

Department of Trauma & Orthopaedic Surgery

KNEE REPLACEMENT EXERCISE & PHYSIOTHERAPY



PRE-OPERATIVE EXERCISES

1. Heel Slide



Lying on your back, start with your leg resting flat on the bed.

1. Slowly bend your knee, sliding your foot towards your bottom. Expect to feel a stretch over the front of the knee.
2. Hold for a count of 3.
3. Gently slide your heel back down, ensuring your knee returns to the fully straightened position after each repetition.

Repeat 10 times, 2 times a day

2. Knee Prop



Place a rolled up towel underneath your knee.

1. Keeping the back of your knee resting on the towel, pull your toes up towards you.
2. Then slowly lift your foot up until your knee is as straight as possible.
3. Hold for a count of 3.
4. Slowly lower your foot back down to the bed.

Repeat 10 times, 2 times a day

3. Heel Prop



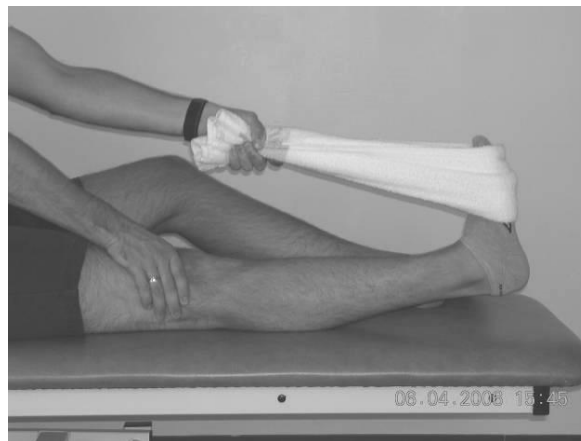
Rest your heel on a rolled up towel, making sure that your calf is raised off the bed. Then lie down and relax.

Your knee will hang under its own weight, stretching the muscles on the back of your knee.

1. This may be uncomfortable at first, so start off with 2-3 minutes and aim to gradually increase to 10 minutes.
2. To stretch further, every few minutes, gently contract the muscles on the front of your knee, pushing the back of your knee towards the bed.

Start with 2-3 minutes aiming to build to 10 minutes, 2 times a day

4. Towel Stretch



Sit upright with your legs outstretched.

1. Wrap a rolled towel around the foot of your operated leg and hold the ends with your hands.
2. Slowly pull the towel so that your heel lifts up and off the bed, whilst keeping the back of your knee flat on the bed.
3. Then contract the muscles above your knee, attempting to keep your foot in the air without the towel helping.
4. Let the towel loosen and attempt to keep your foot in the air for a count of 3, then slowly relax your muscles dropping your foot back onto the bed.

Repeat 10 times, 2 times a day

5. Knee Extension



Sit upright on the edge of a bed or chair.

1. Slowly lift the foot of your operated leg, until your knee is fully straightened.
2. Slowly drop the foot back down allowing your knee to bend, and if possible try and bend your knee so the foot goes slightly under the chair or bed.

Repeat 10 times, 2 times a day

6. Patella Mobilisation



Sit upright with your legs straight out in front of you.

1. Grip your knee cap (patella) between your thumb and fore finger and gently move it from side to side.
2. It may feel odd to begin with and initially there may not be much movement.

Repeat 10 times, 2 times a day

POST-OPERATIVE EXERCISES - Weeks 1 to 2

1. Heel Slide



Lying on your back, start with your leg resting flat on the bed.

1. Slowly bend your knee, sliding your foot towards your bottom. Expect to feel a stretch over the front of the knee.
2. Hold for a count of 3.
3. Gently slide your heel back down, ensuring your knee returns to the fully straightened position after each repetition.

Repeat 5-10 times, 3 times a day

2. Knee Prop



Place a rolled up towel underneath your knee.

1. Keeping the back of your knee resting on the towel, pull your toes up towards you.
2. Then slowly lift your foot up until your knee is as straight as possible.
3. Hold for a count of 3.
4. Slowly lower your foot back down to the bed.

Repeat 5-10 times, 3 times a day

3. Heel Prop



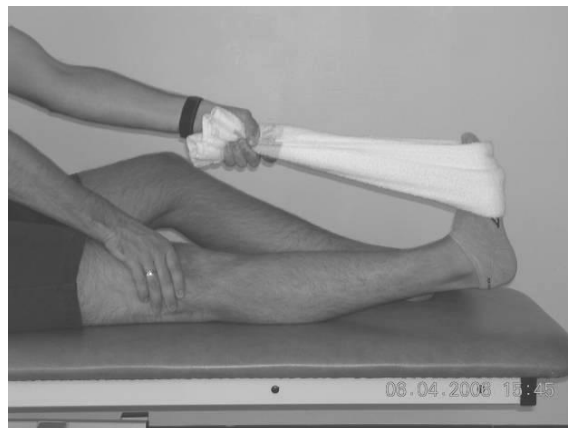
Rest your heel on a rolled up towel, making sure that your calf is raised off the bed. Then lie down and relax.

