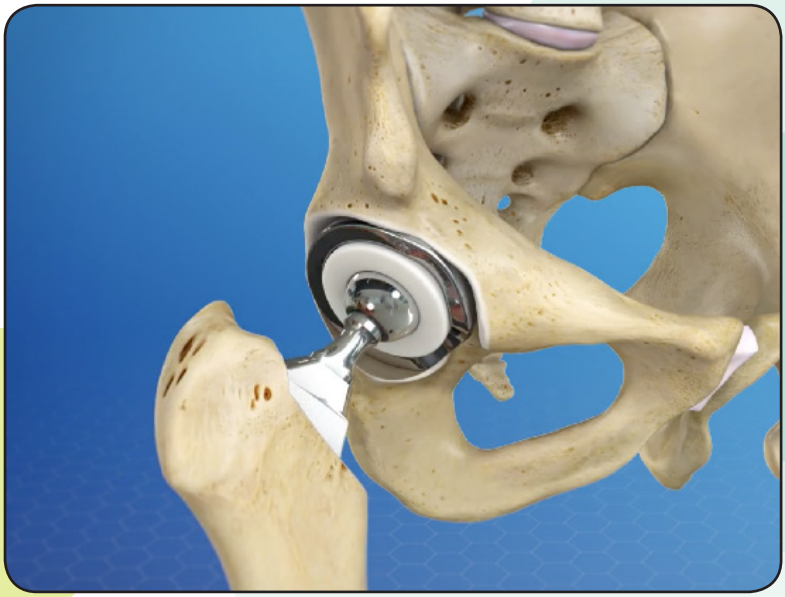


Orthopedics

Total hip prothesis

AZ JAN PORTAELS
Algemeen Ziekenhuis Vilvoorde

Content

For the sake of readability, the third person singular masculine pronoun 'he' is used in each brochure, regardless of the gender of the subject in the sentence.

Together with your doctor, you have made the decision to undergo a total hip replacement.

This may raise some questions for you and your family. The purpose of this brochure is to inform you about the preparation for the surgery, the surgery itself, your stay at AZ Jan Portaels Hospital, and your recovery after the procedure.

If you have any questions after reading this information, please do not hesitate to discuss them further with your doctor, the anesthesiologist, the nurse, the physiotherapist, the occupational therapist, or the social nurse.

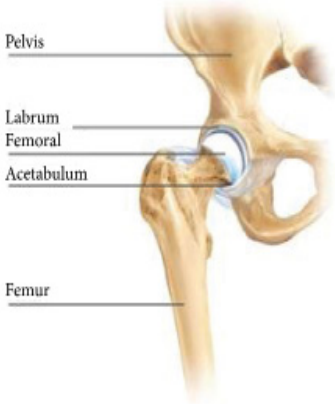
You can always reach the Orthopedics Department at T 02 257 54 00.

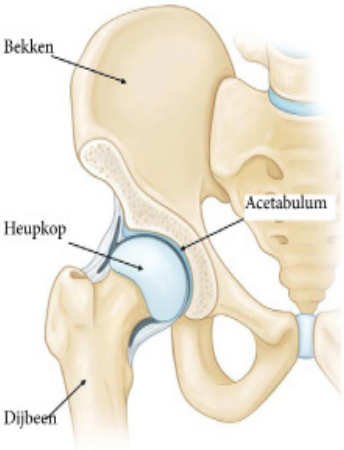
1. Anatomy and pathology ot the hip

1.1. Hip joint

The hip joint consists of two parts, namely the femoral head and the acetabulum. The femoral head is the upper part of the thigh bone. The acetabulum is part of the pelvis. Both parts of the hip joint are covered with a layer of cartilage, allowing the joint to move smoothly.

Surrounding the femoral head and acetabulum is a joint capsule. This ensures that both parts are held together and that the femoral head remains in the acetabulum. Additionally, there are several muscles around the hip joint that facilitate the movement of the joint.





