



The artificial hip joint

Editorial

Dear reader

We have written this brochure for patients, family members and all those who wish to know more about the replacement of a hip joint. It will answer basic questions, explain the principle of the implantation of an artificial hip joint as well as the procedure, and relieve you of any misgivings or fears you may have. Please note that this information cannot replace a conversation with a specialist.

You are most likely reading this brochure because your attending physician has already diagnosed arthrosis of the hip (coxarthrosis) in you or in someone close to you. We are sure that your doctor has prescribed other methods of treatment, such as drugs, physiotherapy or remedial gymnastics. And yet such treatment methods rarely have a long-term, lasting effect on advanced arthrosis.

Pain – especially chronic pain – can become a major problem, and may restrict both quality of life and mobility. In advanced osteoarthritis of the hip joint, a hip joint endoprosthesis – i. e. an artificial hip joint – can provide relief. Patients can recover their lost mobility, freedom from pain and the resulting quality of life after such a surgery.



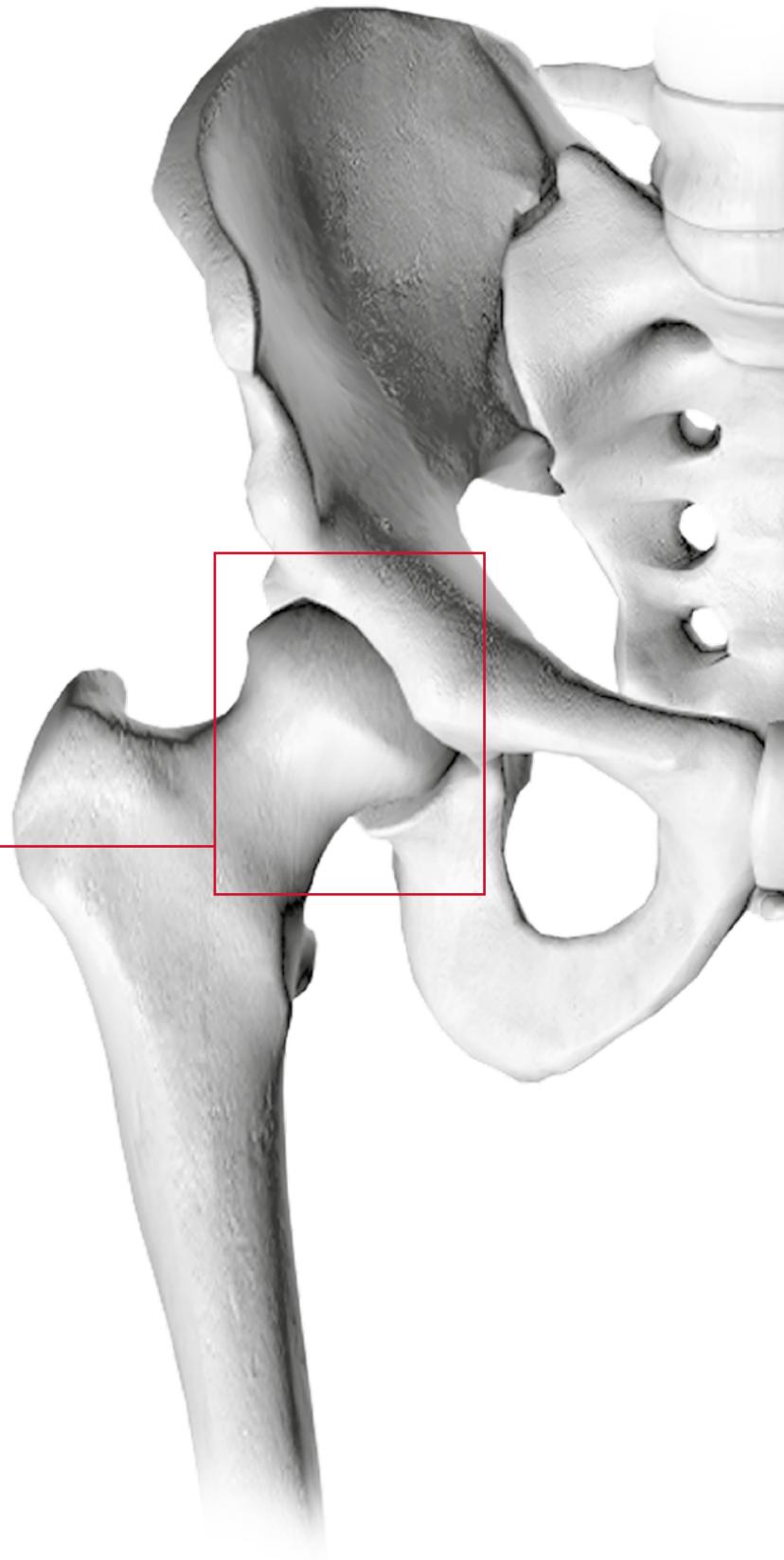
Table of contents

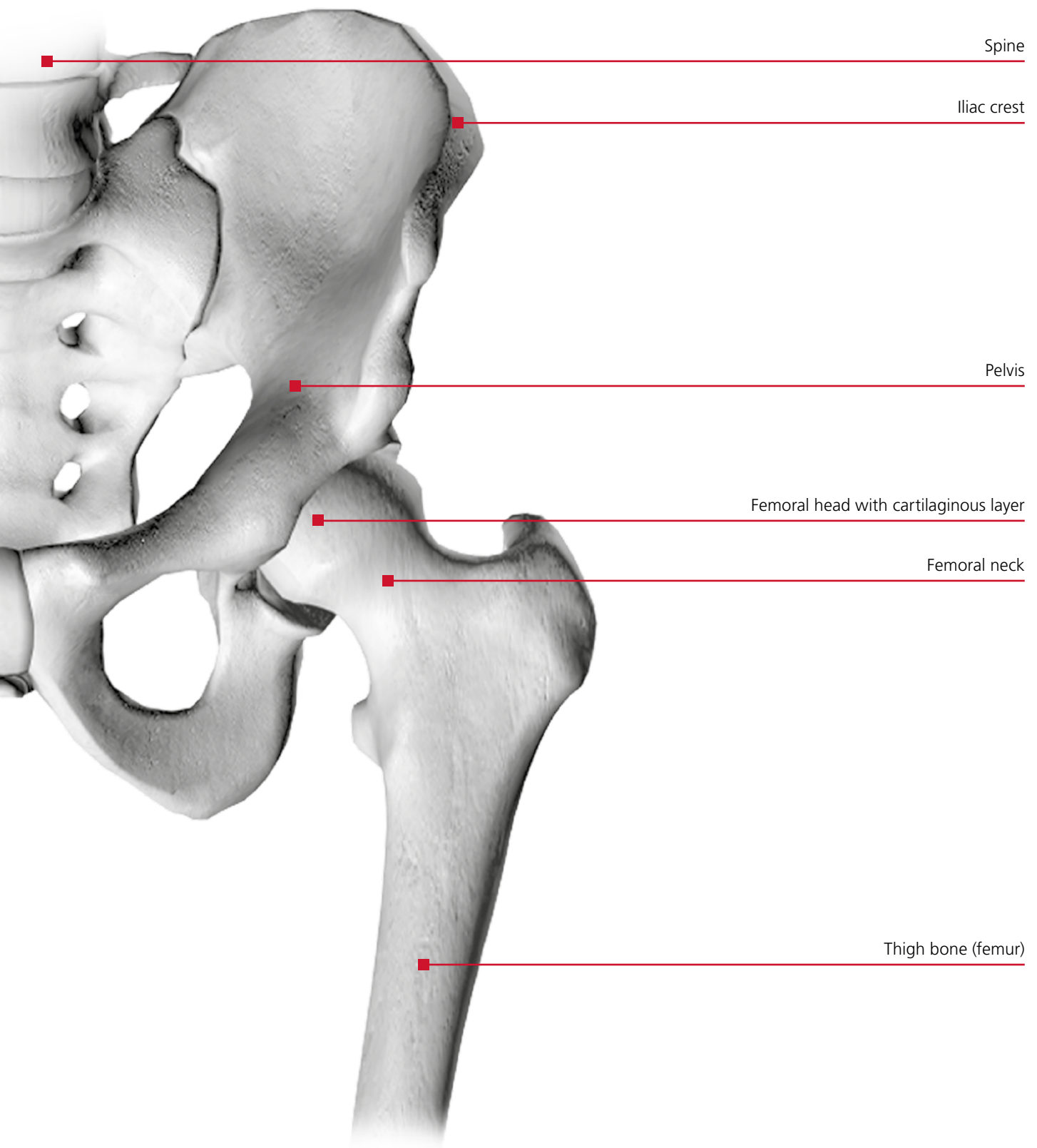
1. The hip joint	4
2. What is arthrosis?	6
3. How does arthrosis occur?	8
4. Treatment methods	9
5. The artificial hip joint	10
