of re-injury or graft failure. It is essential to follow a comprehensive rehabilitation program and consult with your surgeon and physiotherapist to determine the safest time to return to sports.

Q106. Can I get an MRI done after surgery with implants?

Yes, MRI can typically be performed safely after surgery with most modern implants. Surgical implants, such as those used in ACL reconstruction, are usually made from materials like titanium or biocompatible polymers that are MRI-compatible. However, it's essential to inform the radiology team about your implants, as they may cause slight image distortion near the surgical site. Always follow your surgeon's advice, as they can confirm the compatibility of your specific implant with MRI.

Q107. Do you check recovery by repeated MRI?

Recovery after ACL surgery is usually monitored through clinical evaluations, physical therapy progress, and functional assessments rather than repeated MRIs. Surgeons typically assess joint stability, range of motion, and muscle strength to gauge healing. An MRI may be recommended only if there are complications, persistent pain, or concerns about graft integrity. Routine use of MRI is unnecessary and not cost-effective unless specific issues arise that require detailed imaging for further evaluation.

Nutritional Support for Recovery

Q108. What are natural sources of protein that I can use after exercise during ACL recovery?

Consuming adequate protein is crucial for muscle repair and recovery after ACL surgery. Some natural sources of protein that can be included in your diet are:

1. Lean meats: Chicken, turkey, and fish are rich sources of high-quality protein and essential amino acids.
2. Dairy products: Milk, yogurt, and cheese provide not only protein but also calcium and vitamin D, which are important for bone health.
3. Eggs: Eggs are an excellent source of high-quality protein and contain all essential amino acids.
4. Legumes and beans: Lentils, chickpeas, black beans, and soybeans are plant-based sources of protein, also rich in fiber.
5. Nuts and seeds: Almonds, chia seeds, and sunflower seeds provide protein along with healthy fats.
6. Whole grains: Quinoa, brown rice, and oats offer protein along with other important nutrients like fiber and vitamins.

Q109. Is there any role of L-arginine or other supplements in recovery?

L-arginine is an amino acid that plays a role in protein synthesis and the production of nitric oxide, which helps improve blood flow and can support muscle recovery. Some studies suggest that L-arginine supplements might benefit recovery by enhancing circulation and nutrient delivery to tissues. However, more research is needed to confirm its efficacy in ACL recovery specifically.

Other supplements that may aid recovery include:

- Collagen: Collagen supplements may help with joint health and the integrity of ligaments and tendons.
- Omega-3 fatty acids: Found in fish oil, these can help reduce inflammation and promote healing.
- Vitamin D and Calcium: Important for bone health, especially during the recovery phase when physical activity may be reduced.
- Protein supplements: Whey protein is commonly used to support muscle repair after exercise.

It's important to consult with your healthcare provider before starting any supplements to ensure they are appropriate for your specific needs.

Q110. What supplements can you recommend?

While a balanced diet should provide most of the nutrients needed for recovery, certain supplements may support your recovery process:

1. Whey Protein: To support muscle repair and recovery, especially after physical therapy sessions.
2. Collagen: To support joint health and potentially improve ligament strength.
3. Omega-3 Fatty Acids: To reduce inflammation and promote healing.
4. Vitamin D and Calcium: To support bone health, particularly if you have limited exposure to sunlight or dairy intake.
5. L-arginine: To potentially enhance blood flow and nutrient delivery during recovery.

Always consult with your healthcare provider before adding supplements to your regimen to ensure they align with your recovery plan and overall health needs.

Q111. What is the incidence of ACL injuries across the world and in India?

The incidence of ACL injuries varies globally, with a higher prevalence in populations engaged in sports and physical activities. In the United States, there are approximately 200,000 ACL injuries annually. In India, ACL injuries are also common, not just among athletes but also due to daily life activities such as falls, road traffic accidents, and occupational hazards, including farming injuries. The exact incidence in India is less documented, but with the increasing participation in sports, the numbers are rising.

Q112. Do ACL injuries only occur in sportspersons?

No, ACL injuries can occur in anyone who engages in activities that put stress on the knee joint, such as sudden changes in direction, pivoting, or direct trauma to the knee. While they are more common in athletes, particularly those involved in high-impact sports like soccer, basketball, and skiing, ACL injuries can also happen during daily activities, such as slipping on stairs, bike accidents, or any event that causes a sudden twist or impact to the knee.

Q113. Can you provide examples of famous sportspersons who have successfully undergone ACL surgery?