1.2. Why a hip prosthesis

A total hip prosthesis is the most suitable surgery for:

- Osteoarthritis: the wearing away of cartilage in the hip joint (both at the femoral head and acetabulum).
- Avascular necrosis: disruption of blood supply to the femoral head, resulting in cartilage damage.
- Certain hip fractures.

In cases of osteoarthritis and avascular necrosis, cartilage damage occurs, exposing the bone. This leads to pain and often stiffness in the hip. Pain worsens during walking and specific movements (such as sitting in a car or putting on socks and shoes). When symptoms are severe and do not improve with rest, medication, weight loss (if indicated), or injections, it may be appropriate to consider a hip prosthesis. After the surgery, the pain will subside, and the hip will regain its smooth movement.

2. The hip prosthesis and access routes to the hip

2.1. The hip prosthesis

A hip consists of two parts: the stem and the head.

The stem and the head

The damaged femoral head is removed and replaced with a new head, usually made of ceramic. The new femoral head is placed on a titanium stem fixed in the thigh bone.

There are two techniques for securing the stem in the thigh bone:

- Cemented prosthesis: The stem is secured with a layer of bone cement.
- Uncemented prosthesis: The bone grows and attaches to the stem, making the stem part of the thigh bone.

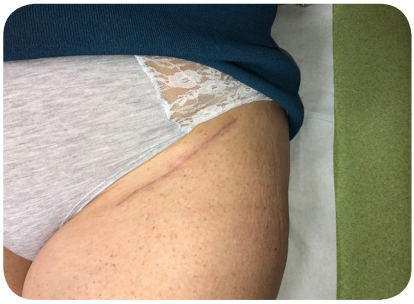
The acetabulum:

The damaged acetabulum is reamed during the surgery to allow for the placement of a new socket. The socket is made of titanium and contains an inner lining of plastic (polyethylene) or ceramic.

2.2. The access routes to the hip

There are different access routes to the hip. Within our department, we use the anterior, muscle-sparing approach.

In this method, the hip joint is accessed through the groin and the front of the upper thigh. The approach involves working between the muscles, avoiding the need to cut through any muscle tissue. The surgical incision is located just below the groin crease.



3. Preparations for the surgery

- Before the surgery, several examinations need to be conducted, such as a blood test and an electrocardiogram. You can undergo these tests either with your general practitioner or at our preoperative consultation.
- Additionally, you are required to complete the preoperative questionnaire and medication list. If you encounter difficulties with this or if you don't know the answer to some questions, it is advisable to discuss it with your general practitioner.
- You should attend the preoperative consultation at least once, even if all the examinations were performed by your general practitioner. In that case, make sure to bring along all completed questionnaires and the results of the examinations. This allows the anesthesiologist to prepare for the surgery effectively.

3.1 Medication

If you are taking medications for any reason to thin or anticoagulate your blood (such as Marcoumar®, Marevan®, Sintrom®, Plavix®, Clopidogrel®, Efient®, Ticlid®, Dipyridamole®, Aggrenox®, Brilique®, Reopro®, Integrilin®, Aggrastat®, Aspirin®, Xarelto®, Lixiana®, Pradaxa®, or Eliquis®), please contact your general practitioner. This medication needs to be temporarily stopped, and in some cases, it may need to be replaced with injections. If your blood clotting is not adequately regulated, the procedure may need to be postponed.

3.2 Preparations for the surgery

The day before the surgery, please remove nail polish and any artificial nails. Also, avoid wearing jewelry or makeup. It is important to thoroughly wash yourself, and refrain from applying body lotion or other skin creams to the legs.

3.3 After the surgery

During a hospital stay, it's understandable that your focus is on medical treatment and your time in the hospital. However, the period after your discharge is equally important. The hospital stay is short, so we recommend considering the potential care or assistance you may need after your procedure. You can gather information and seek support from the hospital's social services. They can also assist you in arranging rehabilitation if necessary.

