

Total Knee Replacement

University of Iowa Health Care
Department of Orthopedics and Rehabilitation

November 2022



Welcome!

Thank you for choosing University of Iowa Health Care and the Department of Orthopedics and Rehabilitation for your joint replacement surgery. You are an important part of the health care team. This guide and your care team will help you plan for your joint replacement surgery and recovery.

Have someone in mind to be your helper and coach. Read through this guide and share the information with your family and/or caregiver. This person should also join you for the pre-op appointment to learn how they can best help you when you get home. Keep this guide with you for your appointments and while you are in the hospital.

Please be sure to follow your care team's orders first. Always ask questions to be sure you are getting the right care for you.

Write down any questions you have and bring them with you to your pre-op appointment. Call your care team, the nurse clinicians, or use MyChart if you have questions after your appointments. Your care team is here for you from when you first find out you will have a total joint replacement throughout your journey.

The University of Iowa Department of Orthopedics and Rehabilitation has a rich history of research in hopes to further the treatment of our patients. So, you may be asked by your surgeon or their team to participate in research studies. Thank you for considering this opportunity and the chance to contribute to the evolving care of our future patients.

We look forward to helping you get back to a healthy and active life!

Sincerely,

The Total Joint Replacement Team

University of Iowa Healthcare

Department of Orthopedics and Rehabilitation

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General Information

Important appointments

Pre-op Appointment: _____

Department of Orthopedics: Ortho South Clinic (Elevator L, Lower Level)

Presurgical Evaluation Clinic Appointment: _____

Presurgical Evaluation Clinic (Main Hospital, Elevator F, Level 1)

Dental Clearance: _____

Your local Dentist

Surgery Date: _____

Main Operating Room (Elevator H, Level 5) or Ambulatory Surgery Center (Elevator L, Level 4)

Contact information

Address: 200 Hawkins Drive, Iowa City, IA 52242

Telephone: 319-356-2223

Option 1: Appointment

Option 2: Prescription Refill

Option 3: Nursing

Telephone After Hours: 319-384-8442

Ask to talk to the orthopedic resident on-call

Fax: 319-353-6754

Email: ortho-nurses@uiowa.edu

To email photos with your name and date of birth if needed.

MyChart: Our team suggests signing-up for and using MyChart. The care team will send important reminders throughout your total joint replacement journey. Enroll in MyChart at uihc.org/mychart. Click on **Sign up now** to get started.

MyChart is free. You can:

- Contact your care team
- Securely email your doctor
- Renew and refill your prescriptions
- View test results and health records
- Ask your care team to fax a Physical Therapy order to your PT provider
- Ask general, non-emergent questions
- Send photos to your care team

The Orthopedic triage line can be used to call your care team with urgent questions or concerns.

Telephone Triage Line: 319-356-2223 (8 a.m. to 5 p.m. Monday through Friday)

Option 1: Appointment

Option 2: Prescription refill

Option 3: Nursing

Telephone After Hours: 319-384-8442 (After 5 p.m., weekends, or holidays)

Ask to speak to the orthopedic resident on-call

Telephone toll free number: 1-800-777-8442 (24 hours a day)

Ask to speak with the orthopedic resident on call

Call the orthopedic triage line for emergent concerns, such as:

- Signs of infection
 - Fever
 - Foul smelling odor or drainage
 - Pain not relieved by your pain medicine
- Numbness or tingling in your leg
- Swelling in your foot and leg not relieved by elevating your leg higher than your heart for 1 hour
- Sudden sharp pain or you are not able to move your legs as before

Call 911 or go to your local emergency room right away if you have:

- Chest pain
- or Shortness of breath

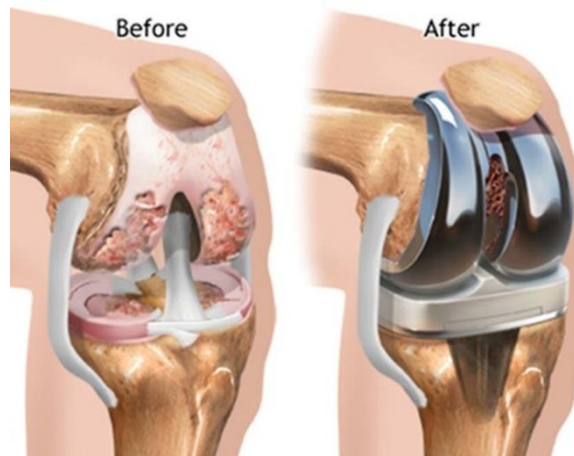
Total Knee Replacement Overview

What is a total knee replacement?

It is a surgery to replace damaged parts of the knee joint with artificial implants. It is done by opening the knee capsule and taking out the ends of the:

- Thigh bone (femur)
- Shin bone (tibia)
- Underside of the kneecap (patella)

The artificial implants are metal on the ends of the shin bone and thigh bone, with a plastic trough in between them. They are placed to make the new knee joint. Sometimes the underside of the kneecap does not need to be replaced.



How long does a total knee replacement last?

It often lasts about 15 to 20 years. Loosening is the major long-term problem. This may happen if the cement crumbles or bone melts away from the wear and tear of normal activity. The risk of wearing out your new knee is higher if you are overweight.

A loose, painful artificial knee can often, but not always, be replaced. The results of a second surgery are often not as good as the first. The risk of complications is higher.

