



PATIENT EDUCATION MANUAL

Total Knee Replacement

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What is a Total Knee Replacement (TKR) surgery?

Total knee replacement surgery is done to replace parts of the knee and relieve pain.

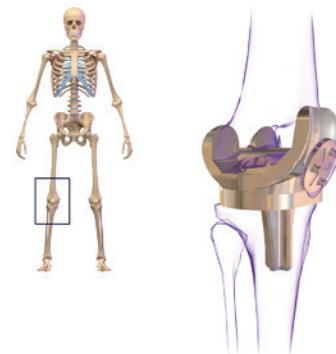
- Damaged parts of your knee will be replaced with artificial parts.
- The artificial parts are usually made of metals, ceramics, or plastics. The parts are either cemented or press fit into the bone.
- One part of the replacement fits over the end of the upper leg bone (femur) and the other fits over the top of your lower leg bone (tibia).
- The underside of the knee cap (patella) may or may not be replaced. The incision is closed with stitches, staples, and/or glue. Pain should lessen and function improves over time.



Normal Knee. Public domain



Osteoarthritic Knee. James Heilman, MD, Osteoarthritis on X-ray, CC BY-SA 4.0



Total Knee Replacement. BruceBlaus
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Before Surgery

What medical appointments and tests do I need before surgery?

You may need medical appointments and tests to get ready for surgery.

- History and physical from your primary doctor.
- Blood work, Urinalysis, EKG, Chest x-ray.
- Appointment with a specialist if you have health problems such as heart or lung disease, or diabetes.
- Discussion about substance abuse with your doctor.
 - What do I need to do if I smoke?
 - Smoking can cause breathing problems. It can also slow healing and increase the chance of infection. Stop smoking. Contact your primary care doctor to talk about ways to stop.
 - What do I need to do if I drink alcohol and use drugs?
 - Be honest about alcohol and drug use including pain medicines. Discuss this with your surgeon. This will help plan for the care you need after surgery.

What should I do to get my home ready?

Getting your home ready before surgery is important. It will help you keep safe and make coming home easier. Here are some things you can do to get your home ready:

- Clean your house and vacuum carpets, rugs, and the floor. A clean house reduces bacteria and chance of infection.
- Remove anything you might trip over (cords, rugs, shoes) from all walkways.
- Move furniture and other things to make a clear walkway.

- Place a rubber mat or non-skid adhesive on the floor of the tub or shower.
- Check handrails to make sure they are sturdy.
- Make sure you have chairs with arms and a firm seat.
- Install night-lights to help you see.
- Keep things within easy reach.
- Make meals that can be frozen and reheated.
- Plan to have household chores done.
- Plan for pet care, if needed.
- Make arrangements for a walker and cane to use after surgery.

What activity can I do before my surgery?

The most important thing to do is to keep active by doing:

- Usual activities.
- Exercises as instructed by your doctor.

How should I take my medicines before surgery?

Give the health care team a list of your medicines (prescription and over the counter). Also tell them about your allergies and bad reactions to medicines.

Before your surgery, your doctor will review your medicines.

- The doctor may tell you to stop taking some medicines before surgery.
- The doctor may tell you to take some medicines with a sip of water the morning of surgery.
- Have enough of your daily medicines so you do not run out while recovering from surgery.
- Do not bring any medicines to the hospital (unless instructed to).

Bathing before surgery

You may be asked to shower with a skin cleanser called Hibiclens or CHG (chlorhexidine gluconate).

- This skin cleaner can prevent infections.
- It should be used from the neck down.
- Do not get in your eyes, ears or private parts.
- You may be asked to shower with it the night before as well as the morning of surgery.

How to prevent infection before surgery

To prevent an infection, you need to do a few things before surgery.

- Shower with a special soap as told by your doctor or the hospital.
- Change your bed sheets right before you come in for surgery.

When to call the doctor before surgery

Before surgery, call the surgeon if

- You have any problems with getting your doctor appointments and tests done for surgery.
- Have a problem with any of the things you need to do before surgery (showering, medicine).
- You are sick. For example, fever, flu symptoms, sore throat.

