

A man and a woman are hiking on a dirt path in a forest. The man is wearing a blue t-shirt and khaki pants, and the woman is wearing a pink t-shirt and grey pants. Both are using trekking poles. The background is filled with green trees and foliage.

Patient Guide

# Joint replacement surgery

Take this guide with you when you come to Coxa

Tekonivelsairaala  
**COXA**

# Coxa Hospital for Joint Replacement

Coxa is the only hospital in Finland fully specialising in joint replacement surgery. Coxa employs approximately 300 top experts in the field. We perform over 6000 joint replacements every year. From an international perspective, patient safety at Coxa is world-class.

Read more: [coxa.fi](http://coxa.fi)



Entrance



## Contact information

### CUSTOMER SERVICE

Telephone **03 311 715**

Email **asiakaspalvelu@coxa.fi**

### COXA HOSPITAL FOR JOINT REPLACEMENT

Niveltie 4, FI-33520 TAMPERE,  
FINLAND

Outpatient clinic on the 1st floor

Wards on the 2nd and 4th floor

**www.coxa.fi**

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# TREATMENT PATH

- Before surgery
- After surgery

Fill in the electronic medical history questionnaire



Visit to assess the need for surgery



We will contact you before the operation



You are coming to Coxa for joint replacement surgery.



Rehabilitation in the hospital ward



Being discharged



Once you are settled back home, we will call you.



In your home town, go and have your staples removed



In your home town, get some guidance from a physiotherapist

Coxa follow-up examination by phone.



Have the necessary examinations

**Before  
surgery**



# OSTEOARTHRITIS

The most common reason for joint replacement surgery is arthrosis, i.e. osteoarthritis. Changes tend to progress slowly over the years. The surface of the articular cartilage can get damaged and wear out, allowing the bones to rub against each other. The irritation causes the synovial layer to become irritated, to start swelling and to become stiff. The human body is unable to repair the damaged articular cartilage. The objective of osteoarthritis care is managing pain, maintaining functional capacity and preventing the escalation of osteoarthritis.

## Symptoms

Osteoarthritis manifests as throbbing pain that worsens when moving and is relieved at rest. Symptoms usually come in waves and the amount of pain is variable. As the disease advances, pain may become constant and cause discomfort even at nights. Also, morning stiffness and stiffness when starting to walk are typical. Everyday living may become difficult with advanced osteoarthritis.

## Risk factors

The risk factors of osteoarthritis include genetics, being overweight, joint injuries and related ligament injuries, malposition of joints and physically taxing work. Ageing weakens the mechanical properties of the articular cartilage and the metabolism of the tissues. These expose the articular cartilage to damage.

# TREATING OSTEOARTHRITIS

## Physical exercise

Joint replacement surgery should only be performed after other methods have been tried. An artificial joint is not the same as a healthy joint. Physical exercise improves muscle innervation and vascular network and maintains muscle strength and joint mobility. Muscle strength and aerobic training are clinically proven to reduce pain and improve functional capacity among osteoarthritis patients.

Many kinds of physical exercise are suitable for a joint suffering from osteoarthritis. Movement and muscle strength training are particularly important. If the joint is severely sore from exercise, take pain medication to enable exercising or take it easier. If necessary, use mobility aids. When experiencing pain, sports where the body weight is not put on the sore joint constitute a better option. Such sports

include cycling, water exercise, gym exercise, gymnastics. Functional exercise counts also as exercise.

The exercises in the Coxa Patient Guide (pages 40 -49) are suitable for treating osteoarthritis even before the surgery. It is a good idea to familiarise yourself with the exercises in advance. Read more about the treatment of osteoarthritis and explore the guidelines for movement and physical exercise at [kappahoito.fi](http://kappahoito.fi).

## Pharmacotherapy

There is no curative medication for osteoarthritis. The purpose of pharmacotherapy is to relieve symptoms and improve functional capacity. Taking painkillers makes it easier to move about.

The primary medication for pain management is paracetamol. If this is not effective enough, anti-inflammatory pain medications may also be used. The adverse effects and risks of anti-inflammatory pain medications are assessed individually. If the effectiveness of the pain medication is insufficient, pain medications that affect the central nervous system may be used under medical supervision. Short-term relief can also be achieved individually by means of glucocorticoid and hyaluronate injections inside the joint.

## Medication-free treatment

Pain management is also possible without medication:

- strain can be adjusted by using mobility aids and shortening walking distances
- cold and heat treatments as well as massage can help in relieving pain and swelling
- relaxation and adequate sleep
- weight management and healthy nutrition

The success of pain management is also supported by being social, avoiding stress, verbalising emotions and thinking positively. These have proven positive impact on pain management..

## Joint replacement surgery

Damaged joint surfaces are replaced with an artificial joint in the surgery. Joint replacement surgery is usually performed under epidural anaesthesia. You can sleep during the operation if you wish. Read more about joint replacement surgery on pages 18–19.

# CONDITIONS FOR SAFE SURGERY

A safe joint replacement operation requires a good balance of certain factors influencing health, such as:

- Long-term blood sugar and diabetes
- Mouth and teeth
- Skin
- Respiratory, cardiovascular and circulatory diseases

## Long-term diseases under control

When coming in for joint replacement surgery, good therapeutic control of long-term diseases is important. Good therapeutic control of long-term diseases ensures safe progression of the surgery, promotes recovery and wound healing and reduces risks related to the surgery.

In particular, the therapeutic control of respiratory and cardiovascular diseases and diabetes should be as good as possible. It is recommended to treat any difficulties in urinating related to male prostatic hyperplasia before having surgery. Discuss the treatment of your long-term diseases with a health centre or occupational health doctor well before having surgery.

## Mouth and teeth

Inflammation of the mouth, teeth and gums increases the risk of artificial joint infections.

We recommend all our patients to book a dentist's appointment before joint replacement surgery.