6. Prior to the hospital	12
7. What happens at the hospital?	13
8. The operation	14
9. Risks and complications	16
10. After the operation	17
11. The follow-up treatment	18
12. Sports	19
13. The implant passport	20
14. Tips and exercises at home	21
15. Frequently asked questions	31
16. Epilogue	34

1. The hip joint

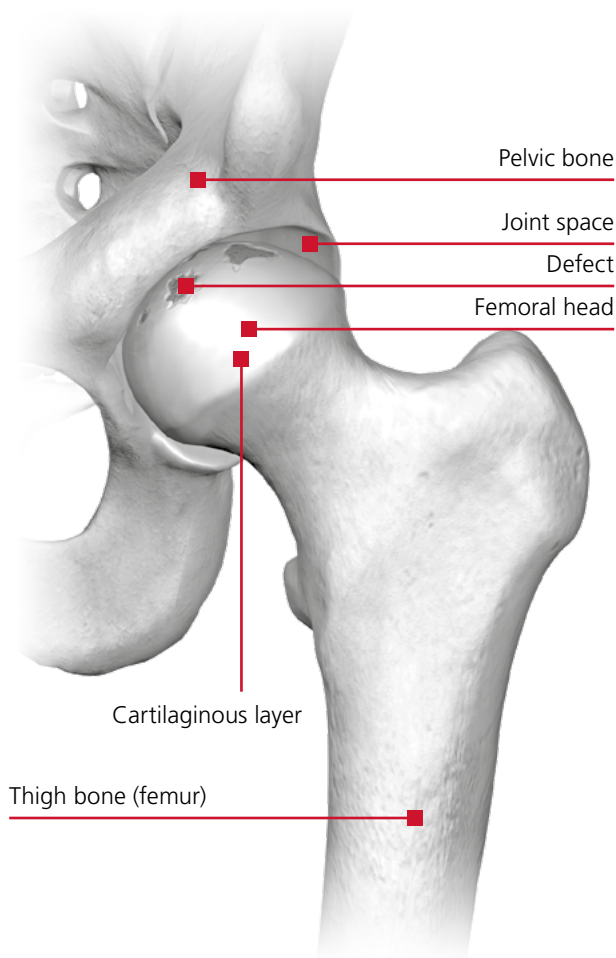
The hip joint, surrounded by a strong joint capsule, connects the torso to the leg. A smooth cartilaginous layer covers the socket of the pelvic bone (acetabulum) and the round head of the femur that sits like a ball in the acetabulum. The hip joint allows a wide range of movements, such as rotating, flexing, extending, and spreading as well as walking. A viscous fluid, the so-called «synovial fluid», is located between the two cartilage-covered joint surfaces. An elastic and aqueous tissue, the articular cartilage permits a low-friction gliding motion sequence. Strong ligaments, a joint capsule and the surrounding muscles ensure the stability of the joint.

Hip joint





2. What is arthrosis?



The attrition of the articular cartilage is a natural symptom of old age and may involve articular wear. Unlike other types of tissue in the human body (such as the skin), articular cartilage is unable to heal or repair itself, and thus injured or worn articular cartilage is lost forever. This loss of the surface layer of the joint quickly leads to painful functional impairment.

