

## Procedure Information Sheet - Anterior Cruciate Ligament Reconstructive Surgery

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### **Introduction**

- Anterior cruciate ligament (ACL) functions as a primary constraint to tibial anterior translation, as well as, a secondary constraint to inversion, eversion and rotational force. Common causes of injury include contact sports, hyperflexion injury, valgus force injury, varus force injury and rotational injury to the knee.
- Patient with an ACL deficient knee will have difficulties in sporting activities that require cutting, pivoting and sidestepping.
- Arthroscopic ACL reconstructive surgery is a common procedure that will restore the knee stability (not totally) to allow patient with such injury to return to sport.

### **Indications**

Not all patients with an ACL deficient knee need an ACL reconstructive surgery. It remains controversy whether ACL reconstructive surgery can prevent or delay the development of osteoarthritis of the knee :

- **Mark instability**  
In patients with an ACL deficient knee that affecting his/her walking, stairs walking and sport activities.
- **High activities**  
In young active sportsmen and sportswomen who want to continue participating in their hobby/career at the same level.

### **Procedure**

1. The operation is performed under general /regional anaesthesia.
2. Skin incision will be made.
3. Arthroscope inserted.
4. In Hong Kong, Patellar bone tendon bone autograft (PBTB) and hamstring autograft are popular methods for this procedure.

### **Pre-operative preparation**

1. You will need to sign a consent form and your doctor will explain to you the reason, procedure and possible complications.
2. Restore full range of motion with emphasis to prevent extension lag.
3. Psychologically prepare the patient for the postoperative rehabilitation program that will last for 3 to 6 months. Surgery is only part of the treatment.

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4. Blood tests, X-ray, correct and optimizing existing illness e.g. diabetes, asthma.
5. Physiotherapist assessment on muscle strength, baseline measurement, breathing exercise and physical conditioning of all unaffected limbs.
6. Keep fast for 6-8 hours before operation.

### **Possible risks and complications**

#### ***A. General risks and complications***

- Wound infection, swelling and bleeding.
- Wound breakdown, pain and scar formation.
- Knee flexion contracture and reduce range of movement.
- Donor site pain, patellofemoral joint pain and numbness.
- Residual laxity.

#### ***B. Uncommon risks with serious consequences***

- Re-rupture of reconstructed ACL ligament is not common but can happen.
- Major blood vessel or nerve injury and may lead to loss of limbs.
- Flare up of pre-existing illness e.g. hypertension or diabetes.

### **Possible additional procedures/treatments**

- If infection, it may require arthroscopic lavage, debridement and/or removal of implant/graft.
- If stiffness, it may require manipulation under anaesthesia.
- Re-rupture.
- If fracture of patella, it may require open reduction and internal fixation.

### **Post-operative information**

#### ***A. Hospital care***

1. Diet as tolerated when fully conscious, usually normal diet by 24 hours.
2. Oral, intravenous or intramuscular analgesic as require. Pain usually settles down quickly after 2-3 days.
3. Cryotherapy and elevation to control swelling.
4. If there is a drain, it will usually be removed after 1-3 days after surgery.
5. You can weight bear with support after a few days and may be discharged within one week. Braces may need to wear for individual situation.

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***B. Home care after discharge***

1. Keep the wound dry and clean and take the medication as prescribed by your doctor.
2. Most patients can resume contact sport in 6-12 months.
3. Please contact your doctor or go back to hospital if excessive bleeding, collapse, severe pain or signs of infection at your wound site such as redness, swelling or fever (body temperature above 38°C or 100°F) etc occurs.
4. Follow up on schedule as instructed by your doctor.

**Alternative/conservative treatment**

This can be included muscle training exercise or bracing. Patient can also adjust their lifestyle to decrease their high demanding sport activities.

**Remark**

The above mentioned procedural information is not exhaustive, other unforeseen complications may occur in special patient groups or individual differently. Please contact your physician for further enquiry.

**Reference:** [http://www21.ha.org.hk/smartpatient/tc/operationstests\\_procedures.html](http://www21.ha.org.hk/smartpatient/tc/operationstests_procedures.html)

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I acknowledge that the above information concerning my operation/procedure has been explained to me by Dr. \_\_\_\_\_. I have also been given the opportunity to ask questions and receive adequate explanations concerning my condition and the doctor's treatment plan.

**Name:**

Pt No.:

Case No.:

Sex/Age:

Unit Bed No:

Case Reg Date & Time:

Attn Dr:

Patient / Relative Signature: \_\_\_\_\_

Patient / Relative Name: \_\_\_\_\_

Relationship (if any): \_\_\_\_\_

Date: \_\_\_\_\_