When might I need a total knee replacement?

This is an elective surgery. It is done to treat severe pain and disability caused by arthritis. When other treatments are no longer helping, a total knee replacement may be an option. Other treatments to try first are:

- Anti-inflammatory or pain medicines
- Changing your activities
- Cortisone injections (shots)
- Physical therapy
- Weight loss (for people who are obese)

Each person is different, but your orthopedic care team will likely talk with you about a total knee replacement if:

- X-rays show advanced arthritis or significant deformity of your knee
- You have severe stiffness and swelling of your knee
- You have knee pain every day, even at rest
- You have significant instability or your knee gives out
- You have significant lifestyle changes and activity limits that involve the knee

There may be some other reasons to think about a total knee replacement. Make sure your questions are answered before you decide to have a total knee replacement.

What can I expect from a total knee replacement?

Goals of a total knee replacement are:

- Pain relief
- Improved mobility and quality of life

You will have pain from the surgery. It will get better with time.

The pain you had before surgery should be nearly gone though. You should be able to do most of your normal daily activities 3 to 6 months after the surgery, such as:

- Active sports (No contact sports)
- Work

Many people say it is hard to kneel after a knee replacement. Kneeling will not hurt it though. Most people with arthritis will have better motion after surgery.

What are the risks of a total knee replacement?

It is a major surgery. Complications are rare but may happen. You may need to stay in the hospital longer than planned if you have complications, such as:

- Blood clots in the leg or lungs
- Infection
- Nerve or blood flow problems to your leg
- Knee pain that does not get better
- Fractured (broken) femur or tibia

Long term complications are:

- Stiffness leading to another procedure called a manipulation
- Loosening or wearing out of the prosthesis

Getting Ready for Surgery

Work, FMLA, and disability paperwork

Your care team will only provide FMLA and disability forms for care after surgery. Send the form to your care team after you fill out the employee section. It takes at least 14 days for your care team to fill out the forms. Send the forms as soon as you can. Fax them to 319-353-6754.

Talk with Primary Care Provider (PCP) if you need FMLA or disability before surgery.

How long will I be off work?

Everyone heals different. Most people are off work at least 4 weeks. When you return to work often depends on the type of work you do. If you have a job that is not physical, you may return sooner. If you are on your feet most of the day, you will be off closer to 2 or 3 months. You cannot be taking narcotic strength pain medicine. Talk with your care team and employer about this.

Your coach

You will need a **coach** or someone who can be with you throughout the journey. They need to stay with you and help you 24-hours a day, especially at night, the first few days after surgery. Plan for a back-up **coach** in case your first person is not available.

You will need a driver to and from the hospital, for surgery and appointments the first few weeks after surgery.

What if I live far away?

You may need to recover in a hotel after leaving the hospital. Most local hotels offer a discounted rate for patients and families. They have handicap rooms with grab bars and wide doorways. Some have walk in bathtubs and showers. Parking is often close. Most have elevators for easy access to the rooms. Tell your care team if you need a list of hotels.

What if I need extended care after surgery?

Rarely, people need skilled nursing care after a total joint replacement. Certain criteria need to be met to qualify. Not all people meet these criteria, even if preauthorization is given by insurance before surgery. Let your care team know if you think you may qualify for skilled nursing care.

Getting your home ready

You need to get your house ready for easy and safe use after surgery. Some tips to make your home safe are:

- Remove all throw rugs, cords, and clutter from the floor and stairs.
- Have good lighting in each room. Place night lights near walkways and frequently used places, such as the kitchen and bathroom.
- Arrange furniture so there are clear walking pathways.
- Use a chair with arms and a seat height of at least 20 inches.
- Get assistive devices for your home, such as a:
 - Reacher
 - Bath scrubber
 - Sock aide
 - Toilet riser

These may be helpful. Most are not covered by insurance.

- Place items you use often at waist or counter level in your bedroom, bathroom, and kitchen.
- Think about having pets stay with a loved one for a few days.
- You need to buy or borrow a 2-wheeled walker. Make sure you bring it to the hospital the day of surgery. If you do not have a wheeled walker, one will be provided before you go home. You may want to buy or borrow a cane to transition to after the walker.
- You may need grab bars in the shower and by the toilet.
- Put a handrail on the stairs if you do not have one.
- Move your bed to the main level if you have a lot of stairs to your bedroom. It helps to have the bathroom, kitchen, and a place to rest (recliner or bed) on the same level the first week after surgery. You can use stairs. Moving your bed close to the bathroom and kitchen may be easier though.

To learn more, read the **Preparing Your Home Checklist** (Appendix A).

Home exercise program

A healthy and strong body before surgery helps you get better faster. A strong upper body will help you use a walker, crutches, or cane. Do exercises 3 times each day to improve your strength leading up to surgery.

To learn more, read the **Home Exercise Program** (Appendix B).

Pain control before surgery

Your care team does **not** prescribe opioid pain medicine before surgery. Take over the counter (OTC) pain medicine, use heat and cold packs, and alternate rest and exercise. Talk with your primary care provider (PCP) about stronger pain medicine if more pain control is needed before surgery. Tell your joint replacement team if you are taking any narcotic (opioid) strength medicines.