Diagnosed underlying diseases, such as diabetes and rheumatism, regular smoking and heavy alcohol consumption increase the risk of infection. A dentist's certificate on the status of the mouth is required prior to the surgery. In such cases, we advise you to book a dental examination with your own dentist at the local health centre or with a private dentist. A dentist's certificate is valid for 6 months.

## Healthy skin protects against infection

Damage to the skin is an infection risk and, for this reason, your skin must be in good condition before and after the surgery. Bacteria can spread via blood circulation to the joint and cause an artificial joint infection. **If skin damage is observed immediately before the surgery, it is possible that the planned surgery will need to be postponed.** If you are a chiropody patient, schedule a visit at least two weeks before your surgery. Nail trimming and leg and beard shaving should be done a few days before the surgery. Remove nail polish, jewellery and piercings the day before the surgery. You can receive skin care instructions and advice from your health centre's nurse.

## Weight management and nutrition

Your body needs energy to recover from the surgery and healthy nutrition is very important. It is a good idea to change your eating habits for the better well before the operation. Being significantly overweight can make it difficult to perform the surgery technically and slow down wound healing and recovery. Excess weight has been found to increase the risk of inflammation of the artificial joint and to expose the artificial joint to faster wear and even to it coming loose.

A regular meal rhythm keeps blood glucose levels constant and restrains the feeling of hunger. It helps to eat in moderation and reduce the temptation to snack. Also pay attention to portion sizes. The plate model is a good tool in composing a meal.

The need for fluid is unique. It is influenced by age, physical activity and ambient temperature. Medication also affects fluid balance, so be sure to drink enough water. Water is the best drink for thirst. It is recommended to drink 1–1.5 litres per day. Sugared and sweetened drinks should not be consumed on a regular basis.

### Eat more

- Vegetables (especially root vegetables)
- Pulses (peas, beans, lentils)
- Nuts and seeds
- Berries, fruit
- Fish and other seafood

### Replace

- Light grain products → wholegrain products
- Butter, butter containing spreads → vegetable oils, vegetable oil-based spreads
- Whole-milk products → semi-skimmed/skimmed-milk products

### Cut back on

- Meat products
- Red meat
- Beverages and food containing added sugar or alcohol
- Salt

## INTOXICANTS

Heavy or regular use of alcohol and other intoxicants must be stopped two months before the surgery. If you find it difficult to stop, you can get help from your local health centre's detox nurse.

### Adverse effects of intoxicants:

- exposure to accidents
- the combined effect of alcohol or drugs with the used medication can be dangerous
- withdrawal symptoms make recovery and rehabilitation much more difficult

Continuous heavy use of intoxicants can prevent joint replacement surgery. Substance abuse is asked about in the pre-surgery AUDIT form.

### Smoking and tobacco products

Smoking and tobacco products (such as snuff/snus) should be stopped as soon as surgery is planned. Research shows that the best benefit is achieved when smoking and tobacco products are stopped at least two months before surgery.

### The harms of tobacco products:

- wound healing slows down and the risk of wound infection increases significantly
- blood circulation and tissue oxidation are impaired
- damages the blood vessels and increases the risk of vein thrombosis
- the risk of breathing problems associated with the surgery increases
- slows down bone healing significantly
- affects the absorption of medicinal substances

Coxa is a non-smoking hospital. If necessary you can take nicotine patches or chewing gum with you.

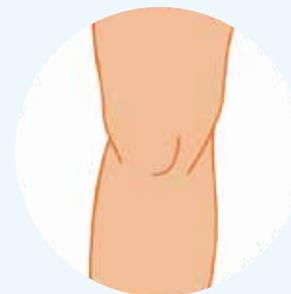
### Smoking hinders recovery.

We recommend that you stop smoking at least two months before the surgery.

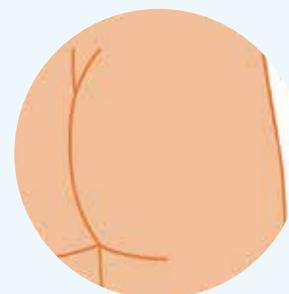
## SKIN CHECK



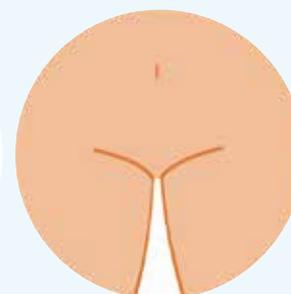
1. Gaps between the toes



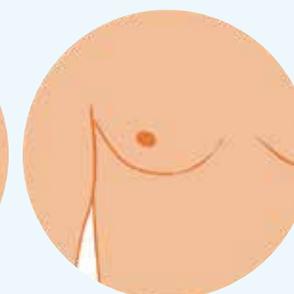
2. Procedure area



3. Procedure area



4. Groin



5. Under the breasts

### Your skin is healthy and intact and there is no:

- inflamed rash
- paronychia
- intertrigo or abrasions
- inflammations in gaps between the toes
- leg varicose ulcer
- burns.



## VISIT TO ASSESS THE NEED FOR SURGERY

The joint replacement surgery decision is always made at the joint discretion of the orthopaedist and patient. Your next of kin is welcome to accompany you to Coxa, starting with the assessment visit.

### Surgery decision

The most common reason for joint replacement surgery is the advanced spread of osteoarthritis. When the joint pain interferes with normal moving or when there is joint pain at rest and medication no longer helps, joint replacement may be considered. Joint replacement surgery may help to improve functional capacity. For some patients, this means a better functional capacity in everyday chores, for others, the ability to continue to live a sporty, active lifestyle.

If the situation with the joint does not yet require joint replacement surgery, the symptoms and progression of the osteoarthritis will be assessed as necessary. The surgery decision depends not only on the condition of the joint, but also on the general health of the patient.

## Individually selected artificial joint model

- The selection of artificial joint is impacted by age, bone structure, bone quality and the level of physical activity..
- The artificial joint materials are cobalt-chrome, steel, ceramics, titanium and hard plastics.
- Carefully selected and proven artificial joint models are used at Coxa. Artificial joints are supplied to Coxa, for example, by Zimmer Biomet and DePuy Synthes.