Contact social services:

Every weekday from 9 am to 4:30 pm
Phone: 02 257 54 52
Email: socialediensten@azjanportaels.be

4. Hospital admission

Admission takes place on the day of the surgery, as indicated on your admission form. The admission time will be confirmed by phone the day before. You should be fasting from midnight, meaning no eating or smoking. Drinking clear liquids such as water and soft drinks is allowed and encouraged until two hours before the procedure. This helps prevent extended fasting and aids in a quicker recovery. For example, if you need to be at the hospital at 7 am, you can have a soft drink at 5 am. Typically, the admission lasts for two nights.

On the day of the procedure, please check in at the admission and registration department. After registration, you will be taken to the ward where the 'pre-op team' will be waiting for you. The goal is to facilitate a smooth admission and transfer to the operating room. An intravenous line or tube will be placed in your arm for the quick and easy administration of medication, and you will also be provided with a surgical gown.

You will be asked to remove your jewelry, glasses or contact lenses, and any false teeth so that you are ready for the surgery. Additionally, a mark will be placed on the leg to be operated on. Feel free to ask the head nurse for the scheduled time of the operation; they will certainly be able to provide you with an approximate time.

4.1 What to bring?

- Identity card
- Your admission bundle containing:
    - Admission form
    - Completed home medication list
    - Completed preoperative questionnaire
    - Results of any preoperative examinations
- Insurance, health fud, and disability documents
- Crutches (available for rent through your health insurance; also available for purchase at the hospital)

Tip:
If you have documents for your insurance, health fund, or employer, kindly submit them to the nursing department upon admission. We will ensure that they are promptly completed and returned to you.

4.2 Personal necessities:

- Toiletries: toothbrush, toothpaste, shaving kit, comb, soap
- Towels, washcloths, tissues
- Comfortable shoes with good support and a loose fit
- Clothing suitable for easy exercises
- Nightwear, bathrobe, slippers (preferably closed slippers)
- Please leave valuable items at home!

5. The surgery

The nursing staff will transport you lying in your bed to the operating room. There, you will wait in a room alongside other patients awaiting their surgeries.

Subsequently, the operating room nurses will introduce themselves and ask you to lie down on the operating table. You will then be transported on the table to the operating room. The surgery is performed under general anesthesia and takes about 1 hour, with a total time in the operating room of approximately 90 minutes. This duration is necessary to prepare all instruments, administer anesthesia, and wake you up after the procedure. Following the surgery, you will be monitored in the recovery room. Once you are fully awake, the anesthesiologist will grant permission for you to return to your room. A nurse from the ward will come to escort you. Regularly, a nurse will measure your blood pressure and heart rate, which is entirely normal. Ensure you get enough rest and limit the number of visitors during this time.

Immediatly after the surgery, you may:

- Reposition yourself in bed
- Gently lift your legs
- Slightly raise your buttocks
- Sofly tens and relax the muscles in both legs

What you shoul not do:

Get out of bed alone. Always ask a nurse or physiotherapist for assistance if you need to get out of bed.

6. The days after the surgery

6.1 The first day after the surgery

The occupational therapist will assist you in walking to the bathroom, where you can wash independently. During the day, the physiotherapist will come by to help you walk and exercise. Full weight-bearing is allowed. Engaging in prompt and intensive exercises will contribute to a smooth recovery and a significant increase in your confidence. Crutch walking rehabilitation will be taught in your room, in the hallway, and on the stairs, all under the guidance of the physiotherapist.

The IV will be removed today. However, the arm tube (known as the 'lock') will remain in place until tomorrow. Later in the day, you will be taken for an X-ray, which is a standard procedure for all patients.

No tubes are used in the hip, so there are no tubes to be removed. The dressing can remain intact. The wound should stay covered for approximately 14 days in total. A urinary catheter is not typically used. It is only considered in cases of difficulty urinating, and, if necessary, it is preferably kept in place for the shortest possible duration.

