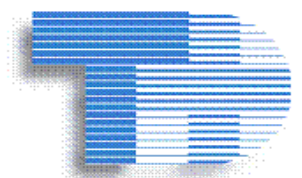


Total Knee *Replacement*

Timmins and District
Hospital

Please bring this book to all your appointments

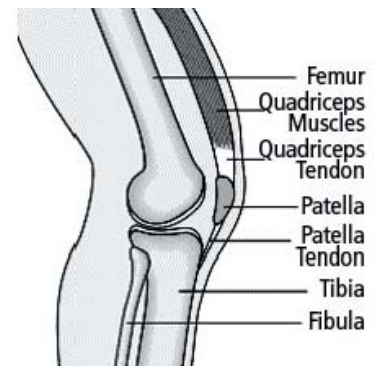


What is a Total Knee Replacement (TKR)?

- Strong ligaments and tissues, both inside and outside the joint, support the knee. The thigh bone (femur) has a rounded end that fits onto the shin bone (tibia). Both ends of these bones are covered in cartilage, which can be compared to a Teflon coating. The kneecap (patella), which is attached by thigh muscles, is in front.

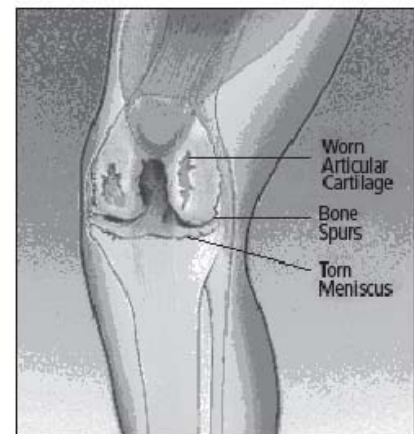
The three things that help the ***healthy knee*** work smoothly and without pain are:

- The smooth coating over the bones.
- The slippery fluid inside the joint called synovial fluid.
- The muscles, ligaments and tendons which support and move the knee.



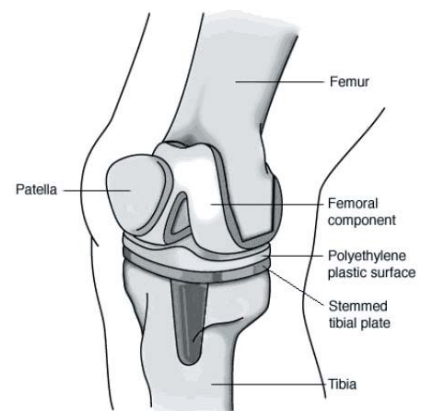
The three things that make the ***damaged knee*** painful and hard to move are:

- The smooth coating gets rough and worn away.
- The slippery synovial fluid begins to dry up.
- The muscles weaken and the knee gets stiff



The three parts of the new ***implanted artificial*** knee are:

- The part that fits over the end of the thigh bone.
- The part that fits into the end of the shin bone.
- A small button on the under surface of the kneecap.





Total Knee *Replacement*

Get in shape for surgery:

- The physical preparations you make can affect both the outcome of the surgery and your recovery time. Most of these suggestions are common sense, although some may surprise you.
- If you smoke, cut down or quit. Smoking changes blood flow patterns, delays healing and slows recovery.
- If you drink, don't have any alcohol for at least 48 hours before surgery.
- If you use any other types of controlled substances, tell your doctor. Narcotics and other drugs can have an impact on your surgery.
- Eat well. If you are overweight, your doctor may recommend a weight loss program.

Plan ahead for your homecoming:

- Your surgeon will determine how long you will be in hospital. Your stay will be approximately 4 days in hospital. The team will decide whether your rehabilitation therapy will be in your home or out patient setting.
- Your surgeon may order you a blood thinner on discharge to help prevent the formation of blood clots during the recovery period (note: there may be a cost involved with this so please check with your insurance company or physician to see if this will be covered).