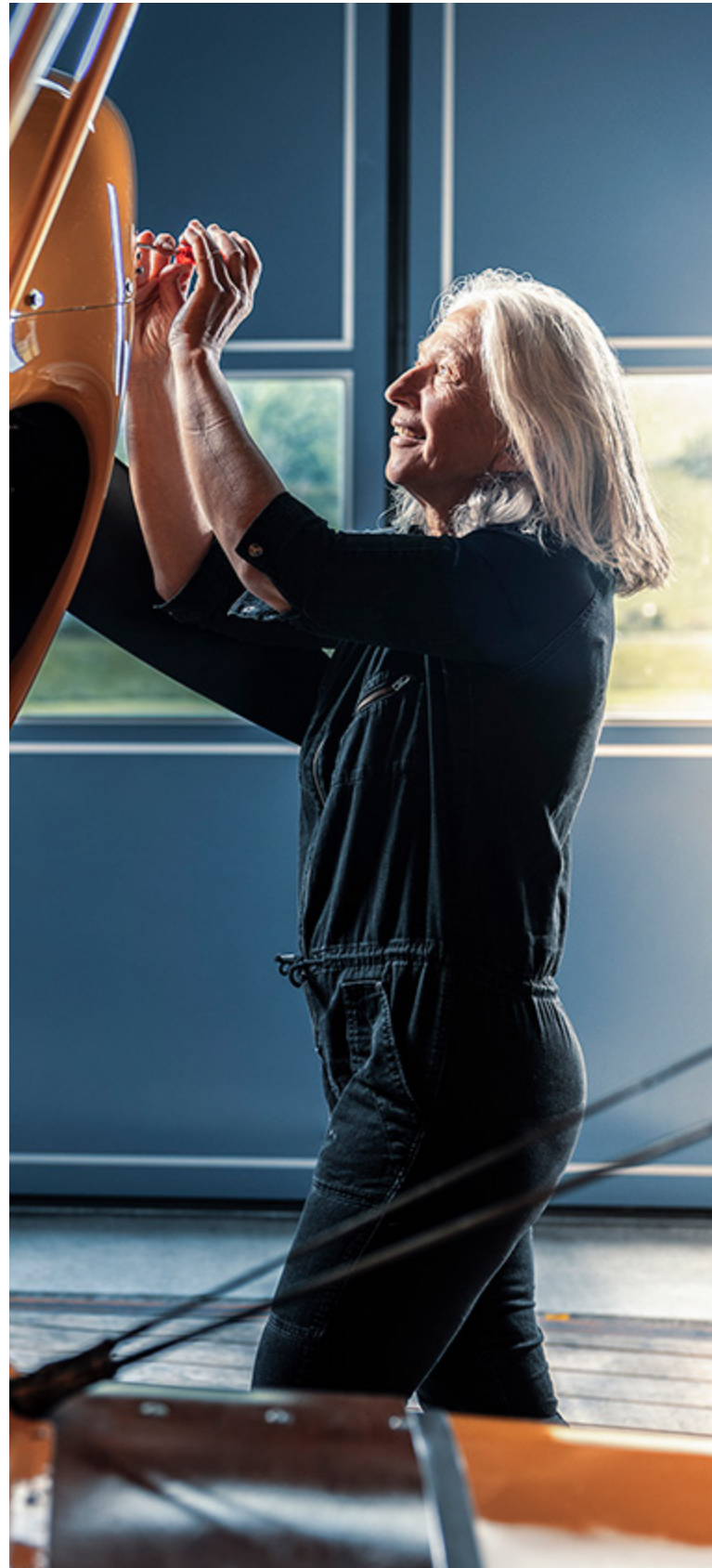
The insidious arthrotic process often takes place over several years. The mortification of individual chondrocytes results in grooves and fissures. As a consequence, the cartilage gets rougher and increasingly frayed under normal loading. Small cartilaginous debris can come off, which irritates the synovial membrane and causes joint inflammations as well as a joint effusion. Mobility worsens steadily and the person concerned suffers from ever more severe pain.

In addition, the joint can build osteophytes as well as new bone. By increasing the bearing surface of the joint the body tries to prevent additional damage of the cartilage, a process that is, however, not effective.

Pain is the main symptom of arthrosis. It occurs either as so-called «starting pains» or, later, as loading pains. The pain frequently causes the sufferer to relieve the joint. This in turn causes the condition of the cartilage, which needs movement for its nutrition, to deteriorate.

A common form of hip osteoarthritis is so-called primary osteoarthritis (joint wear of unknown cause). This is currently considered a typical symptom of old age. The disease develops slowly over the course of years. The cartilage is already irremediably damaged as soon as pain and restricted movements occur.

Chronic polyarthritis (articular rheumatism), which frequently involves several joints, can cause the same problems, but with different causes. In a defensive reaction, the body develops substances that swell the synovial membrane and cause a chronic inflammation of the joint with a progressive destruction process.



3. How does arthrosis occur?



The complex process of the formation of arthrosis has yet to be clarified. Orthopaedists and surgeons are able to treat the symptoms, but aetiological healing is not yet possible.

It is known that factors such as overweight or inappropriate straining of a joint, due for instance to a congenital malposition or frequent bearing of heavy loads, favour the formation of arthrosis. People who constantly and excessively overstrain their joints (such as competitive athletes), or those who suffer from injuries involving damages in the joint, are especially at risk.



The osseous fit of the hip cup and of the femoral head has to be perfect. A dysfunction in this system favours the formation of arthrosis. In principle, any disease of the articular cartilage, the synovial membrane or the synovial fluid can lead to arthrosis.