## Joint replacement surgery involves risks

A joint replacement surgery at Coxa is a very safe procedure and the related complications are rare. However, all surgeries involve risks. The orthopaedic surgeon will discuss these risks with you before making a decision about surgery. The risk of serious complications leading to a repeat operation is less than 2 %. Good treatment planning, surgical technique and correct medication can significantly prevent them. See page 12–13 for the requirements for safe joint replacement surgery.

- **Potential risks include:**
- wound and artificial joint infections (artificial joint infection is diagnosed in less than 1% of patients operated at Coxa within one year of the procedure. The generally acceptable level is under 2%)
- post-surgery vein thrombosis
- bone fractures
- joint dislocations
- risks of a surgical procedure and anaesthesia
- worsening of underlying diseases
- the likelihood of having mechanical issues with the artificial joint is less than 5% in the first 10 years

## Good outcome is a team effort

The joint replacement surgery alone does not always take away the pain and improve functional capacity, but it creates the preconditions for it.

- In order to achieve a good outcome, you are expected to start walking very early on in the process despite the pain and to do the exercises according to the given instructions.
- The staff at Coxa are committed to doing their best to ensure that you get a well-functioning artificial joint.

# JOINT REPLACEMENT SURGERY

## Knee



The knee joint is opened and worn joint surfaces are exposed.



The joint surface of the femur is shaped to accommodate the femoral component.

The joint surface of the tibia is levelled out for the tibial component.



The artificial joint components are usually attached with bone cement.

## Hip



The hip joint is opened and worn joint surfaces are exposed. The femoral head is removed.



The acetabulum is shaped to accommodate the acetabular component.

A space is prepared for the femoral component in the femur marrow cavity.



Some of the artificial joint components have a roughened surface and bone grows attached to them. Alternatively, the components can be fixed with bone cement.

# PREPARING FOR JOINT REPLACEMENT

## Prepare for your discharge from Coxa

Because of the short treatment time at Cox, you should think ahead about how you will cope at home after the surgery. Ask your next of kin to support you in your post-operative rehabilitation. We recommend that you have a next of kin at home with you or available to you at least during the first few days. Anticipate the organisation of your meals. Establish who will go to the grocery shop and pharmacy on your behalf and how will housework get done after the operation.

The operation is just one component in a successful outcome. Prepare yourself to do the exercises regardless of pain. A calm mind and relaxed body promote recovery.

Read the instructions for being discharged on page 34 of the guide.

## Mobility aids and exercises

Borrow the necessary aids from your home municipality's technical aids lending unit well before the operation. Bring crutches or a rollator with you when you come in for the surgery. Coxa does not have a lending service for aids.

### Borrow:

- forearm crutches/a rollator walker

### In the case of hip surgery, also

#### borrow:

- a seat cushion, raised toilet seat
- a reacher, sock aid
- (bed leg extensions and a bath chair)

### When both knees are operated on at the same time, also borrow:

- a raised toilet seat
- pieces to raise the height of your bed



## PREPARATION CHECKLIST

- Ensure that you receive support from your next of kin or book external assistance
- Make sure your long-term illnesses are under good therapeutic control
- Check the condition of your skin (see page 15)
- Ensure the health of your mouth and teeth
- Stop
  - smoking 2 month before the surgery
  - taking omega-3 products and natural products 2 weeks before the surgery
- Borrow the aids
  - practise using assistive devices
  - practise walking with the forearm crutches (see page 43)
- Make sure that you will be able to move around your home safely and accessibly with a mobility aid.
- Start the early phase exercises provided on page 40 of this guide.
- Anticipate the organisation of your meals and establish who will go to the grocery shop and pharmacy on your behalf if necessary
- If you book a ride home upon your discharge from the hospital, make sure that it is available as early as the day after the operation

### Ride home

You can travel home from the hospital by car. If your next of kin is going to give you a ride home from the hospital, take into account that you will usually be discharged from the hospital as early as the day after the operation, perhaps in the evening and at the weekend. You can also take a taxi ride home.

Read about Kela's travel allowance on page 54 of this guide.



## DAY SURGERY

After joint replacement surgery, it is possible to be discharged on the day of the surgery. If you are in good health and the planned surgery is suitable for you, you may be discharged on the day of surgery. Your suitability for day surgery will always be assessed on an individual basis.

For more information about day surgery joint replacement, you can ask for a Coxa surgical assessment. If necessary, our Customer Service will also answer your questions.

### Prepare for your discharge from Coxa

After day surgery, you will be discharged on the day of the operation. It is a good idea to think in advance about how you will manage at home. **When you are discharged from day surgery after joint replacement, you must have a support person who will pick you up from the hospital and stay with you for at least 24 hours after the operation.** Discharging from the hospital is safer when accompanied by your next of kin.

Read other discharge instructions on page 34 of the guide.

### Mobility aids and exercises

Borrow the necessary aids from your home municipality's technical aids lending unit well before the operation. Bring forearm crutches or a rollator with you when you come in for the surgery. Coxa does not have a lending service for aids.

#### Borrow:

- crutches

## DAY SURGERY PATIENT'S PREPARATORY CHECKLIST



- Ensure the help of loved ones (to pick you up from the hospital and be present for 24 hours after the surgery)*
- Make sure your long-term illnesses are under good therapeutic control*
- Check the condition of your skin (see page 15)*
- Ensure the health of your mouth and teeth*
- Stop*
  - *smoking 2 month before the surgery*
  - *taking omega-3 products and natural products 2 weeks before the surgery*
- Borrow the aids*
  - *practise using assistive devices*
  - *practise walking with the forearm crutches (see page 43)*
- Make sure that you will be able to move around your home safely and accessibly with a mobility aid.*
- Start the early phase exercises provided on page 40 of this guide.*
- Anticipate the organisation of your meals and establish who will go to the grocery shop and pharmacy on your behalf if necessary*
- If you get a ride home upon your discharge from the hospital, make sure it will already be available on the day of the operation*

#### Ride home

*After joint replacement day surgery, you will be discharged on the day of the operation. You can be discharged from hospital either with a loved-one or by taxi.*

# Surgery and recovery



# DAY OF SURGERY

## Arrival at Coxa

On the morning of the surgery, you will arrive at **lobby 2 on the first floor**. Register at the self-service machine in the lobby with your Kela card or driving licence. Our nurse will collect you from the lobby and make sure you are ready for surgery. Change into a hospital gown. We will put your things in storage and deliver them to the ward for you to use when you need them. After changing into a hospital gown, the nurse will give you your pre-medication, after which you will wait to be transferred to the surgery unit.