Day of Surgery and Hospital Stay

What must I do on the day of surgery?

At home

There are several things you need to do at home before you come in for surgery.

- Stop eating, drinking, and chewing gum before surgery as instructed.
- Take only the medicines your doctor instructed you to take with a small sip of water.
- Shower as instructed – do not use deodorant, powders, perfume, lotion or makeup.
- Remove all jewelry, including body piercings.
- Remove nail polish.
- Wear comfortable clothing that is easy to put on and take off.
- Bring the items below to the hospital.
 - Driver's license or other identification (ID).
 - Insurance card.
 - Copy of Living Will and/or Advance Directive, if you have one.
 - List of all medicines you take, including vitamins and other over-the-counter. Leave medicines at home unless told to bring them.
- If you plan on spending the night in the hospital, also bring:
 - Toothbrush, toothpaste, deodorant.
 - Glasses and case with your name.
 - Hearing aids and case with your name.
 - Dentures.
 - CPAP machine, if you use one.
 - Loose-fitting clothing.
 - Comfortable shoes that have a back (no slip-ons or heels).

- Arrive at the hospital on time. Remember to allow for traffic.

At the hospital or surgi-center

There are several things you will do when you arrive for surgery at the hospital or surgi-center.

- Check-in.
- Go to the pre-operative area.
 - The nurse will go over information to make sure records are up-to-date. This includes your name, date of birth, surgery you will be having, and your medical history and allergies.
 - You will change into a hospital gown.
 - An IV (intravenous) line will be placed.
 - Your surgeon and anesthesiologist may meet with you and answer any questions.
 - Your consent for surgery will be reviewed.
- After surgery, you will move to the recovery room.
- You may go home or be admitted to the hospital after you recover.

In your hospital room

If staying at the hospital, you will be taken to your room.

- You may have
 - An IV to give you fluids.
 - A tube going into your bladder to drain the urine.
 - A drain that helps remove blood from your surgery site.
 - Special pump on your feet or legs to help prevent blood clots.
- The staff will take your blood pressure, pulse, and temperature often. They will also give you medicine to ease the pain.
- You need to do breathing exercises to keep your lungs clear.

- You will be helped out of bed by the staff.
 - You will walk with the nurse or the therapist.
 - Do not try to walk on your own.
 - Please let someone know when you need help getting out of the bed.

What activity can I do in the hospital?

After surgery, you will slowly increase what you do each day. It is also important to plan time to rest. This will help you recover.

- In the hospital, most people get out of bed on the day of surgery. A nurse or therapist will help you.
- Moving around early helps you recover.
- Physical and/or occupational therapists will teach you exercises. These will make you stronger and help you walk safely.
- You will be given exercises based on your surgery and health.
- Bend and straighten your leg.
- Do not kneel on the operated knee.
- Do not twist the operated knee.

What can I do to prevent getting a blood clot?

- Take medicine to prevent blood clots.
- Walk around.
- Wear compression pumps on your legs or feet during hospital stay.
- Wear elastic hose if ordered by your doctor, in the hospital and at home.

After Surgery

When to call the doctor after surgery

When to call 911

- Hard to breathe.
- Coughing up blood.
- Chest pain.
- Increased anxiety when trying to take a breath.
- Fall to the ground.

When to call the surgeon's office

- Redness, heat or drainage from your incision.
- Incision opens.
- Pain even with taking pain medicine.
- Fever or chills – your surgeon will tell you when to call.
- New rash anywhere on your body - rash can occur with medicine, bandage or tape.

When to call your primary care office

- Illness not part of your surgery.
- Sore throat, high blood pressure, and sinus pain.

How should I take my medicines after surgery?

Your doctor will prescribe medicines to ease the pain.

- Take these medicines as instructed.
- Tell the doctor about your pain level.

Your doctor may prescribe medicines to help prevent blood clots.