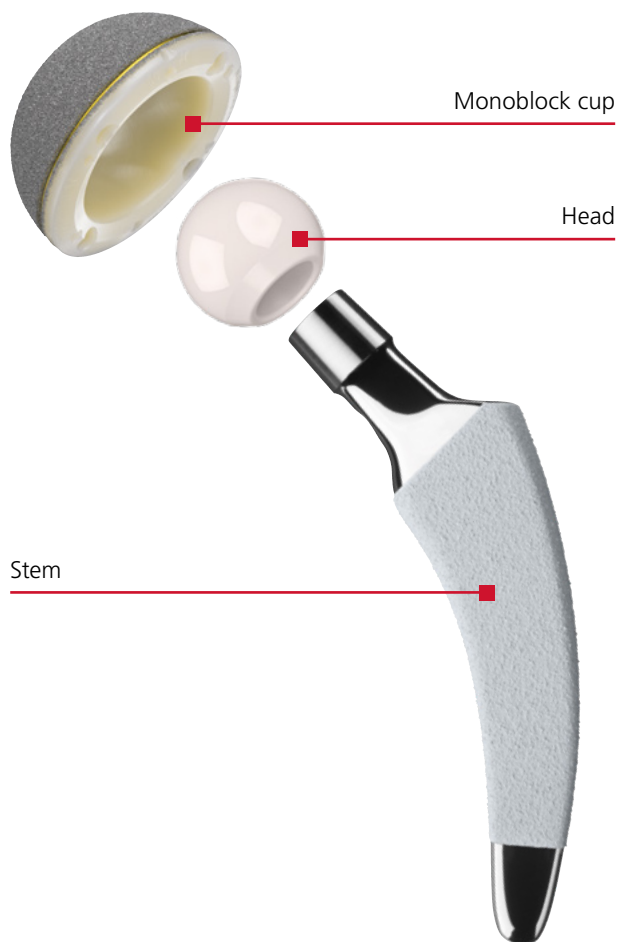
4. Treatment methods

Before implanting an artificial joint, doctors use other non-operative treatment methods to alleviate pain:

- Analgesic, anti-inflammatory drugs
(e. g. Voltaren®, Brufen®, Arcoxia® etc.)
- A change of habits (with regard to sports, overweight, nutrition etc.)
- Use of orthopaedic aids such as crutches, insoles, splints, etc.
- Physiotherapy and remedial gymnastics

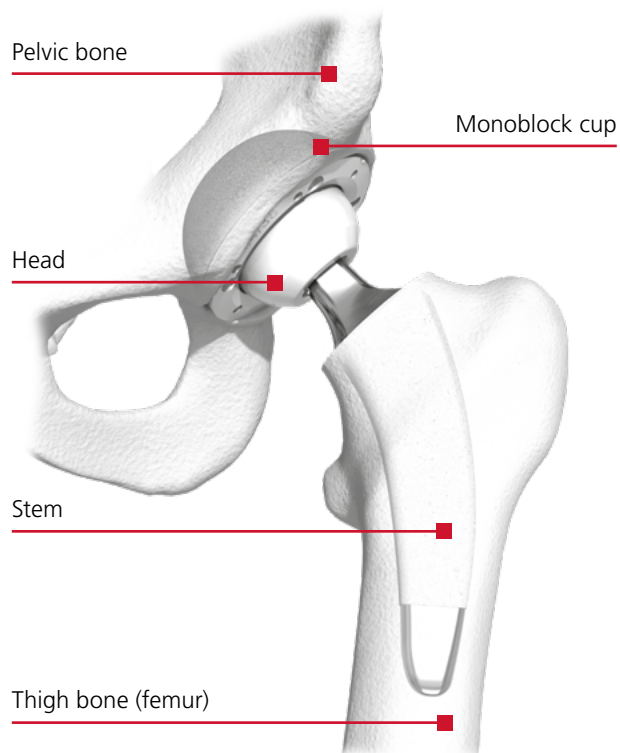
All these measures differ in efficacy from patient to patient. In many cases, actual alleviation of the complaints and restoration of mobility can be achieved only by an artificial joint replacement.

5. The artificial hip joint



The aim of the implantation of a hip endoprosthesis is to restore freedom from pain, mobility and walking ability. Nevertheless, an artificial joint will never be able to completely make up for the natural joint.

Your doctor will explain the operation and its course in advance, and tell you as well what type of hip prosthesis will be used. The exact condition of the joint, however, will only become evident during the intervention itself. It is therefore possible that your doctor will have to deviate from the operating procedure discussed.



The hip endoprosthesis consists of three or four components:

The cup

It is anchored in the natural acetabulum, replacing it completely. Two types can be distinguished:

The monoblock cup

It consists of one part, e. g. made of plastic (polyethylene), and is provided with a special coating.

The modular cup

This consists of two modules: A metal shell and an insert (the so-called inlay) made of plastic, metal or ceramic, which is inserted into the cup. This sticks in the shell and perfectly fits the corresponding femoral head.

The head

The head of the prosthesis is made of ceramic or metal. Its diameter is normally 28, 32 or 36 mm. Its surface is highly polished so that it moves well and with very little friction in the new hip cup.

The stem

The hip stem is anchored in the femoral bone. The upper part of the stem has a cone on which the artificial femoral head is fixed.



In some cases, e. g. very elderly patients with femoral neck fractures, replacement of the acetabulum is not mandatory. Depending on the situation, merely the stem with a larger head can be implanted.

After the examination, your doctor will tell you exactly which operative version is planned for you.

6. Prior to the hospital

In the first days and weeks after the hospital stay, you will have to face various challenges as you learn how to walk on crutches.

You can prepare your home optimally for the time after the operation:

- Remove rugs and mats, obtrusive cables and any other objects on which the crutches might get caught or which could cause you to slip.
- Place objects you use daily (tableware, clothes, drugs etc.) at a reachable height. We recommend a trolley to transport meals.
- Check whether your bed is the correct height. Getting in and out of bed (see page 25) must not present a problem. Put a second mattress on your bed if necessary.
- Place various aids in the bathroom: Hand-holds, a non-skid shower mat, a shower stool or a bathtub seat; increase the height of your toilet seat, use a sponge on a long handle for daily personal hygiene.
- Aids such as dressing aids, gripping pliers, stocking pullers etc. are available in medical supply shops. Inquire about what might be useful or necessary before your hospital stay.
- You will probably get a lot of phone calls from family members and friends after your return from the hospital. Think about acquiring a wireless telephone (if you do not have one yet) which you can carry with you and do not have to walk to.
- Place an electric torch close to your bed, if you cannot activate the light switch from there. This will prevent you from tripping over things when you have to get up at night.
- Prepare your food by deep-freezing it so that you need only heat it up later. You can save yourself a lot of kitchen work in the first days.

