Information and exercises following cannulated screw fixation

Introduction
Cannulated screws are inserted where the neck of femur has been fractured and where there is a good chance that it will heal if held in place by internal fixation. In this case, the internal fixation consists of 3 large screws placed through the neck of femur into the head. These will remain in place permanently even once the fracture has healed.

Following your operation, you will be encouraged to mobilise as soon as possible and you must make sure that you are receiving adequate pain relief to allow you to do this. Normally, you will be sat out of bed the day after the operation with assistance and a walking aid. You will be non-weight bearing, or if the doctors allow minimally weight bearing for a period of six weeks.

Mobility will be progressed during your admission with the physiotherapist. He/she will advise you on how far you should be mobilising and what walking aids are appropriate for you (usually a walking frame initially and then progressing to crutches if able).

It is also important that you exercise to strengthen the muscles around the damaged hip. Your physiotherapist may advise you of additional exercises that may also benefit you.

Pain
After your operation some pain may persist for a further few weeks and you should use this as a guide when increasing your daily activities. A moderate ache which settles quickly is acceptable, severe pain which takes hours to settle is not. If you experience sharp pain, stop activity immediately. If symptoms persist, contact your GP for advice.
If the area around the wound becomes red, increasingly more painful, discharges pus or you become unwell with a high temperature, contact the Orthopaedic Department on 0118 322 6938.

**Swelling**
The swelling in the leg may remain for as long as three months. Having a rest period on the bed with the legs elevated (raised up) for a few hours a day will help control the swelling.

**Driving**
- As you are non- or minimally- weight bearing for 6 weeks you will not be able to drive for this period.
- After the 6 weeks, in order to drive you need to be nearly pain free, not be dependent on walking aids, have a good range of movement and have sufficient reflexes to manage an emergency stop.
- Remember to have a “test drive” and practice an emergency stop with an experienced driver.

**Work**
- Check with your GP when you can go back to work. If you have a desk job you will be able to return sooner than if you have a very active job.
- If you have a desk job and you can get to work you may find it comfortable to return to work after 4-6 weeks.
- With more physically demanding jobs it’s likely to be 3 months before you can return to work.

**Sports and hobbies**
- Low impact activities such as walking, swimming and gardening are recommended.
- High impact activities should be avoided till around 3 months post-op to ensure fracture healing.
- All heavy activities such as digging and heavy lifting should be avoided for 3 months post-op.
General advice
• Do have regular rest periods each day.
• An increased ache in the hip region usually means that your level of activity has increased.
• If you experience a sharp pain, stop activity immediately.
• If symptoms persist, contact your GP for advice.
• Aim to be as active as you can within the limits of pain.

Leaving hospital
When the ward team feels you are ready, you will be discharged, either home or to a further rehabilitation centre. Before leaving, your physiotherapist should discuss with you which exercises to continue at home and how to progress your mobility.

Mobility/Walking
You will need to use your frame/crutches for a minimum of 6 weeks non/minimal weight bearing as you have been taught. When advised to do so by your doctor or physiotherapist you should gradually increase the amount of weight taken on the operated leg.

Once fully weight bearing you may still need to use some sort of walking aid as you may still have a limp due to muscle weakness, become tired when walking further than expected or come to unforeseen obstacles.

Sitting down / standing up
• To stand up, shuffle to the front of the chair, tuck your non-operated leg back underneath you. Place the operated leg out in front of you. Push up with both hands on the arms of the chair, or push up with one hand on the arm of the chair holding your crutches in the other. Make sure that all of your weight goes through the operated leg only. Once balanced place both hands on the frame or crutches in both hands.

• To sit down, stand close enough to feel the chair against the back of your legs. Either let go of the walking frame and reach back to the arms of the chair with both hands or place both crutches in one hand and place the other on the arm of the chair. Step your operated leg forward and gently lower yourself into the chair.
Do not use the frame to pull yourself up or stand up or sit down with your hands still in the crutches.

Walking with a frame/crutches
- Move the frame or crutches first.
- Take your weight through both arms.
- Push down through the frame or crutches and swing through with your non-operated leg.

Stairs
Your physiotherapist will practice stairs/steps with you prior to discharge if necessary. You will need to use crutches on the stairs if you only have one or no rails. You may also need to have extra frame/crutches to enable you to have something to walk with when you reach the top of the stairs.

Ascending
- Hold on to your rail/rails.
- Hop up with your un-operated leg being careful not to put any weight through the operated leg.
- Followed by your crutches.

Descending
- Hold on to your rail/rails.
- Place your crutches down one step.
- Put the operated leg forward but do not put weight through the leg, lower yourself down onto the lower step.
Getting in/out of the car

- Positioning the car: you should sit in the front passenger seat of the car after your operation as there is more leg room. Make sure the car is parked away from the kerb, so you can be on the same level as the car before you try to get in.
- Push the seat back as far as possible and slightly reclined. Go bottom first into the car and lower yourself slowly to the edge of the seat. Use your arms and lift your bottom further across the seat towards the driver’s side. Lift your legs into the car slowly.
- A plastic bag will help you swivel your legs in more slowly, but must be removed before you drive off.
- Reverse this procedure to get out.