6.2 The secont day after the surgery

You will be much more independent. While washing and dressing, you may request assistance, but you may find that you can manage quite well on your own. The occupational therapist will visit again and provide further advice on safe standing up and moving.

6.3 Discharge

In the late afternoon, you go home or to the SP Rehabilitation, which is a department for further rehabilitation. If you would like to continue your rehabilitation in the rehabilitation department, it is best to indicate this during the pre-operative consultation so that a spot can be reserved for you.

6.4 What documents are included in the discharge folder?

1. Discharge letter fot the general practitioner. Please deliver this at your next visit. We prefer that your general practitioner conducts a scar check approximately 2 weeks after the surgery. No stitches need to be removed; removing the bandage is sufficient.

2. Prescription fot physiotherapy (30 sessions) that you must hand over to your physiotherapist at the first visit. This can be extended for another 30 sessions if needed. Initially, the physiotherapist will visit you at home, but after some time, it is best to continue the treatment at their practice.

3. Electronic prescription for pharmacy for painkillers to be taken as needed and a prescription for the prescribed blood thinner.

4. Appointment for a follow-up consultation: the orthopedic surgeon wishes to see you again after approximately 6 weeks. You will already have an appointment scheduled. If you wish to reschedule this appointment, please contact the secretariat directly by phone.

5. Radiography prescription: a radiograph is required for the consultation after 6 weeks. In Vilvoorde hospital, this can be done on-site just before the consultation.

Note: In MC Elewijt and MCH Wezembeek-Oppem, these are taken by appointment only, and you should clearly mention this when scheduling your appointment.

7. Complications

While we make every effort to minimize the risk of medical complications, unexpected side effects may still occur. However, these are usually rare and can be treated.

Below are the main risks:

7.1 Pain

The postoperative pain is challenging to predict and varies individually. The nurse closely monitors your pain. On the day of the surgery, you will receive pain relief through the intravenous route. Afterward, it will be switched to pills. For home, you will be provided with a prescription for pain medication. It is best to take the pain medication at fixed times during the first few days at home. Subsequently, you may taper off the pain medication according to your pain level.

7.2 Swelling of the opertated leg

Zwelling (of oedeem) komt vaak voor na het plaatsen van een heupprothese. We zien het wat vaker voorkomen bij mensen die al voor de operatie de neiging hadden om gezwollen benen te krijgen, bijvoorbeeld in warmere omgeving of bij lang zitten. De zwelling van het bovenbeen is meestal een direct gevolg van de ingreep en treedt vrij snel op na de ingreep. Meestal gaat het hier om onderhuids bloed dat spontaan zal wegtrekken na enkele weken. De zwelling van het onderbeen ontstaat dan weer doordat bloed en vocht wat moeilijker terug naar het hart gepompt kan worden omdat de spieren rond de heup wat gekneusd zijn door de operatie. Hierdoor kunnen de voet en enkel ook gezwollen zijn.

How can you reduce this swelling?

- Elevate your legs.
- Resume using your muscles normally, for example, by regularly contracting your calf muscles after the surgery. The message is to move as soon as possible, even while in bed.

7.3 Fever

In the first few days after the surgery, you may experience a slight increase in temperature. This is normal. If you have a high fever at home and a painful, red wound, please contact the hospital.

7.4 Thrombophlebitis

In the first few days after the surgery, you may experience a slight increase in temperature. This is normal.

If you have a high fever at home and a painful, red wound, please contact the hospital.

- Move quickly again with the calf muscles and resume walking. A few hours after the surgery, the physiotherapist will come to your room to teach you some exercises and encourage you to take a few steps.
- Take two daily tablets of anticoagulant medication (acetylsalicylic acid) for 28 days. If you were to develop thrombophlebitis, you may temporarily receive an increased dose of blood thinners, and sometimes compression stockings are prescribed.

7.5 Infection

As with any surgical procedure, there is a risk of wound infection despite precautions taken. Typically, this is treatable with appropriate antibiotics.