7. What happens at the hospital?

You will be examined thoroughly before the operation. This will help to identify any possible risks early on and allow medical staff to take the necessary prophylactic measures. Your doctor will inform you about drugs and anaesthetics.

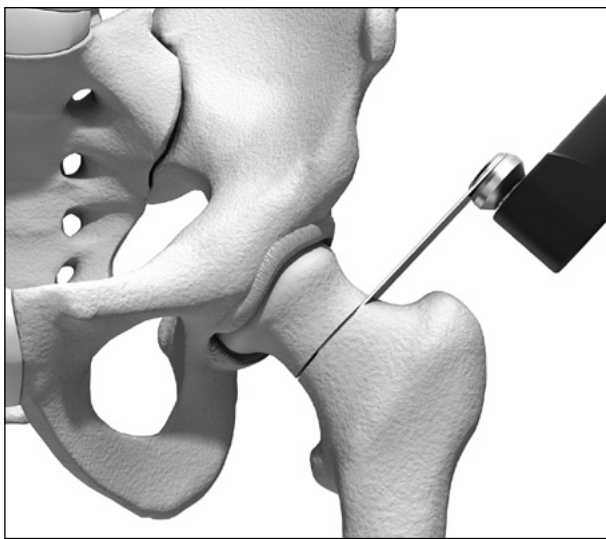
Your examination may include the following questions and items of information:

- Do you suffer from cardiovascular problems or high blood pressure? If so, are your medications well regulated? The nursing staff will measure them and possibly conduct an ECG.
- Are you prone to infection? If you suffer from diabetes, how well does your therapy work? A blood sample may be taken before the operation to clarify these questions.
- Your weight has an influence on the success of the operation. Are you overweight? You may be offered a session with a nutritionist.
- Smoking is a general risk factor – you might like to take the operation as an opportunity to quit. Smoker counselling is available in the hospital.
- Do you take anticoagulant or platelet-inhibiting drugs (Aspirin®, Xarelto®, Plavix®, Marcomar® etc.)? If so, they will be stopped approximately ten days prior to the operation and, if necessary, you will receive a substitute by injection.
- The anaesthetist will inform you about the best form of anaesthesia for you.
- You will always have the opportunity to pose your own questions to the operating surgeon or to a ward physician.

8. The operation

The operating methods are similar for all of the above forms of hip prosthesis: The diseased bone and tissue parts are removed and the remaining bone is shaped with the operating instruments to allow the prosthetic components to fit exactly and be affixed.

Operating on the open joint comprises the following four steps:



The femoral head is removed; the hip joint is prepared for the prosthesis.

Step 1

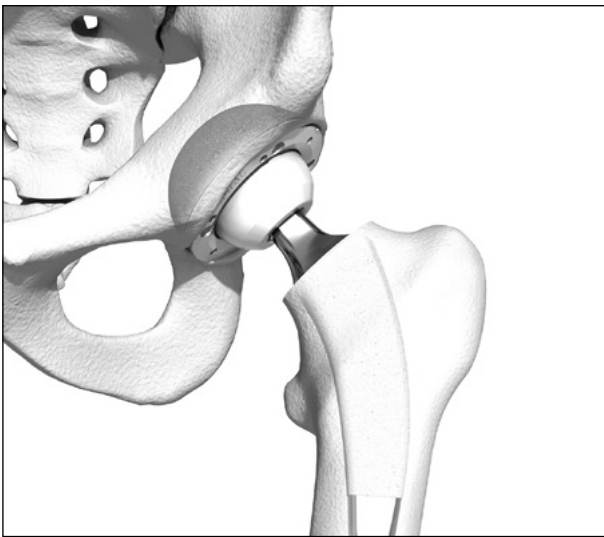
The surgeon performs a skin incision on the femur to gain access to the hip joint. The surgeon opens and removes a part of the joint capsule to visualise the diseased hip joint, and then uses an electric saw or a compressed air-driven saw to remove the femoral head from the femoral bone. The socket is now easily visible. The surgeon removes the old capsular and cartilaginous tissue and uses a hemispherical reamer to prepare the socket in such a way that the healthy bone tissue becomes visible. This ensures a firm anchoring of the artificial cup.



The femoral shaft is inserted into the prepared femur and, if necessary, fixed with bone cement (depending on the model).

Step 2

The surgeon then uses rasps to prepare the interior of the femoral bone (medullary space) for the implantation of the stem. The implantation can be made with or without cement, depending on the situation. This decision depends essentially on bone quality and patient age. There are no qualitative differences in the treatment. The body tolerates the bone cement, which hardens in a few minutes, very well. The inserted prosthesis can thus sustain full weight bearing very soon after the operation.



Once the cup has been anchored in the hip bone, the head of the prosthesis is attached to the shaft; the joint can then be repositioned.

Step 3

After the implantation of the cup and the stem, the surgeon affixes the prosthetic head of pre-determined size and length to the stem before reducing the joint. This creates a mobile connection between the stem and the cup. The surgeon then performs a final verification of the function of the joint.



X-ray check of the implant following a successful operation.

Step 4

Finally, the surgeon stanches possible haemorrhaging. If necessary, drains are inserted into the wound to drain off the bleeding. The surgeon sutures the cut layer by layer before applying a compression dressing.

9. Risks and complications

Your surgeon is obliged to inform you about all circumstances that are essential for your consent. This includes in particular about the type of treatment, the expected consequences and possible risks of the surgery as well as its necessity, urgency, suitability and prospects of success with regard to the diagnosis or therapy. The surgeon will also discuss with you about alternative treatment options. If you have any unanswered questions or are unsure about the risks of the treatment or undesirable effects, please contact your doctor.