Many famous sportspersons have successfully undergone ACL surgery and returned to high levels of competition. Some examples include:

1. Kobe Bryant: The late NBA legend had ACL surgery during his career and made a successful return to basketball.
2. Cristiano Ronaldo: The famous footballer underwent ACL surgery and returned to his sport at an elite level.
3. Tom Brady: The NFL quarterback had ACL surgery and continued to play football at a high level, winning multiple Super Bowls post-surgery.
4. Adrian Peterson: The NFL running back had ACL surgery and made an extraordinary return, nearly breaking the single-season rushing record.
5. Rishabh Pant: Indian cricketer Rishabh Pant underwent ACL reconstruction surgery following a car accident in December 2022.
6. Ravindra Jadeja: Indian all-rounder Ravindra Jadeja underwent ACL reconstruction in 2022 after a knee injury during the Asia Cup.

These examples highlight that with proper treatment and rehabilitation, it is possible to return to a high level of performance after ACL surgery.

Q114. When will the doctor do surgery if I am having swelling and difficulty in knee bending after injury ?

Surgery is usually performed after the acute swelling has subsided and the knee regains a near-normal range of motion. This preparation minimizes post-operative stiffness and complications. Typically, pre-surgery rehabilitation (prehabilitation) may take 2-4 weeks, depending on the injury's severity.

Q115. Any pre-surgery preparation do you advise me?

Pre-surgery preparation (prehabilitation) includes reducing swelling, regaining full range of motion, and strengthening surrounding muscles like the quadriceps and hamstrings. Patients are advised to follow a guided exercise program, maintain a healthy diet, and discuss any medications with their doctor to avoid surgical complications.

Q116. After injury till surgery, can I massage ointment as I have pain sometimes?

Applying a pain-relief ointment to manage discomfort before ACL surgery is generally safe, provided it is done gently and without pressure on the injured knee. Topical analgesics or anti-inflammatory gels can offer temporary relief by reducing localized pain and swelling. However, it's crucial to avoid deep massage or vigorous application, as these might aggravate the injury or increase inflammation. Always consult your surgeon before using any ointment to ensure it aligns with your preoperative care plan. Pain management during this period is essential for comfort and optimal preparation for surgery, including physical therapy if recommended.

Q117. My doctor has given me a plaster cast; I have a complete ACL tear. Will this heal on its own?

A plaster cast alone will not heal a complete ACL tear, as the ACL cannot regenerate or repair itself naturally due to its poor blood supply. The cast may be used temporarily to immobilize the knee, reduce swelling, or stabilize the joint in cases of additional injuries. However, treating a complete ACL tear typically requires surgical reconstruction or, in some cases, extensive physical therapy, depending on the patient's activity level and lifestyle needs.

Q118. Should I undergo surgery immediately for a complete ACL tear, or should I wait for a few days?

For a complete ACL tear, surgery is not always performed immediately. It is often delayed for a few days or weeks to allow swelling to subside and restore the knee's range of motion. This pre-surgical period, often involving physical therapy, helps reduce inflammation, strengthen surrounding muscles, and improve surgical outcomes. Immediate surgery may be considered in cases with associated injuries, such as meniscus tears or fractures, or if the knee is unstable and interferes with daily activities. Your orthopedic specialist will assess your condition and recommend the optimal timing for surgery based on your injury, activity level, and recovery goals.

Q119. I have seen on the internet some miracle oil for complete ACL tear recovery. What do you think?

Claims of "miracle oils" for complete ACL tear recovery are not supported by scientific evidence. A complete ACL tear typically requires surgical reconstruction or, in some cases, specialized physical therapy for partial recovery. While certain oils may reduce inflammation or provide temporary pain relief, they cannot regenerate torn ligament tissue or restore joint stability. Relying on such remedies could delay proper treatment and worsen the condition. It's essential to consult an orthopedic specialist for an accurate diagnosis and evidence-based treatment plan tailored to your needs, ensuring the best possible recovery and long-term knee function.

Q120. I have more than one ligament tear. Will you do all ligament surgeries at one time or in stages?

The decision to address multiple ligament tears in a single surgery or stages depends on the severity of the injuries, the patient's overall health, and the surgeon's evaluation. In less complex cases, repairing all ligaments at once may minimize recovery time and reduce the need for multiple procedures. However, if the injuries are severe or involve different ligaments requiring distinct techniques, staged surgeries may be preferred to optimize healing and reduce strain on the body. Your surgeon will recommend the most suitable approach based on your unique case, prioritizing optimal recovery, joint stability, and long-term functionality.

Q121. I have seen you on you tube , How can I reach you , share your contact details .

Thank you for your interest! You can reach me, Dr. Vikram Sharma ,SportsMed at Fortis Escorts Hospital, Jaipur. For consultations or appointments, feel free to contact me directly at 9587077111. I look forward to assisting you with your healthcare needs.

