

# Exercises for Patients undergoing Total Knee Replacement

## Physiotherapy support following your surgery

The physiotherapy team will show you how to perform the exercises in this booklet.

It is in your best interests to continue these exercises at least 3 times a day even when the physiotherapy team is not present. Failure to do so may lead to a poor recovery.

If you are unable to do any of these exercises due to pain or anything else please inform a member of staff.

Therapist \_\_\_\_\_

Service user \_\_\_\_\_

## Swelling

The early exercises and mobilisation of the knee can cause some discomfort and swelling. This is normal and is the healing process occurring.

Ice can reduce pain and swelling in combination with medication. With less severe pain and swelling, it can be used on its own.

Apply ice (or a bag of frozen peas) to your knee periodically for 15-20 minute intervals. Leave at least an hour between applications. **Do not apply ice directly to bare skin**, have a waterproof barrier between the ice and skin eg, a plastic bag or towel.

You can reduce swelling by elevating the leg above the level of the heart, as gravity will help prevent fluids from collecting in your knee and lower leg. We **strongly recommend** that you elevate the leg **between 40 and 60 minutes at least 3 times a day**. If swelling is severe then this can be done more often.

## Repetition of Exercises

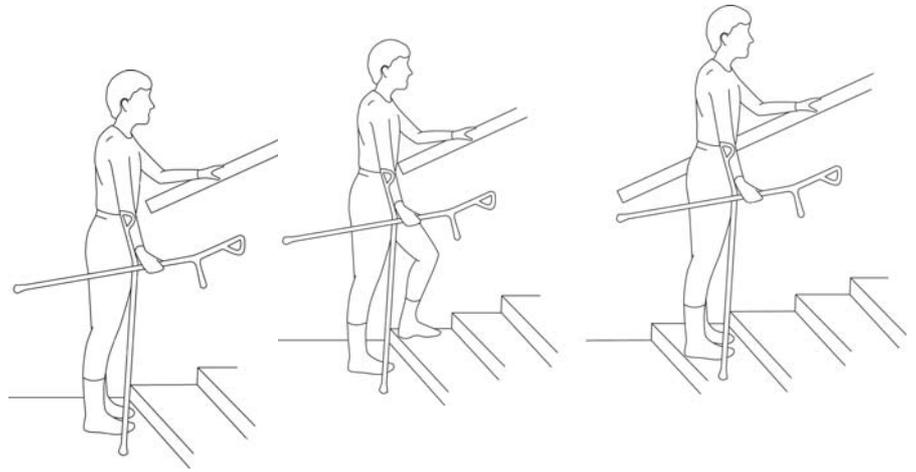
Perform 10 repetitions of each exercise and hold for 5 seconds.

Aim to do your designated exercises 3 times a day.

## Going up stairs

### GOOD LEG UP FIRST

Followed by stick or elbow crutch.  
If handrail present use one rail and  
one stick/crutch

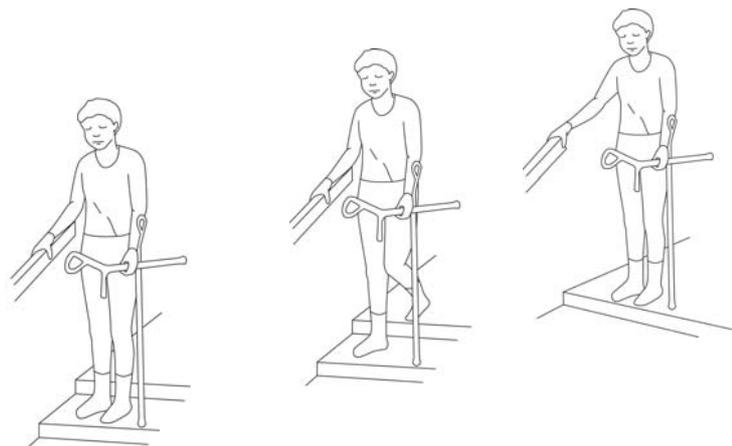


## Going down stairs

Stick or crutch **DOWN FIRST**

### BAD LEG DOWN

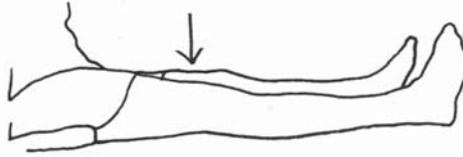
If hand rail present use one rail and  
one stick/crutch