Nicotine

Stop using nicotine products. Nicotine puts you at higher risk of complications after surgery, such as:

- Lessens blood flow to the surgical site, which slows bone and wound healing
- Blood clots

Talk with your care team about stopping smoking. Some nicotine products are:

- Chew
- Cigarettes
- Cigars
- E-cigarettes
- Smokeless tobacco
- Vaping

You need a nicotine-free urine test before your surgery can be scheduled. It takes about 3 to 4 weeks being nicotine-free to have a clean urine test.

You must be nicotine-free until surgery and at least 6 weeks after surgery. Your surgery will be canceled if your urine test is positive for nicotine.

Nutrition and diabetes

In the weeks before surgery, eat healthy foods that are nourishing to your body. Stay hydrated. Eat foods high in protein and low in fat. Eat plenty of fruits and vegetables. This helps get your body ready for the stress.

Eat foods high in Vitamin C, Vitamin D, Vitamin E, and Zinc. Do not eat these if you are allergic. These will strengthen your immune system to resist infection and repair damaged tissue. Some good foods are:

- Cheese
- Deep yellow or orange fruits
- Eggs
- Fish
- Meat
- Milk
- Orange juice
- Peanuts
- Prune juice
- Vegetables
- Yogurt

You may also drink nutritional supplements, such as Ensure® or Boost®.

Uncontrolled diabetes puts you at higher risk for complications. Your diabetes needs to be well controlled. Hemoglobin A1C (HgbA1c) is used to measure how well it is controlled. Your care teams expect HgbA1c to be less than 7.5% to be eligible for surgery. Talk about this with your care team.

Pre-op appointments

1. Dental clearance

Healthy teeth and gums are needed for many reasons. Many bacteria are in the mouth. Infection can easily start with severe gum disease, tooth decay, tooth abscess, or mouth sores. When these are not treated, bacteria and infection can quickly spread through the blood stream to the artificial implant.

You must be seen by your dentist within 6 months of your pre-op appointment and surgery. Your dentist must fill out the dental clearance form and fax it to the clinic before your pre-op appointment. All dental work needs to be done before your pre-op appointment.

Read and print a copy of the **Dental Clearance Form** (Appendix D).

2. Pre-op appointment

During the pre-op appointment, the care team will talk with you about:

- Health concerns
- Consent forms
- Fasting guidelines
- Pre-op shower instructions
- Day of surgery instructions
- Post-op information
- Pain control
- Constipation

You may need blood drawn. You will have a nasal swab to test for the germ Staph. You may also need a urine test or x-rays.

3. Pre-anesthesia appointment

The anesthesia team will talk with you about:

- The type of anesthesia you will get
- The medicines you need to take or stop before surgery
- What to expect after anesthesia

Bring an updated and complete medicine list to this appointment.

4. Medical clearance

If you see a health care specialist for your heart, lungs, kidneys, brain, or blood, you may need to have clearance from them also. Talk with your care team if you have questions.

Your Surgery and Hospital Stay

Day before and morning of surgery

The anesthesia team will call you 1 to 3 business days before your surgery with your check-in time and time of surgery. Be sure to answer your phone. Staff may not leave a voicemail.

To learn more, read **Surgery Checklist** (Appendix C).

You need to:

- Shower as instructed the day before and day of surgery.
- Follow the fasting guidelines as instructed the day of surgery.
- Take medicines as instructed with sips of water.
- Allow plenty of time for travel, parking, and finding your way in the hospital.

You will get handouts about the above information at your pre-op appointment.

Day of surgery

What will happen when I get to the hospital?

1. Check-in for surgery at your designated surgery center:
 - Ambulatory Surgery Center (Elevator L, Level 4)
 - Main Operating Room (Elevator H, Level 5)
 - Appendix E is a **hospital map**.
2. Staff will take you to a surgery prep room.
3. You will be given an identification band.
4. You will put on a hospital gown and remove dental implants and contact lenses if you have them.
5. An intravenous (IV) line will be started. The IV will be used for fluids and medicines during and after your surgery. You may also have blood drawn.
6. Your family can stay with you until you go to the operating room.
7. Your orthopedic care team and anesthesia team will talk to you before taking you to the operating room.
8. Surgery may take 2 to 4 hours.

What should I expect after surgery?

- After surgery you will be taken to the Post Anesthesia Care Unit (PACU) to be monitored for 1 to 3 hours.
- Your blood pressure, pulse, respiration, and temperature will be checked often. The blood flow and feeling in your legs and feet will also be checked.
- Your care team will talk with your family about surgery and how you are.
- If you have surgery in the Main OR, you will go to the inpatient unit when your care team feels it is safe. You will leave the hospital when you meet discharge criteria. If you have surgery in the Ambulatory Surgery Center (ASC) you will go home from there when your care team feels it is safe.
- You will have a dressing on your knee. Your care team will talk with you about how to take care of your dressing. Learn more about your dressing in the incision and wound care section of this book.
- You will work with the rehab team after surgery, either in the recovery area or on the inpatient floor.
- Most people have an IV until they are ready to go home. The IV is used to give you medicines after surgery and fluids if needed.

Hospital recovery

Pain management

Good pain control is important. You will have pain, even with pain medicine. The goal is to control your pain to a tolerable level so you can progress with rehabilitation and healing. Pain medicine will be prescribed. Ask your nurse for pain medicine if you need it.



