

# TOTAL KNEE REPLACEMENT PATIENT HANDBOOK

OrthoCarolina

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# TEAMWORK

A team of healthcare providers is ready to help you prepare for and recover from your knee replacement. Physicians, physical therapists, nurses and discharge planners are the principal players on your team. Taking an active role in your care **before** and **after** is very important to a fast and smooth recovery.

To reach us with questions or concerns, we suggest using our secure OrthoCarolina Patient Portal:

- Our portal is located at [www.OrthoCarolina.com](http://www.OrthoCarolina.com)
- On the left side of the page, click “Patient Resources”
- Select “Patient Portal”
  - Sign in with your current login or create a new login and password
- Click on “Messaging”
- Select your doctor or therapist from the drop down list and send us a message just like you would send an email!

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# BEFORE YOUR SURGERY

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## PRE AND POST SURGERY EXERCISES

It is important to begin exercise as soon as you know you are having surgery. These exercises strengthen your leg muscles, increase range of motion, promote mobility after surgery, control pain, improve balance, reduce body weight, improve sleep and anxiety, and build a knowledge base of post-operative expectations. Start slowly, and if exercises cause shortness of breath, call your orthopedic surgeon.

## CARDIOVASCULAR EXERCISE

- Helps to reduce body weight, manage diabetes and hypertension, reduce patient anxiety, and thus optimize rehabilitation outcomes.
- For cardiovascular training, walk with or without poles beginning with 5-10 minutes and gradually increase to more than 30 minutes per session.
- If walking is not tolerated, use a stationary bike, swimming, water walking, or water aerobics to gain cardiovascular fitness.

## ENCOURAGING BLOOD FLOW (PERFORM HOURLY)

1. Deep breathing exercise: take several deep breaths every hour during waking hours.
2. Ankle pumps - 10 reps each hour



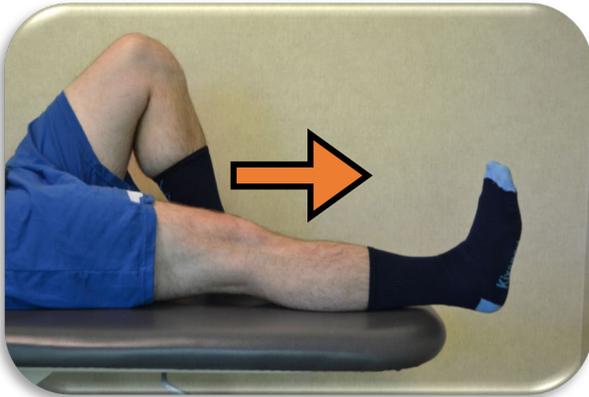
### 3. Quad set:



- Sit against the head of the bed.
- Place the surgical leg straight out in front of you.
- Tighten only the front thigh muscle by pulling your kneecap toward your hip.
- Think about pushing the back of your knee toward the ground.
- Repeat 10-20 times per hour.

## TO IMPROVE RANGE OF MOTION

### 1. Supine Heel Slides.



- Lie down or sit with your legs stretched out in front of you.
- Gently slide the heel of the surgical leg toward your buttocks as far as possible. Hold for a count of 10.
- Return to the starting position by straightening your surgical leg.
- Repeat 10 times.

## 2. Heel Props.

- Sit against the head of the bed.
- Place a towel roll under your heel.
- Begin by maintaining this position for five minutes.
- Progress to 30 minutes, three times a day or more often if you can!



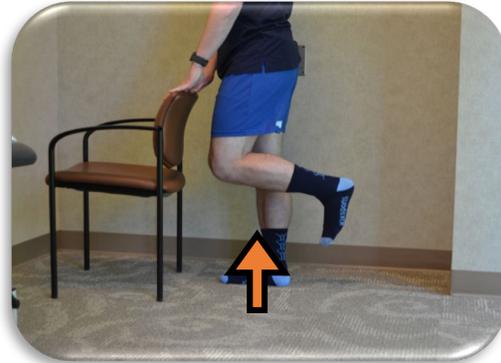
## 3. Seated Knee Bends



- Sit on the edge of a firm chair.
- Gently slide the heel of the surgical leg backwards as far as possible. Hold for a count of 10.
- You can use a towel on the floor, sock on your foot, or board under your foot to help slide
- Return to the starting position by straightening your surgical leg.
- Repeat 10 times.

## TO IMPROVE STRENGTH AND BALANCE

### 1. Standing Hamstring Curl



- Begin by standing in front of a counter or chair for balance.
- Bend the surgical knee, lifting your foot behind you. (Only perform in pain-minimized range of motion.)
- Start with three sets of 10.
- Gradually progress to three sets of 25-30 by adding one or two reps to each set every other day.

### 2. Single Leg Balance



- Begin by standing in front of a counter or chair.
- Stand on the surgical leg only, gently using your fingers for balance.
- Work up to standing on one leg for 30 seconds.

### 3. Long Arc Quad



- Sit on the edge of a firm chair.
- Using the quad muscle on the front of your thigh, straighten your surgical leg by lifting your foot toward the ceiling.
- Be sure to keep the back of your thigh on the chair.
- Start with three sets of 10 and gradually progress to three sets of 25-30 repetitions by adding one or two reps to each set every other day.