The following factors may prevent a successful implantation or recovery from your surgical treatment:

- Intense physical activities
- You do not follow directions from your doctor
- Severe deformities
- Metabolic disorders
- Generally weakened immune system
- Drug or alcohol abuse
- Neuromuscular or mental disorder
- Obesity

If you suffer from any of these factors, your surgeon will discuss them with you and work with you to find the best treatment option.

Strictly speaking, every operation involves both general and specific risks. The surgical team always endeavours to treat you in the best possible way and to avoid any complication.

Please inform your surgeon or hospital immediately if you experience any undesirable effects.

10. After the operation

Normally, the drains remain in the hip for one to two days, until the last haemorrhage trickles are stayed. This prevents the formation of haematomas that restrict mobility.

Generally, physiotherapy is started on the very first day after surgery. A physiotherapist will guide you and practise daily with you. These exercises will help your hip joint regain good mobility and loading capacity as rapidly as possible.

From about the second day on, you will be able to walk on your own with the help of crutches. This partial loading of the operated hip is done according to your surgeon's instructions. For several days, you will receive analgesic medications (painkillers) and daily injections or tablets of anti-coagulants (blood-thinning drugs) for thromboprophylaxis (prevention of excessive blood clotting), until your operated hip is able to bear its full load again.

About a week after the operation, you will be discharged, either to your home or to a rehabilitation centre. Your sutures can be removed as early as two weeks after the operation.

Abide by the following precautionary measures in order not to put the healing process at risk:

- Do not carry excessively heavy objects!
A rucksack for a better load distribution is recommended particularly during the period in which you are using crutches.
- Long periods standing, excessive stair climbing and long walks (mountain hiking) put increased strain on your hip – keep such activities to a reasonable minimum.
- Do not cross your legs when sitting.
- Avoid turning the operated leg outward or bending forward too much (for instance, when putting on your shoes). Use the appropriate aids.
- Avoid heavy physical work as well as risky situations (climbing a ladder etc.).
- Do not crouch down!
- **Good shoes protect the joint from over load and keep you safe.**

11. The follow-up treatment

Regular controls by a medical specialist are important and help to monitor the healing process. Coordinate the procedure in detail with your physician. If between or after the controls any complaints should occur, please contact your physician immediately.

It is quite normal to experience some limitations up to a year after the operation – improvement occurs gradually, but steadily.

You will require your crutches for a certain time (about one to two months) after the operation. As long as you depend on them, you will need assistance in the household or for shopping. If you live alone you can enlist the aid of a nursing service. The hospital will inform you about the various services on offer.

12. Sports

We recommend physical exercise, as it upgrades the quality of your social and physical life and prevents illness.

Aspire to good mobility and increased muscle strength following the insertion of a hip prosthesis. Well-developed musculature of the femur and the buttocks stabilises the hip joint considerably.

It is important that you increase your physical load appropriately and that you take pain seriously: As a warning sign. It is generally accepted that a lack of exercise has a negative influence on an artificial hip joint.

Perhaps you were already involved in sports activities before the operation. If so, your physician can tell you whether you should continue with them now that you have an endoprosthesis. You should in any case abstain from sports which place inordinate stress on joints, or which pose a high risk of injury (such as football, martial arts, alpine skiing etc.).

Your safety is the top priority! Joint injuries and fractures in persons who have a prosthesis often have serious consequences. Train yourself to move somewhat more slowly and prepare for a gentler sequence of movements. You may still do Nordic walking and gymnastics, go bowling, golfing, biking etc., and play team sports, but with restrictions. In case of doubt, please ask your specialist or the operating clinic.

Always keep in mind that your new freedom from pain can quickly lead to an overload!

13. The implant passport

You will receive an implant passport when you leave the hospital. It can be helpful in case of injuries of the joint or complications outside of your usual surroundings (on vacation or at airport controls, for instance).



14. Tips and exercises at home

In the first six to eight weeks following the operation the new joint is still unprotected, as the musculature has atrophied. It is now necessary to build it up again and to strengthen it, so as to restore the necessary stability and protect your hip against the wrong movements.

The following pages include tips and practical advice on how to pursue your daily routine. The aim is to restore your freedom of movement as quickly as possible, hence your active cooperation is indispensable.

If you should feel insecure in any of the following situations, or if anything should not be completely clear to you, please consult your attending doctor or your physiotherapist.

Please make sure to wear good shoes to avoid tripping.

Use the crutches correctly

- To stand, place the two crutches a bit in front and to the side of your feet.
- Keep your hips as straight as possible. A slightly bent elbow will permit you to do so.
- Support yourself firmly on the handles of the crutches when walking.
- **Important:** Carry your weight on your hands – and not on your forearms!
- Always load the operated hip as you were shown at the clinic, but walk as normally as possible. That is, each step should be of the same length, even if the steps may be shorter than during normal walking.
- If you are permitted to use one single crutch, use it on the healthy side.





Going up and down the stairs

Important: Do not attempt your first trials on the stairs alone! Generally, you will be instructed accordingly at the hospital.



Going upstairs

- Set the healthy leg on the first step of the staircase.
- Push your weight with the healthy leg and with your hands, so that you are able to lift the operated leg to the same step.
- Repeat this until you have reached the halfway mark or landing.
- If the staircase has a banister: Take both crutches in one hand and hold on to the banister with the other. The movement sequence remains the same, but the banister provides the function of one crutch.



Going downstairs

- Place both crutches on the first step.
- Put the operated leg on the same step.
- Take care to put as much weight as possible on the crutches.
- Place the healthy leg on the same step.

Sitting correctly

- Abstain from sitting in deep armchairs, especially during the early days.
- Ideal are high, stable chairs with armrests. If necessary, you can increase the height of your seat with a wedge-shaped cushion.
- **To sit down:** Move backwards to the chair until you feel its edge.
- Move both crutches to the side of the healthy leg.
- Support yourself on the armrests to sit down – stretch the operated leg slightly forward.
- Bend your legs only slightly; sit upright and avoid bending the upper body.
- Slip forward to get up. Use the armrests to stand on your healthy leg. Continue to stretch out the operated leg slightly.
- Take the crutches in both hands to stand on the operated leg.