Your care team will ask you to rate your pain on a scale of 0 to 10. Zero means no pain and 10 means the worst possible pain.

Deep breathing exercises

People are often sleepy and spend more time in bed after surgery. Because of this, they do not take as many deep breaths as normal. This could cause fluid to sit in the lungs and can cause pneumonia.

An incentive spirometer will help keep your lungs clear after surgery. Nursing staff will teach you how and encourage you to use an incentive spirometer while in the hospital.

We suggest taking the incentive spirometer home. It is helpful to keep using it at home while you are taking narcotic pain medicine.



To learn more, read the **Incentive Spirometry handout** (Appendix F).

Physical and occupational therapy

Therapy starts the day of surgery. You will work with the rehab team each day while in the hospital. You will work with the rehab team 2 times in the PACU (recovery area) if you are going home the same day.

You will work on:

- Walking
- Sit-to stand
- Going up and down stairs
- Range of motion and strengthening exercises
- Special techniques and how to use adaptive equipment to do daily activities

Therapy is not optional. You need to meet the goals set by you and the therapy team before you can safely go home.

You will have physical therapy 3 times each week for 6 weeks. Walking is the best exercise. Keep doing the exercises your physical therapist taught you. Your first physical therapy appointment should be within 1 week of going home.

Occupational therapy starts the morning after your surgery. You need this if you are going to a skilled facility or physical therapy requests an occupation therapy evaluation. They work with you on bathing, dressing, and using adaptive equipment, such as a reacher, sock aide, and bath scrubber.

Preventing blood clots right after surgery

To keep blood moving through your legs and prevent a blood clot:

- Wear foot or calf pumps while resting.
- Do ankle pump exercises many times each hour when you are awake.
- Walk several times a day with physical therapy or nursing staff.
- Take the prescribed medicine to thin your blood. Your care team will talk to you about which medicine is best for you.
- Talk with nursing staff if you have questions or need help.

Going home

You can go home when you are medically ready and pass physical therapy. Some people go home the same day as surgery. If you and your care team think it is best to stay overnight in the hospital, then most people are expected to go home by 11 a.m. the next day. Have your driver ready by this time.

You will go home with prescriptions for pain control and thinning your blood. These can be filled at the hospital discharge pharmacy if you want.

You will also go home with a walker or crutches. You may also have assistive devices to help you at home.

Nursing staff will help you get dressed, remove your IV, and be sure you have your belongings ready to go home. They will talk with you about your specific instructions. Be sure to ask questions.

Reminder: You will need someone to help you 24-hours a day for the first few days after surgery.

Your coach after surgery

A **coach** is someone who will be with you at home the first few days after surgery. They will be your cheerleader, comforter, helper, and encourage you to achieve your goals. Plan for a back-up **coach** in case your first person is not available.

Most people need 24/7 care the first 3 days. Your coach will not lift or carry you. They are there for your safety until you feel safe being on your own. You and your family and friends know you better than anyone. The level of help will vary based on your confidence and abilities. The more help you can get, the better.

Remember, you will not be able to drive for at least 2 weeks after surgery. You will need a driver to and from the hospital, for surgery and appointments the first few weeks after surgery.

Follow-up

Your first return appointment will be 2 to 6 weeks after surgery. It is often a telemedicine appointment with a physician assistant or nurse practitioner who works closely with your surgeon.

Appointments after that are at 3 months and 1 year with your surgeon.

X-rays are often done at your 3-month appointment.

Each surgeon has their own routine for follow-up appointments. They will be scheduled before you go home.

Call or use MyChart if you have questions before your next appointment.

Recovery at Home

Pain management

You will have pain after surgery, even with your pain medicine. We want you to be able to tolerate the pain. Pain can be managed well when medicine, cold therapy, elevation, and coping skills are used together.

Medicine

Most people go home with medicines for pain control. Take:

- Tylenol and Celebrex if ordered for 2 weeks after going home.
- Oxycodone for severe pain or tramadol for mild to moderate pain.
 - **Oxycodone and tramadol are opioids. Do not take them together.**

It may be helpful to take pain medicine 30 to 60 minutes before exercising.

Allow 3 business days for prescriptions to be refilled.

Most people stop taking all opioid pain medicines 2 weeks after surgery, 6 weeks at the latest. **Opioid pain medicine will not be ordered after this time.** Talk with your care team if you still have trouble with pain after 6 weeks.

Constipation

It can be caused by:

- Inactivity
- Narcotics
- Drinking less fluids than normal

You should have a bowel movement at least every 3 days. To help:

- Take a stool softener or laxative daily.
- Drink plenty of water.
- Eat foods high in fiber.

Read the handout "Constipation – Prevent and Treat it" to learn more.

Elevation

Elevating your leg can help with swelling and pain. Rest with your leg above the level of your heart. Lie flat with a pillow under your head and several pillows under your leg. Do this at least 3 times each day, for 30 minutes each time.

Cold therapy

Cold therapy or ice packs can help with swelling and pain control. You can have swelling for several months after a total knee replacement.

Put ice on your knee, near but not on your incision, as often as needed each day. Use it for 20 minutes each time up to 3 times each day. Use a thin towel between the ice bag and your skin to protect your skin. Let your skin go back to normal sensation and temperature (often 2 to 3 hours) before you use ice again.

You may go home with a cooling unit. Follow the instructions. Call the cooling unit representative if you have issues. Their phone number is in your discharge instructions.