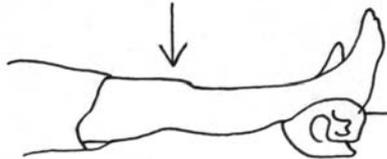
## Group A. Bed Exercises

1. **Static Quads:** Push back of knee in to the bed.

Tighten thigh muscles to flatten knee

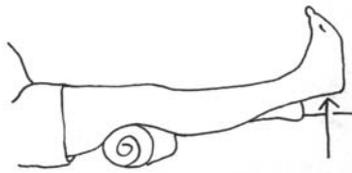


2. **Static Quads With Heel Prop:** Push back of knee down towards the bed.



Prop heel on pillow and allow knee to sag

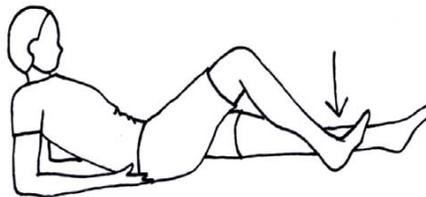
3. **Inner Range Quads**



Tighten thigh muscle and lift heel off bed

**Progression:** Keep thigh muscle tight and lift whole leg off roll.

4. **Static Hamstrings:** Bend knee and then push/dig heel vertically down in to the bed keeping the knee bent.



5. **Supine Knee Bend**

Slide heel back and forward



Aim for more knee bend each time

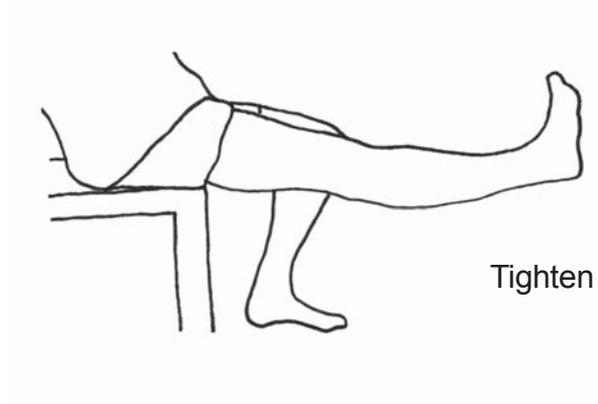
6. **Adductor Ball Squeeze**



Put ball / cushion between your knees and squeeze

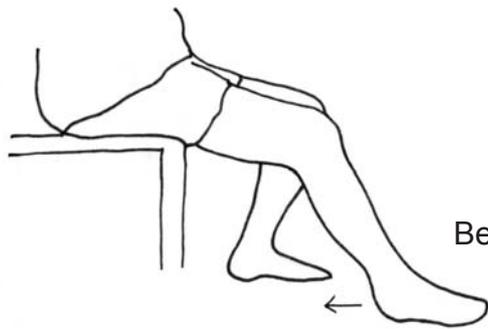
## Group B Chair Exercises

1. **Through Range Quads:** Straighten leg out in front.



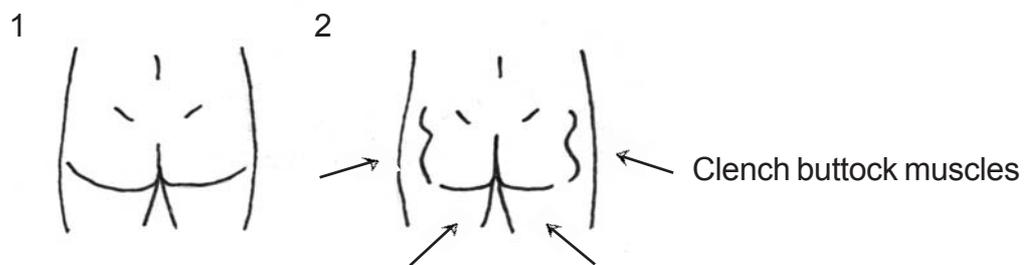
Tighten thigh muscle and straighten leg

2. **Sitting Heel Slides:** Slide heel back towards chair.