You will be ready for discharge when:

- your wound looks like it is healing well
- you are able to get to the bathroom
- you are able to get around with a walker, cane or crutches
- you are able to manage stairs if you have them



Recovering from Joint Replacement:

- Recovering from joint replacement surgery takes time. But you can take steps now that will help make your recovery easier and faster. Planning ahead is the key to minimizing stress and optimizing your outcome.
- Arrange for someone to take you home.
- Create clear pathways for walking inside and outside.
- If you do the cooking, make double batches of everything for a week or two before your surgery. Freeze half, and you'll have two weeks of ready-made meals when you get home. Or stock up on ready-made foods that you enjoy.
- While you're in the kitchen (and in other rooms as well), place items you use regularly at arm level so you don't have to reach up or bend down.
- Arrange to have help with housework (i.e. vacuuming).
- If possible, borrow a walker or a pair of crutches and see how well you can maneuver through your home. You may need to rearrange furniture or temporarily change rooms (make the living room your bedroom, for example).
- If you are using a cane, crutches or walker, check the rubber tips and replace if worn.
- Use nightlights, especially between your bedroom and bathroom.
- Remove any throw or area rugs that could cause you to slip.
- Remove or tie up long telephone cords and/or electrical cords.
- Consider modifying your bathroom to include a shower chair or bench, grab bar, or raised toilet seat.
- Wear footwear with adequate support and non-slip soles.
- Set up a "recovery center" where you will spend most of your time. Things like the phone, television remote control, radio, facial tissues, wastebasket, pitcher and glass, reading materials and medications should all be within reach.
- If you do not already have a parking permit for accessible parking, you may want to apply for a temporary permit several weeks prior to your surgery. Contact the Ministry of Transportation (1-800 268-4686) or www.mto.gov.on.ca for an application.



List of Vendors of Rehabilitation Equipment

- Shop for the things that will make your life easier after surgery. Your list might include a long-handled shoehorn, a long-handled sponge, a reacher, a big-pocket shirt, apron or soft shoulder bag for carrying things around. Some of these things are available at:
 - **Medichair**
 - 219 Wilson Avenue
 - Timmins, Ontario
 - 705 264-2299
 - 888 449-2727
 - **Motion Specialties**
 - 77 Waterloo Road
 - Timmins, Ontario
 - 705 360-1941
 - **Shoppers Home Health Care**
 - 4-681 Algonquin Boulevard
 - Timmins, Ontario
 - 705 268-6893
 - 866 988-0838
- Equipment may also be available at your local pharmacies.
- If you are from out of town, please check your telephone directory for locations nearest you.



Day before your surgery:

- The 24 hours before your surgery will be busy. Use this checklist to make sure you don't forget anything.
- Take a shower or bath the night before your surgery. Give your affected leg extra scrubbing. This will help reduce the risk of infection.
- Do not shave the area of the surgery. If this is necessary, the doctor will take care of it.
- Do not wear any make-up, lipstick, nail polish or body piercing items.
- Do not eat or drink anything after midnight the night before surgery.
- Do bring a hospital bag. Some of the items you should include are:
 - Non-skid shoes big enough to allow for swelling
 - A knee-length robe or gown
 - Shorts or loose fitting jogging pants
 - Walker, cane(s) or crutches if you have them (with your name label on it)
 - Copies of your insurance cards, Health Card, Status Card, advance medical directives and medical history
 - All medications including herbal medications in their original containers
 - Personal care items such as a hair brush, denture case, tooth brush, tooth paste, soap, eyeglass case, contact lens case
 - Leave your cash, credit cards and jewelry at home
 - Ortho cushion, reacher



Morning of your surgery:

- You will arrive to the hospital at a designated time.
- You will be prepared for surgery in Day Surgery.
- The nurse will assess and review your preparation.
- Before surgery, the nurse will start an intravenous and administer an antibiotic as a precautionary measure.

Following your surgery:

- You will wake up in the Recovery Room where you will stay until you are awake and medically stable.
- You will be checked often by the nurse to make sure that you are comfortable and doing well. The nurse will monitor your ability to move your legs, wiggle your toes and feel sensation in your legs and feet. Your heart rate, blood pressure and knee dressing will also be checked.
- You will be reminded to deep breathe and cough and do your leg and ankle exercises. Try to remember to do these every hour. It will help prevent complications.
- Your family can visit with you when you are transferred to your in-patient bed, 3 to 4 hours after the start of your surgery.
- You will be getting out of bed with help on the first day after surgery.

Learning to Move

Weight Bearing

- Weight bearing is the amount of weight that the doctor wants you to put on your new knee. Your surgeon will determine how much weight to put on your operated leg.
- Feather or touch weight bearing— Your operated leg touches the floor enough to help you balance. Do not put any weight on it.
- Partial weight bearing – Only a certain amount of weight can be put on your operated leg. Your physiotherapist will help you learn how much.
- Weight Bearing as Tolerated- Stand as straight as you can with your weight evenly through your legs. You are allowed to put as much weight (on your operated leg), as you feel comfortable with.
- Full weight bearing - You can put full weight, or as much as you can tolerate when standing or walking.