After surgery, you may have less sensation in your knee. Check your skin while using ice. Be sure it is **not** mottled (blotches of different shades of red and white). Remove the ice right away if your skin looks mottled.

Heat therapy

Heat therapy can be used to help gain range of motion when your knee is not warm and swollen, about 2 to 3 weeks after surgery.

Place a heating pad on your knee for 15 to 20 minutes before you exercise unless your care team tells you not to. Be sure to check your skin while using heat.

Activity and precautions

Walking and physical therapy

Get up and walk each hour while you are awake. It is good exercise. It helps strengthen muscles. Walk for a longer time and distance each day, as tolerated. By 6 weeks after surgery, you should be walking a total of 1 mile each day.

Use a walker or crutches the first 1 to 2 weeks after surgery. Transition to a cane or no assistive device when you feel safe and do not have a significant limp. Place the cane in the hand opposite your surgical leg. Your physical therapist will guide you on when you are ready to transition.

You must do formal physical therapy 3 times a week for 6 weeks after surgery, unless told otherwise. Start within 1 week of surgery and actively participate. Keep doing the knee exercises you learned in the hospital. Do the exercises several times each day or as instructed by your physical therapist.

Knee precautions

Do **not** put a pillow under the knee. Instead, put it under your calf/ankle when resting or elevating your leg. You must do this the first 6 weeks after surgery to be sure you can fully straighten the knee for normal range of motion and walking.



Other considerations

Do **not** sit in the car for more than 45 minutes at a time without getting out and walking.

Some people feel discomfort in their back after surgery. This is caused by soreness from surgery and not moving very well before, during and after surgery. It is very important to slowly do more walking each day.

Some people hear a clicking or clunking sound after their total knee replacement. Your replaced joint is made from plastic and metal. The parts moving against each other make the sound you are hearing. This should go away within 1 year.

Preventing blood clots after going home

After a total joint replacement, blood clots called deep vein thromboses (DVT) may form in the leg. Prevent a DVT by:

- Walking each hour while awake
- Alternate elevating the surgical leg
- Doing ankle pump exercises
- Taking your blood thinning medicine, such as Aspirin, as ordered by your care team

Call your care team right away if you have **signs of a blood clot**, such as:

- Sudden onset of calf pain and swelling
- Trouble breathing
- Chest pain

Incision Care

Bruising, blisters, swelling, and decreased sensation around the incision are expected. This should get better with time.

Keep the site clean and dry. Do not put any creams, lotions, or ointments on it.

Most people can shower with the dressing in place. Cover it with Saran Wrap® or Glad Press N Seal® to be sure it stays dry.

If the dressing comes off early, you can shower by letting the shower water run over your incision. Do not scrub it. Do not soak in a bathtub or pool for 6 weeks.

Signs of infection

Call your care team right away if you have signs of infection, such as:

- Increased warmth
- Redness
- More pain than normal
- Foul smelling odor from the incision
- Drainage from the incision when there was none before
- A change in the color of drainage from clear to thick yellow
- Chills or fever

Removing the dressing

Most incisions are closed with a mesh tape (per your surgeon's preference). A large rectangle dressing covers the mesh tape and incision. Remove the rectangle dressing 14 days after surgery as instructed.

The mesh tape will start to come off on its own a few days after the large rectangle dressing. Gently peel off the mesh tape from top to bottom when it starts to lift off at the corners. If the mesh tape does not come off easily, put Vaseline® on it. Then, cover it with Saran Wrap® for 2 to 3 hours. It should peel off easier.

Some people have a dressing connected to a battery pack. This dressing is called a PICO dressing. It provides negative pressure to help wound healing. It is used for about 1 week. Then the battery pack will die. After 7 days, you will clip the battery pack off the main dressing. Secure the tail to the main dressing with a clear plastic dressing called a Tegaderm®. This will stay in place for a total of 14 days. Sometimes the care team will have you leave the dressing in place until your follow-up appointment as instructed by your surgeon. Use tape if you do not have Tegaderm.

Stitch ends may be present at both ends of the incision. Clip them with clean nail clippers or manicure scissors. Do **not** pull the stitch ends.

If you have stitches or staples that need to be removed, this will be done at your follow-up appointment. The care team needs to be sure the site is well healed.

Life After a Joint Replacement

Preventing infection

To help prevent infection in your artificial joint, you will need to take 1 dose of an antibiotic before you have certain procedures for the rest of your life. Your orthopedic care team, PCP, or dentist can prescribe the antibiotic. Be sure to tell all providers you have a total joint replacement.

Some procedures you need an antibiotic before are:

- Any dental procedures
- Any infection
- Barium enema
- Bronchoscopy
- Colonoscopy
- Genitourinary instrumentation
- Kidney surgery
- Liver biopsy
- Tonsillectomy
- Vaginal exams and GYN surgery

You will get a wallet card at your workup appointment with the above procedures and antibiotic recommendations listed on it.

Call your PCP or dentist if you get any infections, such as strep throat, pneumonia, or a tooth infection. Call your provider right away to see if they feel you need an antibiotic. If you are prescribed an antibiotic, you must take it until it is all gone.

Antibiotics help prevent infection from getting into your knee replacement. This is important for years after your surgery.

Call your care team right away if you have signs of infection around your knee.

