Total Knee Replacement
A University of Iowa Health Care
Patient Education Guide
Total Knee Replacement Patient Education Guide

This book is meant to help you get ready for and recover from your total joint replacement surgery. Please read through it, and share the information with your family and/or caregiver. We want to make sure you have the information you need for the best results possible, and that your hospital stay and rehabilitation are as comfortable and effective as they can be.

This book is full of guidelines and recommendations. Places in the book that are shaded gray have individualized information just for you. Please be sure to follow your doctor’s orders first. If any of the information here does not match your doctor’s instructions, please ask questions to make sure you are getting the right care for you.

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Thank you!

Thank you for choosing University of Iowa Hospitals and Clinics and the Department of Orthopedics and Rehabilitation for your joint replacement surgery. You are an important part of the health care team, and we hope this guide will help answer your questions about what to expect. This guide and the Total Joint Patient Education Class will help you plan your activities before, during, and after your surgery.

Have someone in mind to be your helper and coach for your knee surgery. This person should join you for class to learn how they can help you when you get home. Keep this guide with you for your appointments and while you are in the hospital.

Please write down any questions you have and bring them with you to the joint class. Please call us if you have any questions after your pre-op visit and your Total Joint Class.

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

Sincerely,

The Total Joint Replacement Team
University of Iowa Hospitals & Clinics
Department of Orthopedics and Rehabilitation
Important Appointments

You need to be seen by your dentist within 6 months before your surgery. All dental work needs to be done before your surgery. You do not need to see your dentist if you do not have any of your original teeth. Fax your dental clearance to 319-353-6754.

**Requesting time off work, FMLA and/or disability forms:**
Please fax your requests to the Orthopedic Insurance Office at 319-384-8487. Call 319-356-4627 if you have any questions.

**Prior Authorization:**
Any questions for your upcoming surgery, please call the Orthopedic Prior Authorization Office at 319-353-6240.

You will have several appointments before your surgery. We have set up the following times for you:

- **Total joint replacement class:**
  Department of Orthopedics (Elevator I, Lower Level)

- **Preanesthesia (if needed):**
  Preanesthesia Clinic (Elevator F, Level 1)

- **Medical clearance:**
  Medicine Specialty Clinics (Elevator L, Level 3)

- **Surgery Date:**
  Surgery Check-In (Main Operating Room - Elevator H, Level 6 or Ambulatory Surgery Center (Elevator L, Level 4)

A member of the anesthesia team will call you a few days before surgery. They will tell you the time of your surgery and when to check in. Call 319-384-8039 if you have not heard from anesthesia by 7 p.m. the night before your surgery.

If you have questions, please call your surgeon’s office and talk with their assistant or the team’s nurse.
Your Surgery at University of Iowa Hospitals & Clinics

Driving Directions
- To get turn-by-turn directions to University of Iowa Hospitals & Clinics, go to uihc.org and click on Your Visit.

Parking Information
Self-parking
- Ambulatory Surgery Center (Pomerantz Family Pavilion): Park in Ramp 4
- Main Hospital Operating Room: Park in Ramps 1, 2, or 3
- The skyway to the hospital from Parking Ramp 3 is on Level 3 of the parking ramp
- Parking rates in the ramps will apply; for rate information, go to uihc.org and click on Your Visit.

Valet Parking
- Pomerantz Family Pavilion (for Ambulatory Surgery Center): 6:30 a.m. to 5 p.m. Monday through Friday
- Main Entrance (for Main Operating Room): 6 a.m. to 7 p.m. Monday through Friday
- A flat rate is charged and can be paid with cash, check, MasterCard, Discover, or Visa.
What is Total Knee Replacement?

Total knee replacement is a surgical procedure. Damaged parts of the knee joint are replaced with artificial parts. The surgery is done by opening up the knee capsule and taking out the ends of the thigh bone (femur), the shin bone (tibia), and the underside of the kneecap (patella). Artificial parts are cemented into place and make up the new knee joint. The new knee is a metal implant on the ends of the shin bone and thigh bone, and a plastic trough in between them.

Metal implants are cemented into place at the top of the shin bone (tibia) and the bottom of the thigh bone (femur). A tray is put on top of the tibial implant and a button is put on the underside of the kneecap (patella). Sometimes the patella does not need to be replaced.

![Before and After](image-url)
Should I have total knee replacement?
The total knee replacement is an elective surgery. It is not a matter of life or death. You have other non-surgical choices. The decision to have the surgery is not made by the doctor. It is made by you, the person who must accept the risks and complications that might happen. The doctor may suggest the surgery, but you should think about the benefits and risks before you choose to have surgery. You may want to talk with your personal doctor about the surgery, or get another opinion.

Make sure all of your questions are answered before you decide to have the surgery. Please ask any questions you have that will help to make your decision easier.

