

## **For the first time in the United States, patients have access to a proven alternative to total hip replacement surgery.**

Patients suffering from hip pain due to osteoarthritis, hip dysplasia or avascular necrosis now have access to the tough, low-friction BIRMINGHAM HIP resurfacing implant, which preserves more of the body's natural bone structures and stability than total hip replacements while potentially returning them to a more physically active lifestyle.

### **Hip resurfacing preserves more of the body's natural bone structures and stability**

**Natural Size** - While the implant closely matches the size of your natural femoral head, it is substantially larger than the femoral head of a traditional total hip replacement implant. This increased size translates to greater stability in the new joint, and it decreases the chance of dislocation of the implant after surgery.

**Fact:** Dislocation is a leading cause of implant failure after total hip replacement surgery. While total hip implants dislocate at a rate of one to three-percent over the lifetime of the implant, a study of 2,385 BHR patients found that dislocation occurred in only 0.3-percent of cases five years after surgery.

**Natural Leg-length** – While total hip replacement involves the removal of the entire femoral head and neck, the Birmingham Hip resurfacing technique simply resurfaces a few centimeters of bone from the head, and leaves the neck untouched. It is this neck length and angle that determines the natural length of your leg, and since it is not removed and replaced with an artificial device during the resurfacing procedure, there is a greater likelihood of maintaining your accurate leg length.

**Fact:** Leg-length discrepancies are the leading cause of malpractice suits after total hip replacement surgery.

**Simpler Follow-up Procedure** – If a surgeon determines a patient needs to have the resurfacing implant replaced at some point in the future, the procedure and implant used will be a standard total hip replacement. Of course, total hip replacement is the current gold standard for patients and is the procedure hip resurfacing recipients would have received anyway, prior to the availability BHR. However, if they had started with total hip replacement, this follow-up procedure (referred to as hip revision surgery) would be more traumatic and complex and would use a more invasive implant.

**Fact:** While more bone is removed during hip revision surgery than regular total hip replacement, this surgery also carries with it an increased complication rate, including higher rates of infection and post-operative joint dislocation.

### **The all-metal implant provides tough, low-friction bearing surfaces**

**Plastic-free Implant** – The Birmingham Hip implant consists of a metal ball pivoting inside a metal socket. Traditional hip replacements use a metal ball and a plastic socket. As would be assumed, this plastic socket wears down over time, and not only will it need to be replaced surgically, but the condition created by the plastic wear debris (osteolysis) may lead to serious bone damage around the joint and the ultimate removal of the entire total hip system (hip revision surgery). While all-metal implants carry some risk of osteolysis, the leading cause of this condition (plastic wear debris) is not a cause.

**Fact:** All-metal total hip replacements reduce wear by 97-percent compared to total hip implants containing plastic sockets. This worn out plastic socket is a leading cause of hip revision surgery. This is especially important considering the hip joint surfaces move against each other at a rate of 2 million footsteps per year in physically active adults.

## **FAQ**

### **Since the BIRMINGHAM HIP Resurfacing implant is new in the United States, is it clinically proven?**

While the BIRMINGHAM HIP Resurfacing implant is new to the United States, it is not a new implant or technique. It has been in use worldwide since 1997, and the US Food and Drug Administration reviewed a tremendous amount of resulting clinical data before approving it for use in this country.

**Who is a candidate for the BIRMINGHAM HIP Resurfacing System?**

The typical patient will be physically active, under 60 years of age, and suffering from hip arthritis, hip dysplasia or avascular necrosis of the hip. The implant can be used in patients over 60 whose bone quality is strong enough to support the implant. Your surgeon will make the determination if you are a candidate for hip resurfacing.

**What are my physical limitations after surgery?**

Most surgeons will tell you that after the first year, you can return to whatever physical activity you enjoyed before hip pain limited your mobility. For instance, unlike total hip replacement, you will be able to return to jogging or singles tennis after your first year after surgery. During your first year, more conservative, low-impact activities like walking, swimming and bicycling are recommended for strengthening your femoral neck and the muscles around your resurfaced joint.

**How long will the BIRMINGHAM HIP Resurfacing implant last?**

It is impossible to say how long your implant will last because so many factors play into the lifespan of an implant. In the case of resurfacing, for instance, the metal-on-metal bearing surfaces of your new joint may extend its life longer than that of a traditional total hip replacement, but failure to comply with your physical rehabilitation regime may cause your implant to fail within months. A clinical study showed the BIRMINGHAM HIP Resurfacing implant had a survivorship of 98.4-percent at the five-year mark, which is comparable with the survivorship of a traditional total hip replacement in the under-60 age group.

**How long will my scar be?**

Your surgeon will use an incision of between six and eight inches in length. While some surgeons may use a slightly smaller incision, most will fall in that range.

**What have the patient experiences been like for overseas patients?**

A 1,626-hip study of the effectiveness of the technique found that 99.5-percent of patients responded they were "Pleased" or "Extremely pleased" with the results of their BHR surgery. Though not a guaranteed result for every patient, some former patients have returned to the soccer field, karate competition and 5k races.

**How many U.S. surgeons have been trained in the BHR procedure?**

Fewer than 60 of the country's 30,000 orthopedic surgeons will have the necessary training on this technology during the first half of 2006. By the end of the year, plans call for the training of 150 additional surgeons.

**Facts:**

- Though many may consider hip osteoarthritis as a predominately female health concern, more than 500,000 men suffer from hip osteoarthritis in the United States.
- In the United States, 400,000 total hip replacements are performed per year. Analysts believe as many as 60,000 of these patients could be candidates for hip resurfacing.
- The BHR system is the first hip resurfacing technique and implant approved for use by the Food and Drug Administration.
- The BHR System is manufactured by London-based medical device manufacturer Smith & Nephew.
- BHR was developed by Birmingham, England-based orthopedic surgeons Derek McMinn and Ronan Treacy, who personally trained the majority of the U.S. surgeons who currently use the resurfacing system.