Physical intimacy

You can often resume sexual activity 6 weeks after surgery.

Airports

Your total knee replacement may set off alarms in airports. The older scanner system will alarm. The newer systems do not alarm. The attendants will ask you to step aside for an individual scan if you set off the alarm. You also have a wallet card given to you at your surgical pre-op appointment. It states you had a joint replacement.

Driving

Do **not** drive:

- Often for 2 to 3 weeks if you had your left knee replaced
- Often for 3 to 4 weeks if you had your right knee replaced
- If you are still taking opioid (narcotic) pain medicine or using a 2-handed assistive device (walker or crutches).

Check your driving skills in a parking lot before driving on the road.

Do not sit in your vehicle for more than 45 minutes at a time without getting out to walk.

Let your care team know if you plan to drive a car with a clutch (stick shift). It may take longer to be ready to drive safely.

Activity and work

Most people are off work at least 4 weeks. When you return to work often depends on the type of work you do. If you have a job that is not physical, you may return sooner. If you are on your feet most of the day you will be off closer to 2 or 3 months. You cannot be taking narcotic strength pain medicine and return to work. Talk with your care team.

Most people can do their normal daily activities within 3 to 6 weeks after surgery. Your knee should feel better quickly, even after just a few days. The first 6 weeks, progress your activity as you tolerate. At 6 to 12 weeks, slowly progress back to your regular activities if your knee tolerates it. At your 12-week visit, your doctor will likely let you go back to all activities. Then, you can fully enjoy your new knee.

People can often do most of the activities they participated in before their joint replacement 3 to 6 months after surgery. There are some activities your care team may want you to avoid.

Acceptable	Do Not Do
<ul style="list-style-type: none">• Biking• Bowling• Dancing• Elliptical• Fishing• Gardening• Golf• Low-impact aerobics• Racquetball• Skiing• Tennis• Walking• Water aerobics• Weightlifting more than 50 pounds (lbs)	<ul style="list-style-type: none">• Contact sports• Combat sports• Jogging• Running

This is a general list. Talk with your care team before you start an activity not on the list or not recommended.

[illegible]

Appendix A: Preparing Your Home Checklist

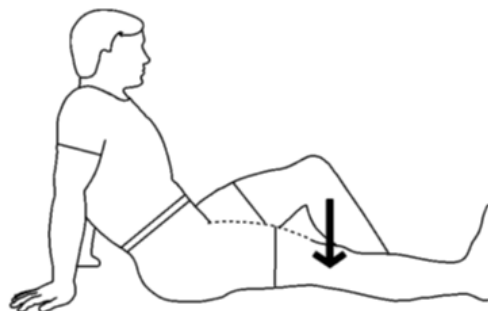
Tips to make your home safe

- ☐ Remove all clutter from the floor and stairs.
- ☐ Remove all throw rugs and cords.
- ☐ Put items you use often at counter level in your kitchen, bathroom, shower, and bedroom.
- ☐ Make meals ahead of time and store them in the freezer.
- ☐ Place a non-slip mat or tape in the shower.
- ☐ Put up grab bars near the toilet and shower.
- ☐ Place a night light in the bathroom and walkways
- ☐ Have good lighting in all rooms, hallways, and stairs. Turn on lights when you get up at night
- ☐ Arrange furniture so there are clear walking pathways.
- ☐ Do not use low chairs or couches. A good seat height is at least 20 inches.
- ☐ Measure to see if your toilet is at least 20 inches from the ground. If it is not, get a toilet riser that brings the height to at least 20 inches high.
- ☐ Think about having pets stay with someone so you do not trip over them.
- ☐ Always keep your assistive devices, such as walker, crutches, or cane near you. Use them to keep your balance and maintain your precautions. Other assistive devices you may want are a reacher, sock aide, and a shoehorn.
- ☐ Make sure stairs have a handrail the entire length of the stairs. Place bright non-skid strips on the edge of steps.

Appendix B: Home Exercises

Quad Sets

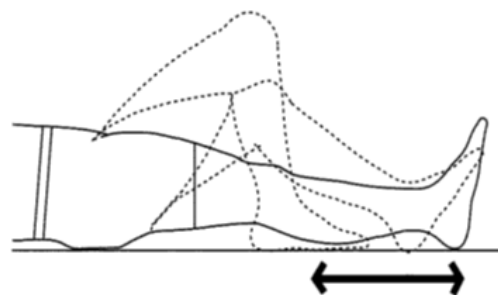
- Sit or lie on back with leg extended.
- Tighten quad muscles on front of leg. Try to push back of knee downward.
- Hold 5 seconds then relax and repeat.



Do 1 set of 10 repetitions. 3 to 5 times each day.

Heel Slides

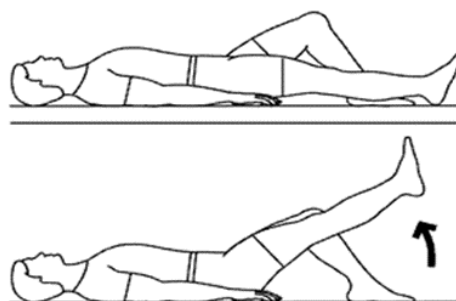
- Lie on back with legs straight. May bend uninvolved knee if more comfortable.
- Slide heel up to buttocks.
- Return to start position.
- Do in slow, controlled motion in both directions. Keep knee moving straight up towards ceiling.