Remember, your doctor, physical therapist, and nurses are working to help you get the most functional knee possible. After surgery, the success of your knee replacement depends on you and how well you follow your exercise plan and the instructions your team gives you.

When do we consider total knee replacements?
Total knee replacements are most often done for severe arthritis. It is different for each person, but your doctor will most likely talk with you about a total knee replacement if:

- Your pain is bad enough to make you change the way you do everyday things, such as work, recreation, and activities like walking, dressing, and making meals
- X-rays show advanced arthritis or significant deformity of your knee
- You have severe stiffness of your knee
- You have pain every day
- You have significant instability, and your knees are always giving out/giving way
What can I expect from a total knee replacement?
An artificial knee will never work as well as your original knee did before you had arthritis. With pain relief and good health, you should be able to do most of your normal activities again. It may help you to do sports or heavy labor again if your doctor says that is okay. You will not be able to do activities that overload the artificial knee.

about 90 out of 100 people with arthritic knees before surgery will have better motion after a total knee replacement.

Many patients say they have difficulty kneeling after knee replacement. Kneeling will not damage the replacement, but 50 out of 100 people do not like the feel of it.

How long does an artificial knee last?
A total knee replacement may last 15 to 20 years. Loosening is the major long-term problem. This may happen if the cement crumbles or the bone melts away from the wear and tear caused by normal activity. If you are overweight, the risk of wearing out your new knee is higher.

A loose, painful artificial knee can usually, but not always, be replaced. The results of a second surgery are not as good as the first. The risk of complications is higher.
What are the risks of total knee replacement?
Total knee replacement is a major surgery. Complications are rare, but may happen. The most common complications are not related to the knee and do not usually affect the result of the surgery. If you have complications from your surgery, you may need to stay in the hospital longer than planned.

Complications are:
- Blood clots in your leg or lungs
- Blood loss leading to you needing a blood transfusion
- Difficulty with controlling your pain
- Difficulty urinating
- Wound drainage

Complications that affect the knee are less common. The surgery may not be as successful if these happen:
- Knee pain that does not get better
- Loosening of the artificial knee
- Stiffness leading to you needing another procedure
- Infection in the knee

How can I optimize my nutrition before and after surgery?
In the months and weeks before surgery, you can help get your body ready for the stress of the surgery by eating foods that are healthy and nourishing for your body.

Eat:
- Plenty of fruits and vegetables
- Foods with high protein and low fat
- A balanced diet

Stay well hydrated and eat plenty of fiber before and after your surgery. You may take a daily multivitamin to help optimize your nutrition before surgery.
Getting Yourself Ready for Surgery

Getting ready for a total knee replacement starts several weeks before your surgery date. Good health before your surgery is important. A strong upper body will help you use a walker, crutches, or cane after surgery. Doing exercises to strengthen your legs will help you recover faster.

Quad Sets
- Sit or lie on your back with your leg straight.
- Tighten your quad (thigh) muscles on the front of your leg, trying to push the back of your knee downward.
- Hold this for 5 seconds then relax and repeat.

Special Instructions
- Do not hold your breath.
- Do 1 set of 15 repetitions, 3 times a day

Glute sets
- Lie on your back with your legs straight.
- Squeeze your buttocks together.
- Hold this for 5 seconds then relax and repeat.

Special Instructions
- Do 1 set of 15 repetitions, 3 times a day.

Heel slides
- Sit or lie on your back with your legs straight (may bend uninvolved knee if it is more comfortable).
- Bend your knee and slide your heel up to your buttocks.
- Straighten your knee to go back to the start position.
- Do this in a slow, controlled motion in both directions with your knee moving straight up toward the ceiling.

Special Instructions
- Keep both hips on the bed at all times.
- Do not arch your back.
- Do not hold your breath.
- Do 1 set of 15 repetitions, 3 times a day.
Passive extension
- Lie face up with your ankle supported on a towel roll or pillow.
- Relax your leg and let gravity straighten it.
- Hold this position as long as possible. Slowly hold it longer each time.

Special Instructions
- Read a book, watch TV, or listen to music to distract you during the exercise.
- Do 1 repetition, 3 times a day.

Straight leg raises
- Lie on back with the uninvolved knee bent, as shown.
- Keep the involved leg straight, and raise the leg to the thigh level of your bent leg.
- Go back to the starting position.
- Do this in a slow, controlled motion in both directions.

Special Instructions
- Do not arch your back
- Do not hold your breath
- Do 1 set of 15 repetitions, 3 times a day.

Short arc quads/terminal knee extensions
- Lie on your back with the involved leg bent over a pillow, as shown.
- Straighten your leg at the knee.
- Hold this for 5 seconds then relax and repeat.
- Go back to the starting position.
- Do this in a slow, controlled motion in both directions.