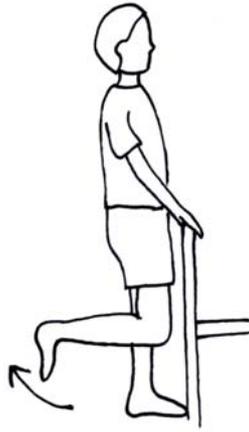
Bend Knee and aim for more bend each time.

3. **Static Gluts**



## Group C. Standing

### 1. Knee Flexion



Hold onto solid object.  
Stand straight.  
Bend knee.

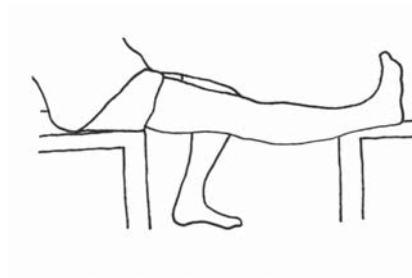
### 2. Calf Raises



Push up **slowly** onto your toes,  
lower **slowly**

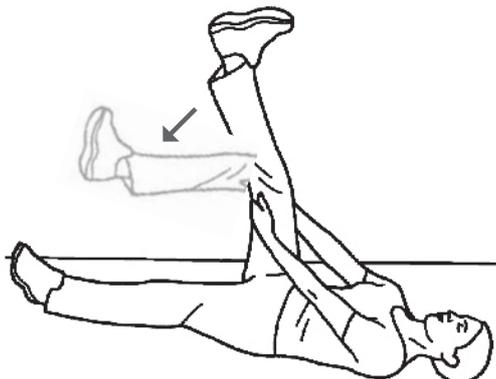
## Group D. Extra - if recommended by therapist

### 1. Sitting Heel Prop (5 to 10 minutes only)



**Progression:** Add weights if recommended by therapist

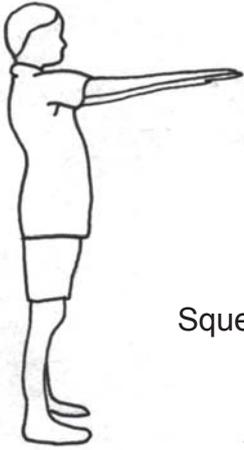
### 2. Support leg by placing hands behind knee



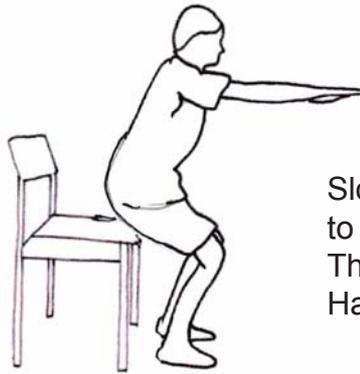
Support leg by placing hands  
behind knee.  
Allow weight of lower leg to  
assist knee bend.

## Group E – Advanced Exercises

### 1. Supported Squats



Squeeze buttocks



Slowly squat as if sitting down on to a chair.  
Then stand back up slowly.  
Have a chair behind you for safety.

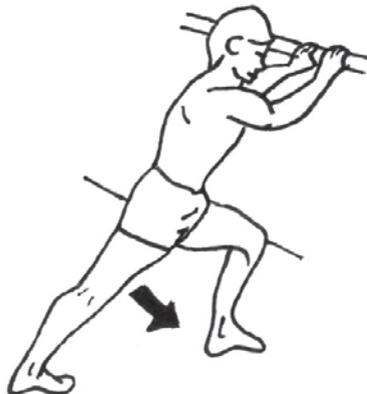
**Progression:** Do squats onto lower surface.

