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Ischiofemoral impingement and decompression

This leaflet is for patients having an operation called decompression for ischiofemoral impingement. It outlines what the surgery entails, including risks and benefits. If you have any questions, please discuss them with your consultant or one of the team.

Ischiofemoral impingement

The hip joint is ball-and-socket joint. The ball (femoral head) is the top end of the thighbone (femur) and the socket (acetabulum) is part of the pelvis (see Figure 1A). The femoral head is connected to the femur with a femoral neck. The hip joint is surrounded by ligaments and muscles, which provide support and generate movements of the joint.

Movements of the hip involve turning outward (external rotation) and turning inward (internal rotation). Lesser trochanter is a bony protuberance on the inside of the near end of the femur (see Figure 1B). With internal rotation of the hip, the lesser trochanter moves further away from the ischial tuberosity (bony prominence of pelvis that you sit on or can feel in your buttock crease), while with external rotation it moves closer to the ischial tuberosity.

Sometimes, either as a result of your build, trauma or overuse, the space between the lesser trochanter and ischial tuberosity (ischiofemoral space) is narrower than usual. The quadratus femoris, the muscle contained within the ischiofemoral space, can also become injured. Under these circumstances, the contents of ischiofemoral space can become pinched or impinged (known as ischiofemoral impingement) (see Figure 1C). In turn, this leads to irritation and pain when the hip externally rotates.

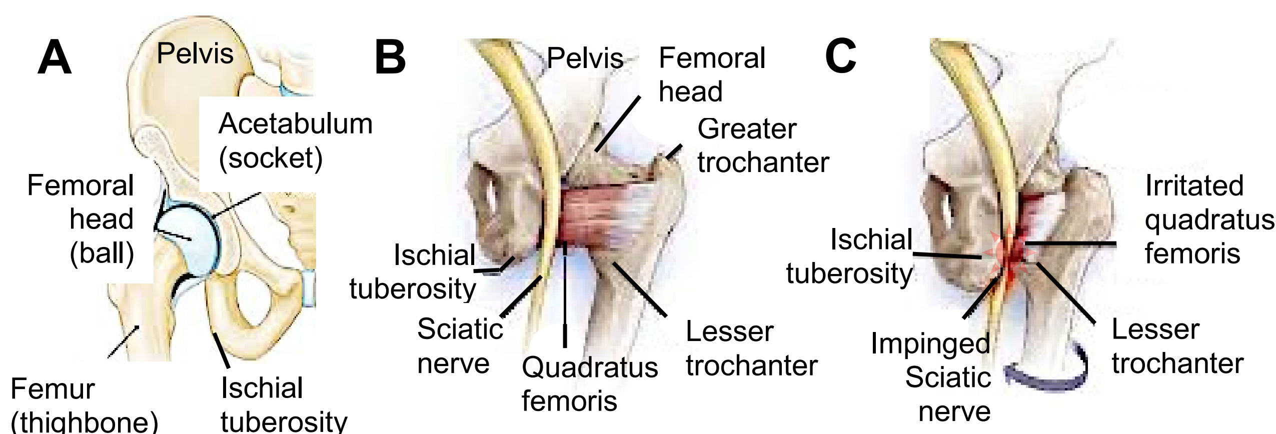

Figure 1. A. Diagram of a right hip joint as seen from the front. **B.** Diagram of right hip as seen from the back. Note the space between the lesser trochanter on the femur and the ischial tuberosity on the pelvis (known as the ischiofemoral space). The space contains the quadratus femoris muscle, which works by externally rotating the leg. The sciatic nerve runs close to this space to supply the right leg. **C.** Note the lack of ischiofemoral space with the external rotation

of the leg. The quadratus femoris may become impinged (pinched) and the sciatic nerve may become irritated.

What does decompression surgery entail?

If your pain is not helped by non-surgical treatment (i.e. rest, painkillers, physiotherapy) and your tests show relevant findings, further interventions may be necessary. Commonly, an injection of anti-inflammatory medication into the ischiofemoral space will be the first line. It is carried out under CT scan guidance to ensure accuracy. If the injection fails to give sustained benefit, then surgical treatment may be considered.

The operation is performed through small skin cuts (keyholes) using a small camera, called an arthroscope, and thin instruments. During the procedure, the effect of hip rotation on the contents of ischiofemoral space is looked at, and the space is decompressed by shaving away some bone from the lesser trochanter and removing any associated scar tissue. The sciatic nerve is identified and any constricting fibrous bands are also released.

What are the aims of this surgery?

- Increase ischiofemoral space
- Improve hip pain
- Improve hip function
- Improve overall quality of life and mobility

What are the risks of this surgery?

