BIRMINGHAM HIP RESURFACING

When hip replacement is necessary in younger patients who want to remain active, Dr. Lyman offers hip resurfacing. In hip resurfacing, more of the patient’s own bone, called the femoral neck, is preserved. This allows for more natural loading patterns to the bone, which maintains the strength of the bone. Additionally, if a revision to the hip replacement becomes necessary as the person ages, then the surgeon can do a better job because this bone has been preserved. Therefore, if a young person needs a hip replacement, hip resurfacing is the best option that takes future revisions to the hip replacement into account, in addition to providing a more active lifestyle.

Patients who have a hip resurfaced can return to running sports, which are discouraged for those with a standard hip replacement. Because hip resurfacing maintains more of the hip’s natural anatomy, proprioception is maximized. Proprioception refers to the body’s sense of the hip’s position in regard to the rest of the body. Without proprioception, running can be awkward and risky.

Because of the way the bone is capped, the hip resurfacing femoral component (i.e. the part that is attached to the femur bone) is much larger than for most standard hip replacements. This decreases the risk of dislocation. In standard hip replacement, the patient must avoid certain leg positions or the hip may dislocate. In hip resurfacing, these precautions are only necessary for several weeks.

Why is it called “Birmingham” hip resurfacing? Birmingham is the location where hip resurfacing was refined. Hip resurfacing was tried from the 1950s through the 1980s with generally poor results. Dr. Derek McMinn re-examined the concept in the 1990s and felt the idea could work with the improvements in today’s technology. In cooperation with orthopedic manufacturer Smith & Nephew, he tried many different designs and finally found one that worked. The ten year results of this implant show a 95 percent success rate. Other companies have made similar hip resurfacing implants, but have not duplicated these remarkable results.

In summary, the advantages of hip resurfacing are:
Dr. Lyman recommends that you have a coach or a buddy who is going to help you through your hip resurfacing. This person will attend preoperative appointments with you. This will give you a second set of ears to help ensure that you are as well informed as possible. As you discuss what you learn with your buddy, you will be able to process all of the information more effectively.

Blood transfusions may be necessary after surgery, while you are still in the hospital. If you have any personal or religious preferences against blood transfusion, you should discuss this with Dr. Lyman prior to surgery. New medications that boost your body’s blood production can be used, thus preventing the need for a blood transfusion. Also, your own blood can be donated and saved for use after surgery. If you have a condition that makes your blood count low prior to having surgery, you may need such a solution.

Dr. Lyman asks that you shower or bathe with Hibicleanse® the night before surgery. This decreases the bacterial count on your skin and decreases the likelihood of infection. You will also be asked not to eat or drink after midnight. If you are taking medications, you should ask the nurse whether you should take any of the medications on the day of surgery. Some medications, such as blood pressure medications, can be beneficial to you on the day of surgery.

**PREPARING FOR SURGERY**

- Less bone removed
- Healthier bone
- Better hip function
- Minimal risk of dislocation
- Easier revision if another hip replacement becomes necessary
- Maintains more natural anatomy (i.e. more of the original bone is left in place)

**DAY OF SURGERY**

When you arrive at the hospital, you will be interviewed by one of our nurses to make sure there have not been any changes to your health that would necessitate the cancellation of your surgery. You will then change into a gown and your valuables will remain with your family. A nurse will establish an IV, and blood and urine samples may be taken.

You will be transported to the operating room (OR) on a rolling bed, called a gurney. Once in the OR you will be anesthetized by one of our anesthesiologists. This can be either a general anesthetic or a spinal anesthetic; that decision will be made by you and the anesthesiologist. Once this is done, a urine catheter will be placed in your bladder. You will be positioned on your side and well padded. Your hip will be prepared with Chloraprep®, a long acting antiseptic solution. You are then ready for the surgery to be performed.

