

What is Hip Resurfacing?

Dr Paul Thornton-Bott holds Fellowship of the Royal College of Australasian Surgeons (FRACS) and Fellowship of Royal College Of Surgeons UK (FRCS) and Fellowship of Australian Orthopaedic Association (FAOrthA). Being a true sub-specialist in hip and knee joint replacement, he has over 20 years experience in arthroplasty (THA) and complex revision surgery of both hip and knee and has 10 years experience in Hip Resurfacing.

Hip Resurfacing is an alternative to conventional Total Hip Replacement (THR) and it was originally designed to manage established arthritis and hip pain in younger or athletic patients, but is now available to all patients who wish to retain a high level of activity. It is a bone preserving technique and utilises an implant that has exceptional wear, impact and dislocation resistance, allowing patients to return to high levels of activity



WHAT IS THE DIFFERENCE BETWEEN HIP RESURFACING AND A CONVENTIONAL METAL (STEM)?

In **Total Hip Replacement** procedures, the femoral head and neck (ball of the hip) is removed, and a stemmed implant (rod) is placed into the femur (upper thigh bone). The acetabulum (socket of the hip) is replaced with a metal shell and a plastic or ceramic liner. A new ceramic ball is placed onto the stem that is free to move within the new socket (acetabulum).

In **Hip Resurfacing**, the femoral head is not removed, but is instead trimmed of damaged cartilage and bone and an artificial surface (a cap) is secured over the top of the femoral head. The damaged bone and cartilage within the socket is removed and replaced with a metal or ceramic shell, just as in a traditional total hip replacement.

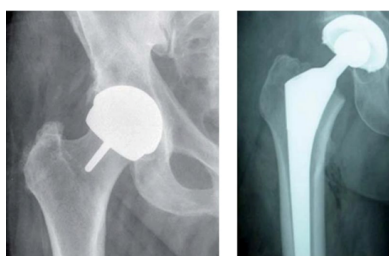
Hip resurfacing

Total hip replacement

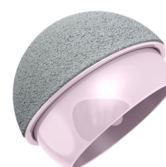


Hip Resurfacing

Total Hip Replacement



Metal



Ceramic

X-rays of Hip Resurfacing. Total Hip Replacement

These modern components offer options for younger, active, athletic men and women of all shapes and sizes.

WHAT ARE THE ADVANTAGES OF HAVING A HIP RESURFACING?

More Normal Walking Pattern

Studies have shown that walking patterns are more natural following Hip Resurfacing compared to traditional hip replacement. Increased loading of the hip and improved push-off have also been seen in gait analysis. Patients also report that the hip resurfacing feels very natural.

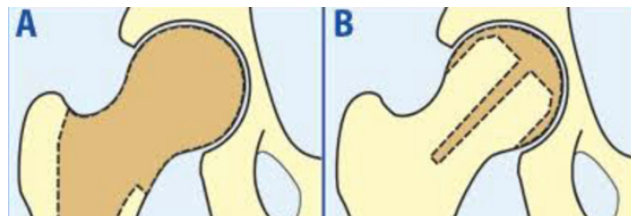


Increased Activity

Hip Resurfacing uses impact and wear resistant bearing surfaces that are more suitable for higher activity demands. This is true of the traditional Adept, metal-on-metal resurfacing implant and the new ceramic ReCerf implant. This, along with the preservation of bone means Hip Resurfacing patients are more able to return to activities such as running and impact sports.

Increased Stability

Because the size of the ball and socket is similar to the original hip, the risk of dislocation is much lower for Hip Arthroplasty in comparison to conventional Total Hip Replacement, even in activities that require a high range of motion such as surfing, tennis and football.



Hip Preservation and Revision

A Hip Resurfacing preserves more of your natural bone. Because the components (called implants) used in hip replacements and hip arthroplasty are mechanical parts, they can wear out or loosen over time and require a second operation called a revision. If revision of a hip resurfacing is required in the future, preserving this bone makes the procedure far easier and is similar to performing a standard total hip replacement.

AM I SUITABLE FOR A RESURFACING?