Special Instructions
- Keep both hips on the bed at all times.
- Do not hold your breath.
- Do 1 set of 15 repetitions, 3 times a day.
Long arc quads
- Sit on a chair with your involved leg bent as far as possible.
- Straighten your leg at the knee.
- Go back to the starting position.
- Do this in a slow, controlled motion in both directions.

Special Instructions
- Do 1 set of 15 repetitions, 3 times a day.

Chair push-ups
- Sit in a chair with arms.
- Push downward with both hands, raising your buttocks off the chair or seat.
- Use your arms to lift your body and not your legs.
- Go back to the starting position.

Special Instructions
- Do 1 set of 15 repetitions, 3 times a day.

Seated heel slides
- Sit in chair.
- Place foot on pillowcase (for wood or tile floor) or a plastic bag (for carpeted floor).
- Slide foot back and forth.
- Do this in a slow, controlled manner in both directions.

Special Instructions
- Keep both hips on the chair and sit upright at all times.
- Do 1 set of 15 repetitions, 3 times a day.
Tips to Make Your Home Safe

General Considerations
- Know where your pets are so you do not trip over them.
- Always use your assistive device in the bathroom and bedroom to keep your balance.
- Stay alert in poorly lit or unfamiliar places.
- Be careful in crowded public places.

Bathroom
- Place a non-slip mat in the shower.
- Use a walk-in shower, if possible.
- Use a bath bench or shower chair.
- Use a hand-held showerhead.
- Put a grab bar near the toilet and in the shower.
- Store needed supplies in a shower hanger at waist level.

Bedroom
- Remove all clutter from the floor.
- Place a night light between the bedroom and bathroom.
- Place a nightstand beside your bed.
- Place items you use often in the top drawers of your dressers.

Stairs and steps
- Have lighting at both the top and bottom of stairs.
- Put in a handrail the whole length of the stairs.
- Keep the stairs free from objects and clutter.
- Place bright non-skid strips on the edge of steps.

Living Areas
- Keep floors free of clutter.
- Arrange furniture so there are clear walking pathways.
- Remove all cords and rugs.
- Do not use low chairs or couches (we recommend a seat height of at least 20 inches).

Kitchen
- Remove all throw rugs.
- Have ample lighting.
- Put items you use often at counter level.
- Make and freeze meals in advance or arrange for friends or a meal service to bring meals.
Your Surgery Checklist

☐ Do your home exercise program 3 times each day to improve your strength.
☐ Do not smoke.
☐ Do not bring your prescription medication to the hospital at the time of surgery.
☐ Make an appointment with your dentist for a check-up for your dental clearance letter.
☐ Make a plan for after surgery:
  ☐ Who can stay with you when you go home (24 hours a day)? ______________________
  ☐ Who can be your driver (to and from hospital, therapy, lab)? ______________________
  ☐ Where will you go for physical therapy if you need it? ____________________________
  ☐ Where will you go to get your blood drawn if you need to? ________________________
  ☐ Borrow or buy adaptive equipment. Practice with it before your surgery. Insurance generally does not cover these items.
  ☐ Make changes to your home to improve safety, if needed:
    ☐ Put grab bars in bathroom
    ☐ Put in handrails on stairs
    ☐ Find housing for pets
    ☐ Pick up throw rugs
    ☐ Move bed to main level

On the night before surgery
☐ Shower as instructed.
☐ Do not eat anything after midnight. Only drink clear liquids after midnight.
☐ Pack a t-shirt, shorts, tennis shoes, and toiletries.
☐ Do not bring valuables, such as jewelry, to the hospital.
☐ Take off nail polish and artificial nails.
☐ Someone from the anesthesia staff will call you and tell you what time your surgery is scheduled and what time to come to the hospital. Your surgery may be delayed or cancelled if you are late. If no one has called by 7 p.m. the night before your surgery, please call us at 319-384-8039.

On the morning of surgery
☐ Take medicines as instructed with sips of water.
☐ Shower and wash your body as instructed on the next pages.
☐ Bring this book with you to the hospital.
☐ Check in at the OR front desk
  ☐ ASC-Ambulatory Surgery Center (Elevator L, Level 4)
  ☐ Main Operating Room (Elevator H, Level 6)
☐ Bring something to help pass the time for you and your family.
Pre-Operative: Chlorhexidine gluconate (CHG) Shower

How to stop surgical site infections
This hospital is working hard to prevent infections. We will:
- Give you one bottle of CHG soap (contains chlorhexidine gluconate) at your appointment before surgery. You will need to shower with this soap the evening before and the morning of surgery. This soap will help make sure your skin is free of germs.
- Give you antibiotics (medicines to prevent infections) as needed.
- Closely watch things like your temperature and blood sugar.

