

## **Physiotherapy and Rehabilitation Centre**

### **Home program of exercises and post operative physiotherapy**

It is the time to go home now follow the exercises given below so that your knee will be free of pain and you can regain the mobility in your knee

#### **Day 2 -14**

##### **Ambulation and Walking**

- You should walk non weight bearing with Knee brace you would be provided with a walker from the hospital
- By day 14 you should be able to take weight on the knee according to your comfort and use an elbow crutch with Knee brace. Use an elbow crutch for support on the opposite hand
- Knee Brace must be worn at night until full extension is obtained.
- Minimize walking to decrease swelling.
- Maintain the knee in an elevated position (above the heart) by using the pillows until the swelling has reduced.
- Knee splint may be removed for exercise, bathing, sitting, and resting.
- The crepe bandage on the knee to reduce the pain and swelling in the front of the tibia use of ice packs to take care of pain

## Exercises and Activities



Passive knee extensions keep a pillow or a towel under the heel

Gastronemius stretch with towel

Quadriceps - static sets with patient long sitting and towel under heel.

Pull your foot towards you

## STRAIGHT LEG RAISE



Lie down comfortably on the bed lift your operated leg 1 foot from the bed hold in that position for count of 5 and lower it gently

Repeat this exercise 20 times

### **Sitting Supported Knee Bends**



While sitting at bedside or in a chair with your thigh supported, place your foot behind the heel of your operated knee for support. Slowly bend your knee as far as you can. Hold your knee in this position for 5 to 10 seconds.

Repeat several times until your leg feels fatigued or until you can completely bend your knee.

### **Knee Bending with Support**

Sit at the edge of the bed and use your good leg to push your operated leg as much as you can. This improves your ability to bend your Knees

## 14 days to 30 days

This is the time the sutures in our knee will be removed

You will be independent in most of your activities you will be given an elbow crutch for walking. You need to keep the knee brace on while walking.

If you feel confident enough you may resume a desk work Please consult your surgeon before you do so.

Exercise to be done



Wall slide to increase flexion do this exercise only if you're not able to bend the leg by more than 90 degrees in the first 3 weeks

Side Lifts

Lie down on your side so that the operated leg is on top of the normal leg lift your operated leg side ways till 1 foot from the bed



### Heel lifts / toe standing

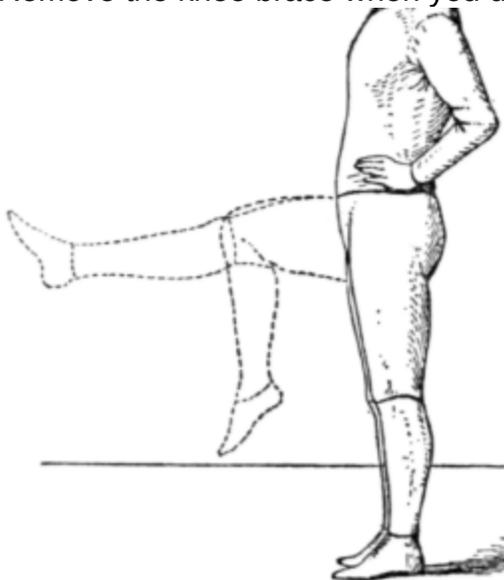
Take weight on both the legs and lift your heels from the ground. You should be standing on your toes follow the exercises as shown



Repeat 20 times

### Leg lifts

Remove the knee brace when you do this exercise



Lift your operated leg till the knee and hip is in one line Thigh is parallel to the ground then lower your operated leg. You can hold on to your elbow crutch while you do this exercise

### **Quadriceps Exercise with weights**

To improve the strength you will need to tie a cuff weight to your ankle (available at our hospital pharmacy) or any sport shop the weights will be decided by your doctor or physiotherapist.

Now the time has come where you should be able to bend your knee fully this should be achieved by the time you finish one month after surgery

You should also be able to straighten the knee completely and you should not be having any extensor lag

### **GOALS**

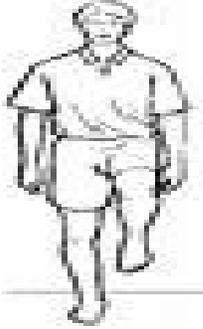
- o Obtain full extension / hyperextension
- o Minimize swelling
- o Allow wound healing
- o Maintain active knee control
- o Achieve more than 90 degree of knee bending

**4 weeks to 6 weeks after surgery**

Your pain will be more or less in the manageable level you may not require any pain medication there may be minimal amount of discomfort when you do your exercise.

Continue the exercises as advised before and the new exercises below.

You can remove the knee brace at night but it is advisable to keep it on when you are walking



**Single leg stand with brace**



**Both leg ½ squats with wall support**

You can remove the knee brace once you complete six weeks after surgery

Hamstrings - If lack of full extension, start prone hangs with weights DO IT ONLY IF YOU CANNOT STRAIGHTEN YOUR LEG FULLY



## Six weeks to 12 weeks after surgery

You should be able to have a normal walking pattern and there should not be any limp when you are walking

Exercises

½ squats mini squats and lunges





Step up and down with a 4 inch block or a stair

Stair climber - progress slowly start with climbing 4 steps up and 4 steps down with your operated knee

Stair climbing from front and

Stair climbing from the side



Operated leg goes first.



stationery bicycle with minimal resistance

### **Weeks 9-12 post surgery**

Your Goals should be

To improve the strength of your quadriceps muscle

Should have good endurance to walk for about ½ hour without getting tired.

We will be now doing proprioceptive knee rehabilitation

### **Proprioceptive Exercises**

Examples

Standing on one leg



Walking in a circle

Walking in a figure of 8

Walking backwards

Walking side ways

Walking across an a obstacle

Tread mill walking to stabilize the gait pattern

Power walking

### **3 months after surgery**

Your visits to the physiotherapist will now be of a need basis

You should be following the exercises as advised at your home

You can do brisk walking you can ride a cycle drive a car ride a 2 wheeler with out any discomfort

Activities and exercises

Swimming, skipping, power walking,

### **6 months after surgery**

- Now you should be able to jog for ½ hour involve in leisure and non contact sport activities
- You can start with sport specific training after you consult your physiotherapist Orthopedic surgeon and your coach
- You can go to the gym and work out your leg muscles make sure that you warm up before exercise and cool down after you work out

### **Precautions**

- Avoid twisting strain on the knee

- Don't jump or hop till you finish 6 months post op
- Come to the hospital if you notice any abnormal swelling discharge from the wound or you develop fever

The exercises shown are for a patient who has undergone ACL reconstruction with hamstring graft. If there is a meniscus repair or a medial collateral ligament repair then the exercises may have to be modified. Consult your physiotherapist before you do them.