

Hip Replacement Surgery

A Patient Guide

Returning to Movement

1. Introduction

Hip joint replacement has become a successful treatment for the patients have advanced hip arthritis. This brief introduction to hip replacement can help you learn more about the surgery as well as the nursing care and post-operation rehabilitation you will receive, but it is not meant to provide complete information.

2. Structure of the hip joint

The hip joint is a ball and socket joint. The *acetabulum*, or socket, is formed by three areas of the pelvic structure: the *ilium*, the *ischium* and the *pubis*. The femoral head is the "ball", which is located on the upper end of the *femur*. There is a high degree of fit and stability within this ball and socket joint. Both the femoral head and the acetabulum are covered with a layer of cartilage which provides shock absorption and load distribution within the hip. Arthritis involves the breakdown of cartilage. Without the normal cartilage, the bones rub together, causing pain, swelling (inflammation), and stiffness.

3. Is surgery right for you?

Hip replacement is usually considered once other therapies, such as pain medications, have failed. Most people undergo hip replacement as a result of hip arthritis which may be as the result of hip injuries, rheumatoid arthritis, bone tumors, avascular necrosis of femoral heads, osteoarthritis or other medical conditions. However, you might also consider hip replacement if you experience severe pain or loss of motion or if you have a hip joint deformity or lower leg length discrepancy.

4. The timing of hip replacement surgery

Symptoms that might lead you to consider hip replacement include:

- Severe pain in the inguinal area, which may radiate to the knee joint and keeps you awake at night.
- Little or no relief from pain medication
- Difficulty walking up or down stairs
- Difficulty standing or rising from a seated position
- Having to stop activities you enjoy, such as walking, because you're in too much pain

5. Types and components of artificial hip joint

The prosthesis consists of four components

1. An acetabulum cup made of titanium or cobalt-chromium alloy implanted in the

socket of acetabulum.

2. A polythelium, ceramic or metal alloy insert used as the interface between the acetabulum cup and the femoral head.
3. A femoral head made of ceramic or cobalt-chromium alloy assembled on the femoral stem to replace the natural femoral head.
4. A femoral stem made of titanium or cobalt-chromium alloy inserted into the femoral medullary canal.

The options of implant affixed in the body

- **Bone Cement**

A special acrylic cement used to secure some or all of the implant components to the bone.

- **Press-Fit**

In other cases, the implants may be “press-fitted” into the bone. An implant with a special porous coating which enables a “press-fit” of the bone and fixation through tissue growth.

- **Combination**

In some cases, your surgeon may choose a combination of cement and press-fit attachment depending on the implant components and condition of the pelvic and thigh bone.

Deciding whether to use a cemented or press-fitted component depends upon many factors, including the manufacturer intended use of the product, surgeon philosophy and patient condition. The longevity of a prosthetic hip (how long it can last) varies from patient to patient and depends on many factors, such as the physical condition, activity level and body weight of the patient as well as the surgical technique employed. A prosthetic joint is not as strong or durable as a natural, healthy joint, and there is no guarantee that a prosthetic joint will last the rest of a patient's life. All prosthetic hips may require revision (replacement) at some point.

6. Before your surgery

Before surgery, you will meet with your orthopedic surgeon for an examination. The surgeon will ask about your medical history to make sure you are healthy enough to undergo surgery. Observe the following suggestions and precautions before surgery.]

- Make sure that you know how to walk with the assistance of a walker or with crutches.
- Avoid smoking.
- Ensure you are adequately hydrated.
- If you have any infections or irritations before surgery, contact your orthopaedic surgeon for treatment to improve your skin before surgery.
- Trim your nails.

7. Complications

Some common complications specific to hip replacement surgery include infection, loosening or dislocation of the implant, deep vein thrombosis, neurovascular injury and a slight leg length discrepancy.

8. Your hospital recovery

The day of surgery:

After recovering from anesthesia, you might experience headache, dizziness, nausea, even body chills and some degree of pain. Your condition will be carefully monitored.

1st day after surgery:

Your doctor will examine your surgical wound and remove the drain-tube. You should then be careful to keep the wound dry and clear at all times. You may be able to sit on the edge of the bed, stand and possibly even walk with the assistance of a doctor or physical therapist.

2nd and 3rd day after surgery

You will be instructed in protecting your hip from injury, walking, sitting, dressing and how much weight, if any, to put on your new joint.

9. Your home recovery

■ Wound care

- Keep the wound dry and clean. In the initial 2 weeks after the operation, the wound should remain covered with clean gauze.
- You may begin to take a shower at day 14 day after the surgery.
- Do not remove the surgical tape which adhere on the surface of your wound, do not have to be removed it.
- Call your surgeon if you have any of the following symptoms :
 1. Increased hip pain.
 2. Pain or swelling in the calf or leg.
 3. Unusual redness, heat or drainage at the incision site.
 4. Trouble breathing or chest pain.
 5. Fever over 38°C.

10. Protecting your hip

During your hospital stay, you will learn how to move in ways that protect your new hip. These are called movement precautions.

Learn to move safely

Until it is fully healed, your new hip cannot bend or turn as much as a natural hip. Your therapist will teach you how to stay within the safe range of motion of your new hip.

Do:

- Keep your hips above your knee. Use chairs with high, firm seats.
- Keep your knees about 20 cm apart.

Do not:

- Allow the knee on the operated leg to cross the midline of your body when sitting and standing.
- Bend over so your upper body is lower than your waist. Keep this in mind when standing and sitting.
- Turn your operated leg inward in a pigeon-toed stance. Keep this in mind when standing and lying down.

Practice walking daily. Try to walk further each week. If the weather is good, take the opportunity to walk while shopping or running errands.

After the incision heals (about 6- 12 weeks after the surgery), you will you have regained some hip movement, and you may be ready to drive a car and resume some light impact exercises as well as sexual activity. During sexual activity, be sure to maintain a comfortable position which minimizes stress on the hips. However, high impact exercises such as tennis or skiing are not recommended.

11. Contact information

- Division of Adult Joint Reconstruction
Department of Orthopaedic Surgery
Chang Gung Memorial Hospital , Taipei, Taiwan
- Address: 5, Fu-shing St. Kueishan, Taoyuan, Taiwan
- TEL: 886-3-3281200 ext 2420

Chang Gung Memorial Hospital
All rights reserved