

Total Knee Replacement: Your Guide to Preparation and Recovery

 **PRESBYTERIAN**



Table of Contents

Preparing For Your Surgery.	1
Medication Instructions Before Surgery.	1
Home Instructions the Day Before Surgery	1
Home Safety Preparation.	2
Considering Bathroom Equipment	4
Identify Your Recovery Chair	4
Discharge Planning	5
What to Bring to the Hospital on the Day of Surgery	5
What To Expect After Surgery	6
Preventing Complications	7
Your Key To Success	8
Total Knee Replacement Exercises	11

Total Knee Replacement: Your Guide to Preparation and Recovery

Thank you for choosing Presbyterian for your joint replacement. You are the most important part of your surgical team and your recovery depends on you. It is our goal to give you instructions that will help you have the best possible outcome.

Preparing For Your Surgery

About two weeks before your surgery, you will meet with your surgeon, and you will have a Pre-Anesthesia Surgical Screening (PASS) appointment at the hospital where you will have your surgery.

- Make sure you have all your pre-surgery clearances before your PASS appointment. If you have any questions about your pre-surgery clearances, ask your doctor.
- Make a list of all your medications, including prescriptions and over-the-counter medications, supplements and herbs. Be sure to list the dose, how often you take them, and what you take the medication for. Bring this to any appointments you have before your surgery.
- Make a list of your allergies to medications or foods and bring this to any appointments you have before your surgery.

Medication Instructions Before Surgery:

During your PASS appointment, you will be given specific instructions as to what medications to stop taking before surgery. Depending on what medications you take, you may be instructed to take a medication in the morning before your surgery. Take it early and with as little water as you can.

Home Instructions the Day Before Surgery:

Do not eat after midnight the night before surgery, including candy or mints (unless otherwise instructed by your surgeon). You may drink the following clear liquids up to 2 hours before surgery scheduled time:

- Water
- Black coffee or tea (**no** creamer, dairy or non-dairy)
- Gatorade
- Apple juice

Do NOT drink any broth.

Home Safety Preparation:

Preparing for your return home from the hospital before your surgery is important. You will need to rearrange some things in your home for safety and access. You will need some help at home after surgery. If you do not have help, ask a member of your healthcare team for a list of companies to hire help. Before your surgery, consider the following:

- If you have a multi-level home, try to make arrangements to remain on the first level for a time if you can.
- Make arrangements for pet care and to ensure they can be contained if needed so they don't get underfoot while walking with your walker.
- Make note of any uneven surfaces or trip hazards inside and outside of your home.
- Remove scatter rugs and secure extension cords out of the way.
- Make sure you have plenty of space to walk with a walker between furniture and in hallways in your home.
- Make sure you have shoes that are secure on your feet with non-skid soles.
- Move frequently used items to counters and shelves that are easy to reach. This includes kitchen items, food and pantry items, toiletries, and clothing.





- Use night lights between your bedroom and bathroom and near stairways.
- If your toilet is low, you may need a raised toilet seat. You may also need a toilet safety frame or grab bars around the toilet.
- Plan to sit down while you shower, using a shower chair or bench.
- Tubs and showers should have non-slip surfaces.
- Grab bars are recommended for the tub/shower/toilet and wherever you may need additional support.
- Make sure handrails are securely fastened wherever you may have to use these.

Considering Bathroom Equipment:

The bathroom is the most dangerous room in the house. Equipment you can get for your bathroom to make it safer includes: grab bars, a raised toilet seat, a shower chair or a transfer bench, and a shower extension hose.

Identify Your Recovery Chair:

You need to choose a recovery chair at home for after your surgery. You will need a comfortable chair to sit in. Find a chair that is firm and high and has arm rests. It needs to be firm enough you don't have to struggle to get out of it. It needs to be high enough so that when you sit in it, your hips are higher than your knees. It should have arm rests to help you safely and easily transition from sitting to standing. Avoid chairs that rock, roll or swivel. Avoid sitting in low soft couches. A recliner as your recovery chair is ok if it meets the above recommendations: firm, high and with arm rests. If you have difficulty getting in and out of a recliner now, you should consider a different recovery chair after surgery.