If you say ACL tears do not hear but you also say in partial tears trial can be given with physiotherapy - isn't it contradicting .

It's not contradictory. A complete ACL tear does not heal on its own due to poor blood supply, requiring surgery for restoration. Partial tears, however, may retain some intact fibers and stability. In such cases, physiotherapy can be a trial option to strengthen the knee and improve function, potentially avoiding surgery if the knee remains stable and functional. This difference in management reflects the severity of the injury

Q122. What is the role of prehabilitation before ACL surgery?

Prehabilitation, or "prehab," refers to the process of strengthening the muscles around the knee and improving joint stability before ACL surgery. Engaging in prehab exercises can help reduce swelling, improve range of motion, and increase muscle strength. This preparation can lead to better post-surgery outcomes, including faster recovery, reduced pain, and a lower risk of complications. It also helps patients mentally prepare for the surgery and rehabilitation process.

Q123. Can ACL injuries be prevented through specific training programs?

Yes, ACL injuries can often be prevented through specific training programs that focus on improving strength, flexibility, and neuromuscular control. Programs like FIFA 11+, which include exercises for balance, agility, and proper landing techniques, have been shown to reduce the risk of ACL injuries, particularly in athletes. These programs emphasize strengthening the muscles around the knee, improving proprioception, and teaching proper movement patterns to avoid risky positions that could lead to an ACL tear.

Q124. What are the signs that indicate a possible ACL retear after surgery?

Signs that may indicate a possible ACL retear include a sudden "pop" in the knee, swelling, instability, or giving way of the knee during activities. Pain and reduced range of motion may also occur.

If any of these symptoms are experienced, it is crucial to consult with a healthcare provider immediately to assess the condition of the ACL

ACL and surrounding structures. Imaging tests such as MRI may be required to confirm whether a retear has occurred.

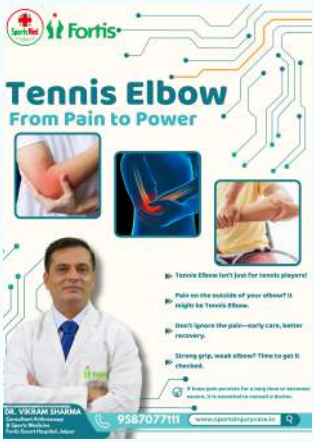
Q125. How does age affect ACL recovery and surgery outcomes?

Age can significantly impact ACL recovery and surgery outcomes. Younger patients, especially those under 30, generally have better healing capacity, faster recovery times, and more favorable outcomes due to higher tissue regeneration rates and stronger muscle support. Older patients may experience slower recovery, longer rehabilitation periods, and may be at higher risk for complications such as osteoarthritis or decreased joint mobility. However, with a well-planned rehabilitation program, most patients can achieve good functional recovery regardless of age.

Q126. Are there alternatives to ACL reconstruction surgery?

Alternatives to ACL reconstruction surgery include conservative management options such as physical therapy, bracing, and activity modification. These approaches may be suitable for individuals with partial ACL tears, older patients, or those with low physical activity levels. Physical therapy focuses on strengthening the surrounding muscles and improving knee stability to compensate for the weakened ligament. Bracing may be used to provide additional support during activities.

However, for active individuals or those with complete ACL tears who wish to return to high-impact sports, surgery is often recommended to restore full knee function. proper techniques during physical activities, and wearing



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DR. VIKRAM SHARMA

Dr. Vikram Sharma is a specialized Sports Injury Specialist and Orthopedic Surgeon, serving as a Sports Medicine and Anti-Doping Consultant for the BCCI. He holds the position of President of the Thar Association of Sports Medicine and Joint Secretary of the Indian Association of Sports Medicine. He is also associated with the Sports Med Clinic, established by Fortis Escorts Hospital in Jaipur.

At Sports Med, we offer comprehensive solutions for lifestyle and sports injury treatments, providing sports medicine services for the first time in Rajasthan. Our clinic specializes in arthroscopy, a procedure that involves examining joints to diagnose and treat various conditions. Arthroscopy has become one of the most successful and versatile orthopedic procedures. We provide exceptional care for patients dealing with knee pain, knee injuries, or knee stiffness. Whether you're a professional athlete or someone who occasionally participates in sports, injuries can be both painful and debilitating.

At Sports Med, we have a multidisciplinary team of physiotherapists, orthopedic surgeons, and rheumatologists dedicated to helping you recover and return to your active routine. Additionally, we offer advice on training for events like marathons and skiing, as improper training can result in injuries. With the right guidance, unnecessary injuries and doctor visits can be avoided, ensuring that you can participate fully in your athletic activities.