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Hip Resurfacing Surgery For Treatment Of Hip Joint Arthritis

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NUH successfully performed the first two cases of hip resurfacing surgery in Singapore in January this year. It is an alternative surgical option to the conventional total hip replacement for younger patients suffering from symptomatic hip joint arthritis or disease.

Hip Joint Arthritis

Hip joint arthritis is a common orthopaedic condition that affects many individuals worldwide. The hip joint is diseased or damaged due to a number of possible causes, such as age-related degeneration (osteoarthritis), traumatic injury, poor development of the hip joint (hip dysplasia), lack of blood supply to the hip (avascular necrosis), or various types of inflammatory arthritis like rheumatoid, gout and ankylosing spondylitis.

In established hip arthritis, total hip replacement surgery (insertion of an artificial hip joint) has so far been a mainstay of treatment, and is often needed to relieve the symptoms of pain and improve function.

Hip Resurfacing Surgery

Hip resurfacing involves covering the diseased or damaged surfaces of the hip joint with two metal surfaces, which then form the new joint surfaces.

This is unlike the conventional total hip replacement, in which the new joint usually uses a layer of polyethylene (a plastic material). In addition, the whole femoral head (the ball of the joint) is removed and a large metal stem is inserted into the femur (thigh bone).



X-ray showing a conventional total hip replacement surgery



X-ray showing a hip resurfacing surgery

Hip resurfacing only requires refashioning (and not removal) of the femoral head to receive the new metal surface. It also does not involve the insertion of a large metal stem into the femur, and the amount of bone removed during the surgery is much less as compared to a total hip replacement.

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Benefits of Hip Resurfacing Surgery

Faster recovery & shorter hospital stay

As the surgery involves less cutting of bone and more preservation of the patient's own bone stock, recovery may be faster than the conventional total hip replacement. While the average recovery period for the latter is around 2 to 3 months, a patient usually recovers from hip resurfacing in about 6 weeks. However, each patient's recovery period may vary, depending on his or her condition.

As reported by international centres, hospital stay required following a hip resurfacing surgery may be as short as 3 to 5 days, as compared to 7 to 10 days for a conventional total hip replacement.

Improved lifespan of implant

Hip resurfacing results in a metal-on-metal hip joint rather than the metal-on-polyethylene joint commonly used in conventional total hip replacement, and this is theoretically thought to be more wear-resistant.

Reduced risk of dislocation after surgery

The rate of dislocation after hip resurfacing is around 0.75% (Shimmin et al 2005), as compared to 3% (Harkess 2003) for conventional total hip replacement.

Higher success rate of revision surgery

Hip replacements usually last between 10 to 20 years, and people who are more active tend to wear them out faster. When this happens, a new hip replacement (revision surgery) is needed. However, it tends to be difficult and complex, and with lower success rates.

With hip resurfacing, as much more of the patient's bone has been preserved, revision surgery is generally much easier and potentially less costly.

Who is Suitable for Hip Resurfacing?

Hip resurfacing is principally for younger patients (male patients under the age of 65 and female patients under the age of 60). Some older patients may also be suitable for this procedure, and it has been performed on older patients up to their 70's and 80's under appropriate circumstances. However, osteoporosis, which is more common in older patients, is a relative contraindication to this technique. Hip resurfacing is generally not advised for patients with:

- * Osteoporosis
- * Severe or advanced arthritis of the hip with gross deformation of the femoral head or leg length discrepancy (difference in length between the two legs)
- * Advanced avascular necrosis of the hip with femoral head collapse
- * Kidney disease or on steroids

It is important to note that each patient's medical history and circumstances are unique and can determine whether hip resurfacing is appropriate. An orthopaedic surgeon will be able to advise accordingly.

Contact Us

For more information or appointments, please contact:

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