7.6 Sensation and strength loss

Since nerves sometimes intersect the incision site, limited nerve damage may occur due to the surgery. This can cause temporary or rarely permanent numbness around the wound. In rare cases, there may also be a loss of strength in the leg.

7.7 Dislocation

After the operation, you should be cautious for several weeks and avoid sudden movements, deep flexion, or rotation of the hip to prevent the displacement of the femoral head from the hip socket (dislocation).

7.8 Fracture

Sometimes, the pelvic or femoral bone may not be strong enough, leading to a crack or fracture during the operation. Fortunately, there are solutions for this, such as anchoring the prosthesis with special bone cement. Of course, you should also be cautious yourself, as a fall could also result in a fracture.

8. Rehabilitation

8.1 Rapid rehabilitation, what does it mean?

Thanks to modern surgical techniques, patients now recover better and faster than in the past. To promote this recovery, physical therapy and occupational therapy are initiated soon after the operation.

Just a few hours after the surgery, the physiotherapist will visit you for the first time, and rehabilitation will begin. Of course, we start slowly and in a controlled manner.

During the initial period after the operation, you should avoid the following movements:

- Flexion of the hip exceeding 90°

- Rotational movement = rotating the foot very inward or outward

- Rotational movement and flexion of the hip

- Crossing the le

How to do it correctly:
Getting out of bed

- Place the foot of the non-operated side under the ankle of the operated leg. Rotate your legs and pelvis together in one motion until your legs are out of bed.
- Slide forward gently until your toes touch the ground, and put on your shoes.
- Extend your operated leg straight in front of you. The non-operated leg is bent at the hip and knee.
- Lean primarily on the non-operated leg and push off with both hands.







Lying down in bed: reverse the sequence of getting out of bed.

Standing up:

- Extend your operated leg straight in front of you. The non-operated leg is bent at the hip and knee.
- Slide to the edge of the chair before standing up.
- Support yourself with both hands on the armrests to stand up.



Sitting in a chair or sofa

It may seem simple to sit down in a chair or on a sofa. However, in the first few days after the surgery, it is not as straightforward.

Here are some tips:

- Preferably use a chair with armrests.
- Make a turn just before the chair, so you are facing away from it.
- Step backward until the back of your knees touches the chair.
- Grab the armrests with both hands.
- Place the operated leg slightly forward and sit down.
- Ensure that the chair is adequately high or place an extra cushion on it.

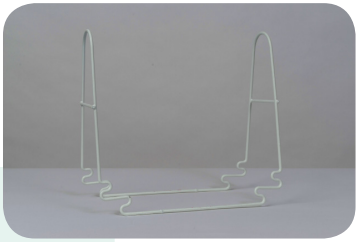


Aids

During the exercise sessions with the occupational therapist, you will learn how to perform daily activities without putting strain on your hip. If necessary, aids can be used, such as a reaching tool, slip lift, stocking aid, or toilet seat riser. These aids will be provided in the hospital, but it's helpful to have them at home as well. You can purchase these through your health insurance. We recommend doing this in advance so that you have the aids available upon discharge from the hospital.

Toilet seat riser

Sliplift



Reaching tool

Stokcking aid

Perform each movement thoughtfully, hut have confidence! The new hip is securely anchored in your body.

Walking with a walker or rollator:

Ensure that the rollator is at the correct height, meaning you walk with a straight back and slightly bent arms. First, move the rollator slightly forward. Then, place the operated leg about halfway between the rollator and lean on your arms. Next, move the non-operated leg a step beyond the other foot.

To achieve a more normal walking pattern, first move the operated leg forward. Then, move the non-operated leg beyond the other foot. Do this in a smooth motion, shifting the rollator smoothly instead of taking small steps.

Walking with crutches:

The rehabilitation for walking with crutches is taught in the room, in the hallway, and in the stairwell, always under the guidance of the physiotherapist.

With 2 crutches:

- Begin by placing the crutches.
- Move the operated leg forward.
- Place the non-operated leg beyond the operated leg.