Up until recently, hip resurfacing was reserved for young active males with a femoral head size over 50mm in diameter. This was because high failure rates had been seen in metal-on-metal resurfacing in women and patients with small femoral heads. With the introduction of ReCerf, a ceramic-on-ceramic implant, these limitations have been removed, and resurfacing can now be offered to ALL active patients. The only limitations that remain are patients with Dysplastic (Abnormal shaped) hips or severe Avascular Necrosis where the bone of the femoral head has died and cannot support the resurfacing implant.

THIS IS WHAT CAN I EXPECT IN HOSPITAL.

With standard instrumentation, Hip Resurfacing has traditionally been performed through a **posterior approach**. Although an excellent approach, this more invasive procedure requires detachment and then reattachment of muscle to bone and usually requires some precautions for several weeks following the surgery to protect this reattachment whilst it heals.

You will be mobilising as quickly as 4 hours after surgery and can expect to be in hospital for 2-3 days. Rehabilitation can be arranged as an in-patient, out-patient or in your own home.

HOW SUCCESSFUL IS HIP RESURFACING?

Conventional total hip replacement (THA) is a highly successful operation, providing pain free function in the majority of patients for more than 20 years. The rate of revision, or second operation due to failure of the THA, is low. However, in the younger, more active population, the rate of revision is much higher. Hip Resurfacing using established devices such as the Adept, are now being seen to outperform THA in all patients. We do not yet know how long resurfacing devices will last, but the rate of failure is very low and we expect to see these implants lasting 30+ years, and possibly the life of the patient.

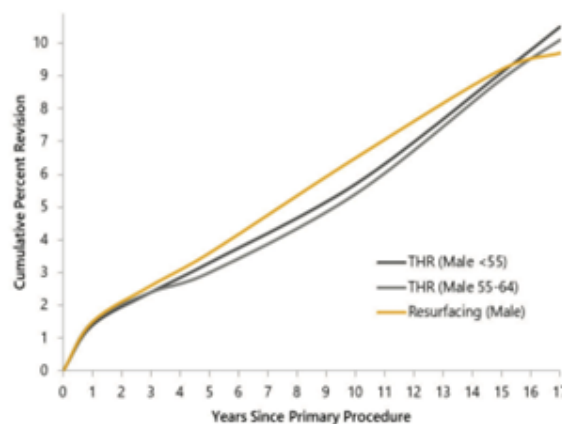


Figure 5 Cumulative revision rates for younger male hip replacement patients in the AOA NJRR showing that beyond 15 years after their primary operation those who received a hip resurfacing are less likely to have required a revision operation than those that received a total hip replacement¹¹.



WHAT IS ALL THE FUSS ABOUT CERAMIC RESURFACING?

Historically, hip resurfacing has used metal-on-metal (MoM) devices. Due to some poor designs, there was a period where many of these devices failed. They created metal debris which damaged bone, muscle etc and had some systemic effects in patients too. This experience identified that men with small femoral heads and all women were at risk of premature failure with MoM resurfacing. The **Adept** MoM resurfacing has, due to excellent design, out-performed most of the other MoM resurfacing designs, which have all but one been withdrawn. However, it is still not recommended in this group of patients with small femoral heads.

RECERF CERAMIC ON CERAMIC HIP RESURFACING

Ceramic bearings wear minimally, and any wear debris is inert to tissues allows resurfacing to be available to all patients irrespective of sex or size. It was utilizing the successful design of the Adept MoM device, a ceramic version was developed to overcome the limitations of MoM resurfacings. This device, called **ReCerf**, was initially implanted in 2018 and has recently completed all the necessary TGA regulatory protocols and several years of follow up to allow it to become available in Australia.



RECERF- ALL THE BENEFITS OF HIP RESURFACING WITH NONE OF THE LIMITATIONS OF METAL ON METAL

Recently as seen on Channel 9, we believe ReCerf is a game changer in hip replacement surgery. It can be implanted into almost any patient to give them a hip replacement on which they can be as active as they want. It is only available for implantation by select Hip surgeons in Australia. Dr Thornton-Bott is one of these surgeons and is now able to offer ReCerf to his patients at Nowra Private Hospital and the Mater hospital in Sydney

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