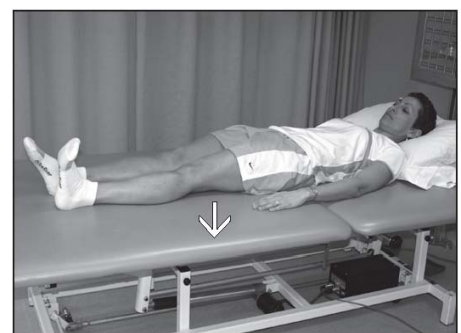
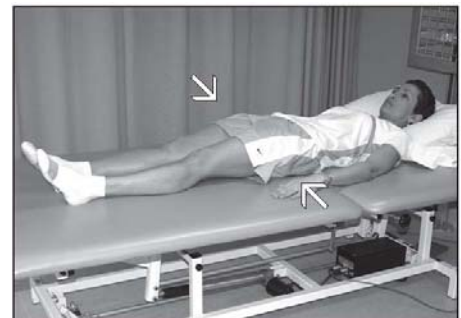
Using a Walker or Crutches

- Move the walker or crutches forward first, followed by your operated leg. Then move your good leg forward.
- Put your weight on the walker or crutches to take the weight off your operated leg when you step onto it. Follow your own weight bearing instructions when using a walker.



Immediate Postoperative Exercises

- You may begin the following exercises immediately after your surgery, as they are important for:
 - Helping to prevent complications with your breathing
 - Helping to prevent blood clots in your legs
 - Increasing your circulation, range of motion and strength in your legs
- **1. Deep Breathing and Coughing Exercises**
- Until you are up and moving well, take at least 10 deep breaths, followed by a cough, every hour that you are awake.
- **2. Ankle Pumping**
- Move your feet up, down and in circles. Repeat 50 times every hour that you are awake.
- **3. Buttock Contractions**
- Tighten your buttock muscle and hold for a count of 5 seconds. Repeat 5 to 10 times, 3 to 4 times each day.
- **4. Static Quadriceps Strengthening**
- Tighten the muscles on the front of your thigh of your operated knee by pressing into the bed.



Postoperative Exercises:

The following exercises will help you to restore normal knee range of motion and strength and improve your recovery.

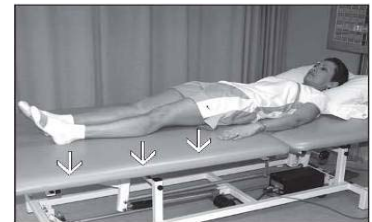
■ 5. Hip and Knee Bending

- Lie with the head of the bed slightly up, wrap a towel under your operated leg. Pull up on the towel to slide your heel towards your buttocks. Keep your heel on the bed.



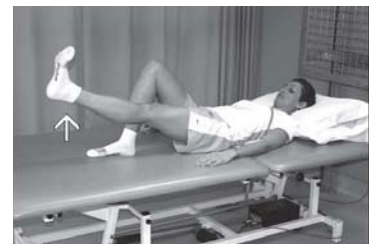
■ 6. Isometric Hamstrings

- Press your whole operated leg into the bed. Feel the muscles in the back of your operated leg tighten.



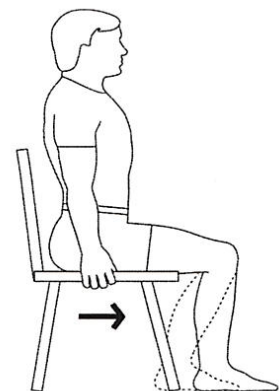
■ 7. Straight Leg Raise

- Keeping your knee as straight as possible, tighten the muscles on the front of your thigh and raise your operated leg about 6 inches off the bed.



■ 8. Knee Flexion in Sitting

- Sitting in a chair, bend your operated knee as far back as you can. Keep your foot flat on the floor and gently move your hips forward so that you feel a stretch in your knee.



Looking After Yourself at Home

Optional Adaptive Equipment: These items are not typically required for long term use unless you have other medical conditions.

- **Bath Bench:** extends over the side of the tub to help you bathe. Place the bath seat in the tub or shower and elevate to the appropriate height.



- **Long-handled Bath Sponge:** to assist you with washing your lower legs and feet. The long-handled bath sponge may be useful. You can also wrap a towel around the sponge to help with drying off.



- **Raised Toilet Seat:** to use on your toilet at home. Some toilets are quite low; a raised toilet seat will make it easier to get on or off the toilet.



- **Seat Cushion:** may be needed on a chair to elevate the seat to the appropriate height so your feet are flat on the floor and to help make it easier to get up from sitting.