- Wound or deep infection
- Sciatic nerve injury
- Failure to improve symptoms/dissatisfaction
- Recurrence of symptoms
- Failure of the tendons to heal
- Need for further surgery
- Heart attack
- Chest infection
- Clots in the veins of your legs that may travel to your lungs (deep vein thrombosis (DVT) and pulmonary embolism)

Advice following surgery

Pain relief: Local anaesthetic is used at the end of surgery to numb the pain. It is normal to feel pain come back as the local anaesthetic wears off and you will need to take painkillers regularly to help with this. It is important to take the painkillers as prescribed to keep pain to a minimum and allow mobilisation.

Hospital stay: Your operation can take between 1 and 3 hours, depending on how much work needs to be performed. You may need to stay in hospital overnight following your procedure. The length of your hospital stay may vary depending on the extent of your surgery, your medical history and also on how you are managing to mobilise with help from the physiotherapists.

Mobilisation: A physiotherapist will see you on the ward. Initially, you may require walking aids (i.e. frame or crutches) to help you mobilise. You will be allowed to put all weight on the operated leg. You will also be shown how to safely get up- and down-stairs using your crutches, if required.

Range of movement and strengthening exercises: It is important to re-establish your muscle strength and hip joint movements as soon as possible following your surgery. Ensure that you take pain relief medications about one hour before your exercises. Following your surgery, you will go through a phased rehabilitation programme. Your physiotherapist will explain the programme to you. However, in broad terms the phases are:

- Phase 1 – includes regaining your hip joint range of movement.
- Phase 2 – strengthening/conditioning muscle exercises.
- Phase 3 – stamina.
- Phase 4 – exercises for return to specific sport.

You will also be referred for outpatient physiotherapy to ensure on-going progress with walking and exercises. If you have any questions or need any advice about your exercises, please contact the Physiotherapy Department between 9am – 4pm Monday to Friday on 0118 322 7811 (Royal Berkshire Hospital) or 01635 273362 (West Berkshire Community Hospital).

Self-care: It is important to get back to your normal daily routine as soon as possible after the surgery. Initially, you will need help from the ward staff with mobilisation and self-care. By the time you go home you are likely to be independent with normal self-care activities.

Wound care: Keep your wounds clean and dry. It is normal for the wound sites to leak a little bit of blood or fluid for the first few days after your surgery. These will need to be redressed if the dressings become soaked. If you are changing the dressings, clean the wound with soap and clean water, pat it dry with a towel/paper towel and even use a hair dryer (on cool setting) to ensure maximal dryness of the skin before applying new dressing. The stitches will be removed 10-14 days after the surgery. The nursing staff will also provide you with wound care information on leaving hospital.

Work: Your return to work will depend on the job you do and the speed of your recovery. It may take a couple of weeks before you are able to return to an office job, and longer if the job is physical. Your physiotherapist or consultant will be able to provide further advice. An initial sick certificate can be provided by the ward – please ask the nurse before you leave the ward. Subsequent certificates will need to be obtained from your GP of required.

Driving: You should not drive while you are still using crutches. Once you feel you have sufficiently recovered and can perform an emergency stop, you can try to drive on a quiet road. You may need to inform your insurance company prior to returning to driving, that you have had an operation and have now recovered.

Leisure and sport: Return to sports will be guided by what you have had done during your surgery and by your progress with rehab. It can take up to 3-6 months before you are able to return to competitive sports.

Glossary

Femur *– thighbone*

Lesser trochanter *– bony protuberance on the inside of the near end of the femur*

External rotation *– hip turning movement leading to knee/toes pointing outwards*

Internal rotation *– hip turning movement leading to knee/toes pointing inwards*

Ischial tuberosity *– bony prominence of pelvis that you sit on or can feel in your buttock crease*

Ischiofemoral space *– space between lesser trochanter and ischial tuberosity*

Quadratus femoris *– the muscle within the ischiofemoral space*

Ischiofemoral impingement *– narrowing of ischiofemoral space as a result of quadratus femoris injury or your build, trauma or overuse*

Sciatic nerve *– large nerve that runs from your buttock into your foot at the back of the thigh/leg*

Arthroscopy *– surgery performed through small skin incisions (keyholes)*

Arthroscope *– small camera used during procedure*

Contacting us

Clinical Admin Team (CAT 5) Orthopaedics: 0118 322 7415 email: rbbh.CAT5@nhs.net

Redlands Ward: 0118 322 7484/5

Orthopaedic Outpatient Reception (RBH): 0118 322 8334

Outpatient Physiotherapy Department 0118 322 7811 (Royal Berkshire Hospital) or 01635 273362 (West Berkshire Community Hospital).

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

Tony Andrade / Vitali Goriainov, RBFT Orthopaedics, July 2023

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