How should I shower using CHG?
Please follow these instructions for both before-surgery showers:
1. Use a clean wash cloth and clean towel.
2. Remove all body-piercing jewelry, and leave it out until after surgery.
3. In the shower wash your face with your regular soap and water first. Wash your hair as usual with your normal shampoo.
4. Rinse your body well to remove the soap and shampoo residue
5. Use a wash cloth to clean your skin with the CHG soap. Apply enough CHG to cover the skin of your entire body. Use the same amount as you would with your usual shower gel.
   - Do not use CHG on or near your face, eyes, ears, or head.
   - Do not scrub your skin too hard. Be sure to clean the area well where your surgery will be done.
   - Do not wash with your regular soap after the CHG is used.
6. Pat yourself dry with a clean, soft towel. Do not put on any lotions, deodorants, powders, or oils after bathing. Put on clean clothing.
7. You may wash your face with your own soap the morning of surgery. Do not wash your hair on the morning before surgery.
8. If you have any skin irritation (skin that is red, itchy, or burns), rinse the soap off your skin.

Is there anything else I need to do?
- Use anti-bacterial Dial® Soap if you are allergic to CHG.
- Do not shave your skin around your surgery site for seven days before surgery.
- If you are unable to use the shower, clean yourself at the sink. Make sure your sink is clean before washing yourself. Do the best you can to follow the same instructions.
If Asked to Bathe For 5 Days Pre-Operative: Chlorhexidine Gluconate Shower

How to stop infections
- This hospital is working hard to prevent infections.
- Studies have shown that bathing every day with chlorhexidine gluconate can reduce infections while you are in the hospital.
- You will need to shower daily with this soap to be sure your skin is free of germs.

Please follow these instructions
Please follow these instructions for both before surgery showers:
1. Use a clean wash cloth and clean towel.
2. Wash your hair and face as usual with your normal shampoo and rinse.
3. Use a wash cloth to clean your skin with the CHG liquid. Apply enough CHG to cover the skin of your entire body. Use the same amount as you would with your shower gel.
   - Do not use CHG on or near your face, eyes, ears, or head.
   - Do not scrub your skin too hard.
   - Do not wash with regular soap after the CHG is used.
4. Rinse your body well.
5. Pat yourself dry with a clean, soft towel.
6. Put on clean clothing.
7. If you have any skin irritation (skin that is red, itchy, or burns), rinse the soap off your skin.
8. Do not put on any lotions, deodorants, powders, or oils after bathing without checking with your nurse first. They might block how CHG works.
What should I know about Staph?

What is staphylococcus aureus (staph)?
Staph is a germ found on the skin or in the nose. It may live on the skin without causing problems.

Sometimes staph can cause infections. Staph may cause infections after surgery. This happens when the staph germ from patient’s skin or the hospital surroundings enters the surgery wound.

Some types of staph are hard to kill with antibiotics. This type of staph germ is called M-R-S-A or “mersa.”

Who is at risk for getting a staph infection?
People at risk for getting a staph infection are:
- Patients in the hospital
- People with open wounds or sores on their skin

What should I do before my surgery to lower my risk for infection?
You will be tested to see if you have staph. This will be done by wiping a cotton swab inside your nose.

If you test negative:
- You do not have staph.
- Shower with the anti-bacterial soap (CHG – chlorhexidine) the night before and morning of your surgery.

If you test positive:
- You will get a call saying you are positive for staph.
  - You will be able to see your test results in MyChart.
- Use anti-bacterial ointment inside your nose twice a day starting five days before your surgery.
  Your doctor will order mupirocin 2 percent ointment at your pharmacy.
- Use anti-bacterial soap to clean your skin.
- Use the ointment and soap each day for 5 days before your surgery.
  - Research shows this may lower your risk of infection after surgery.

What should I do while I am in the hospital?
- Wash your hands when using the bathroom, before eating, and before leaving your room.
- Do not touch any wounds or tubes sticking out of your body.
- Your guests should wash their hands each time they enter or leave your room.
Day of Surgery

What will happen when I get to the hospital?
- You will put on a hospital gown and will be given an identification band.
- An intravenous (IV) line will be started. It will be used for fluids and medicines during and after your surgery.
- You will have blood drawn for the blood bank. They will prepare blood for you in case you need a blood transfusion.
- Your family can stay with you until you go to the operating room.
- You will be taken to the operating room after talking with your anesthesiologist.
- Your family will be sent to the waiting area.
- The surgery will take about 1 hour. However, you will also be prepped, get anesthesia, and go to the recovery Post Anesthesia Care Unit (PACU) before you see your family. This could be 4-6 hours.

What should I expect when I wake up?
- The nurses will ask admission questions and check the doctor’s orders.
- A member of your health care team will talk with your family.
- You will be taken to the Post Anesthesia Care Unit (PACU) 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 be checked often.
- You will be taken to your room when your nurse and doctor feel you are ready.
- You will spend 1-2 nights at the hospital after surgery depending on therapy, pain control, and your insurance.

