



# Nigel Donnachie

Consultant Hip & Knee Surgeon

## REVISION HIP REPLACEMENT

A hip replacement may fail in time. This means that parts of, or the entire hip replacement may become loose or wear out. This causes the artificial joint to become unstable and as a result you may experience pain and / or difficulty in walking. It is therefore necessary to replace the loose or worn parts of your hip replacement and this is what is meant by “revision hip replacement”.

A revision hip replacement may also be required if you have developed an infection in your existing hip replacement which has not responded to other treatments such as antibiotics.

### What does the operation involve?

The operation usually takes place under a general anaesthetic or a combined general and spinal anaesthetic.

The complexity of the operation depends largely upon which components of your hip replacement need to be revised. All of the following are forms of revision hip replacement:

- **Total Revision** - Where both the acetabular (cup) and femoral (stem) components of the hip have to be revised.
- **Acetabular Revision** – Where just the cup component is revised.
- **Femoral Revision** – Where just the stem component is revised.
- **Conversion of a Hemi-Arthroplasty to Total Hip Replacement** – Where a partial hip replacement, performed for a fractured hip is removed and replaced with a total hip replacement (cup and stem).

All of these operations are technically demanding and take considerably longer to perform than a normal hip replacement. The length of the operation often depends upon how difficult it is to remove the original prosthesis and whilst your surgeon will make an assessment of the estimated operating time prior to surgery, it is not always possible to establish exactly how complex the procedure will be until the operation is in progress. However, as a general guide an **Acetabular** revision usually takes less time than a **Femoral** revision whilst a **Total** revision procedure is the most complex of the three procedures. In many cases the operative time can exceed 3-4 hours.

Removal of the original prosthesis can cause damage to the underlying bone although every attempt is made to preserve as much good bone as possible. If, after the prosthesis is removed, the quality and / or quantity of remaining bone is poor then it may be necessary to use a bone graft to fill any defects. This will come in the form of donated bone from The National Blood Service.



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It may also be necessary to remove the trochanter (part of the thigh bone) during the operation, to allow the surgeon to remove the prosthesis. If this is the case, then wires may be used to secure the bone back in place afterwards.

## Revising an Infected Hip Replacement

When a revision hip replacement is being performed because of infection the operation is usually performed in two stages several weeks or even months apart. This is to ensure the optimum chance of the hip being cleared of infection before the new replacement joint is implanted.

- The first stage involves removal of the existing hip replacement and thorough debridement of the surrounding tissues. A temporary “spacer” made from bone cement and containing antibiotics is then inserted into the space where the hip replacement was. You will be given intravenous antibiotics for a short period following the procedure.

You may be able to go home between stages one and two. Your surgeon will advise you if this likely to be the case for you.

- The second stage involves removal of the cement spacer after which the new hip replacement is implanted.

In some cases, it may be appropriate to perform both of these stages in one operation. This is called a 2 in 1 revision hip replacement. The benefits of this procedure are that you only need one operation and one anaesthetic and you do not need to spend any time without a hip replacement in place. However, this type of procedure carries a slightly higher risk of the infection not being fully cleared. Your surgeon will advise you if it is felt that this type of revision hip replacement is appropriate for you.

## What Type of Hip Replacement Will Be Used To Replace The Existing One?

The type of hip replacement used to replace your existing one will depend on a number of factors including the quality of your bone and the previous presence of infection in the joint. Your surgeon will make this decision before and sometimes during your operation. The options fall broadly into two categories; cemented and uncemented implant. Where a total revision is performed a combination of the two methods may be used (for example, a cemented stem and uncemented cup) to give the best result. Extra fixation methods may be used to secure the implants; such as screws or cables.

## What are the benefits of revision hip replacement?

A successful revision hip replacement will give relief from pain in the hip and should allow sufficient



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movement in the hip joint for you to undertake most normal activities. The overall aims of surgery are:

- Relief of pain in the hip
- Correction of any deformity (e.g. inequality in leg length)
- Restoration of any loss of function in the hip
- Improvement in your quality of life

## **What are the possible complications?**

Depending on the condition of your hip prior to surgery, a good result can be expected in approximately 90% of cases. However, some patients face a higher complication rate than others, which will reduce the chances of a good result. Your surgeon will warn you if this is the case with your hip.

The following risk factors exist for any patient undergoing total hip replacement:

- Medical risks e.g. Heart attack, stroke, clots in the leg (deep vein thrombosis) or lung (pulmonary embolism)
- Infection in the wound, or in the hip joint itself
- Wear / loosening of the artificial hip
- Dislocation of the artificial hip
- Nerve injury
- Excessive bleeding, requiring blood transfusion
- Risk of fracture
- Change in the length of the leg
- Trendelenburg Lurch
- Ceramic squeak or ceramic fracture (where ceramic components are used for the “ball and socket” part of the joint)
- Re-operation
- Amputation
- Death

## **High risk groups**

There are some people who come under the category of high risk and these include people who:

- Have had multiple operations to the affected hip
- Have had previous infection within the hip
- Have inflammatory arthritis, rheumatoid arthritis or psoriasis
- Have major medical problems
- Take certain drugs such as steroids or immunosuppressant medication



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## What is the alternative to surgery?

Revision Hip replacement is required when your existing hip replacement has failed. Your surgeon will advise you if it is safe to continue without further surgery. However, in many cases doing so would put you at risk of fracturing the bone around your hip replacement as this can become weak as a result of the hip replacement failing. Not only would this cause you undue distress and pain, it would make a revision hip replacement much more difficult to undertake.

## Recovery

Most patients will start to take a few steps on their new hip on the day of or day after the operation. Your physiotherapist will advise you when to do this and will provide you with specific exercises to perform whilst in hospital and when you go home. These exercises may be painful at first but they are an essential part of your post-operative recovery and if they are not performed you face a high probability that your revision hip replacement will not be as successful as you had hoped.

You will remain in hospital for approximately five days after surgery. You will be walking without assistance before discharge but depending on the type of implant used **some patients will not be allowed to fully weight bear initially and will require crutches for support during the first six weeks**. If this is the case for you, you will be advised by Mr Donnachie at your first follow-up appointment in the Outpatients department when to stop using crutches and **you should NOT do so until an x-ray of your hip replacement has been performed and checked** to ensure that the components of your hip replacement are integrating. If you put weight through your new hip before this is confirmed there is a risk you could move the components and this could lead to re-operation.

It is expected that you will be able to manage independently at home although you will not be able to drive for at least six weeks after the operation so it is helpful if you have someone available who can help with activities such as shopping at first. Most patients report some immediate benefit from surgery but overall recovery can sometimes feel slow and this can be a little frustrating. The first three to four months after discharge involve a lot of hard work on your part in order to get the hip working properly.

You play an important part in your recovery. Whilst the physiotherapy, nursing and medical staff provide important advice and support, only you can get the hip moving. It is therefore important that you are well motivated and committed to working hard both in hospital and following discharge.

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