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UNCEMENTED CERAMIC ON CERAMIC TOTAL HIP REPLACEMENT

A hip replacement may be considered when your hip joint becomes so badly damaged that it causes pain which interferes significantly with your quality of life and cannot be controlled with simple measures such as painkillers.

Whilst for many patients a traditional cemented total hip replacement is recommended, this is not always ideal for the young active patient who wishes to continue with sports or high levels of physical activity. For this patient group there is a significant likelihood that a traditional hip replacement would wear out or fail within a short time, as this type of hip replacement was not designed to undertake the stresses of high impact activity. For this patient group an uncemented hip replacement may be recommended as it allows a greater level of activity with a decreased risk of wear.

An uncemented total hip replacement is often used in conjunction with a ceramic head and cup liner. These ceramic components reproduce the weight bearing surfaces of the hip joint (the ball and socket) and take the place of the more traditionally used metal and plastic components used in cemented hip replacements.

Ceramic on Ceramic components have demonstrated significantly less wear compared to conventional hip replacement systems and it is therefore anticipated that this characteristic will extend the life of the implant.

What are the benefits of an uncemented ceramic on ceramic hip replacement?

A successful uncemented ceramic on ceramic total replacement will give relief from pain in the hip and should allow sufficient movement in the hip joint for you to undertake most normal activities. The overall aim of surgery is relief of pain in the hip.

What does the operation involve?

The operation takes place under a general or spinal anaesthetic and takes approximately 90 minutes.

The operation involves the replacement of both the ball (femoral head) and socket (acetabulum) of the hip joint. The head of the femur (thigh bone) is replaced using a stemmed metal prosthesis with a ceramic head. The socket (acetabulum) is resurfaced with



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a metal cup which contains a ceramic liner. The long-term fixation of both of these components depends upon their integration with your own bone and this is achieved using a cast-in porous coating on the surface of the components rather than cement.

What are the advantages compared to a traditional hip replacement?

An uncemented ceramic on ceramic total hip replacement usually allows you to continue with an active lifestyle. This type of hip replacement offers a higher resistance to wear and greater scratch resistance compared to traditional metal or plastic implants.

It must be remembered that by comparison an uncemented ceramic on ceramic total hip replacement is a relatively new technique compared to a traditional cemented metal on plastic hip replacement. Therefore, it is advised that you give careful consideration to the alternative options before choosing this type of surgery over a traditional hip replacement.

What are the possible complications?

Depending on the condition of your hip prior to surgery, a good result can be expected in approximately 95% 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
- Dislocation of the artificial hip joint
- Wear / loosening of the artificial hip
- Reduced range of movement in the hip
- Nerve injury
- Excessive bleeding



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- Change in the length of the leg
- Trendelenburg lurch (abnormal pattern of walking)
- Re-operation
- Death due to medical or surgical complications
- Fracture of the ceramic components
- Squeaking of the ceramic components

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

What is the alternative to surgery?

Any type of hip replacement is only recommended when it is felt that non-surgical interventions such as pain killers, anti-inflammatory drugs, exercises or cortisone injections would no longer offer any significant benefit. However, ultimately the decision to undergo surgery is yours as only you know the extent to which your symptoms are affecting your day to day activities.



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Recovery

You will start to take a few steps on your new hip on the of or the 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 hip replacement will not be as successful as you had hoped.

You will remain in hospital for approximately three days after surgery. You will be walking without assistance before discharge but you **will not be allowed to fully weight bear on your new hip initially and will require crutches for support during the first six weeks.**

Mr Donnachie will advise you at your first follow-up appointment in the Outpatient's department if you can stop using crutches and put weight through your hip and **you should not do so until an x-ray of your hip replacement has been performed and checked by Mr Donnachie.** This is to ensure that the components of your hip replacement are integrating sufficiently to take your weight safely. If you put weight through your new hip before this is confirmed there is a risk that 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 six weeks after the operation so it is helpful if you have someone available who can help with activities such as shopping at first.

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.

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. It is therefore important that you are well motivated and committed to working hard both in hospital and following discharge.

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