With 1 crutch:

- Hold the crutch on the side of the non-operated leg.
- Place the crutch forward.
- Move the operated leg forward.
- Place the non-operated leg beyond the operated leg.

Tips from the occupational therapist:

Picking up an object from the ground:

Method 1:

The object is in front of you on the ground. Ensure you can support yourself with your hand on a stable object such as a table, chair, or cupboard. Fully support yourself on the non-operated leg. Bend forward and move the operated leg backward. The non-operated leg bends slightly, and with the free hand, pick up the object.

Method 2:

Place the knee of the operated leg on the ground, while the other leg supports on the foot. Bend forward and pick up the object. To stand up, support yourself as much as possible on the non-operated leg. Hands can also assist.

Method 3:

A long reaching tool can be used to pick up an object from the ground.

Showering or bathing:

In the initial phase, it is advisable to take a shower instead of a bath. Ensure there is a non-slip mat inside and outside the shower. Optionally, you can use a shower chair to avoid prolonged standing. A plastic garden chair can serve this purpose well.

Toilet

Consider installing a handrail next to the toilet for extra support when sitting down and standing up.
Optionally, you can use a toilet seat riser. There are toilet seat risers with integrated armrests available.

Dressing and undressing

Try to perform dressing and undressing tasks while seated as much as possible to minimize the risk of falling when standing on one leg.

To put on or take off pants or skirts, you can use a reaching tool or a slip lift. This allows you to stay upright while bringing the pants or skirt to your foot for putting on. Always start by placing the operated leg in the pant leg first and then the non-operated leg. When undressing, do the reverse.

A helpful tool for putting on socks is a stocking aid (kousenaantrekker).

Always wear closed shoes. Even slippers or sandals are best with a strap to prevent the heel from sliding beside the shoe.

When putting on shoes, start with the shoe on the non-operated side. To put on the other shoe, it is easier to stand. Use a long shoe horn for assistance. Ensure you don't turn the heel outward; use the shoe horn on the inside of the foot.

It's easiest to wear shoes without laces. If that's not possible, you can replace laces with elastic ones. Tie them once in the shoe, and you won't need to tie or untie them again.

If you're accustomed to wearing high heels, it's generally not a problem to continue. However, be cautious with narrow stiletto heels, as they may compromise stability and increase the risk of tripping.

How to manage household tasks:

First and foremost, it's important to avoid exerting yourself unnecessarily. Overexertion can lead to complications. Prolonged sitting or standing is not recommended; try to introduce variety into your work.

Ensure you work in a safe environment by minimizing potential tripping hazards such as loose carpets, electrical cords, etc.

Raise frequently used power outlets higher using a power strip with a cord, so you don't have to bend your knees constantly.

Avoid stepping on small step ladders; instead, use a sturdy and stable stool with wide steps to maintain balance easily.

Cooking

Introduce variation between standing and sitting while cooking. Consider using a high chair for sitting. You can prepare vegetables while sitting at the table. Store less frequently used items lower down and keep frequently used materials in easily accessible cabinets.

Ironing

Sit on a high, stable stool or standing chair while ironing to avoid prolonged standing. The advantage is that you can sit comfortably without putting too much strain on your hip.

Vacuuming

Hold the vacuum cleaner hose around your waist (this is also back-friendly). Place your non-operated leg forward. This leg provides the most support when you move the vacuum cleaner back and forth. Vacuum close to your body and move along with it. Ensure the vacuum cleaner has a long handle and hose to avoid excessive bending in the hip or back.

Lifting heavy objects

It's advisable to avoid lifting heavy objects. If it's unavoidable, carry the weight as close to your body as possible, on the non-operated side. Don't place the heavy object on the ground; instead, keep it at hand height. This helps avoid bending at the hip. Consider using aids such as a trolley, backpack, or wheelbarrow.