After surgery, you may have some or all of these:
- A dressing on your knee to keep the wound clean. The dressing is changed 1 day after surgery by the doctor.
- You will get IV fluids until you start drinking. When you are drinking fluids well, the IV may be capped off the next morning. You will get antibiotics for 24 hours after surgery to prevent infection. The IV will not be taken out until you are ready to leave the hospital.

Side effects of anesthesia can be:
- Trouble passing urine.
  - You may have a sterile tube called a catheter put into your bladder. This will keep your bladder empty. It will stay in until the day after surgery or in the operating room.
- Nausea and vomiting.
  - We will give you medicine to help this.
  - You will be able to eat and drink your usual diet when the doctor says it is okay.
While you are in the hospital, you and your health care team will work on:

**Preventing blood clots**
- You will be wearing foot or calf pumps after surgery. These help keep the blood moving through your legs.
- You will be taught ankle exercises. Do these several times each hour when you are awake. This helps keep the blood moving in your legs.
- You will get medicine to thin your blood after your surgery. Your doctor will talk with you about which medicine is best for you.

**Pain management**
Good pain control is very important. It is one of the best ways to help you get up and moving after surgery. We 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. Pain medications are prescribed by the surgeon.

Please allow five days for your prescription to be refilled. This allows us to mail the paper copy of the refill to your pharmacy.

**Please let us know what medicines you are using or have used before your surgery to help your pain, such as:**
- Herbal medicines
- Recreational drugs (marijuana)
- Over-the-counter medicines
- Prescription medicines

We will give you pain medicine after your surgery. Ask your nurse for pain medicine if you need it. If your pain medicine is not working, tell us. We will work with you to control your pain. We also will give you pain medicine to take home.

**Deep breathing exercises**
The nurses will teach you how to do deep breathing exercises. We will give you an incentive spirometer (a plastic breathing device) to use for breathing exercises. These exercises help move secretions from your lungs to prevent pneumonia. You should do at least 1 set of 10 exercises each hour when you are awake.
Activity
Some people feel discomfort in their back after surgery. This is caused by the general soreness of the knee and partly by not moving very well before, during, and after surgery. It is very important to gradually do more walking each day.

Therapy and rehabilitation program
After surgery you will work with a physical therapist. The goals are to become independent in:
- Walking
- Going up and down stairs
- Getting in and out of bed
- Doing exercises to improve the range of motion and strength of your knee

You will complete your physical therapy outside the home at a physical therapy facility, in addition to daily exercises and walking at home.

Insurance companies have strict guidelines about which patients can have home health services. If you qualify, we will help with arrangements. If you do not qualify, you may need a ride to physical therapy 2 to 3 times each week.

Physical Therapy is not optional.

What if I need extended care after I leave the hospital?
Your surgeon would prefer you make arrangements for family or friends to help you recover at home rather than going to a nursing home for skilled care. You may need 24-hour care after your hospital stay. Talk to your friends and family ahead of time and make a plan. If you have no other options for care, our social worker will help you find care at a skilled facility if it is covered by your insurance.
Leaving the Hospital

When you go home from the hospital, you will need to be able to walk with crutches or a walker, climb a few stairs, and get in and out of bed and chairs. You will need someone to help you 24 hours a day for the first several days after surgery.

**Medicine**

- Please make sure to take your medicine the way your doctor told you.
- You will be sent home on medicine to prevent blood clots.
  - You will be given special instructions for medicine the doctor wants you to take.
    - If you need blood drawn, you will be given the paperwork. Take it to a lab of your choice.
    - If you need to have blood drawn in your home:
      - You must agree to stay at home for the entire time you are getting the service.
      - We will help arrange this if you qualify.
      - You may have these services arranged and pay for them.
- You will be sent home on medicine to control pain.
- Plan to take your pain medicine 30 minutes before exercising.
  - Preventing pain is easier than trying to catch up with your pain. If pain control is a problem, please call your doctor.

**Sitting and resting**

- For the first 1 to 2 weeks, do not sit for more than 1 hour at a time.
- Always sit in a chair with arms. The arms of the chair give you a place to push up from to stand.
- Do not sit in low chairs and overstuffed furniture.
- Rest with your leg above the level of your heart. Lie flat with a pillow under your head. Do this at least 3 times each day for 30 minutes each time.
- Put ice on your knee 2 times each day for 20 minutes each time. Do this for 2 weeks.
  - Put the ice bag near your incision but not on top of your incision.
  - Put a thin towel between the ice bag and your skin to protect your skin.
- Be sure to follow the knee precautions your therapist taught you in the hospital.
Activity

- If you were able to walk before surgery, it will be safe for you to do the following when you get home:
  - Walk with crutches or a walker each hour you are awake.
  - Climb some steps.
  - Get in and out of bed or chair with little or no help.