Exercises

The following exercises should be started the day after your surgery and should be done 10 times each, four times a day with each leg. Your physiotherapist will help explain how to do them.

1) Static quads
   Lying with your legs out straight in front of you, tighten the muscles on the front of your thigh by squashing your knee down in to the bed and pulling your toes up towards you. Hold for a count of 5, relax completely.

2) Gluteal squeeze
   Squeeze your buttock muscles together as tightly as possible for a count of 5, relax completely.
3) **Hip flexion/ Heel slide**
Lying with your legs out straight in front of you, slide the heel of your operated leg up towards your bottom, allowing your hip and knee to bend. Slide your heel back down again, relax completely.

4) **Hip abduction**
Lying with your legs out straight in front of you, keeping both legs straight and your toes pointing towards the ceiling throughout, move your operated leg out to the side slowly. Return your leg to the start position, relax completely.

5) **Long arc quadriceps**
In your chair, kick your foot forward and straighten your operated leg slowly, hold for 5-10 seconds and slowly lower back down. Relax completely.

Once you are mobile with a frame or crutches you can progress to the following exercises. Make sure you are holding on to a firm surface for all standing exercises. Again you should be doing 10 of each exercise, 4 times a day.

6) **Hip flexion**
Slowly lift the knee of your operated leg towards your chest as far as you can go. Lower your foot back down, relax completely.

7) **Hip extension**
Keeping your body upright throughout the exercise, slowly move your operated leg as far back as possible, return to the starting position, relax completely.
8) Hip abduction
Keeping your body upright throughout the exercise, slowly move your operated leg out to the side, keeping your toes pointing forwards. Return to the starting position, relax completely.

6 weeks onwards
You can now try the following exercises when you are confident to do so. Everybody is different and if you feel these exercises are too difficult for you don’t worry either miss them out or leave them for another time.

Clam shell
Lie on your opposite side.
Bend both knees.
Twist your top leg until your knee is pointing towards the ceiling or as far as you can.
Do not allow your hips to roll backwards.
Hold for a few seconds, relax.
Repeat 10 times.

Hip abduction in side lying
Lie on your good side, with the knee of your operated leg straight or only slightly bent. Lift your leg towards the ceiling taking care to not turn the toes towards the ceiling or to roll backwards.
Hold for a slow count of 10, relax and repeat 10 times.

The following exercises should be attempted only once you are fully weight bearing. This is usually about 6 weeks post op but please be guided by your doctor or physiotherapist.

Half squats
Stand holding onto something solid.
Bend both knees.
Go as far as you can comfortably then return to the upright position.
Repeat 10 times.
Information and exercises for patients following cannulated screw fixation

**Heel raises in standing**
Stand, holding onto something solid.
Rise up and down on your toes, lifting your heels off the ground.
Repeat 10 times.

**Single leg balance**
Hold onto something solid.
Put all of your weight onto the operated leg and lift your good leg off the ground.
To make this exercise harder, let go of your support.
Aim to build up to holding this position for up to 30 seconds, repeat 5 times.

**Step ups**
Stand facing the stairs.
Place operated leg on the bottom step.
Hold onto the banister, and try and lift your weight up on the operated leg and place your other foot on the bottom step.
Lower the good foot back down to the floor.
Repeat 10 times.

**Step downs**
Stand on the bottom step facing down the stairs.
Hold onto the rail.
Try and lower your good leg to the floor.
Straighten up and return foot to the bottom step.
Repeat 10 times.

**Bridging**
Lie on your back with your knees bent.
Tuck your hips under and lift your bottom off the bed until your hips are in a straight line with your knees and shoulders.
Hold for a slow count of 10. Relax and repeat.
Information and exercises for patients following cannulated screw fixation

Royal Berkshire NHS Foundation Trust
Physiotherapy Department
Royal Berkshire Hospital
London Road
Reading RG1 5AN
Telephone Number: 0118 322 7812

Royal Berkshire NHS Foundation Trust
Orthopaedic Occupational Therapy Department
Eye Block
Royal Berkshire Hospital
London Road, Reading RG1 5AN
Tel: 0118 322 7560

Elderly Care Physiotherapy and Occupational Therapy Departments
Woodley Ward
Battle Block
Royal Berkshire Hospital
London Road, Reading RG1 5AN
Tel: 0118 322 8272

Trueta and Heygroves Trauma Unit: 0118 322 7541
Emmer Green Ward: 0118 322 8272 or 0118 322 6901

This document can be made available in other languages and formats upon request.

Produced by: Orthopaedic Physiotherapy Department, April 2020
Review Due: April 2022