*First floor lobby 2.*



## To the surgery unit

Our nurse will come and collect you and take you to the surgery unit. Please tell us if you have any questions about the procedure to be performed – we are happy to answer them.

The treatment process from preparation for surgery to the recovery room takes several hours. Joint replacement surgery itself typically takes 1–2 hours. The nurse anaesthetist will stay with you throughout the operation and monitor your condition. You may fall asleep.

To verify the quality of the surgical result, we take an X-ray of the joint immediately after surgery. The doctor who operated on you will tell you how the operation went and make sure everything is in order for you to leave.

## Via the recovery room to the ward

After the operation, your recovery and the wearing off of the anaesthetic will be monitored in the recovery room. You will start pain medication as planned by your anaesthetist.

Our nurse will fetch you from the recovery room when your condition so allows. You will start to practise walking under the guidance of a physiotherapist or nurse as soon as possible after the operation. At the ward, you will gradually assume responsibility for your rehabilitation.

You will receive your mobile phone as soon as you arrive in the ward. Your loved ones will be able to find out how you are doing by calling you directly.

# REHABILITATION STARTS IMMEDIATELY

After the surgery, it is your turn to be active. The aim is that, as soon as possible, you will be able to eat in a sitting position and walk around the room with an assistive device. All everyday activities are part of the rehabilitation: dressing, getting out of bed, going to the toilet, physical exercises, walking and washing. The physiotherapist will make sure that you do the exercises correctly and learn how to walk safely. The nurse will guide you in the use of your medication and monitor the healing of your wound. Tell the staff about your condition and pain.

## Walking

After joint replacement surgery, you can walk normally. At first, you will use the forearm crutches or rollator walker as a walking aid. To avoid excessive strain, it is preferable to walk short distances several times a day. Walk longer distances when pain permits.

## Rest

It is important to rest several times a day in order to balance the strain. Excessive strain can slow recovery and make it difficult to use the joint, increasing pain and swelling.

Avoid prolonged sitting. Holding the foot in a raised position prevents swelling. You can also rest on your side and place a pillow in between the knees to improve the position. Cold treatment in the procedure area can help to reduce pain and swelling.



# PAIN

## Post-operative pain

Despite pain relief, pain after the joint replacement may be surprisingly severe, especially in the first few months. The operation causes swelling, sensation of burning and pressure and bruises in the operated lower limb. The post-operative pain is different from what you experienced before the surgery and it gradually lessens.

The pain experience is always unique and, in addition to tissue damage, is impacted by emotions, attitudes, hormonal action and the overall situation in life. Post-operative pain is assessed using the NRS pain scale: no pain is 0 and the worst imaginable pain is 10.

## Pain medication

The experience of pain and need for pain medication are very individual. Use painkillers regularly after surgery, according to your instructions from the ward. Pain medication is prescribed for symptom-specific treatment and you can gradually reduce intake as the pain lessens.

*Give yourself time to recover!*



Active rehabilitation and exercising require regular use of pain medication. Pain must not be an obstacle to moving around and doing the exercises. During the first weeks at home, you will need to take painkillers as instructed by the hospital staff. At home, everyday life is more active than at the hospital, which can increase pain and swelling as a result of moving about.

**As recovery progresses and the pain eases, any painkillers acting through the central nervous system are first reduced and then stopped.** After that, anti-inflammatory drugs are stopped and finally paracetamol. Post-operative pain may continue to be quite severe for a few months after experiencing strain, for example. Use pain medication until walking and exercises are fairly painless.

## Other pain management

In addition to taking medicine, it is recommended to:

- move moderately, preferably in small amounts several times a day
- strain can be adjusted by using mobility aids and shortening walking distances
- remember to rest sufficiently
- cold treatment and elevation of the lower limbs

## Gastric well-being

Stomach-protective medication is used as prescribed due to the stress condition caused by the surgery and the use of pain medication. Stomach-protective medication prevents irritation of and damage to the gastric mucosa.

Some pain medication can cause constipation. Make sure that your stomach is working regularly. You can buy medication that promotes bowel activity from the pharmacy, if necessary. Eat food rich in fibre and drink plenty of water. Exercising according to your own fitness level also helps your digestive system.

## Prevention of vein thrombosis

Physical activity is the best way to prevent vein thrombosis. After the surgery, you will also be prescribed medication to prevent vein thrombosis. At the ward, you will receive guidance on taking the medication.

### When to suspect vein thrombosis?

- Your leg is considerably swollen and the swelling does not decrease in a raised position.
- Your leg is exceptionally painful, hot, tender, and has a hard or reddish area.
- Your leg feels “full”.



*If you have any of the above symptoms, seek medical attention at the emergency department of a health centre to have the situation assessed.*

## Swelling and bruises

Swelling in the wound area and operated limb as a whole is normal. The extent and duration of swelling varies individually and may last several months. In the early stages, you can prevent swelling by avoiding prolonged sitting and standing. A supine position is recommended for resting. A raised position and cold treatment several times a day also reduce swelling.

Bruises are often formed in around the surgical wound and also in a wider area (even in the ankle and foot), but they disappear by themselves. Bruises can be painful and often take a long time to heal.