Do 1 set of 10 repetitions. 3 to 5 times each day.

Straight Leg Raises

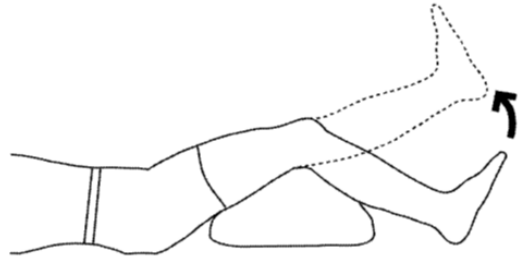
- Lie on back with uninvolved knee bent as shown.
- Keeping the involved leg straight, raise the leg to thigh level of bent leg.
- Return to starting position.
- Do in a slow, controlled motion in both directions.



Do 1 set of 10 repetitions. 3 to 5 times each day.

Short Arc Quads/Terminal Knee Extensions

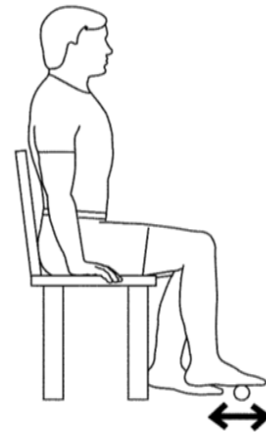
- Lie on back, with involved leg bent over a pillow, as shown.
- Straighten leg at knee.
- Return to start position.
- Do in a slow, controlled motion in both directions.



Do 1 set of 10 repetitions. 3 to 5 times each day.

Seated Knee Bends

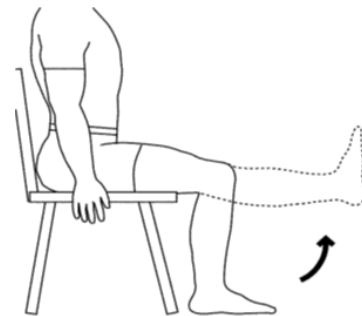
- Sit in an upright position with feet on floor.
- Bend the knee back as far as tolerated.
- Do in a slow, controlled manner in both directions.



Do 1 set of 10 repetitions. 3 to 5 times each day.

Seated Knee Extensions

- Sit in an upright position with feet on floor.
- Straighten leg at knee.
- Do in a slow, controlled manner in both directions.



Do 1 set of 10 repetitions. 3 to 5 times each day.

Appendix C: Surgery Checklist

Before Surgery

- ☐ Remove nail polish or artificial nails and jewelry.
- ☐ Shower as instructed.
- ☐ Follow fasting guidelines as instructed.
- ☐ Have a coach and driver to help you after surgery.

Packing Checklist for a 24 to 48-Hour Hospital Stay

- ☐ A complete and up-to-date medicine list
- ☐ Any assistive devices you use, such as a walker or crutches
- ☐ Non-slip, closed toe walking shoes
- ☐ A change of clothes (shirt, pants, and undergarments that are loose fitting and easy to get on)
- ☐ Personal toiletries
- ☐ CPAP and/or inhaler (if instructed)
- ☐ Eyeglasses (not contact lenses)
- ☐ Your Total Knee Replacement Book and Surgery Folder
- ☐ A small amount of money or credit card if you need to pay for medical equipment, prescriptions, or transportation
- ☐ Something to help pass the time, such as book or magazine

Please Do Not Bring

- ☐ Medicines (opioids and over the counter medicines) unless instructed by your care team
 - You cannot take your own medicines during your hospital stay. It is not safe.
- ☐ Valuables (except those mentioned above)
- ☐ Jewelry
 - Remove and leave at home all piercings and jewelry, including wedding rings. See a jeweler for help removing if needed.

Appendix D: Dental Clearance

To whom it may concern,

Our mutual patient has been scheduled for an orthopedic surgery at University of Iowa Health Care in the coming weeks to months. As part of our pre-surgical work-up, documented dental clearance is requested. All dental work, including abscesses, root canals, tooth extractions, planning/scaling, and significant periodontal disease needs to be addressed before surgery. After evaluating the patient, please select one of the following and provide a summary if indicated.

- ☐ Patient underwent routine screening and was found to have no active dental disease or infection. No further treatment indicated prior to surgery.
- ☐ Patient was found to have active dental disease or infection requiring treatment. Please provide brief detail of the diagnosis and procedures performed below, or on an additional sheet as needed.

Please fax this form to 319-353-6754 and have the patient bring a copy to their upcoming clinic visit.

Patient Name: _____ DOB: _____

Dentist Name: _____ Date: _____

Dentist Signature: _____

Dentist Office Phone Number: _____

This patient should not have a routine dental exam for 3 months after their surgery. The care team recommends antibiotic prophylaxis for life for all dental exams.