After the surgery, Dr. Lyman will find your family in the waiting room and let them know how everything went. The surgery itself takes about two hours. However, when you include the time spent checking in and in recovery after the surgery, you can count on about double that time. Once you are somewhat recovered, you will be moved to a hospital room.
**IN THE HOSPITAL**

As you recover from your surgery, you will initially have very little pain as long as the epidural remains effective. Oral medications will be offered to you as you near the time when the epidural will wear off. It is important that you take these when given, even if you have no pain at the time. These medications build up in your body and prevent the pain that comes when the epidural wears off.

The urine catheter will be removed the day after surgery. Then, once you are drinking fluids well, your IV will be turned off. However, the IV will remain in your hand or arm until you are discharged from the hospital. Blood tests will be done for the first two or three days to make sure your blood levels stabilize. If your blood level becomes too low, you may need a blood transfusion.

Dr. Lyman will ask the physical therapists and nurses to get you out of bed within a few hours after surgery. This increases your awareness, activates normal physiologic changes and generally helps you feel better. Initially upon sitting up, you may not appreciate my insistence on this. However, think of it as jump starting your recovery. It really does make a difference.

In order to avoid hip dislocation, you will be taught certain hip precautions while in the hospital. You need to follow these precautions for two months following surgery. During surgery, we divide certain structures of the hip and then repair them. These structures help prevent dislocation, but they must heal to the bone to be effective. This healing process takes about six weeks. By avoiding certain positions during the first months of recovery, you help ensure that these soft tissues heal correctly to the bone.

To avoid hip dislocation, we ask that you not:

- Cross your legs at the knees
- Bring your knee up higher than your hip
- Lean forward while sitting
- Pick up something off the floor when sitting
- Bend at the waist beyond 90 degrees
- Reach down to pull up blankets when lying in bed

**RETURNING HOME**

The incision made during surgery is closed with staples. These need to be removed about 10 to 14 days after surgery. You can begin showering five days after the surgery, up until the staples are removed. After the staples are removed, you need to wait five days again before showering. Do not soak your wound.

You should expect swelling in your entire leg, even down to your foot, for a period of weeks. You will also see bruising around the hip and sometimes even into the foot. This will all resolve with time. On some days in the coming months your hip will be particularly sore. Use anti-inflammatory medications to manage this pain, unless you have had a previous stomach ulcer. Overall, however, the function of your hip will continue to improve over the first year, as you return to the normal activities you enjoyed before hip pain began.

The therapists will teach you various exercises you can do to strengthen your hip. Below are
some useful exercises. Dr. Lyman asks that you do these exercises in addition to the others the therapists teach you. If they cause too much pain, take a day off and try again the next day.

- Swing the leg forward and behind you, about 30 degrees. Do this as you stand on the unimpaired leg, with the aid of crutches. Do four sets of 20 repetitions daily, spread out over the course of the day.
- While lying or sitting down with your leg straight in front of you on the floor or bed, slowly lift the heel about 10 inches off the ground, then gently bring it back down. Do four sets of 10 repetitions daily, spread out over the course of the day.

**PHYSICAL ACTIVITY AFTER SURGERY**

After surgery, Dr. Lyman will ask you to maintain partial weight bearing for at least six weeks, until the bone recovers from the trauma of surgery. One of the most feared complications following hip resurfacing is hip fracture. This occurs less than one percent of the time following this procedure. However, by limiting your weight bearing, your chances of hip fracture are further decreased.

Many people undergoing hip resurfacing have specific activities in mind, such as running. Dr. Lyman will not place any restrictions on you after the first year of surgery. During the entire first year, however, the bone of the hip is remodeling and fully recovering. Therefore, Dr. Lyman asks you not to run until one year after the surgery. This gives you time to completely rehabilitate the muscles of the hip and knee and gain the strength and endurance to run by beginning with low impact activities.

After you begin bearing full weight on the hip, you may need a cane for a few weeks. However, most people stop using the cane by about the two- or three-month mark. You should expect to have a limp for up to three months after the surgery.

Please remember that you are not sick. You simply have hip arthritis that is being repaired. Try to move as much as you can, following the restrictions that Dr. Lyman gives you. As you move about and become more active you will feel better. Remember, “Motion is lotion.” Keep a positive attitude and celebrate the small victories early on.