Minimally Invasive Total Hip Replacement









What is a MIS Total Hip Replacement?

MIS is an acronym for Minimally Invasive Surgery.

Compared to traditional surgery, MIS hip replacement refers to the fact that Amit Atrey uses a much smaller skin incision in order to perform your hip replacement.

As part of his training, Mr Atrey spent over 2 years working for Messr Hugh Apthorp and Steve Young perfecting his technique for MIS surgery.

Mr Atrey believes that the smaller incision is part of the whole process of rapid recovery to get you back to good health.

You must be aware there is no convincing evidence that MIS surgery improves function or decreases pain.

However, Amit has seen in his patients that a smaller incision with less soft tissue damage, with thw correct anaesthetic, pain killers and early physiotherapy have contributed to a quicker return to normal function. In his patients, the pain and function scores assessed 3 months and one year have been significantly higher than in the traditional larger incision.

Can I have an MIS hip replacement?

Almost anyone can have an MIS hip replacement. Traditionally the incision is less than 10cm/ just over 3 inches long.

HOWEVER, Amit will make the incision AS LONG AS IT NEEDS TO BE to give you a good, safe, well functioning hip that will last you for a long time.

How is a Minimally Invasive Hip Replacement performed?

An MIS Hip Replacement uses exactly the same implants as any other hip replacements.

The only difference is the equipment that I put it in with. These have been adapted to allow introduction through a very small incision.

There is no so such thing as too old. We treat patients in front of us not the number of years behind them.

If you are older, you may have other factors that mean your health is not as it was. This may make the anaesthetic more complicated and your recovery slower. However, you can discuss this with the anaesthetist. Sometimes, if your other health issues make you a higher risk patient and you still wish to proceed with the operation, we may wish to consider doing your operation in the NHS hospital so that there are provisions such as medical doctors and nurses and intensive care units (should it be necessary).

What kind of replacement will I have?

There are two ways that implants are fixed into the body; <u>Cemented</u> or <u>Uncemented</u>. Amit almost always uses an uncemented cup (socket). But varies the type of stem for the femur (thigh bone) depending on the patient.

Cemented implants

The Cemented implants use a special "bone grout" or cement which is slightly runny when it is put into the bone. It is injected and squeezed under pressure into the nooks and crannies of your bone along with the implant. The cement then hardens over the next few minutes to form a perfect grout.

The cemented implant for the femur Amit uses is an Exeter stem. This has fantastic results going over 20 years.



Uncemented implants

An uncemented implant has a special coating on the surface called HA.

HA is present in normal bone and it allows bone to grow in and on the implants over the period of a few weeks. This type of fixation is appropriate for the younger patient with good strong bone. The evidence from joint registry databases seems to suggest that after 15 years the survivorship for uncemented implants is better than that of cemented implants.

Amit normally uses the Polar stem for his uncemented stem. At 5 years on the National Joint Registry database, this stem has the best survivorship of any on the market.







What will the bearing surfaces be made of?

The "bearing surface" means what the actual "ball and the socket" are made of.

Over the last few decades we have tried many different types of bearing surfaces. The options include metal, ceramic and polyethylene.

Amit has decided to use either ceramic or metal heads against polyethylene sockets.

While Metal-on-Metal was once popular, this has shown to be disastrous. Ceramic-on-ceramic is a popular choice for younger patients, the joint registry data and other publications show that this combination is worse than metal against polyethylene.

The polyethylene we use for the sockets is a new specially processed type of plastic. It has been shown to wear more than 10 times less than the older plastics. We have good 10 year data to show it is safe to use to at least up to this point.

Amit also used a special product called Oxinium for his uncemented hip replacements. This product is a metal head which is heated to very high temperatures which eventually becomes ceramic on its surface. This gives the benefits of ceramic while maintaining the toughness of metal.

What will my recovery be like?

Amit encourages Enhanced Recovery After Surgery. Getting home after surgery sooner minimises the risks of complications such as infection. If you are at home, you will move around a lot more and you limit the risk of blood clots and your strength will return sooner.

Day of the operation

Immediately after your hip replacement you will feel a little sore, but the local anaesthetic is still usually working and you should be more than comfortable to get up and start walking within a few hours.

Day 1 after the op

The next day is the worst the pain will be throughout your recovery. You must get up out of bed and try and do as much as the physiotherapists ask you to do. You will likely start on a frame and then hopefully progress to sticks as soon as you are safe.

Day 2

You should be progressing with your mobility and thinking about going home. Most patients are sent home on day 2 or 3.

After discharge

You must continue to listen to advice from the physiotherapists including the hip precautions. It is advisable to see a physiotherapist near your home. We can organise this at the hospital or at one of our partners near your home.

What are the risks of a hip replacement?

A Hip Replacement is a major operation. Although very successful, there are potential complications that may occur. Again, leaving hospital as soon as you are safe is the key to minimising these complications.

This link takes you to a consent form with all the risks of hip replacements. Please read them in your own time or alternatively watch this video

The common complications are -

<u>Infection</u> – getting out of the hospital as soon as possible will limit the risk of infection. Factors that increase it are having diabetes, obesity autoimmune disorders, taking steroids and prolonged operation.

Bleeding (sometimes requiring a transfusion) -

<u>Dislocation</u> – the appropriate positioning of the cup and stem should limit the risk of the dislocation. This is why your choice of surgeon should be one who is specialist fellowship trained.

Blood Clots - Deep Vein Thrombosis (DVT) and Pulmonary Embolus (PE). Without treatment to prevent blood clots, the risk may be as high as one in three. You must take the injection or tablets to prevent the risk of DVT or PE. A DVT is a clot in the back of the calf. This is painful and annoying. The swelling to skin can cause infection. However if the clot progresses/ spreads to or develops in the lungs, it can be fatal. Again getting up and walking sooner will limit the risk of clots

<u>Wound issues including breakdown</u> – this is rare, but more likely in those with poor skin quality, autoimmune disorders, smokers and diabetics

a scar is inevitable. The scar in an MIS hip replacement is less than 10cm or just under 3 inches. The scar is normally thin and fades. You can help by massaging the wound. Occasionally the scar can enlarge and widen. This is called a hypertrophic or keloid scar.

Failure of the implants/ wear – implants are moving parts and will wear. There is also no accounting for how the implants will bond into the body. The wear particles may also cause loosening of otherwise well fixed implants. The Royal College of Surgeons suggests that loosening of implants may reasonably occur in 5% of patients after 10 years.

These are discussed in the video and you will have the opportunity to discuss with Mr Atrey in person