

Hip or knee prosthesis implant

Middle-aged or elderly people often suffer from joint problems; wear through friction, inflammations, as well as bone and joint lesions that can cause premature deterioration of the articular cartilage. When this happens, the articulation swells, hurts and makes it difficult to perform daily activities. In this case, it is necessary to perform a hip/knee replacement with artificial pieces of the same shape (endoprosthesis); this type of surgery is called hip/knee arthroplasty.

This type of surgery represents the standard method of treatment for advanced arthroses, rheumatoid polyarthritis, avascular necrosis and post-traumatic disorders. Following the hip or knee replacement, the patient notices a major improvement of his/her quality of life, as he/she gets rid of the pain and regains the joint mobility, thus being able to resume his/her active behaviour: the capacity to walk and to perform normal daily activities.

The first hip arthroplasty was performed in 1940 by Dr. Austin Moore, M.D. For the past seven decades, the surgical techniques, the complexity of the implants and the materials used have evolved tremendously. As a result, hip arthroplasty is nowadays considered the orthopaedic surgery with the highest success rate.

Preparation for surgery

Before surgery, any patient has undergo a complete medical exam. They will need to do various tests, such as: a cardiac examination, x-rays, blood tests. On our website you can find the entire list of the medical documents and procedures that are required upon admission.

We recommend that you inform your orthopaedic surgeon of any medicine that you usually take. Moreover, it is useful to undergo a dental and urological assessment before surgery, in order to exclude the presence of any infections in the body.

Anaesthesia

The type of anaesthesia is decided by the anaesthesiologist for each particular case after a clinical and paraclinical evaluation of the patient. If there are no major contraindications (especially cardiovascular pathology) the anaesthesiologist usually uses the epidural analgesia combined with general anaesthesia. The epidural analgesia will be administered for 2-3 days after the surgery in order to alleviate the pain and to enable the patient's early mobilisation. Hereunder are the advantages of this procedure:

- The absence of pain (since it is checked every 24 hours)
- maintaining the arterial pressure values constant
- reducing bleeding as much as possible
- quick healing of the wound, without perilesional hematomas
- reducing the administration of analgesics to a minimum
- enables early mobilisation, without pain in the operated limb (2 hours after the surgery)
- reducing the side effects of anaesthesia as much as possible (drowsiness, nausea, vomiting, abdominal distension, intestinal paresis, urinary retention)

The surgery

The surgery is performed under anaesthesia and it usually lasts for about 40 minutes; during this time, parts of the bone are removed, together with the deteriorated cartilage, then they are replaced by metal, plastic or ceramic prosthetic components. The orthopaedic surgeon chooses the adequate type of prosthesis and will give you all the necessary details in order for you to understand the procedure.

Postoperative care

After the surgery, you will remain in the post-operative room for 1 day, after which you will return to your hospital room. After the surgery, the entire staff of doctors, from the anaesthesiologist to the specialist, the nurses and the orderlies will take care of you in order to insure a quick and safe recovery, with a view to resuming an active professional and personal activity. During this period, you will receive constant assistance for your personal (hygiene, food etc.) and medical needs from the staff of the clinic, without the presence of a next of kin being required.

Prostheses

Our clinic uses state of the art implants such as Biotechni France and C2F Implants, which are made out of special biocompatible materials that are extremely resistant to stress and wear. Each product is produced in exceptional technical conditions, in facilities that have been certified by renowned certifying bodies. The prostheses we use are also largely used nationally and internationally, as they are implanted in renowned clinics on five continents: USA, Europe (France, Italy, Norway, Denmark), countries in Latin America (Brazil, Argentina, Chile), Northern Africa (Morocco, Tunisia, Egypt) and Japan.

Hip implants/prostheses

For hip joints we use implants/prostheses made by BIOTECHNI – France. The BIOTECHNI Company was founded in 1984 and it is nowadays present all around the world. Its main objective is to meet the doctors' exigencies and the patients' expectations through their products. Using extraordinary human, technological and financial resources, BIOTECHNI offers a wide range of high-end orthopaedic implants.

When a hip arthroplasty is required, we replace the hip joint with an ensemble of articulated implants that enable the patient to perform natural hip movements. Hip implants have 3 components.

The range of implants is very wide and it covers the entire spectrum of clinical indications. Each type of prosthesis is available in various types and sizes, in order to fit each particular patient.