*A normal bruise might look like this, for example.*



## Wound monitoring

The normal healing process of the wound area involves redness and a burning sensation, which may increase after the exercises. A temperature difference compared to the unoperated lower limb is normal several months after the operation.

- Keep a dressing on the wound for five days after the operation. If the wound continues to ooze, protect it with a dressing until it is dry. You can wash normally.
- The bandage will be waterproof if it is kept tight to the skin, so you can shower wearing the bandage.
- When necessary, always replace the wound dressing with clean, just-washed hands.

## Staple removal

When you have been discharged from the hospital, book a time for staple removal at your local health centre, occupation health centre or a private service provider. You can go to the sauna when a whole day has passed since the staple removal and the wound no longer oozes.

The incision scar may be dry and tight. After the removal of the staples, you can moisten the scar with basic lotion. The scar will usually lighten and become smooth within a year or so.

# DISCHARGING FROM COXA

The treatment time at Coxa is short. You can be discharged from Coxa when it is safe to do so, even on the day of surgery. Please note that discharging from the hospital can also take place in the evening and at the weekend.

## Discharging from Coxa is safe when

- you can get out of bed and back to bed by yourself
- you can walk with an aid in the patient room (stair climbing, if your home has stairs)
- you can get dressed and take care of your hygiene
- you can manage post-operative pain with pain management methods available at home
- you can monitor the wound and replace the dressing if needed
- you have a support person available to you after being discharged from the hospital

You will receive at Coxa prescriptions and instructions for pain medication, stomach-protective medication, medication to prevent vein thrombosis and, if necessary, anti-nausea medication. Discharging from the hospital is safer when accompanied by your next of kin.

When you are discharged from Coxa after the surgery, your next of kin can offer you a ride home or you can take a regular taxi or, if necessary, a stretcher taxi.

*You may not necessarily see the surgeon before being discharged from Coxa*



At home, your general condition may be weaker than normal at first. In addition to pain, general condition is affected by changes in blood counts, medication and stomach problems. These can may cause nausea, dizziness, fatigue, constipation or diarrhoea. For the above reasons, your ability to withstand strain has also been reduced and the need for external assistance may increase.

## After discharge

When you are discharged directly from Coxa, we will be in touch with you to make sure your recovery and rehabilitation have started as planned. During this communication, you can ask us questions if there is anything that you are still unsure of. After day surgery, we will call you the day after the operation.

## Problems?

Always contact Coxa tel. +358 3 311 715 if there are problems in the operation area or:

- there is increasing pain, swelling, redness or burning in the wound area
- the wound discharges pus
- bleeding from the wound increases
- your temperature is over 38 °C for 24 hours

	ALL IS WELL WHEN:	CALL COXA IF:	GO TO THE EMERGENCY DEPARTMENT IF:
PAIN	Pain is relieved with pain medication. Post-operative pain is normal.	Pain in the operated limb becomes unbearable and prevents sleeping and moving. Regular pain medication is not sufficient and you cannot cope with the pain at home.	If the advice and pain medication from Coxa is not enough, and you can no longer cope with the pain at home.
SWELLING AND BRUISES	The operated leg is warm and red. Swelling and bruises are normal for several weeks/months. Swelling decreases overnight. Bruises may be widespread.	Swelling increases strongly and does not decrease at rest or overnight.	The leg is red and tender. The limb is considerably swollen, exceptionally painful, hot, tender, hard or reddish.
SURGICAL WOUND	Oozing may appear on the wound dressing during the first few days. This will diminish within a few days.	Oozing on the wound dressing increases. The dressing needs changing more than once a day.	Oozing from the wound increases significantly or pus is discharged. Fever is repeatedly over 38 degrees.
CONSTIPATION	You can empty your bowels normally.	You feel nauseous or suffer from severe stomach pain. You cannot empty your bowels even with dedicated medication.	
APPETITE	Appetite is mostly normal. There may be passing nausea.	Appetite is poor. You suffer from occasional vomiting and nausea that makes you unable to use medication.	You suffer from repeated vomiting. You cannot eat or drink. Your general condition weakens.

*Do not start taking antibiotics for a wound healing issue before Coxa's doctor has assessed whether it is necessary.*



## MONITORING

### Consultative appointment with a physiotherapist

The physiotherapist's consultation is usually either 2, 4 or 6 weeks after surgery **at the local health centre, occupational health centre or private practice**, as recommended by the orthopaedic surgeon. The purpose of the appointment is to monitor and support your rehabilitation. The physiotherapist checks that your exercising is progressing as planned and provides additional exercises to support your rehabilitation.

#### Coxa's physiotherapist

Tel. 03 311 715

fysioterapia@coxa.fi

### Follow-up examination

The time of the follow-up examination will be determined individually, but it usually takes place 3 months after the operation. The purpose of the follow-up examination is to make sure that you have rehabilitated as expected, and that the new artificial joint is working as it should. The majority of follow-up examinations are carried out by physiotherapists over the phone. A follow-up examination by an orthopaedist is only programmed in special cases.

### Follow-up of the artificial joint

Coxa Hospital for Joint Replacement is responsible for the follow-up of the joint replacement patients it has operated on. You will receive more detailed instructions when it is time for the follow-up examination of your artificial joint.

## FREQUENTLY ASKED QUESTIONS

### Should I go for the X-rays mentioned in the invitation letter?

Yes, if the invitation letter mentions X-rays.

### Should I be worried about my low haemoglobin level?

After joint replacement, a decline in your haemoglobin level is normal and it will improve gradually with a varied diet. A low level of haemoglobin can cause dizziness and fatigue. If you want, you can use an iron preparation that is suitable for you.

### Bruises appeared on my thigh at home. What should I do?

Medication taken to prevent vein thrombosis can predispose to widespread bruising that may appear, for example, behind the knee, on the thigh and foot. Bruises can be painful, but they will heal over time.

### Will the artificial joint hamper my sex life?

No. Chafing of the wound area should be avoided during wound healing. After hip and shoulder surgery, possible restricted mobility must be observed.