Discharge Planning:

Discharge planning begins before surgery. We have already talked about several things to consider. A home discharge is always the best. In special cases, discharge to a rehabilitation facility may be recommended. In some cases, home healthcare PT and OT may be recommended. But most patients will be discharged home with outpatient therapy. It is highly recommended that you pre-schedule your physical therapy visits before your surgery. The typical course of therapy after hip replacement is 2 times a week for 8-12 weeks. Participation in physical therapy after surgery helps to:

- Improve blood flow and prevent blood clots.
- Improve flexibility and restore normal range of motion.
- Improve muscle strength and activity tolerance.
- Improve gait and balance.

You will not be allowed to drive for up to 6 weeks after surgery. You will need to make arrangements for transportation from the hospital on the day of surgery, to follow up doctor's appointments and to physical therapy.

What to Bring to the Hospital on the Day of Surgery:

Your surgeon will give you any pre-admission instructions, your scheduled surgery time and when to check in. When you arrive at the hospital, you will go to the pre-op area. Nurses will get you ready for surgery. You will not be able to keep any personal items with you, so it is best to send those with a family member or caregiver. During your time in the operating room and recovery areas, you will not be able to have visitors. You will need to bring to the hospital:

- Picture ID and insurance information.
- Glasses, dentures and hearing aids with their cases.
- Comfortable, loose-fitting cloths that will be easy to get on after surgery.
- Shoes with non-slip soles that will stay securely on your feet.
- If you will stay overnight and you use a CPAP machine, bring it.
- Cell phone with long charger cord.

What to Expect After Surgery:

- **IV** – An IV (intravenous line) will be started to give you medication and fluid. It will be removed before you leave the hospital.
- **O2** – You will be given oxygen by nasal cannula during and after surgery.
- **Incentive Spirometer** – This device is used after surgery to help you breathe more deeply and increase the oxygen in your blood. You will use it 5-10 times every hour that you are awake while you are in the hospital.
- **Sequential Compression Devices** – This device will be attached to your legs after surgery to increase blood flow and help to prevent blood clots.
- **Compression Stockings** – These prevent swelling and blood clots in the legs after surgery. Typically, these are worn for 4 weeks after surgery.

Pain Management

Pain management is important for your comfort and mobility. We want you to have good pain control. With a total joint replacement, good pain control does not mean that you will have no pain. So, what is good pain control? We use a 0-10 pain scale, with 0 being no pain and 10 being the worst pain possible. This is our best way to make something that is very personal measurable. A good pain goal on the 0-10 pain scale is a 5 (moderate) or less. Other ways you can tell if your pain is adequately managed:

- Being able to sleep without interruption.
- Being able to get up and walk.
- Being able to work with physical therapy.

A combination of medications is ordered by your surgeon and used to manage your pain. In addition to oral medications, a nerve block is administered during surgery to provide 12-24 hours of added pain relief which is important for early mobility.



Cold Therapy

The application of a cold pack to your knee after surgery will also help with pain management and swelling. Purchase a large re-usable gel cold pack for home. Cold therapy serves as a natural analgesic and anti-inflammatory. You can apply the cold pack to your knee for 20-25 minutes as often as every 2 hours. You should use a pillowcase as a barrier to protect your skin.

Nausea

You may have food and fluids once you are fully awake after surgery. We recommend that you start off easy. Anti-nausea medications can be given to you, if you need them. Taking your pain medication with food will help prevent nausea and vomiting.

Constipation

This is common after surgery and is caused by pain medications and decreased activity. You may need to take stool softeners and laxatives at home after surgery.

Preventing Complications:

Deep Breathing

Using an incentive spirometer helps you breath more deeply after surgery, keeping your lungs clear and helping to prevent pneumonia.

Diet

Drinking plenty of fluids and eating a healthy diet will give you more energy and help you heal faster.

Hygiene

Frequently washing your hands will help prevent infection. Others should wash their hands before touching you. Good oral hygiene like brushing your teeth and keeping your mouth moist can lower your risk of getting pneumonia after surgery.

Compression Stockings

Wearing compression hose or stockings after leg surgery helps to prevent blood clots. These can be challenging to get on and off but are important. Your therapists will instruct you in ways to make this easier to do.

Your Key to Success:

The key to recovery after a total knee replacement is to regain your full range of motion (ROM), that is full flexion and full extension of your knee joint. Your surgeon expects that you will be at or close to full ROM by 8 weeks after surgery. You will need to do your ROM exercises several times a day. There are many exercises you can do to work on your ROM. We will go over a few in this booklet. These are just to get your started until you get to outpatient PT where you will be instructed in other exercises to improve your ROM, strength, balance and gait.