- Take these medicines as instructed.
- You may bleed or bruise easily while you take these medicines.
- Contact your doctor if you notice too much bruising or you cannot stop bleeding.

Tell your doctor or nurse right away if you think you are having an allergic reaction to a medicine.

- Signs of an allergic reaction are itching, rash, hives, breathing, face or throat swelling.
- Other problems (nausea, vomiting, diarrhea, dizzy) can be side effects or adverse reactions to medicines. Call your doctor if these signs do not stop.

Pain Management

What can I do to lessen the pain?

There are many ways to lessen pain. Below is a list of options. Work with the health care team to find the best ways.

- Ice
 - Ice is a good way to lessen pain.
 - Ice should be used right after surgery around the incision.
 - Ice should never be placed directly on bare skin. Keep ice packs wrapped in a towel or placed over clothing.
 - Ice should be continued as long as you have pain from surgery.
 - Ice for 20 minutes at a time. Ice should be off at least 20 minutes.
- Raising swollen area
 - Use a few pillows to prop up your leg. Your leg should be straight, do not put a pillow under the knee to let the knee bend.
- Stay active
 - Get up and move around as instructed.
 - Change positions to help reduce pain.

○ Relaxation

- Rest - Make sure you are getting enough, good quality sleep.
- Breathing exercises - Slow, deep breathing can reduce stress and pain.
- Guided imagery - A method to guide your mind and help you relax.
- Meditation - This can help focus your mind and let you relax.
- Music - Find music that is calming or enjoyable to you. This can also help with relaxation.

○ Pills

- Narcotic pain medicine (opioids).
 - Use right after surgery.
 - Stop using as soon as possible after surgery.
- Non-steroidal anti-inflammatory drugs (NSAIDs)
 - The most common are ibuprofen (Advil®) and naproxen (Aleve®).
 - Talk with your doctor if you have a history of kidney problems, bleeding problems, or NSAID allergy.
 - A safe dose of ibuprofen is 600-800 mg (3-4 tablets), three times daily (morning, afternoon, evening).
 - A safe dose of naproxen is 440 mg (2 tablets) two times daily (morning and evening).
 - Choose either ibuprofen or naproxen. Don't take both at the same time.
 - NSAIDs can be taken with narcotics. NSAIDs can help decrease use of narcotics (opioids).

- Acetaminophen (Tylenol®) controls pain differently from narcotics and NSAIDs.
 - Talk with your doctor about taking acetaminophen if you have a history of liver problems, or acetaminophen allergy.
 - Acetaminophen can be taken with narcotics and NSAIDs. It can help decrease narcotic used (opioids).
 - You can take up to 3,000 mg of acetaminophen each day.
 - Some opioids contain acetaminophen (Percocet®, Norco®, etc.). Be sure to count any acetaminophen in your narcotics toward your daily 3,000 mg dose limit.

Constipation Management

Constipation can be uncomfortable and may prevent eating a healthy diet. Constipation can be caused by:

- Not drinking enough fluids.
- Use of opioids.
- Decreased activity or mobility.

To help prevent constipation, you should use a combination of things.

- Drink plenty of fluids, up to 8 glasses of water per day.
 - Soda, coffee, and alcohol do not count toward your daily water intake.
- Decrease the use of opioid pain medicine.
- Stay active. Get up and move as you are able.
- Eat prunes or drink prune juice. These are natural laxatives. Try this before using medicines.

If you are still constipated, a stool softener or laxative may help. There are many types of these medicines.

- Some are medicines like bisacodyl (Dulcolax®), senna (Senakot®), or docusate sodium (Colace®).
- Some contain extra fiber like Metamucil®.
- Take these medicines as directed.

If these ideas have not helped, contact your doctor. If you reach a point that you stop passing gas, this may be a medical emergency.

Diet

A healthy diet helps your body heal. What should you eat?

- You should eat a variety of foods like protein and vegetables.
- Drinking water and eating fiber helps prevent constipation. Eat high fiber foods like fresh fruits, vegetables, and whole grain breads and cereals.
- Some people don't feel like eating after surgery. Although not hungry, try to eat healthy foods or drink nutritional shakes. Call your doctor if your appetite does not get better.