Going to the bathroom

- For the first days and weeks after surgery, an elevated toilet seat may be recommendable.
- Move both crutches to the healthy side. Now, grip a firmly anchored object (e.g. handle, armrest, etc.) next to the toilet, if such an object is at hand. Otherwise, keep the crutches in your hands.
- Sit down slowly and stretch out the operated leg slightly.
- Get up as from a chair: Lean on the firmly anchored object or the crutches. Put the operated leg slightly forward.





Having a shower

- Use a slip-proof mat and the crutches to keep your balance.
- Mix the water to the right temperature before taking a shower.
- Start by putting the healthy leg into the shower. The crutches remain outside the shower, but close by.
- If possible, place a seat in the shower; you may feel safer when taking the shower seated.
- A sponge with a long handle keeps you from having to bend forward.
- Leave the shower with the operated leg first.
- Make sure that the rubber feet of the crutches are dry, and the floor is not wet either. Otherwise, the risk of slipping is increased.



Taking a bath

Bathing is not recommended in the first six weeks following the operation. If you do not have a shower, the following tips will show you how to get in and out of the bathtub.

- Go to the broad side of the bathtub on your crutches.
- Mix the water to the right temperature before entering the tub.
- To get into the tub, sit down on the edge or on a chair (not illustrated) which is higher than the bathtub and positioned directly next to it.
- Lift the operated leg first and then the healthy one over the edge. Placing your hands under the thighs, you can lift the leg into the tub. If possible, sit down opposite the water tap when you are on the edge of the tub.
- Lift your legs carefully over the edge to leave the bathtub.



Going to bed

- Make sure that the bed is firmly positioned. It should be about 70 cm high – if it is too low, you can insert a second mattress.
- Sit down backwards on the bed in the vicinity of the head end.
- Move your bottom slightly backwards and lift the healthy leg onto the bed.
- The operated leg is next: If you do not yet have enough strength to lift it yourself, support it with the healthy leg or place your hands under the femur for support. Now you can lie on your back.
- **Important:** Move your pelvis and legs evenly. Keep your legs slightly spread.

Rising

- Leave the bed with the operated leg first. Again, you can support the movement with your hands or the healthy leg. Now stretch the leg slightly forward and then lift the healthy leg out of bed.





Sleeping

- The best thing is to sleep on your back.
- If you prefer to sleep on your side, place a pillow between your knees and feet, so the leg is not twisted in your sleep.



Getting dressed

- Select comfortable, loose-fitting clothing.
- You will need help from others at first, or a dressing aid.
If you have a gripper: Use the hook to grasp the waistband of your trousers or skirt, and pull it first over the operated leg and up to above the knee.
- Use a crutch to stand on the healthy leg and then finish putting on the item of clothing.

Undressing

- Remove the clothing from the healthy leg first.

Socks and stockings

- This is where a stocking puller can help: Start by putting your socks on the puller. The heel and toe parts should fit tightly in front.
- Firmly hold the lateral ties, slip in the sock, and use the stocking puller to pull them up.
- Lift the foot on the healthy side to put on the sock.

Important: Do not bow down!

- **Undressing:** To take off the sock, hook the gripper or the crutch into the backside of the heel and thus remove the sock from the foot.



Shoes

- Wear flat, firm shoes that are easily slipped on and do not have shoelaces are best, as you do not have to bend over to put them on.
- Pay attention to good soles. Leather soles are unsuitable, as they are very hard and do not absorb shocks.
- Use a dressing aid or a shoehorn with an extra long handle.





In the kitchen

- An apron with several pockets can be of help.
- Transport hot fluids in containers with a lid.
- Slide things on the counter or working surface instead of carrying them.
- Take small steps instead of turning your body; do this when walking as well.
- Use gripping pliers to pick up objects.
- You may also sit on a chair. Place it so that the operated leg can be slightly extended and has enough space.

Important: Do not lean forward!

- Use a trolley to transport tableware. It will also help you avoid unnecessary extra trips.



In the car

- Do not drive a car until your doctor permits it and when you no longer need crutches.
- Sit down backwards on the car seat.
- Lift your legs carefully and slowly into the car. Support your legs with your hands under the femur or with the healthy leg.
- **Important:** Move your pelvis and legs as uniformly as possible and keep your body as straight as possible.



Taking a walk

- Begin taking regular walks on well-constructed paths soon after the operation. Start with a short walk of 5–10 minutes.
- Gradually increase your walking distance.
- **Important:** Avoid uneven and slippery roads. Always wear sturdy shoes.





Exercises

You will receive exercises that improve mobility or speed up recovery from your physiotherapist at the hospital or later during outpatient aftercare.

A first possible exercise:

- Move your hip joint sufficient unless you are in pain. Do not bend the hip to a painful degree.
- Lie down on the bed and pull up your knee slightly. Now extend and flex your knee alternatingly so that a wiping action on the mattress results. Now «wipe» back and forth.
- If you have a home trainer and achieve sufficient flexion in the hip joint: Exercise daily against low resistance, so the hip joint is moved sufficiently.



15. Frequently asked questions

On the following pages, you will find the answers to questions frequently asked by patients. Some of the answers may be of assistance to you.

How long does the operation take?

The implantation of artificial hip joints is a routine intervention and takes between one and two hours.

How long do I have to stay at the hospital?

The duration of your stay depends for the most part on your general state of health. Prepare yourself for approx. 1 week, although your doctor will be able to inform you more precisely.

How long will I be unable to work?

Discharge from the hospital is in some extent followed by a stay at a rehabilitation centre. After that, your physical strain will be restricted for approximately another four to six weeks. You should use this time for further remedial gymnastics.

If you have a job, the resumption of your professional activities will depend on your daily physical stress. You will be fit for work sooner if your job entails sitting for long periods and walking only short distances; heavy work will take longer to resume.