Sleeping Positions

You are allowed to sleep in any position that is comfortable. If you sleep on your side, we suggest sleeping with a pillow between your knees (fig. 1). The one position you should avoid is lying on your back with pillows under your knees because this may prevent you from achieving full knee extension (fig. 2).



Bed Mobility

You will be able to get in and out of bed however you normally do. It does not matter which side of the bed you get in and out of.

Chair and Toilet Transfers

This is where having arm rests on the chair and around the toilet is really going to pay off. To sit, back up until you feel what you are going to sit on behind your legs. In the beginning, placing the operated leg out will prevent painful excess bending (flexion) of the knee until you regain enough flexion to sit on lower surfaces. Reach back for the arm rests or the grab bars and lower yourself down gently. To stand, place the operated leg out and push up using your arms and the non-operated leg.

Car Transfers

A helpful hint here is to have your helper get in the front passenger seat before you and recline the seat back. This will give you more room to bend the hips and knees to get your legs into the vehicle without having to bend the knee too much until you regain the ROM you need. If you have fabric seats, placing a large trash bag in the seat will make it easier for you to turn on your buttocks to get in and out.

Walking with an Assistive Device

It is recommended that an assistive device is used for walking after a total joint replacement. The safest device is a front wheeled walker (FWW). This device provides the best support while allowing for progressive return to a normal gait pattern. The size and height of the FWW does matter. When standing inside of the FWW with your arms hanging to your side, the hand grips on the FWW should be even with your wrists. They are adjustable but be aware they do come in two sizes. If you already have a FWW make sure you can adjust it to the correct height.

You will be weight bearing as tolerated immediately after surgery unless told otherwise by your surgeon. This is exactly what it sounds like, you can put as much weight on the operated leg as you can tolerate. The initial gait pattern taught is a step to gait and goes like this: Walker – Injured leg – Good leg, or WIG. As the leg/knee feels better you will put more weight through it and progress to a normal gait pattern. Most people transition from the FWW to a cane, then to no device. Everyone will be different, there is no set time for this. It is dictated by pain, strength, and balance. Your physical therapist will help you determine when to make these changes.

When going up and down a step you just need to remember, “Up with the good and down with the bad.” You will get as close as you can to the step, get your balance and place the FWW up on the step. You will then step up with the good leg first so it can pull your body weight up. Going down, you get as close as you safely can to the edge of the step, get your balance and place the FWW down. You will then step down with the bad leg first so the good leg can lower your body weight down. Going up and down stairs is the same sequence, but you will have to use a rail for support instead of the FWW.



Total Knee Replacement Exercises

In addition to walking several times a day, do these exercises as directed below.

Ankle Pumps

Pump your ankles up and down.

Repeat 10-20 times.

Do 2 times a day.



Quad Sets

Tighten the muscles at the front of your thighs and press the back of your knees into the surface.

Hold for 5 seconds.

Repeat 10-20 times.

Repeat 2 times a day.



Glute Sets

Squeeze your buttock muscles together.

Hold for 5 seconds.

Repeat 10-20 times.

Do 2 times a day.



Heel Slides

Slide your heel to your buttocks. Each time, try to bend your knee a little more.

Repeat 10-20 times.

Do 2 times a day.



Hip Abduction and Adduction

Keeping your knee straight and your toes up, slide your leg out and then back in.

Repeat 10-20 times.

Do 2 times a day.



Straight Leg Raise

Keep your knee straight and raise your leg slowly up and lower slowly down.

Repeat 10-20 times.

Do 2 times a day.



Short Arc Quad

Place a towel or blanket roll under your knee and extend your knee so that your heel lifts up from the surface.

Repeat 10-20 times

Do 2 times a day.



Seated Active Assisted Knee Flexion

Sitting at the edge of a chair, slide your heel back under the chair so that you bend your knee. Use the other foot if needed to help you go further.

Hold 20-30 seconds.

Repeat 5 times.

Do 4 times a day.



Passive Knee Extension with Heel Prop

Place a towel or blanket roll under your heel so that the back of your knee is not touching the surface. Relax and hold this position for 5 minutes.

Do 4 times a day.





www.phs.org/rehab