- Slowly increase the time and distance you walk.
  - By 6 weeks after surgery, you should be walking 1 mile each day.
  - Walking helps strengthen your muscles.
  - Walking does not replace the exercise program you are taught in the hospital.

- The success of your surgery depends on:
  - How well you do the exercises
  - How well you can strengthen your muscles.
  - How well you increase your activity with walking

- If you have a lot of muscle aching, or sudden onset of pain, cut back on your exercises but do not stop.

Preventing an infection

- Please call your surgeon’s office right away if you are worried you may have an infection around your knee.
- Please call your local doctor or dentist if you get any other infections, such as strep throat, pneumonia, or a tooth infection. Antibiotics should be given as quickly as possible. This helps prevent the infection from getting into your knee replacement. This is important for years after your surgery.
- Tell all of your doctors and dentists you have had a knee replacement.
- You will be given a medical alert card. Carry this in your billfold or wallet. Show it to each doctor or dentist that takes care of you.
- Please contact your physician for antibiotic treatment prior to any of the following procedures:
  - Any dental procedures
  - Colonoscopy
  - Any infection
  - Tonsillectomy
  - Bronchoscopy
  - Liver Biopsy
  - Genitourinary Instrumentation
  - Prostate and Bladder surgery
  - Kidney Surgery
  - Vaginal Exams and GYN Surgery
  - Barium Enema

Please call your local doctor or dentist if you get any other infections, such as strep throat, pneumonia, or a tooth infection. Antibiotics should be given as quickly as possible. This helps prevent the infection from getting into your knee replacement. This is important for years after your surgery.
**Expectations**
- Get up to walk each hour during the day. Walk for a longer time and distance each time.
- Do not sit in the car for more than 45 minutes at a time without getting out and walking around.
- Follow your total knee exercise program.

**Driving**
- Do not drive for at least 2 to 3 weeks or until your doctor tells you that you can.
  - Do not drive for 2 to 3 weeks if you had your left knee replaced.
  - Do not drive for 3 to 4 weeks if you had your right knee replaced.
- Make sure your doctor knows if you plan to drive a car with a clutch (stick shift)

**Going back to work**
- Most people can go back to work within 2 to 3 months.
- Please check with your doctor about this.

**When do I return to the clinic?**
- Your first return appointment will be 3 to 6 weeks after your surgery.
  - You will be examined and have X-rays.
- Appointments after that are at 3 to 6 months, 1 year, and 2 years after surgery.
- Each surgeon has his or her own routine for follow-up visits.
Incision Care

- You will be given instructions on how to care for your wound.
- Keep the area clean and dry.
- Watch for signs of infection. Call your surgeon right away if you notice any of these signs:
  - Drainage from the incision
  - Redness around the incision
  - More pain or swelling than normal that does not get better with rest or elevation
  - Fever (101.3°F or 38.5°C)
- After joint replacement surgery, you can expect to see bruising. As you get up on your feet immediately following surgery, you may experience swelling in your joint. The swelling should decrease after spending some time with your lower extremities higher than your heart. If the swelling does not go down overnight with your lower extremity elevated higher than your heart, call your doctor’s office.

Wound Care

Dermabond mesh tape is over your incision and this is covered with a large rectangle dressing called Mepilex. Ten days from your surgery, remove the rectangular dressing. After you remove the rectangular dressing, you will see the small mesh tape dressing directly over your incision. You should apply Vaseline to the mesh tape dressing to loosen the glue and allow it to remain in place over night. Cover lightly with a square of plastic wrap. You will actually remove the mesh tape dressing the next morning by taking the corner of the dressing and peeling it straight down the incision. Clip the stitch ends on both sides of your incision, if you have them after the mesh tape comes off. (If the large rectangle dressing (Mepilex) comes off it is still OK to shower.) If you have any concerns about removing the dressing, please call the Orthopedic Clinic at 319-356-3844.
How to Remove Dressing

Dermabond mesh tape (glue) is over your incision and is covered with a large rectangle dressing. After you remove the rectangular dressing, you will see the small mesh tape dressing directly over your incision. You should apply Vaseline to the mesh tape dressing to loosen the glue. You will remove the mesh tape dressing the next morning by taking the corner of the dressing and peeling it straight down the incision. Clip the stitch ends from both sides of your incision after the mesh tape dressing is removed. If you have any concerns about removing the dressing, please call your doctor’s office.

- Keep incision clean and dry. Do not put any creams, lotions, or ointments on the incision.
- You may shower when instructed by your doctor. In general, you may shower once you go home.
- Monitor your incision daily. Call us if you have any drainage, increased pain, swelling, warmth, or redness.
- Your incision will be covered with a beige colored dressing. You may remove it 10 days after surgery.
- Do not soak in a bathtub or pool until after your 6-week clinic visit.
- If the dressing comes off early, you can still shower by letting the shower water run over your incision. Do not scrub the area.