Cement-free total hip replacement

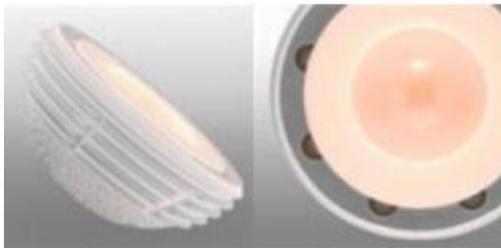
This type of prosthesis assures a natural and more sustainable fixation and it consists of a femoral stem, a femoral head and an acetabular cup.

The femoral stem is made up of a titanium alloy and it offers a double cover of the surface: porous titanium and hydroxyapatite, both contributing to the quick and efficient osteointegration of the implant. The femoral head glides with a low friction index towards the elements of the acetabular cup. The cup is also made of titanium alloy and it is covered in porous titanium and hydroxyapatite on the entire surface that makes contact with the bone in order to facilitate the osteointegration.



Cement-free total hip replacement with ceramic contact

This is the most evolved type of hip prosthesis and it assures the longest time of use. The elements used in the movement process (friction torque) are made of a special ceramic material with extraordinary physical properties. The contact surfaces are highly polished and friction is minimal, which leads to the wear-free operation of the prosthesis.



Prosthesis for dysplasia

This prosthesis is conceived for difficult cases in which a classic prosthesis cannot be successfully used. It is recommended, in particular, for patients with developmental hip dysplasia, for which the implant's morphology will favour an optimal resolution. The double cover – porous titanium and hydroxyapatite, enables a quick and solid osteointegration.



Hybrid total hip replacement

This type of prosthesis provides some of the advantages of a cement-free prosthesis to patients for which the cement-free prosthesis has no firm indication. With a self-centred stem that is made of titanium and covered in porous titanium, this prosthesis represents a safe alternative with proven efficiency in the classic cemented hip replacement.

Cemented total hip replacement

This type of prosthesis is recommended to patients in whom the subsequent osteointegration may be deficient, where the prosthesis is fixed through intraoperative cementation. The cement offers a balanced repartition between the forces of the implant and the forces of the bone. The intraoperative cementation assures the early mobilisation of the patient and a quick recovery.



Revision and reconstruction total replacement

This type of prosthesis enables the revision of previously implanted, worn out prostheses, if there are major bone defects or bone loss. This is a modular prosthesis that can be adapted to any anatomical morphology and that is fixed distally with locking bolts.



Knee arthroplasty

The knee prosthesis involves the replacing of the natural knee joint with an artificial implant consisting of a femoral stem, a tibial piece, an insert (plate) and a patella (knee cap). The essential part of the knee arthroplasty is to find a perfect congruence between these components and in this case, the design of the implant has an overwhelming impact.

MC2 total knee replacement with mobile plate

We use knee replacements with mobile plates, subsequently stabilised. The tibial and femoral components are made of a chrome and cobalt alloy and their sequential high-end polishing provides precise angles and shapes, as well as a minimum friction coefficient. The mobile plate and the prosthetic patella are manufactured from polyethylene sheets, through casting and compression.

Since it is an advanced concept dedicated to knee arthroplasty, the mc2 total knee replacement enables the recovery of the physiological capacities of the knee joint that was affected by gonarthrosis. The mobile plate assures an increased lifespan of the prosthesis, by reducing the wear of its components, as well as regaining natural mobility on all the rotation axes of the joint, by eliminating joint pain. For the first time, the mc2 prosthesis manages, through this concept, to provide the advantages of a mobile plate with the possibility of obtaining a 150° flexion.

Furthermore, the mc2 prosthesis is destined for both young people – with the cement-free version, and elderly people – with the cemented version.



Innovative design. The mc2 prostheses used in our clinic have certain particularities that contribute to the success of the arthroplasty in a decisive way.

Revision knee replacement

This type of prosthesis enables the revision of previously implanted, worn out prostheses if there are major bone defects or bone capital losses. This is a modular prosthesis that can be adapted to any anatomical morphology.



The knee prostheses used in our clinic are manufactured in France by the C2F Implants company.

Hospitalisation

The hospitalisation period varies from one patient to another and from one type of prosthesis to another. In general, the hospitalisation period is between 7 and 10 days. During this period you will be administered medicines to combat pain, to prevent infections and vascular complications. Moreover, while under medical supervision, you will have to do certain recovery exercises for the joint, for walking and for other types of activities. Kinesiotherapy can help you recover joint mobility and muscle strength. Throughout the hospitalisation period, CLINICCO patients benefit from the support of a kinesiotherapist. After discharge, the complete recovery program can be continued at the [CLINICCO centre for medical and sports recovery](#).