Your knee will hang under its own weight, stretching the muscles on the back of your knee.

1. This may be uncomfortable at first, so start off with 2-3 minutes and aim to gradually increase to 10 minutes.
2. To stretch further, every few minutes, gently contract the muscles on the front of your knee, pushing the back of your knee towards the bed.

Start with 2-3 minutes aiming to build to 10 minutes, 3 times a day

4. Towel Stretch



Sit upright with your legs outstretched.

1. Wrap a rolled towel around the foot of your operated leg and hold the ends with your hands.
2. Slowly pull the towel so that your heel lifts up and off the bed, whilst keeping the back of your knee flat on the bed.
3. Then contract the muscles above your knee, attempting to keep your foot in the air without the towel helping.
4. Let the towel loosen and attempt to keep your foot in the air for a count of 3, then slowly relax your muscles dropping your foot back onto the bed.

Repeat 5-10 times, 3 times a day

5. Knee Extension



Sit upright on the edge of a bed or chair.

1. Slowly lift the foot of your operated leg, until your knee is fully straightened.
2. Slowly drop the foot back down allowing your knee to bend, and if possible try and bend your knee so the foot goes slightly under the chair or bed.

Repeat 5-10 times, 3 times a day

6. Patella Mobilisation



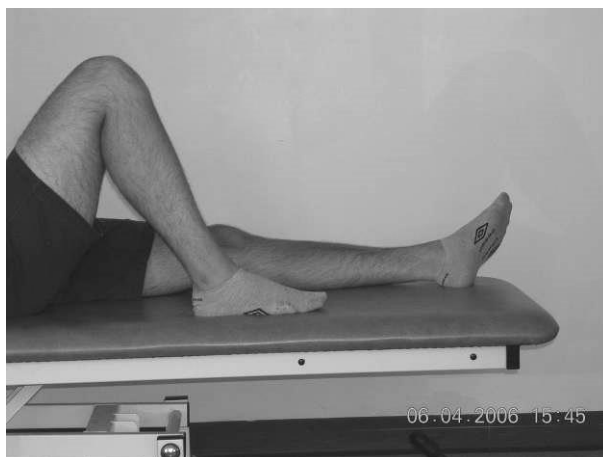
Sit upright with your legs straight out in front of you.

1. Grip your knee cap (patella) between your thumb and fore finger and gently move it from side to side.
2. It may feel odd to begin with and initially there may not be much movement.

Repeat 5-10 times, 3 times a day

POST-OPERATIVE EXERCISES - Weeks 2 to 6

1. Heel Slide



Lying on your back, start with your leg resting flat on the bed.

1. Slowly bend your knee, sliding your foot towards your bottom. Expect to feel a stretch over the front of the knee.
2. Hold for a count of 3.
3. Gently slide your heel back down, ensuring your knee returns to the fully straightened position after each repetition.

Repeat 10 times, 3 times a day

2. Knee Prop

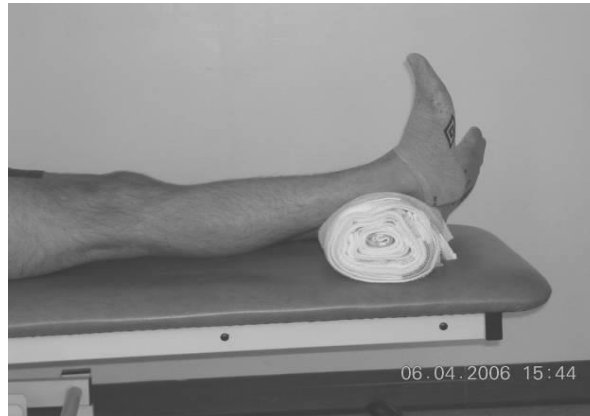


Place a rolled up towel underneath your knee.

1. Keeping the back of your knee resting on the towel, pull your toes up towards you.
2. Then slowly lift your foot up until your knee is as straight as possible.
3. Hold for a count of 3.
4. Slowly lower your foot back down to the bed.