If you have stitches, the ends of them should be clipped 10 to 14 days after surgery. You can do this with a clean nail clipper or manicure scissors. Do not pull on the stitch ends.
Rehabilitation

Your rehabilitation usually starts the day after surgery. It may start the day of surgery. You will have 1 or 2 sessions each day. You will:

- Walk
- Do some exercises
- Go up stairs

Be able to put as much weight as you can tolerate on your surgical leg (if you do not have restrictions)

You will need to meet the goals below in order to safely leave the hospital.

**Beginning therapy session goals**

**Transfers:** Getting in/out of bed and to/from standing, with help

**Walking:** 50 feet with a wheeled walker

**Exercises:** Quad sets, glute sets, heel slides, short arc quads, straight leg raises

- 10 reps each with help from physical therapist, 1 time per day
- 10 reps each without help, 1 to 2 times per day

**Range:** Initial measurements

**Sitting:** 2 times each day (for noon/evening meals) for 1 hour each time with nursing

- Do seated long arc quads and heel slides with a pillow case.
- Use the incentive spirometer.
- Use a commode or walk to the bathroom with nursing help.
- Walk 1 time with nursing in the evening.
- Practice putting on immobilizer and taking it off (if needed).

**Final therapy session goals**

**Transfers:** Getting in/out of bed and to/from standing, with less help while following total knee precautions.

**Walking:** 75 to 100 feet with a walker or crutches

**Stairs:** Walk up and down the number of stairs you have at home using a walker or crutches and set-up at home with help

**Exercises:** Quad sets, glute sets, heel slides, short arc quads, straight leg raises

- 10 reps each with help from physical therapist, 1 time per day
- 10 reps each without help, 2 times per day

**Range:** Increase -15 to 70 degrees

**Sitting:** 3 times each day (for noon/evening meals) for 1 hour each time (up for all meals)

- Do seated long arc quads and heel slides with a pillow case.
- Use the incentive spirometer.
- Walk 1 to 2 times with nursing in the evening.
- Walk to the bathroom with the help of nursing.

If you cannot meet these goals after 2 days, you will likely be a candidate for extended therapy/care in a skilled nursing facility (SNF) or rehabilitation facility.
Home Recovery

Below is information to help you with your total knee replacement program. If you have any questions about your physical therapy program, call your physical therapist at 319-356-2663. If no one is available to help you when you call, leave your name and phone number and someone will call you back at the first opportunity.

How quickly you get back to your normal activities after a total knee replacement depends on how well you follow your program:

- Range of motion exercises
- Muscle strengthening exercises
- Progressive walking with assistive device

**General guidelines**

**Exercises**

- Start slowly. Do exercises in a slow and controlled manner. Doing exercises too quickly can lead to problems such as pain, swelling, higher skin temperature, and more tenderness. If you have any of these symptoms, do the exercises at a lesser intensity. If you keep having problems, stop the exercises and call your doctor or physical therapist.
- Do your exercises in a progressive manner. Three variables that are related to this are:
  1. Intensity, or how hard
  2. Frequency, or how often
  3. Duration, or how long
- The more you work at exercising, the better your results will be. Do your exercises as you were taught by your physical therapist while in the hospital (10 repetitions 3 times per day and progress to 15 repetitions 3 times per day by adding one repetition of each exercise per day).
- Sandbags, old purses, or canned goods may be used to increase the difficulty of the exercise by adding weight to your leg at the ankle.
Walking

- Walk each hour you are awake using a walker or crutches. Slowly walk farther each time. You will progress to a cane after several weeks. Talk with your surgeon about when you can start using a cane.

Ice and heat

Ice: Use ice if your knee is hot, swollen, or painful. It may help to lessen your pain and swelling. Put it on any area of your knee except directly on the incision.

- Keep ice 2 to 3 inches from your incision.
- Use a gel pack or bag of crushed ice or frozen vegetables for 15 to 20 minutes until your knee becomes numb.
- Put ice in a pillowcase or use a thin towel/cloth between the ice and your skin. Do not put ice directly on your skin.
- Check your skin while you are using the ice. Your skin should be a similar shade of pink and red, but not mottled (blotches of different shades of red and white). Remove the ice right away if your skin looks mottled.
- Let your skin go back to normal sensation and temperature (usually 2 to 3 hours) before you use ice again.
- After surgery, sensation in the area may be decreased, so be sure to use extra care when using ice.

Heat: Use heat after 2 to 3 weeks when your knee is not warm and swollen. It helps you with gaining range of motion. Use a heating pad for 15 to 20 minutes before you exercise unless your doctor or physical therapist tells you not to. Remember, sensation in the area may be impaired after surgery. So, check your skin to be sure it is pink but not mottled. If it is mottled, remove the heat right away. Use extra care not to burn yourself.

