

Department of
PHYSIOTHERAPY

Rehabilitation After Anterior Cruciate Ligament (ACL) Reconstruction



Physiotherapy After ACL Reconstruction

The ACL reconstruction surgery is usually done in Day or Ambulatory Surgery.

After the surgery, a physiotherapist will see you to guide you with:

1. Techniques to manage knee swelling and pain
2. Walking safely with walking aids (if necessary)
3. Correct use of the knee brace (if recommended by your surgeon)
4. A home exercise programme that will help restore the range of movement and strength of your knee

Managing Swelling

Swelling leads to scar formation and knee stiffness. It is crucial to control knee swelling by:

- i. **Icing Your knee**
 - Icing decreases swelling, pain and muscle tension
 - Apply ice for **15-20 minutes**, a **few times** a day, after your exercises
- ii. **Elevation**
 - Raise your knee above the level of your heart at night
 - Place your leg on a stool when sitting



Fig 1. The correct way to elevate your knee

Walking After Surgery

You will have to wear your knee brace when walking.

Depending on your surgeon's instructions, you may be allowed to put weight on the operated knee when walking, and may require a walking aid.

You are allowed to put _____ % of your body weight on your operated leg.

Protecting Your New ACL

Depending on your surgeon's instructions, you may be given a knee brace. This protects your new ACL from daily strains and allows healing.

You should keep your knee brace on most of the time, and remove it when showering.

The length of time to wear the brace is generally about 6 weeks, but may vary according to your recovery. You will be advised by your surgeon.



The range of movement allowed at the knee varies according to your surgeon's instructions.

You are allowed _____ to _____ degrees of movement.

DO'S <input checked="" type="checkbox"/>	DON'T'S ✗
Stop if your exercises cause excessive pain or if you are feeling unwell (e.g. fever/excessive bleeding)	Have exercises involving free movement of the foot (e.g. kicking, swinging legs while seated on a chair, etc.) until directed
Stop if you experience knee instability or if your leg is giving way	Have twisting motions
Exercise regularly according to exercises prescribed by physiotherapist	Have strenuous physical activity, until further directed

Home Exercise Programme

Compliance to the prescribed exercises is important to achieve desirable knee function. Exercising regularly may facilitate your recovery to sports as soon as 6 months after the surgery.

You should aim to achieve the following during first week of surgery:

- Full knee extension (fully straight knee)
- Knee bending to the allowed range of movement
- Minimal swelling and pain

Check with your physiotherapist or surgeon whether you should wear your knee brace when doing exercises.

Ankle Pumps

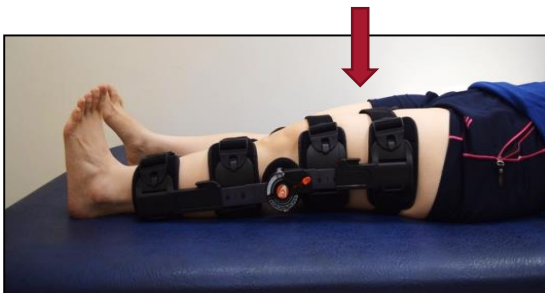


Repeat ___ times.

Do ___ sessions a day.

- i. Point your toes up to the ceiling, then down to the floor.

Thigh Muscle Strengthening



Hold ___ seconds.

Repeat ___ times.

Do ___ sessions a day.

- i. Tighten your thigh muscles and straighten your knee.

Knee Bending Exercise



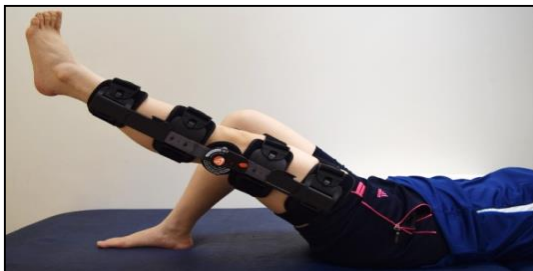
Hold ___ seconds.

Repeat ___ times.

Do ___ sessions a day.

- i. Bend your knee as far as possible.
- ii. Use your hands, or a towel to bend your knee further until you feel a stretch.

Straight Leg Raise



Hold ___ seconds.

Repeat ___ times.

Do ___ sessions a day.

- i. Tighten your thigh muscle
- ii. Keep knee straight and lift your leg up.

* Consult your physiotherapist before doing this exercise

Side Lying Hip Abduction



Hold ___ seconds.

Repeat ___ times.

Do ___ sessions a day.

- i. Lie on your side
- ii. Keeping your knee straight, lift your leg up.

* Consult your physiotherapist before doing this exercise

Heel Raises



Hold ___ seconds.

Repeat ___ times.

Do ___ sessions a day.

- i. Stand upright, tip toe onto balls of feet.

* Consult your physiotherapist before doing this exercise

Rehabilitation Goals

You will be given an outpatient physiotherapy appointment upon discharge.

The following goals can be used as a guide for your recovery. However, specific goals may vary between individuals.

You should perform your exercises according to your physiotherapist's advice. Always consult your physiotherapist before trying something new or if you have any questions with regard to your exercises.

Timeline	Goals
1-2 weeks	<ul style="list-style-type: none">• Ensure full knee extension/straightening (0 degrees)• Begin an aerobic exercise programme to improve cardiovascular fitness• Add progressive muscle strengthening exercises
2-6 weeks	<ul style="list-style-type: none">• Increase knee range of motion from 0 to 140 degrees (unless told otherwise)• Advance strengthening programme as directed by your physiotherapist
3-4 months	<ul style="list-style-type: none">• Full range of motion of your knee• Begin individualised agility and co-ordination exercises• Begin jogging• Advanced strengthening and aerobic exercises
6-9 months	<ul style="list-style-type: none">• Optimise strength, agility and coordination• Gradual progression to return to sport

If you have any further queries on your condition, please do not hesitate to contact your healthcare team.

REMEMBER TO:

- Ice your knee regularly
- Wear your knee brace when walking
- Do your exercises daily
- Attend your outpatient appointment



If you have any further enquires, please check with your healthcare team during your hospital stay.



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