Repeat 10+ times, 3 times a day

3. Heel Prop



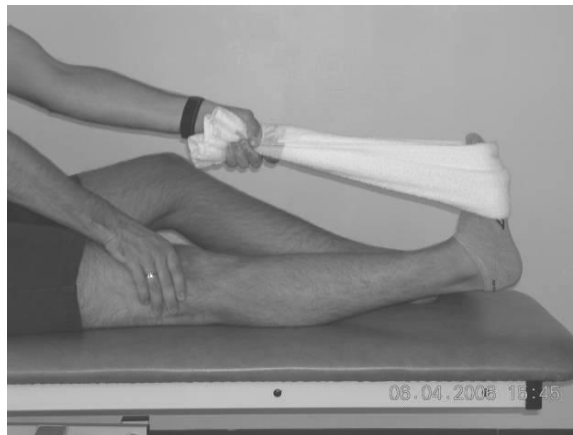
Rest your heel on a rolled up towel, making sure that your calf is raised off the bed. Then lie down and relax.

Your knee will hang under its own weight, stretching the muscles on the back of your knee.

1. This may be uncomfortable at first, so start off with 2-3 minutes and aim to gradually increase to 10 minutes.
2. To stretch further, every few minutes, gently contract the muscles on the front of your knee, pushing the back of your knee towards the bed.

Start with 2-3 minutes aiming to build to 10 minutes, 3 times a day

4. Towel Stretch



Sit upright with your legs outstretched.

1. Wrap a rolled towel around the foot of your operated leg and hold the ends with your hands.
2. Slowly pull the towel so that your heel lifts up and off the bed, whilst keeping the back of your knee flat on the bed.
3. Then contract the muscles above your knee, attempting to keep your foot in the air without the towel helping.
4. Let the towel loosen and attempt to keep your foot in the air for a count of 3, then slowly relax your muscles dropping your foot back onto the bed.

Repeat 10 times, 3 times a day

5. Knee Extension



Sit upright on the edge of a bed or chair.

1. Slowly lift the foot of your operated leg, until your knee is fully straightened.
2. Slowly drop the foot back down allowing your knee to bend, and if possible try and bend your knee so the foot goes slightly under the chair or bed.

Repeat 10+ times, 3 times a day

6. Patella Mobilisation



Sit upright with your legs straight out in front of you.

1. Grip your knee cap (patella) between your thumb and fore finger and gently move it from side to side.
2. It may feel odd to begin with and initially there may not be much movement.

Repeat 10 times, 3 times a day

Start these next exercises once you have been directed to do so:

7. Single Leg Balance

Start in a standing position; support yourself by holding onto a chair.

1. Slowly lift your non operated leg off the floor, so you are balancing on your operated leg.
2. If you feel well balanced let go of the chair you are holding onto.
3. Balance for as long as you can manage.
4. If you feel you are losing your balance place your hand back on the chair.

Repeat 5 times, 3 times a day

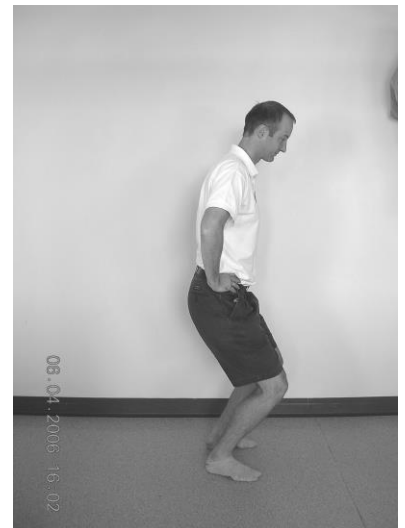


8. Quarter Squat

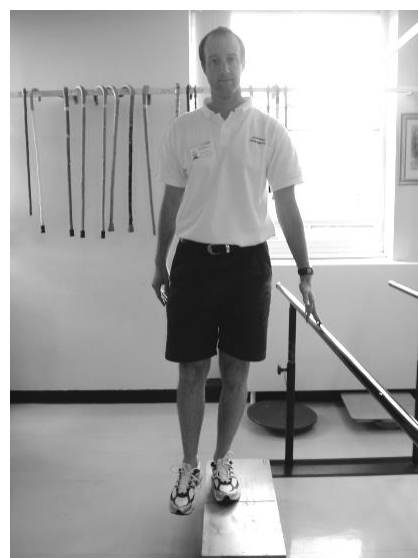
Start in a standing position with your feet shoulder-width apart.

1. Bend both knees, squatting, as if to sit down.
2. Hold this position briefly before slowly returning to an upright standing position.
3. Make sure that your knees bend straight over your toes, rather than turning in or out.

Repeat 5-10 times, 3 times a day



9. Single Leg Squat



You will need a small step e.g. the bottom step of your stairs at home.