How long after the intervention can I walk again without crutches?

As a rule, you can leave your bed on the first or second day following the operation. On the third day, you will learn to walk with crutches or with other aids. This will help avoid incorrect loading of the operated hip as well as making you feel more secure. The majority of patients are able to walk without crutches six weeks after the operation.

How long does the implant last?

The physical strain, the quality of your bones, your lifestyle and especially your weight have an influence on the longevity of the artificial joint. National implant registers and studies show that ten years after the implantation/the surgery, respectively, in about 90 % of patients no revision (replacement of the artificial joint or individual components) has become necessary.

I occasionally have an allergic reaction to metal. Is this a problem?

Inform your doctor of your allergies to specific metals. If available, provide the doctor with your allergy passport. The materials we use for the implants and the coatings very rarely cause an allergic reaction. Special solutions are required in only a few cases.

I feel very well after the operation – do I have to go to the follow-ups anyway?

You should observe your follow-up dates without fail, even if you are not in pain and feel well. They allow your specialist to keep track of your rehabilitation and to recognise complications early on. In the first year after the operation, several follow-up examinations will take place. Later, these examinations will be required only once a year, then every five years. Your doctor will determine the ideal interval.

I am in great pain – yet I was told to wait with the implantation of an artificial joint. Is this correct?

Although it is ultimately up to the patient whether and when to have a prosthesis implanted, the decision should be taken in consultation with a specialist. The essential factors that influence such a decision are as follows:

- In your medical checkups and X-ray pictures, your specialist has found advanced coxarthrosis.
- Pain interferes so much with your quality of life that you are no longer able to cope with the daily routine without daily and permanent discomfort. Your walking distance and mobility are clearly reduced.
- Alternative treatment methods (e. g. physiotherapy) will no longer be successful.
- You depend on a constant intake of drugs. These are no longer sufficient despite increased dosage.

If these factors apply to you, an operation should be considered regardless of your age.

If the above circumstances do not apply to you, it is advisable to postpone an operation and to look for further non-operative treatment methods.

Which risks does the implantation of an endoprosthesis involve?

In Europe, an average of 550 000 artificial hip joints and 230 000 knee joints are implanted per year. Today, the operation is a routine intervention. However, risks of such things as haematomas, drug allergies, thromboses, embolisms or infections cannot be fully excluded. Preventive measures, such as the administration of drugs and physiotherapy, limit these risks to a large extent. Your doctor will provide you with exhaustive information on the subject.

Do I need blood conserves during the operation or immediately after it?

Nowadays, blood conserves are used only if the patient loses a large amount of blood during the operation. The risk of an infectious disease transmission in foreign blood transfusions is extremely slight due to the excellent system of checks.

How do I proceed if I wish to donate my own blood?

Currently, the majority of clinics can collect wound blood from the drains, clean it in a special machine and re-administer it to patients. Therefore, the donation of one's own blood is not performed anymore.

When will I be able to drive a car again?

You should only get behind the wheel when you feel fit to drive. You are the one responsible for this! We recommend that you consult with your attending specialist first. Most patients are fit to drive after 3–5 months, but this can vary widely from patient to patient. Never drive under the influence of strong pain relievers!

When can I be sexually active again?

You should not make any strong hip-bends in the first six to twelve weeks after the operation, in order to prevent an irritation of the joint or a feeling of strain. Other than that there is nothing else that argues against sexual intercourse. Your doctor will be happy to answer all of your questions.

16. Epilogue

Along with the practitioners of the medical arts, you are responsible for your artificial hip joint and can contribute a great deal to your therapeutic success. Your cooperation is of the utmost importance. We hope that this brochure has explained the most important factors and procedures. Visit www.mathysmedical.com for additional interesting and useful information. You should ask your attending physician any further questions not answered here or on our site.



Aftercare appointments

[illegible]

Australia	Mathys Orthopaedics Pty Ltd Artarmon, NSW 2064 Tel: +61 2 9417 9200 info.au@mathysmedical.com	Italy	Mathys Ortopedia S.r.l. 20141 Milan Tel: +39 02 4959 8085 info.it@mathysmedical.com
Austria	Mathys Orthopädie GmbH 2351 Wiener Neudorf Tel: +43 2236 860 999 info.at@mathysmedical.com	Japan	Mathys KK Tokyo 108-0075 Tel: +81 3 3474 6900 info.jp@mathysmedical.com
Belgium	Mathys Orthopaedics Belux N.V.-S.A. 3001 Leuven Tel: +32 16 38 81 20 info.be@mathysmedical.com	New Zealand	Mathys Ltd. Auckland Tel: +64 9 478 39 00 info.nz@mathysmedical.com
France	Mathys Orthopédie S.A.S 63360 Gerzat Tel: +33 4 73 23 95 95 info.fr@mathysmedical.com	Netherlands	Mathys Orthopaedics B.V. 3001 Leuven Tel: +31 88 1300 500 info.nl@mathysmedical.com
Germany	Mathys Orthopädie GmbH «Centre of Excellence Sales» Bochum 44809 Bochum Tel: +49 234 588 59 0 sales.de@mathysmedical.com «Centre of Excellence Ceramics» Mörsdorf 07646 Mörsdorf/Thür. Tel: +49 364 284 94 0 info.de@mathysmedical.com «Centre of Excellence Production» Hermsdorf 07629 Hermsdorf Tel: +49 364 284 94 110 info.de@mathysmedical.com	P. R. China	Mathys (Shanghai) Medical Device Trading Co., Ltd Shanghai, 200041 Tel: +86 21 6170 2655 info.cn@mathysmedical.com
		Switzerland	Mathys (Schweiz) GmbH 2544 Bettlach Tel: +41 32 644 1 458 info@mathysmedical.com

Local Marketing Partners in over 30 countries worldwide...

Published by:

Mathys Ltd Bettlach
Robert Mathys Strasse 5
P. O. Box
2544 Bettlach
Switzerland

www.mathysmedical.com

Presented by: