Welcome to the: Orthopaedic Opinion Online Website

The website for the answer to all your Orthopaedic Questions

- **Orthopaedic Opinion Online** is a website designed to provide information to patients who have orthopaedic and musculoskeletal problems and are undergoing treatment.
- **Patient information** is provided in the form of downloadable information sheets.
- **Orthopaedic advice** and second opinions can be provided by our expert internationally renowned Consultant Orthopaedic Surgeons.
- **Online review** of patients' X rays or MRI scans can also be provided and any proposed treatment plans reviewed.
- **Book a clinical consultation** with one of our internationally renowned consultant orthopaedic surgeons in Bristol or London.
- **Orthopaedic reports** can be provided for Injury or Accident Claims and Medical Negligence claims.

This Patient Information Sheet is provided by Orthopaedic Opinion Online

Hip Resurfacing – Information for patients

Introduction: The Hip Joint

The hip joint comprises of the head of the femur, shaped like a ball, and part of the pelvis, called the acetabulum. The acetabulum is a "socket" joint with the ball of the femur sitting in it. This enables a wide range of leg movements. Articular cartilage, which is very slippery and resistant to wear and compression, covers the surface of the acetabulum and head of the femur. As these two surfaces are very smooth they slide easily during movement. The joint is stabilised by ligaments connecting the femur and pelvis and thick muscles of the thigh and buttock control hip movements. In a healthy hip joint movement can be achieved freely, supporting the body and transmitting the propulsion forces during motion.

The articular cartilage of the hip joint can become worn and degenerative for many different reasons. This results in pain, stiffness, a limp and possibly shortening of the leg. Articular surface replacement restores the smooth surfaces of the hip joint enabling the hip joint to function correctly again.

Disorders of the hip

Pain in the hip may not require surgery. It is advisable to consult your orthopaedic surgeon initially as other treatment options may be suitable.

The main reason patients undergo hip resurfacing is due to wear and tear of the hip joint, known as "osteoarthritis". This occurs by the hip wearing out due to overuse, an anatomical abnormality, previous fracture or trauma or due to a premature failure of the articular surface, some people are more prone to this type of wear and tear compared to others.

Hip Disorders

Avascular Necrosis is where the head of the femur collapses due to the loss of its blood supply. This can occur spontaneously, in association with certain conditions such a sickle cell disease, thalassemia, Gaucher's disease or decompression sickness. Perhaps the most common cause is excessive chronic alcohol ingestion or steroid medication for conditions such as renal failure. Patients with this condition may be treated by a resurfacing type of hip replacement.

Developmental Dysplasia of the Hip (DDH) - This congenital condition of the hip joint occurs once in every 1,000 births where the joint is not properly located at birth and the abnormality is not rapidly recognised and treated. The hip joint or acetabulum is shallow and the head of the femur or ball of the hip joint does not lie concentrically within the acetabulum..

Osteoarthritis is the degeneration of the articular cartilage surface of the hip joint due to wear and tear, degeneration and attrition. The hip becomes painful, stiff and eventually collapses into a shortened hip.

Rheumatoid Arthritis is a systemic condition of inflammation of the synovial lining of the joints. It commonly affects the hip and presents with systemic or multiple painful joints, swelling and stiffness. It can lead to pain, stiffness, muscle weakness, collapse of the hip and deformity.

Slipped Upper Femoral Epiphysis is where usually in early adolescence the head of the femur slips downwards and backwards. This is caused when the epiphyseal plate (growth plate) is weakened by injury or even excessive growth. The painful hip in adolescence should be carefully investigated to detect and arrest any slip. Subsequently over many years a hip affected by a slipped upper femoral epiphysis may become prematurely arthritic. .

Hip Resurfacing

Patients requiring hip surgery today and as a result of earlier diagnosis or increased patients demands and expectations are younger and more active. Patients expect an implant that gives them full function allowing them to continue their routine activities, lifestyle and sports. They want the best function from an implant that will last as long as possible.

The history of resurfacing

Various metals have been used in different prostheses since the 1920s. Failure of the first hip resurfacing joints in the 1970s is attributed to the use of the wrong materials. Loosening of the components caused by poor manufacturing tolerances was also a contributing factor. The 1990s saw a change in the materials used with metal-on-metal bearings and the results have been much more encouraging.

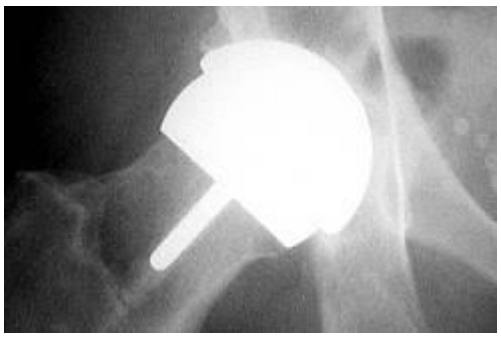
An early Wagner type of resurfacing hip replacement using a metal on polyethylene implant.

The advantages of hip resurfacing

- reduced incidence of post-operative hip dislocation
- restoration of “normal anatomy”
- anatomical loading of the femur
- preservation of more of the patient’s natural bone
- increased range of motion compared to a normal hip replacement.
- improved function compared to a standard hip replacement.