### When can I return to work?

Your return to work will be discussed with the operating doctor before the surgery. You will receive a sick leave certificate when you are discharged from the ward. Joint replacement is not an obstacle to returning to work. Usually, the length of sick leave is 1 to 3 months, depending on the nature of the work. The continuation of your sick leave will be decided by a doctor at your occupational health services or health centre.

### When can I travel in a car or drive a car?

You can travel in a car normally. You can drive a car when you have sufficient control of the lower limb. Take into consideration the possible effect of medication on your ability to drive. After hip surgery, possible restricted mobility should be observed.

### How do I care for the surgical wound at home?

The surgical wound does not require any particular care. Avoid unnecessary touching of the wound. You can wash normally. Keep the wound dressed for five days after surgery. If the wound continues to ooze after five days, keep it dressed until it is dry. The wound dressing must be changed with clean hands. You can go to the sauna on the day after the staples have been removed. After taking a shower, the wound is dried by lightly tapping with a clean towel.

### How to avoid artificial joint infection?

Taking care of your overall health, prevention of infections and good care continue to be important. Inflammations can spread through blood circulation into the artificial joint. It is recommended to take care of prolonged skin problems and the health of the teeth and mouth after joint replacement.

If dental procedures, outpatient endoscopy or other procedures are being planned for you, you should inform the doctor in charge of your care of the artificial joint.

### Why do my legs feel different lengths?

The planning process prior to hip surgery aims to even out any length differences of limbs. In order to maximise joint sturdiness, the length of the operated leg may change slightly. Usually, there is no need to interfere in length differences of less than 1 cm. In knee joint replacement, the length of the lower limb cannot be significantly affected.

### Why is the operated area numb?

Sensation will gradually return to the operated area, but small numb areas may remain in the surroundings of the scar permanently.

### I have been feeling nauseous since the operation – why is that?

Pain medication can cause nausea. Inability to empty your bowels also causes nausea. You will feel better once you have taken care of your bowel movement, cut back on pain medication as pain allows and used anti-nausea medication, if necessary.

### Can I apply moisturising cream on the operation area?

A few days after the staples have been removed, you can apply basic moisturising cream on the skin and scar of the operation area.

### Can I go to the infrared sauna?

You can go to the infrared sauna when the wound has healed and your overall condition allows it. The infrared rays do not reach a tissue depth that would pose an obstacle after joint replacement.

### What do I need to take into account in air travel?

If there are any problems during the security check, tell the person conducting the check that you have an artificial joint. You do not need an artificial joint certificate for the security check, it is sufficient to inform the security check staff.

### Do I need preventive antibiotics if I have to go to a dentist after surgery?



*You will need preventive antibiotic treatment for dental procedures involving bleeding as a single dose, one hour (1 h) before the procedure (e.g. root canal treatment, tooth removal) if*

- *you have had joint replacement surgery less than 6 months ago*
- *you have more than one artificial joint.*
- *you have had repeat surgery on the artificial joint*
- *you have diseases that increase the risk of infection, such as rheumatoid arthritis, SLE or any other disease reducing your immune response or you are using medication that reduces your immune response.*

*Always tell your dentist that you have an artificial joint. The dentist will assess the need for antibiotics in other cases.*

# Exercising



# EXERCISING

The exercising programme provides instructions for both hip and knee joint-replacement patients. The exercises consist of mobility and muscle strength exercises for the lower limb joints. At Coxa, the physiotherapist will guide you through the most appropriate initial exercises for your rehabilitation.

The aim of exercising is to restore the functioning of the muscles in the lower limbs, the elasticity of the tissues and gradually to achieve a better functional capacity. Muscle strength and mobility have already deteriorated as a result of osteoarthritis and require regular training to be restored. Although the mechanical restrictions on the joint itself are eliminated in the joint replacement operation, the flexibility, strength and muscle balance of tissue must be improved by exercising.

After knee surgery, you can start cycling after the staples have been removed and, after hip surgery, about a month after the operation.

**The joint replacement surgery alone will not make you pain-free and increase functional capacity, but it will create the preconditions for achieving them, through long-term exercising.**

## Hip (2 months)

- After the operation, you may initially lie on your operated side. When turning onto your side, place a pillow between your knees.
- Be careful when bending forward forcefully and avoid any extreme movements of the joint. In the beginning, you can use seat cushions and small aids.
- When bending over and sitting on a low-height seat, for example when putting on socks, turn the operated leg outwards (knee outwards).
- When exerting yourself, turn the operated leg outwards (knee outwards).
- Avoid heavy physical activities.
- The forearm crutches will be used for 4 weeks as necessary.
- Give up the crutches gradually, one at a time



● = Operated leg

## Knee

- No movement restrictions
- Start practising knee mobility gradually (fully extended and bent as much as possible).
- The forearm crutches will be used for 4 weeks as necessary.
- Give up the crutches gradually, one at a time

## WALKING WITH FOREARM CRUTCHES



**Synchronous-pace walking**



**Alternating-pace walking**

## STAIR CLIMBING

When walking on stairs, you can use the handrail for support on one side. If you need to use stairs during the rehabilitation period, the physiotherapist will instruct you on how to do it..



### Climbing stairs

Lift the unoperated leg onto the upper step and use it to lift the forearm crutches and operated leg onto the same step.



### Descending stairs

Place the forearm crutches and operated leg onto the lower step and bring the unoperated leg onto the same step with the help of the crutches.

*When both legs are operated at the same time, we recommend the alternating-pace walking technique. When walking on stairs, use the painless leg for exertion at first.*



## THIS IS HOW YOU NEED TO EXERCISE



1. Exercise 2–3 times a day
2. Mobility and muscle strength exercising, 5–15 repetitions/1–3 sets. Increase the number of repetitions and sets as swelling and general well-being allow
3. Stretches from a few seconds to 30 seconds
4. Make sure your exercising is goal-oriented

### Start with these at the end of your anaesthesia



- a) Pump your ankles actively.
- b) With your ankles bent, push the back of your knees towards the floor by tensing your thigh and buttock muscles.