### 2. Hamstring Stretch



Keep knee straight  
Gently slide hand down leg  
towards foot

### 3. Calf Stretch

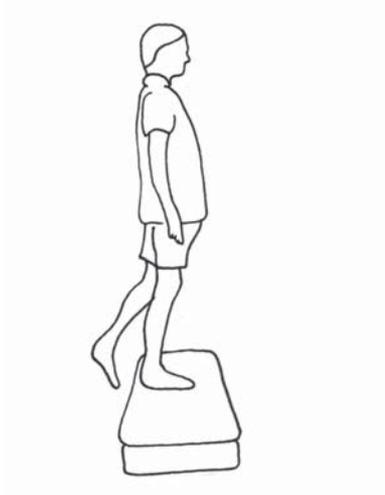


Stand facing a wall, with your operated leg behind you.  
Lean forward keeping the heel of the operated leg on the floor and the knee straight.  
Feel the stretch in the calf of the straight leg.

#### 4. Slow Step Ups onto small step



Step up with operated leg



Step up **Slowly**

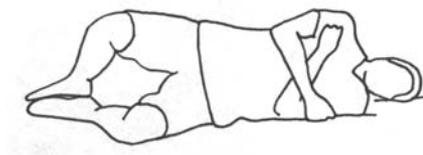


Step down **Slowly**

**Progression:** Raise height of step e.g. stair step/door step

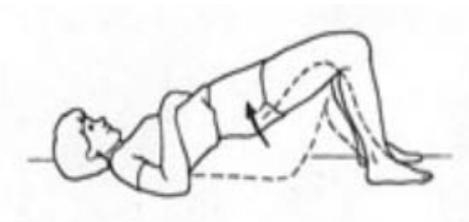
### Group F – Advanced Exercises

#### 1. Hip abductors (clam)



Lying on your non operated side, keeping your hips forward and knees slightly bent. Clench buttocks, keep feet together and then lift the operated knee .

#### 2. Bridging



Clench buttocks. Dig feet into bed. Lift hips up off bed and hold for 5 seconds and then lower hips back down on bed.

#### 3. Balance/proprioception exercise



Stand on operated leg holding on to stable surface. Hold balance for 10 seconds, build up to 30 seconds.

**Progression:** Progress to hands off and eyes closed



**If you have any comments about this leaflet or the service you have received you can contact :**

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Rehabilitation Department  
Calderdale Royal Hospital  
Telephone No: 01422 224198

The Elective Orthopaedic Rehabilitation Team  
Calderdale Royal Hospital  
Telephone No: 01422 357171 ext 3554

[www.cht.nhs.uk](http://www.cht.nhs.uk)

**If you would like this information in another format or language contact the above.**

Potřebujete-li tyto informace v jiném formátu nebo jazyce, obraťte se prosím na výše uvedené oddělení

Amennyiben ezt az információt más formátumban vagy nyelven szeretné megkapni, vegye fel a kapcsolatot fenti részlegünkkel.

Jeżeli są Państwo zainteresowani otrzymaniem tych informacji w innym formacie lub wersji językowej, prosimy skontaktować się z nami, korzystając z ww. danych kontaktowych

ਰ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਪ੍ਰਾਰੂਪ ਜਾਂ ਭਾਸ਼ਾ ਵਿੱਚ ਲੈਣਾ ਚਾਹੁੰਦੇ ਹੋ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਉਪਰੋਕਤ ਵਿਭਾਗ ਵਿੱਚ ਸਾਡੇ ਨਾਲ ਸੰਪਰਕ ਕਰੋ।

اگر آپ کو یہ معلومات کسی اور فارمیٹ یا زبان میں درکار ہوں، تو برائے مہربانی مندرجہ بالا شعبے میں ہم سے رابطہ کریں۔