- **Reacher:** to help pick up dropped items.



- **Sock Aide:** used to put on socks.



Adaptive Equipment Continued

- **Long-handled Shoehorn:** the handle on this shoehorn has been extended to help put your shoes on. Place the shoehorn inside the back of your shoe and push your heel down into the shoe.



- **Elastic Shoelaces:** these rubber/rayon laces provide firm support yet stretch to allow your feet to slip in or out of the shoes without having to untie and retie them.



■ Showering

- Ask your surgeon if and when you are able to take a bath. Shower or sponge bathe until your surgeon says otherwise. You must use a waterproof dressing over your incision until 24 hours after your staples have been removed.
- Use a long-handled bath sponge to wash your lower legs and feet if you cannot reach them on your own.
- You may need to obtain a bath chair, stool, board or bench if you have difficulty standing to shower or if you have difficulty lifting your legs over the edge of the tub. Avoid stepping over the edge of the tub as this will increase your risk of falls. The physiotherapist will recommend bath equipment according to your weightbearing status.

■ Lower Body Dressing

- Gather your clothing and dressing aids (if needed). Place them within easy reach.
- Sit on a high firm chair.
- Wear proper fitting comfortable clothing.
- Always dress your operated leg first.
- The physiotherapist may suggest devices like a reacher, sock-aid, long handled shoe horn and elastic shoelaces to allow you to get dressed on your own.



■ **Toileting**

- You may begin using a raised toilet seat after surgery to make it easier for you to use the toilet.
- This item may not be required when you go home – check with your physiotherapist if you are uncertain if you need it.

■ **Foot care/Foot wear**

- You may have difficulty reaching your toenails to cut them when you first go home. If possible, have them cut before your surgery.
- Wear a non-skid supportive shoe i.e. a running shoe to provide you support and cushioning for your new knee.
- Your leg, ankle and foot will be swollen. Please bring shoes that will be able to accommodate for these changes. Elastic shoelaces will make tying your shoes unnecessary.

■ **Homemaking Hints**

- Use an apron with several pockets.
- Carry hot liquids in containers with covers.
- Slide objects along the countertop rather than carrying them.
- Sit on a high stool when doing countertop tasks.

■ **Preventing Falls**

- Wear non-skid supportive shoes. Shoes that lace up are good.
- Keep your home free of clutter so that it is easy to move around furniture. There should be no scatter rugs.
- Keep your home well lit. Night-lights should be used especially if you go to the bathroom at night.
- Plan ahead before moving. Concentrate on walking.
- Do not lean on furniture; use safe objects for support.

■ **Preventing Complications**

- Deep breathing and coughing are things that you can do to prevent pneumonia and congestion in your lungs. The team will remind you to do this.
- Your surgeon usually will start you on a blood thinner (anticoagulant) to prevent clots from forming in your legs. These anticoagulants may continue after you are discharged from hospital. Doing the ankle pumping exercises, wearing compression stockings and walking as soon as possible are also things that you can do to prevent clots from forming in your legs.



Problems to Watch for at Home

■ **Constipation:**

- Because the surgery will make you less active, it is easy to become constipated while in hospital. Your pain medications can also make you constipated. A gentle laxative could help with this. Other things that you can do to help are to drink plenty of fluids, include fibre in your diet, eat lots of fruits and vegetables, and maintain regular exercise.

■ **Skin:**

- Lying in bed puts pressure on parts of your body that are not used to taking pressure for any length of time - buttocks, ankles, elbows, shoulders or ears. The first signs of pressure sores are burning, redness or pain. The best way to prevent skin problems is to move around and avoid lying in bed for long periods of time.

■ **Incision Care/Staple Removal:**

- As your incision heals, the staples in your incision will need to be removed 12 to 14 days after your surgery. This will be done either in the surgeon's clinic, your family doctor's office or in your home by a nurse.

■ **Keep Wound Clean and Dry:**

- Eating nutritious food will speed healing. Watch for signs of infection:
- Increased redness and warmth around the incision
- Swelling or puffiness
- Drainage from the incision
- Increased pain
- Fever
- If you have any of these signs, tell your doctor and health professional right away. Bacteria in your blood can get into your new knee and cause infection. You must have any infection treated right away.
- Tell your dentist or other doctors that you have had a knee replacement. Your doctors may decide that you need antibiotics before some treatments or dental work.



Your Notes:

- **This booklet was developed by Raphael Delli Quadri Advanced Practice Physiotherapist and adapted from resources provided by Thunder Bay Regional Health Science Centre.**
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