- a) Bend your knee and hip. Extend your leg back onto the floor. Your foot slides along the floor.



- a) Bend both legs. Move the soles of the feet close to each other. Turn the knees apart. Return them to the centre position.



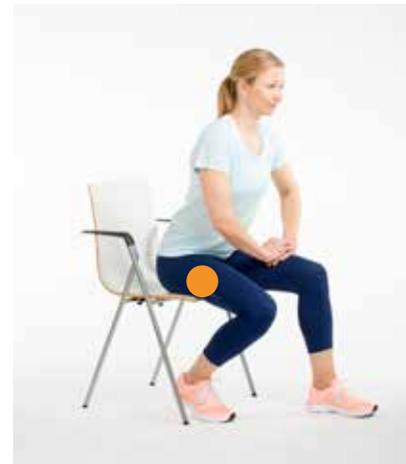
- a) Bend both legs. Move the soles of the feet close to each other. Stretch the legs with the legs apart. When sitting down, you can help the movement with your hands.



- b) Sit with the soles of the feet on the floor near each other. Use your hands to turn the knees outwards. Slide your hands along the legs while bending towards the floor.



- a) Pull your healthy leg into a bent position and push the operated leg straight down onto the floor.



- a) Slide the knee so that it is alternately bent and straight. The foot slides along the floor.
- b) Bring the knee to the extreme bent position. Stretch.



- a) Bend the ankle, tense the thigh muscle and extend the knee straight.



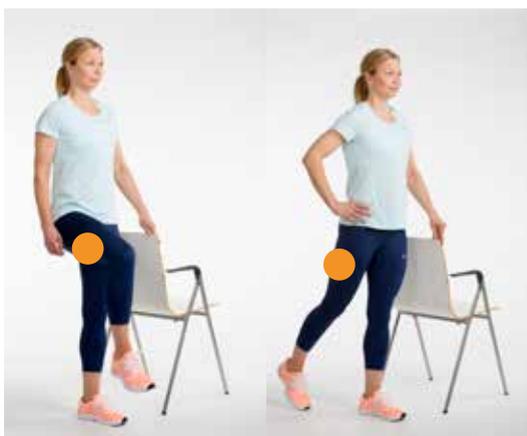
When lying on the back or propped on the elbows with a roll under the knee. Extend the knee straight with the ankle bent.



With a roll under the ankle  
 a) Relax and let the knee straighten,  
 b) straighten your knee by tensing your thigh muscle.



Move your weight from one leg to another with knees and hips extended.



a) Raise the operated leg bent in front and  
 b) raise it straight in back. You can gradually develop the movement into a combination of bending and extending motions. Also do the exercise with the operated leg as the support leg.



While standing up with the operated leg extended behind you. Push the pelvis forwards. When you can keep your balance, you can also do the exercise with the other leg. You can support yourself by placing your hand on a piece of furniture.



Lift the operated leg onto a step by bending the hip. Do not tilt your body. Grab a railing or piece of furniture for added safety.



Lift the ball of the foot against the wall. Keep the knee straight and push the pelvis forwards.



Lift the operated leg onto a step. Grab a piece of furniture or railing with your hands.

a) Alternately bend and straighten the knee.  
 b) Stretch the knee to the extreme bent position



Lift one foot onto a platform. Extend the knee and lean forwards. Keep the leg on the floor slightly bent.



Stand up on tiptoe and return the heels back to the floor. In the raised position, the heels turn slightly towards each other. You can grab a piece of furniture for support.



Tense the buttocks and lift the pelvis up from the floor. Make sure that your weight is on the heels and your back is straight.



- Gently bend your knees and hips so that the knees and toes point in the same direction. Your weight stays evenly on both legs.
- Bend the knees more and lower yourself close to the chair. Raise yourself back to the upright position. At first, you can make it easier by supporting yourself on your thighs or the armrests of the chair.

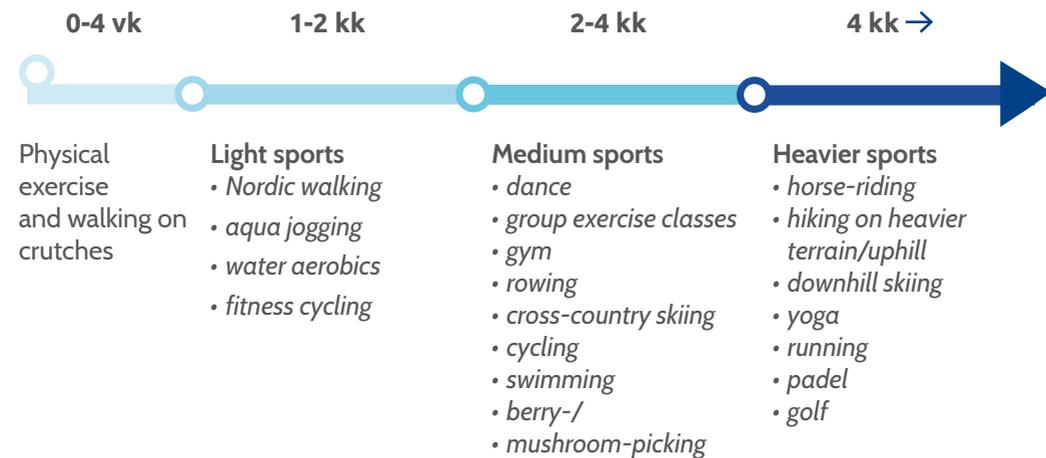
# PHYSICAL EXERCISE

## EXERCISE IN A DIVERSE MANNER

During recovery (0–2 months after the surgery), you must walk, exercise the operated joint and gradually return to your normal daily life. Do not wait for the pain to end – take pain medication to ensure that your rehabilitation progresses smoothly.