1. Holding onto a nearby support, stand on the bottom step with your operated leg and straighten your knee.
2. Bend your knee, gently squatting, so that your other leg just touches the floor with your toes.
3. Then straighten your knee, lifting that foot back off the floor.

Repeat 5-10 times, 3 times a day

POST-OPERATIVE EXERCISES - 6 Weeks to 6 months

AND MAINTENANCE EXERCISES

Daily exercises should be done for 6 months but you will ideally need to do the following maintenance exercises 2-3 times a week for the life of your knee replacement.

1. Knee Extension



Sit upright on the edge of a bed or chair.

1. Slowly lift the foot of your operated leg, until your knee is fully straightened.
2. Slowly drop the foot back down allowing your knee to bend, and if possible try and bend your knee so the foot goes slightly under the chair or bed.

Repeat 10+ times, 3 times a day

2. Single Leg Balance

Start in a standing position; support yourself by holding onto a chair.

1. Slowly lift your non operated leg off the floor, so you are balancing on your operated leg.
2. If you feel well balanced let go of the chair you are holding onto.
3. Balance for as long as you can manage.
4. If you feel you are losing your balance place your hand back on the chair.

Repeat 5 times, 3 times a day

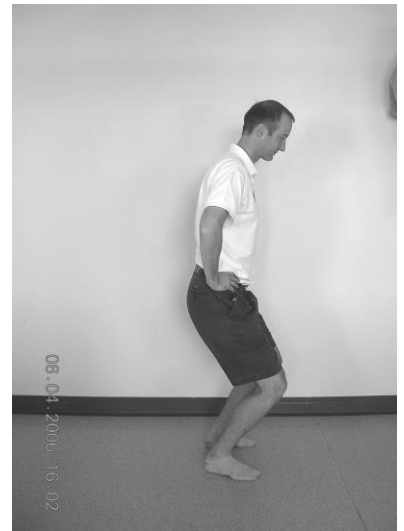


3. Quarter Squat

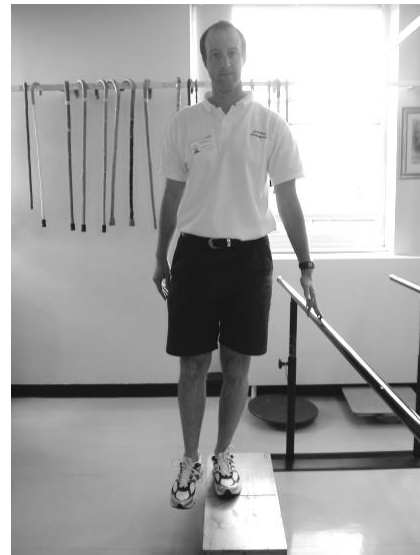
Start in a standing position with your feet shoulder-width apart.

1. Bend both knees, squatting, as if to sit down.
2. Hold this position briefly before slowly returning to an upright standing position.
3. Make sure that your knees bend straight over your toes, rather than turning in or out.

Repeat 10+ times, 3 times a day



4. Single Leg Squat



You will need a small step e.g. the bottom step of your stairs at home.

1. Holding onto a nearby support, stand on the bottom step with your operated leg and straighten your knee.
2. Bend your knee, gently squatting, so that your other leg just touches the floor with your toes.
3. Then straighten your knee, lifting that foot back off the floor.

Repeat 5-10 times, 3 times a day

Further Information

Exclusive video content and in-depth information relating to major hip and knee orthopaedic procedures, as carried out by the Orthopaedic Team at Hampshire Hospitals NHS Foundation Trust, can be found at

<http://www.hipandknee.tv/>

National Joint Registry (NJR) Website

<http://www.njrcentre.org.uk/>

National Institute for Health and Clinical Excellence (NICE) Website

<http://guidance.nice.org.uk/>

NHS Website

<http://nhs.uk/>

British Orthopaedic Association Website

<http://www.boa.ac.uk/>

Arthritis Research UK Website

<http://www.arthritisresearchuk.org/>

More information about anaesthesia at

<http://www.rcoa.ac.uk/>

If you have any questions, problems or need advice once you are at home, then phone the Orthopaedic Ward, Orthopaedic Education and Follow Up Clinic or the Occupational Therapy department and they will do their best to help.

Orthopaedic Education and Follow Up Clinic - 01256 313580

Orthopaedic Ward D1 - 01256 313681

Occupational Therapy and Physiotherapy - 01256 313205

If you are treated for a DVT (blood clot) or are prescribed antibiotics for problems with your wound, please contact: **Orthopaedic Joint Review Clinic - 01256 313459**

Hampshire Hospitals NHS Foundation Trust

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Aldermaston Road

Basingstoke

Hampshire

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<http://www.hampshirehospitals.nhs.uk/>

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