Sincerely,

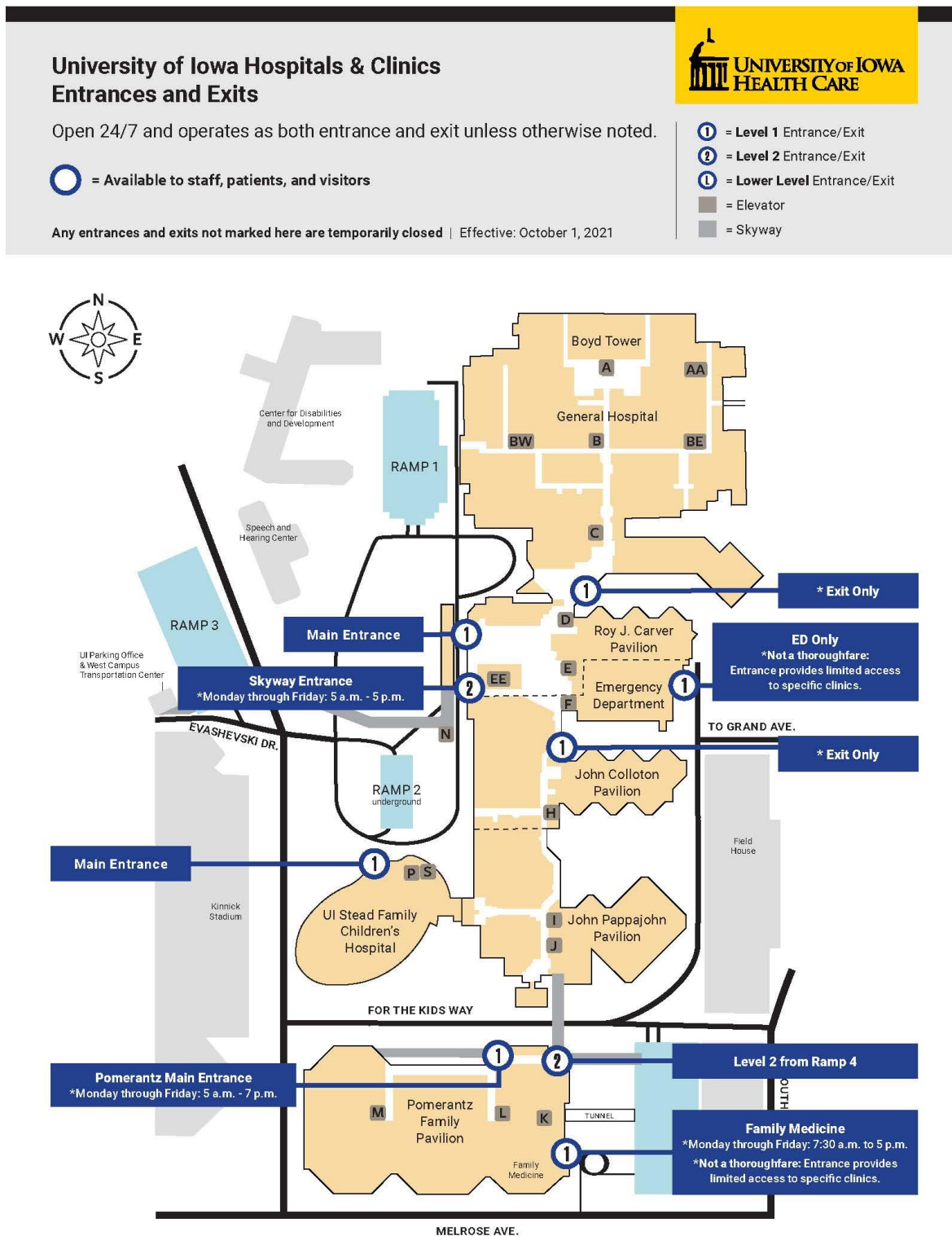
Department of Orthopedics and Rehabilitation

University of Iowa Health Care

Telephone: 319-356-2223 / **Fax:** 319-353-6754

Orthopedic Surgeon: _____

Appendix E: Hospital Map



Appendix F: Incentive Spirometer

What is an incentive spirometer?

After surgery, people are often sleepy and spend more time in bed than usual. People do not take as many deep breaths as normal. Fluid sits in the lungs and can cause pneumonia. An incentive spirometer will help keep your lungs clear after surgery.



How do I use an incentive spirometer?

1. Sit up in bed if possible.
2. Hold the incentive spirometer upright.
3. Put the end of the hose in your mouth.
4. Take a big breath **in**, slowly. Try to keep the yellow piece in the better to best range.
5. Hold your breath (try for at least 5 seconds).
6. After each set of 10 deep breaths, practice coughing to be sure your lungs are clear. If you have an incision, support your incision when coughing by holding a pillow firmly against it.

How often do I use an incentive spirometer?

Use the spirometer each 1 hour while you are awake. During the night, use the spirometer when you are awake and at least every 4 hours (with vital signs). Stop using the spirometer after you go home and are doing your normal level of activity or have stopped taking prescription pain medicine.

Remember, You Make a Difference

Remember, you are an important part of the care team. We are excited to be on this journey with you as you get back to a healthy and active life. Your active participation throughout this journey – getting ready for surgery, hospital recovery, rehabilitation, and recovery at home – is essential to the success of your surgery. The more committed and enthusiastic you are, the quicker you will recover and return to your normal activities.

Please use MyChart to communicate and send photos, if needed. They will go directly to your care team. Be sure to ask how to set up your account. Call your care team if you have questions during your recovery.

Thank you again for choosing University of Iowa Health Care and the Department of Orthopedics and Rehabilitation for your joint replacement surgery. We look forward to working with you.

Sincerely,

The Total Joint Replacement Team

University of Iowa Health Care

Department of Orthopedics and Rehabilitation