Mopping and window cleaning

When mopping or cleaning windows, place a bucket on a chair. Fill the bucket only halfway to reduce weight. Use a stable stool. If you are cleaning large windows down to the floor, either bend your knees or move the operated leg backward to avoid excessive bending at the hip.

Getting in and out of the car

Certainly, you can go out with your car. Normally, a few weeks after the operation, you can drive the car yourself. However, there are some points to consider. Avoid long rides. If you have to cover a long distance, take sufficient breaks. Ensure that you or the driver doesn't park the car right next to a curb on your side. This makes getting out more difficult because the seat height becomes smaller (similar to trying to stand up from a too-low chair).

You actually use the same technique as getting in and out of bed. First, make some preparations:

- Slide the seat as far back as possible to give you more space for your legs.
- Place a plastic bag on the seat. This makes the twisting movem

To get in, sit sideways on the seat with your legs outside the car. Take support with both hands (left and right, for example, on the dashboard, backrest, or door frames) and turn your legs and torso into the car in one motion. Support the operated leg with your non-operated leg or with your hands.

Then, you can pull the seat back to the desired position. Also, recline the backrest a bit so that you don't create too small of an angle in the hip.

To get out, do the reverse. First, slide the seat back, take support with your hands, turn your torso and legs together outward (support your operated leg even now), and stand up.

9. Home guidelines

9.1 Fall prevention

- Rugs: Small rugs, for example in the bathroom or bedroom, pose a risk when using crutches. It's best to temporarily remove them. Later, you can put them back with non-slip pads.
- Pets: Be cautious when returning home with your dog or cat. Your four-legged friend may enthusiastically greet you, causing you to trip or lose the crutches.
- Electrical Cords: The crutch can get caught in the cord of a vacuum cleaner and similar items. Avoid these situations while using crutches.
- Thresholds: Watch out for small thresholds and raised edges. These can be real pitfalls!

9.2 What's allowed

- Weight-bearing on the opertaed leg: immediatly
- Driving a car: after 3 to 4 weeks
- Cycling: Your physiotherapist will encourage you to practice on a stationary bike. Afterward, you can cycle outdoors. This is typically after about 4 weeks.
- Sexual Relations: On average, after 4 weeks, once hip movements are smoother and less painful. Avoid bending the hips too deeply.

10. Invoice

Approximately 2 to 3 months after discharge, you will receive the invoice for care and hospitalization.

On the hospital's website (www.azjanportaels.be), you can find an overview of the various costs associated with hospitalization. This information is available under "Patient Information - Financial Information."

The amount on your invoice depends on your room choice and the implants used. Implants include screws, plates, pins, anchors, bone cement, and the prosthesis itself.

Prostheses have their own price tag. Choosing a single room does not increase the cost of these materials but affects the price of the provided technical services (surgery, anesthesia, X-rays, physiotherapy).

If you encounter difficulties with payment, you can contact our billing department for a payment plan. You can reach them by phone at 02 257 55 31 or via email at facturatie@azjanportaels.be.

11. Conclusion

As you can see, quality of care and a personalized approach are paramount at the Orthopedics Department of AZ Jan Portaels in Vilvoorde. We will do everything in our power to make your stay as pleasant as possible. Together with you, we work step by step towards your recovery. And don't forget that our door is always open. So, feel free to contact us for additional information.

Colophon

This information brochure is an initiative of the clinical pathways working group in collaboration with the Orthopedics Department of AZ Jan Portaels in Vilvoorde.

Disclaimer

Despite the constant care and attention we devote to the composition of this information brochure, it is possible that the information published here is incomplete or incorrect. The Orthopedics Department of AZ Jan Portaels in Vilvoorde accepts no liability for any inaccuracies and/or incompleteness in the content of this information brochure.

This information brochure is purely informative and contains general guidelines regarding the preparation, stay, and recovery after the placement of a total hip prosthesis. The individual course may vary for a patient from what is described in this brochure. This brochure does not replace the advice of your doctor, and no legally valid consequences can be attributed to what is described in this text.

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