A good general condition and muscle strength support quick recovery from the surgery. The aim of physical activity is to improve your general condition, muscle strength, joint mobility, balance and muscle elongation. Gradually increase the intensity of physical activity and exercises. If pain increases during exercising, lighten the strain. Pain medication helps you move around. Take into consideration that it may take up to 1 to 2 years to completely recover from joint replacement.

## Getting back to physical exercise after surgery



After knee surgery, you can start cycling after the staples have been removed and, after hip surgery, about a month after the operation.

Info

Good to  
know

Tekonivelsairaala  
**COXA**





## HOSPITAL CONSIDERATIONS

### Smoking

Coxa is a non-smoking hospital. Patient smoking is only allowed in separately marked outdoor areas. We hope you will not smoke during the treatment period and take, for example, nicotine chewing gum with you, if necessary to last the days spent at the hospital.

### Ward visits

Your next of kin may freely visit the ward until 8 pm. Please observe good hand hygiene when visiting Coxa.

### Hand hygiene

Infection prevention is an important part of care. The most effective way to prevent infections is for the patients, staff and next of kin to ensure good hand hygiene. Wash your hands when entering and exiting the ward and use hand sanitiser. The public areas and patient rooms have hand hygiene instructions on display and offer the possibility of hand washing and using hand sanitiser.

## THE STAFF ARE THERE FOR YOU

### Treatment feedback

We want to be worthy of your trust. We are continuously developing our operations based on patient feedback. You can influence treatment and services at Coxa by giving us feedback. In the first place, you should give your feedback directly to the staff so that we can serve you better. You can give feedback using the feedback form.

In problem situations involving your care or how you were treated, you can contact Coxa's patient ombudsman who can provide information about patient rights and advice and guidance in problem situations. **The telephone number of the patient ombudsman is +358 50 409 0098 .**

### Benefits-related statements and social work at Coxa

You will receive statements on matters related to joint replacement from Coxa. If you need any other statements (e.g. a disabled parking permit), contact a doctor at your local health centre or occupational health care.

Due to the short treatment period, interaction with a social worker is only possible in special situations. Your primary point of contact in issues related to social work are the social workers of your own municipality.

For further information, if necessary contact the social worker at Tays, tel. 03 3116 6207. You can contact us during your Coxa surgery assessment visit if you have questions about, for example, how to cope at home after the operation or your financial situation.

### Data protection and patient rights

We at Coxa ensure a high level of data protection, i.e. we make sure that your personal information is handled carefully and correctly at all stages of the process. The processing, storage, archiving and deletion of data is governed by legislation and filing plans. The renewed data protection legislation guarantees you different rights as a patient. You have the right to know on what grounds and what items of personal information are being processed and you have the right to check such items of information. If your information is incorrect, you may request that it be corrected and that we restrict the processing of your information until it has been properly checked, corrected or completed. For more information, please visit our website at [coxa.fi](http://coxa.fi).

## TRAVEL ALLOWANCE

As a rule, Kela compensates for patients' travel expenses according to the most economical method of travel available. The decision also takes into account the state of health of the patient. Before the operation, find out directly from Kela whether you are entitled to travel allowance.

Based on the freedom of choice of treatment location, Kela pays travel allowance to patients coming to Coxa for joint replacement from their home to the nearest university hospital. The decision on allowances will be made by Kela. More information is available from Kela.

*Establish before surgery directly with Kela whether you are entitled to travel allowance, either by calling 020 692 204 or at [www.kela.fi/kysy-kelasta](http://www.kela.fi/kysy-kelasta).*



## TAMMEDICA PHARMACY

You will find the Tammedica pharmacy at the Tays main lobby in building D, at Elämänaukio 2, 33520 Tampere.

If necessary, Tammedica pharmacy will supply prescription medicines to Coxa wards before you are discharged.

You can order medicines by calling the pharmacy on 010 3366140.

The order must be paid for by debit card upon delivery. There is no extra charge for delivery. Read more at: [www.tammedica.fi](http://www.tammedica.fi)



norlandia  
care



## PATIENT HOTEL

Norlandia Care Tampere Hotel offers comfortable conditions and high-quality services for both patients and their loved ones. Coxa's customer service will book any hotel stays included in the treatment periods with the appointment booking. In addition to the overnight stays included in the treatment period, patients and their loved ones can stay at the hotel at their own expense at reduced prices agreed by Coxa.

**Booking instructions for stays at own expense:** Book your stay directly with Norlandia Care Tampere Hotel (tel. +358 50 384 4400) or by e-mail [tampere@norlandia.com](mailto:tampere@norlandia.com). When booking, please mention that you are a patient at Coxa or the next of kin to a patient.

**Address:** Biokatu 14, FI-33520 Tampere, Finland

**Rooms:** 130

**Parking:** heated parking garage and outdoor parking

**Other services:** sauna, meeting services, lobby café 24/7, lunch

**Communications:** rooms with free wifi

## ARRIVAL



## By car

There are single short-term parking spaces for bringing and picking up people in front of Coxa. When arriving at Coxa, the nearest car park areas are the Tays Parking Garage and Riviparkki parking area.

## By public transport

When you arrive by bus or tram, Coxa's stop is the Tampere University Hospital stop 'Tampereen yliopistollinen sairaala (Tays)'. All buses and trams driving in the direction of Tays are marked with 'Tays'.

Ajoliikenne  
Ensiapu Acutaan  
ja Biokadulle

## Karttamerkinnt

- |                   |                    |
|-------------------|--------------------|
| Invapysäköinti    | Rakennustyömaa     |
| Asiakaspysäköinti | Rakennuksen tunnus |
| Pysäköintihalli   | Infopiste          |
| TKL bussipysäkki  | Taksitolppa        |
| Bussipysäkki      |                    |
| Ratikkapysäkki    |                    |



Customer Service

**03 311 715**

asiakaspalvelu@coxa.fi

**COXA HOSPITAL FOR JOINT  
REPLACEMENT**

Niveltie 4, FI-33520 TAMPERE,  
FINLAND

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T e k o n i v e l s a i r a a l a

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[www.coxa.fi](http://www.coxa.fi)