Bathing after surgery

- Do not shower alone. Have someone close by until you feel safe.
- Use grab bars for balance.
- Use non-slip bathmat on bathroom floor and in shower/tub.
- Sit on a shower seat/chair.
- Use hand held shower to wash areas more closely.
- Use a long-handled scrub brush to wash hard to reach areas.
- Use liquid soap.

What can I do to prevent infection after surgery?

To prevent infection, you need to do a few things after surgery.

- Sleep in clean pajamas and wear clean clothes at home. This makes sure fabric that is close to your incision is clean.
- Keep pets off of your bed or chairs and away from your incision.
 - Pets can carry germs.
 - Pets like to lick wounds so keep your incision covered when around them.

Care of incision

- Change/remove dressing as told.
- You or a family member should look at your incision daily to make sure it looks healthy.
- Shower when your health care team says it is OK.
- Do not soak in a bathtub, go swimming, or sit in a hot tub until your health care team says it is OK.

What activity can I do after my surgery?

At home activities

At home, increase your activity over time (walking, exercises, chores).

- Do more activity each day.
 - Increase walking.
 - Do your exercises.
 - Slowly start doing chores.
- Rest during the day.
 - Plan rest periods into your day.
 - Ask for help with chores around the house (laundry, cleaning, errands, cooking and pet care).
- You may have things that you cannot do after surgery.

- Discuss when you can return to work.
 - Most people return to work in 4 to 6 weeks. Time off from work depends on your job.
 - Talk with your doctor about work.

Mobility with Medical Equipment/ Assisted Devices

You may need equipment to help you with everyday activities.

- You may need equipment to help you move around, bathe, dress, and reach things.
- Your therapist will recommend what equipment you need.
- Here are some examples of common equipment used: walker, crutches, cane, shower seat, shower chair, or grabber.
- You can purchase, rent or even borrow most equipment. Before surgery, you can call your insurance company for equipment coverage. Some may not be covered by insurance.



Walker with Tray. Reproduced with permission from OrthoNebraska



Shower Chair. Reproduced with permission from OrthoNebraska



Reacher, or Grabber. Reproduced with permission from OrthoNebraska

Help at Home after Surgery

After surgery, you need helpers at home.

- You may need help with many things like bathing, dressing and moving around safely.
- You may also need help with chores and errands.
- Tell us who your helper(s) will be and how long they will be with you.

Helper(s): _____

Length of Time: _____

Appointments and Transportation

You need to see your surgeon after you go home.

- Make an appointment as instructed.
- Arrange for transportation to the appointment.

Stress and Coping after Surgery

Surgery can cause stress for you and your family. Have a plan for help and how to cope with stress.

Remember to ask for help.

- Asking for help is temporary! As you get stronger you will be able to do more for yourself and others.
- Family and friends are often willing to help. Talk to them about what they can do.

Do things to help you relax.

- Prayer.
- Meditation.
- Activities in your community (senior center, church, or worship).
- Deep breathing.
- Do things you enjoy.
- Make sure you get enough sleep. Many people will take a nap during the day.

Make a list of what you have done every week.

- How much you walked.
- Exercises done.
- Fun things you did.
- Chores done.

Breathing Exercises

Quiet time can help you relax. Breathing slowly a few times a day can make you focus better and increase energy.

- Sit in a comfortable chair or lay down in your bed.
- Put your hand on your belly just above your belly button.
- Notice your belly going up and down.
- When you breathe in, it will feel like a balloon filling up.
- When you breathe out, it is like all the air coming out of the balloon.
- Relax your shoulders.
- Deep a breath in, count to 3 and try to think RELAX.
- Let your breath out, count to 3 and try to think RELAX.

Intimacy after Surgery

- Ask your doctor when it is safe for you to have sex.
- Ask what precautions you should follow.
- You may need to try new positions. Some positions are more comfortable and safer.



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