

## **TOTAL HIP REPLACEMENT SURGERY**

### **What is a total hip replacement?**

It's a surgical procedure designed to substitute the diseased hip joint (composed of the femoral head and acetabular socket) with an artificial prosthetic component. The main goal of this surgical procedure is to control hip pain caused by various diseases that cause cartilage degeneration and subsequent ABNORMAL bone on bone friction.

Hip replacement surgery can also be found as "Hip Arthroplasty" or "Hip prosthesis"

### **Why is a hip replacement surgery necessary?**

At the beginning of the disease, hip pain can be properly managed with weight loss, exercise, physiotherapy, over-the-counter pain killers and other palliative measures. When all of the above recommendations are insufficient to treat pain, and when cartilage degeneration has seriously advanced, it is time to consider a joint replacement.

Joint replacement surgery not only controls pain, but it also restores the ability to comfortably perform daily activities without pain or stiffness, thus enhancing the patient's quality of life.

Another frequent cause of hip replacement surgery is the presence of hip fractures in the elderly patient.

### **How is a hip replacement surgery done?**

Hip replacement surgery is performed with the patient under general or epidural anaesthesia. The surgeon will surgically remove the diseased hip joint and substitute it with an artificial hip prosthesis.

There are 3 different parts in a total hip joint replacement:

1. Acetabular component (cup)
2. Femoral Stem
3. Femoral Head

The acetabular component is fitted into the acetabular socket in the pelvis. There are different kinds of acetabular shells, liners, cups, and rings and there are also different kinds of acetabular fixation (cement, press fit, screws). The type of acetabular component chosen for your particular case will depend on age, bone condition and acetabular deformity.

The femoral stem is fitted into the femoral side, it is tightly implanted inside the femur's medullar canal and bone cement may be used to secure the implant to the host's bone depending on bone quality, bone condition, femoral stem design, and surgeon's preference.

An artificial femoral head is then locked in position over the stem's neck to reproduce the original shape of the hip. There are different head sizes and different head materials. The type of head used will depend on patient's age, size, activity, mobility, and acetabular cup surface.

### **What is the usual recovery time after a total hip replacement?**

Every patient is different and recovery time will vary. As a general rule, exercises are started in bed once the patient comes back from the recovery room. Patients are encouraged to stand and start walking with the help of a walker two days after surgery. Walkers may be used for as long as two weeks and after two weeks the patient can start using a cane. Canes are used for another month but elderly patients may need a cane indefinitely. Younger and more active patients can start driving and go back to work as early as two weeks after surgery.

### **What are the benefits of a total hip replacement?**

The main benefit of a total hip replacement is pain reduction. Some patients may still feel a certain degree of pain after surgery which is to be expected as part of the post-surgical procedure. It can also be due to muscle and tissue weakness, stiffness or atrophy surrounding the new prosthetic hip. Pain is expected to decrease in the next few months once the patient gains strength and mobility.

Joint mobility and flexibility improve over time and patients are encouraged to do some form of exercise for the rest of their lives.

### **Are there any risks involved in hip replacement surgery?**

As in any surgical procedure, there will always be potential risks and complications. Remember that hip replacement is considered a major orthopaedic surgery. Patients should let their doctors know beforehand of all pre-existing medical conditions. To determine the exact surgical risks, your doctor will do a complete physical examination and will request a complete set of blood and urine tests, a chest x-ray and an E.K.G. These tests will be evaluated by an Internist and by an Anaesthesiologist. All medical problems found during this evaluation should be assessed before surgery. The anaesthesiologist will inform you about the type of anaesthesia to be used and the potential risks.

## **What are the potential complications that can occur with a Total Hip Replacement?**

The most serious complication is hip infection. It can occur superficially in the surrounding soft tissue of the hip, or deeply surrounding the implant. It can occur while the patient is hospitalised or once the patient is home. It can also happen a few years after surgery. Superficial infections are treated with antibiotics while deep infections are treated with surgery. Most likely the surgeon will have to temporarily remove or, in some extreme cases, a definitive removal of all hip implants.

One of the most common causes of prosthetic hip infection is the presence of an infection elsewhere in the body that disseminates from its original site and infects the hip. To prevent this, all patients who have a hip replacement should be on antibiotics before dental procedures, urinary tract procedures and catheters, plus any kind of surgery. If there is any kind of infection anywhere else in the body all patients must be placed promptly on antibiotics.

Other less frequent complications related directly with hip replacement are:

**Aseptic loosening:** This is the most frequent mechanical problem encountered after total hip replacement. It causes pain and swelling and, If loosening is severe, implants must be surgically removed and substituted by a new implant.

**Hip dislocation:** Hip dislocation occurs when the femoral head “pops out” from the acetabular cup, losing joint congruity. To prevent hip prosthetic dislocation, patients are told not to cross their legs, not to squat, not to kneel and not to sit on low surfaces. Hip dislocations can be reduced without surgery under general anaesthesia. If it cannot be reduced or if hip dislocation is recurrent, then revision surgery will be needed.

**Implant rupture:** This is a rare complication, but if it occurs surgery will be necessary to change the ruptured implant.

**Implant wear:** Implant wear occurs over a long period of time. Implant wear particles can result in aseptic loosening of the implant and will have to be surgically removed and changed for new implants .

**Vascular or Nervous injury.** Patients who have severe deformities are at greater risk of this rare complication. Vascular injuries are a serious complication that may require further vascular surgery and can endanger the patient's life. Nervous injury usually causes foot drop but that will resolve itself with time.

**Deep venous thrombosis and pulmonary embolism.** This is the formation of blood clots inside deep veins of the legs and can occur in both legs. If the blood clots become loose, it can travel and lodge deep in the lung vessels causing

pulmonary embolism. We routinely use blood thinners in all patients to prevent these serious complications.

### **Is Hip Replacement a definitive surgical procedure?**

Most elderly patients might expect that their new hip prosthesis will be the only one and it won't be necessary to have it replaced for the duration of their lives. Hip prosthesis will bring them many years of pain-free hip movement. The average durability of a total hip replacement in patients over 65 years is 15 TO 20 years. In younger and more active patients, implants may last between 10 and 15 years and will have to be surgically removed and changed because of aseptic loosening or wasting.

**Dear patient: if you have any doubts or questions regarding hip replacement surgery , please contact us to let us know all your worries. Remember that we are here to help you.**

**Dr. Isaac E. Cervantes O. & Dr. Stefan Martínez van Gils.**

**NOTE: The main reason for the above information is to aid patients. We are not responsible for the decisions made by patients without previously consulting their attending physician.**