Hip resurfacing offers patients a very hard-wearing and long lasting implant that is well suited for more active lifestyles. However there are risks and complications to having a resurfacing hip replacement and these factors need to be carefully considered in association with the treating specialist.

The advantages of articular surface replacement include reduced dislocation, restoration of “normal anatomy”, anatomical loading of the hip joint and preservation of the patient’s natural bone. There is a benefit from increased range in motion and superior restoration of joint function. By utilising the advances in Metal-on-Metal technology the resurfacing procedure offers patients a very durable and long lasting implant that is well suited for higher demand activities and lifestyles.


A radiograph or X-ray of a resurfacing hip replacement.

The dissadvantages of hip resurfacing

In addition to similar risks of a total hip replacement, a resurfacing replacement may fail due to fracture of the femoral neck or avascular necrosis (softening of the bone). The effect of long term particulate debris and metallosis from the metal on metal bearing is unknown, the increased range of motion may result in impingement of the component and pain. The orientation of the components is more difficult and critical to the success of the procedure. Revision of a resurfacing implant is comparatively simple in respect of the femoral component as it can be converted to primary total hip procedure. However the acetabulum or socket used for a resurfacing hip replacement is very large, much larger than a conventional primary hip replacement and more akin to a revision hip replacement. Therefore revision of a resurfacing hip is not without significant problems.

The procedure

The procedure is similar to a traditional total hip replacement. The head of the femur is remodelled with the use of special equipment rather than removed. A metal ball is attached to the head with cement. The socket (acetabulum) of the hip is prepared, similar to a total hip replacement, with a metal shell being firmly fitted into the acetabular bone. The socket is much larger than normal to accommodate the larger metal on metal bearing surfaces. The acetabulum is usually inserted without the use of cement which allows bone to grow into the metal shell to hold it in place in the long term.

Minimally invasive surgery

Minimally invasive surgery involves the use of smaller wound incisions and special instrumentation to enable surgery to be undertaken. These techniques can result in advantages in respect to improve the speed of recovery, speed of mobilization, shorten hospital stay reduce the period off work and reduce the time until functional and sporting activities can be resumed. The recovery from the operation requires about 3-7 days in hospital. In this time physiotherapy is commenced.

Drains, wound dressings and sutures

Once the total hip replacement has been inserted, the joint is closed over drainage tubes to take away the bleeding from the joint. They stay in the hip for one or two days. The hip will have a dressing. You will have a drip to administer fluids whilst you do not feel like eating or drinking. A blood transfusion may be given if required. Initially the hip may be painful. Powerful pain-killing tablets and injections will be prescribed. It is usual for these to be required for 1 or 2 days, so do not be afraid to ask for something if you are in pain. Further blood tests and X-rays will be taken. Injections or tablets to thin the blood and to prevent thrombosis will also be given. The wound dressing which is applied in theatre may be removed after 4 days if the wound is satisfactory. The sutures should be removed by the General Practitioner or Practice Nurse after 12-14 days. Sometimes arrangements are made for patients to return directly to the hospital for this.

Medication

If the joint replaced was the only area of arthritis no further anti-inflammatory tablets will be required. If other joints are affected or you suffer from rheumatoid arthritis, the tablets may be restarted if possible after an interval of 2-6 weeks. Pain killers are usually necessary during this time. Please consult and follow the instructions from your treating specialist.

Physiotherapy

On the day of surgery or the following morning the physiotherapist will get you out of bed to commence walking with the help of crutches or a walking frame. The physiotherapists will also begin to encourage you to bend the hip and knee. Sitting is allowed only after 2 days and then only on a high chair. The early

exercises and mobilising of the hip will cause some discomfort and swelling. However, this is normal and is just the healing process occurring. Any swelling or discomfort in the calf muscle of either leg should be brought to the attention of the nursing staff. After 5 - 10 days you are usually able to walk with minimal or no pain, although the assistance of sticks, crutches or a frame may be necessary. You should be able to manage stairs with the assistance of a banister, and to care for yourself around the home. When this is possible you will be discharged from hospital. This is usually within 3-7 days.

Whilst at home the exercise programme of hip exercises should be vigorously continued. Approximately 10 minutes each hour will be ample. Out patient physiotherapy sessions should be arranged during this period. The progress is variable, so do not worry if your progress is a little slow at this stage. If the hip becomes more swollen or more painful than during the first day, or the wound becomes infected, please return to your General Practitioner for early review. The specialist should usually review your progress in the follow-up clinic after 4 or 6 weeks.

Recovery and return to work and sport

If your job is sedentary and mostly sitting you may wish to return after only 3 - 6 weeks. If your job is physically demanding and requires standing or walking for most of the day, your return to work may take several months. Driving can usually be performed after 4 to 6 weeks, providing that the hip is pain free and you are able to control the car with foot pedals and make an emergency stop. Swimming is often possible after 3 - 6 weeks. Return to golf, gentle tennis or badminton may take 3 months. Jogging and squash is not advised as the repetative impact and mechanical loading may result in premature loosening, wear or failure of any type of hip replacement.