Elevating the leg

Elevate your leg above the level of the heart using 3 to 4 pillows with 3 to 4 blankets underneath for 30 minutes, 1 to 4 times each day, depending on how much swelling you have. If the swelling does not get better by morning, after being off of your feet, or after several hours of elevation, call your doctor right away. This could be a sign of a blood clot.
Walking with a Walker

1. Push or lift the walker forward at a comfortable distance in front of you (about arm's length away). Make sure all 4 legs are on the floor.
2. Move your surgical leg (or sore leg) forward first until your foot is between the back legs of the walker.
3. Push against the handles and straighten your elbows to support yourself while shifting your weight forward.
4. Step with your good leg, bringing it in front of the surgical leg.
5. Repeat steps 1-4.

Walking with Crutches

1. Place both crutches forward at the same time (about 12 inches in front of you and about 6 inches off to the side).
2. Move your surgical leg (or sore leg) forward first until your foot is between the tips of the crutches.
3. Push against the handles and straighten your elbows to support yourself while shifting your weight forward.
4. Step with your good leg, bringing it in front of the surgical leg.
5. Repeat steps 1-4.
Knee Precautions

1. Do not hyperextend your knee.
2. Do not excessively bend your knee (more than 110 degrees)
3. Do not position a pillow under your knee for extended periods of time. Put the pillow under your calf/ankle.
Occupational Therapy

After your total knee surgery, you will have precautions on how you move. These precautions affect your ability to do some activities. Your occupational therapist will teach you special techniques and how to use adaptive equipment to do your daily activities, such as dressing, bathing, toileting, and homemaking safely and without help while observing your precautions.

While you are in the hospital your occupational therapist will teach you:
- Lower body dressing
- Bed transfers
- Sitting and standing
- Toilet transfers
- Toilet hygiene
- Tub bench and shower transfers
- Car transfers
- Home safety education

Equipment that will be demonstrated and may be recommended for home:
- Adaptive equipment (reacher, sock aid, shoehorn, dressing stick, elastic shoe laces)
- Tub bench and shower chair
- Bedside commode
- Leg lifter
- Walker
- Boomerang (toileting aid)

Get the best results by:
- Practicing bathing, dressing, and transferring using the adaptive equipment before your surgery
- Taking part in your care while you are in the hospital, such as doing your own sponge bath and dressing yourself

It is important to understand these instructions. Please ask your therapist if you have any questions.
Adaptive Equipment: Getting Dressed

Collect all your clothing and equipment. Place it next to where you will be dressing. Sit in a straight back chair.

**Sock aid**
1. Place sock in sock aid.
2. Pull sock to the top. Do not pull it over the opening.
3. Using the long handles, throw the sock aid out in front of your foot.
4. Place your foot in the opening. Point your toes down to the floor.
5. Pull rope handles up until the sock is all the way on your foot.
6. To take off your socks, Use the reacher/dressing stick to push socks down your ankle and off your foot. Place equipment in the inner ankle so your toes are pointed outward.

**Reacher/dressing stick**
1. With the reacher, pull the garment up until you can reach the waistband with your hand.
2. Dress the non-surgical leg in the same way, if you cannot reach.
3. Stand with the walker and pull garments over your hips and around waist.
4. To undress: Use the reacher to push the clothes down your legs and over your feet. Undress the non-surgical leg first, followed by the surgical leg.
**Long-handled shoehorn**

Use this to put shoes on.
1. Place shoehorn in back of shoe, and put toes into shoe facing out.
2. Push foot straight down into the shoe.
3. To remove shoes: Use shoehorn to push off.

**Elastic shoe laces**

- Take out the standard laces. Thread elastic laces through the shoe and tie them 1 time. This will make a slip on shoe.
Life After Joint Replacement Surgery

Three to six months after your surgery, you will probably be able to do most of the activities you participated in before your joint replacement. There are some activities your doctor may want you to avoid. This is a general list. Please check with your doctor before you start any of these activities.

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<tr>
<th><strong>Recommended</strong></th>
<th><strong>Not recommended</strong></th>
<th><strong>Do not do</strong></th>
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<td>Biking</td>
<td>Basketball</td>
<td>Contact sports</td>
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<td>Bowling</td>
<td>Racquetball</td>
<td>High-impact aerobics</td>
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<td>Dancing</td>
<td>Skiing</td>
<td>Jogging</td>
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<td>Elliptical</td>
<td>Weight lifting with weights more than 50 pounds (lbs).</td>
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Medication Reminders Before Surgery

Notes
Orthopedics and Rehabilitation
200 Hawkins Drive
Iowa City, Iowa 52242

319-356-2223 Tel
319-353-6754 Fax
uihc.org/orthopedics

After hours contact: 319-356-1616
Ask for the orthopedic resident on call.