



## HIGH FLEX KNEE PROTOCOL

A high flex knee is a prosthesis used for knee replacement. It has been developed to allow flexion up to 155° and patients can also kneel post-operatively.

There is currently a clinical trial in progress with this prosthesis, as not all patients are suitable to have it. It is important that patients remain blinded to the fact that they have had a high flex knee replacement.

### Post-Operative Management

#### Day 1

##### Goals

1. Maximum flexion (up to 140°).
2. Quads strengthening.
3. Mobilisation.
4. Reduce effusion, compression, elevation.

##### Exercises

1. Toes, ankles, quads.
2. Flexion with overpressure active assisted
  - a. In crook lying using towel around foot to increase knee flexion.
  - b. Sitting on the side of bed pushing with unoperated leg.
3. Isometric quads.
4. Active / assisted SLR.
5. Knee extension exercises.
6. Mobilise / stand with frame weight bearing to tolerance.
7. Apply ice / cryocuff.
8. CPM if difficulty bending knee.

#### Day 2

1. As above.
2. Start mobilising inside the room with a frame.
3. Sitting on a chair for 1 hour minimum.
4. Knee extension when sitting in a chair.
5. Continue maximum knee flexion.

#### Day 3

1. As above.
2. Mobilise patient out to the corridor with a frame / crutches if appropriate.
3. Active SLR.

#### Day 4-7

1. Start mobilising longer distances.
2. Teach active knee flexion with overpressure.
3. Quadriceps strengthening exercises.



## Patient Information

4. Patient should be able to transfer independently.

### Discharge

1. Teach home exercise programme.
2. Teach stair climbing.

### Out patient management

Patients should be seen within one week of discharge from hospital. They should be seen weekly as long as the Therapist can see continuous functional improvement and the patient is following discharge advice / daily exercise at home.

### Goals

1. Obtain full knee flexion within 4-7 weeks.
2. Commence kneeling at 4 weeks post-op.
3. Re-establish normal muscle strength in all groups.
4. Achieve independent gait.
5. Return to functional activities: walking, swimming, cycling.

### Exercises

1. Static bike for 10 minutes with minimal resistance.
2. Quads strengthening exercises.
3. Sit-stand exercises.
4. Stair climbing.
5. Check flexibility of all lower limb muscle groups.
6. Gait training with / without crutches / sticks.

At 4 weeks post-op, if the patient has achieved full range of motion at the knee joint, kneeling exercises can commence for 3-4 weeks until full kneeling flexion is achieved.

Patients to be transferred to total knee class if appropriate, and if they wish to attend class sessions.

### Reference:

Total Knee Arthroplasty Protocol, Physiotherapy Department, American Hospital Dubai

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