### 4. Short Arc Quad

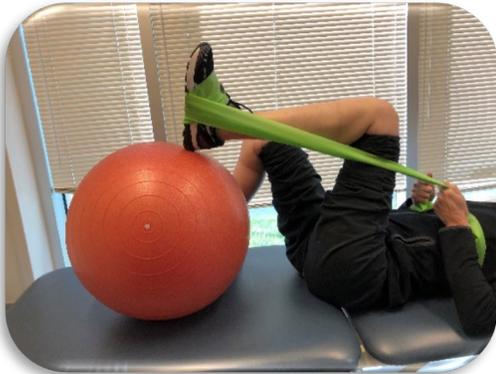


- Lie supine on your bed or the floor with a rolled-up towel or bolster under your knee.
- Using the quad muscle on the front of your thigh, straighten your surgical leg by lifting your foot toward the ceiling.
- Be sure to keep the back of your thigh on the towel or bolster.
- Start with three sets of 10 and gradually progress to three sets of 25-30 repetitions by adding one or two reps to each set every other day.

## 5. Bilateral Leg Press



- If you have access to a total gym, set it to level four or less.
- Gently straighten your legs by pushing through your heels.
- Slowly return to starting position by bending your knees (move only through pain minimized positions.)
- Begin with three sets of 10 and gradually progress to three sets of 24-30 repetitions by adding one or two reps to each set every other day.



- If you do not have access to a total gym, lie on your back with the heel of your surgical leg on a Swiss ball. Hold a resistance band with one end in each hand, with the middle of the resistance band under the bottom of your foot (as pictured above).
- Gently straighten your surgical leg into the resistance of the band.
- Slowly return to starting position by bending your knee (move only through pain minimized positions.)
- Begin with three sets of 10 and gradually progress to three sets of 24-30 repetitions by adding one or two reps to each set every other day.

## 6. Heel Raises



- Begin by standing in front of a chair or counter, holding on for balance.
- Push through your toes, lifting your heels off the floor as high as you can.
- Start with three sets of 10 and gradually progress to three sets of 25-30 by adding one or two repetitions to each set every other day.

## GETTING YOUR HOME READY

For your safety, it is important to make some alterations in your home environment. This should be done before your surgery.

You can find these items at your local pharmacy, general merchandise store (Walgreens, CVS, Walmart, Target, Amazon, etc.) or ask your physical therapist about acquiring these items directly from OrthoCarolina.

### USEFUL ITEMS

- Reacher
- Contoured scrub sponge
- Dressing stick
- Elastic shoelaces
- Shoehorn
- Leg lifter
- Sock assist

### OPTIONAL EQUIPMENT

- Swiss Ball
- Under desk pedals
- Total gym
- Colpak/Ice Machine
- Stretch Out Strap
- Moderate/heavy resistance band

## BEDROOM

- If you have a two-story home, arrange a bed/sleeping area on the ground floor.
- Make sure that you have lighting at night between your bed and bathroom.
- Keep a flashlight beside your bed.
- Place a phone within reach on your nightstand without having to turn over or twist in bed. Make sure emergency numbers are by the phone, or stored in your cell phone.
- When getting up from the bed: roll to your side. Push up slowly to a seated position, dropping both feet over the edge of the bed. Scoot forward to the edge of the bed before standing up. With the operative foot out in front, push up from the bed using your hands. **DO NOT PULL UP USING THE WALKER.**

## BATHROOM

- Consider installing grab bars on walls of the shower or tub
- Move toilet paper so you don't have to reach forward or twist when using the bathroom.
- Explore purchasing a hand-held shower head and shower chairs which will allow sitting while bathing once showers are allowed. A long-handled sponge is also useful.
- You may need to use a raised toilet seat to avoid sitting on a surface that is too low. If you receive a bedside commode from OrthoCarolina it can be used at bedside, over your existing toilet and as a shower chair.

## LIVING SPACE

- Remove throw rugs or other objects on the floor (such as electrical or telephone cords) which could cause you to trip and fall
- Have a firm chair that has arm rests, a high seat and a straight back available for you to sit in.
  - If you don't have a high seat, you can add a firm pillow to a lower chair, however it needs to be high and firm enough that it is easy to stand from a sitting position prior to surgery.
- Arrange your furniture allowing clearance for a walker. Walkers are at least two feet wide.
- Low chairs, swivel chairs, or rolling chairs are not safe for you to sit in after surgery.

- Place a list of emergency numbers by each telephone and in your mobile phone. Keep your mobile phone with you.
- When getting up from a chair: Scoot to the front edge before pushing up. With operative foot out in front, use both hands on the arm rests or seat to help push up. **DO NOT USE YOUR HANDS ON THE WALKER TO PULL YOURSELF UP.**
- Stock your pantry and/or have a few meals prepared in your freezer so you or your caregiver will not have to worry about going to the store or preparing meals, initially.

## **WARDROBE/CLOSET**

- You will need flat shoes that stay on your feet securely. Do not wear mules, loose fitting bedroom slippers, flip flops etc.
- Allow ease in dressing by wearing elastic waist or drawstring garments.
- Wear shorts or knee length dress that will not get in the way of you walking or receiving therapy.
- Use a bag or basket on the front of your walker to hold things like your phone, water bottle, medication or other items you may need to carry.
- Place frequently worn items in dresser drawers that do not require bending or stooping
- Consider a grabber or reacher to pick up dropped items (and practice using it before surgery!)
- Obtain a shoehorn with extension to reach your feet.

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# AFTER YOUR SURGERY

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- Continue to ice as and elevate your knee for 48 hours, then as needed for pain control.
  - When you elevate your leg for swelling, be sure your toes are higher than your nose.
  - If using the ice machine, you can wear it up to five hours straight and a total of six hours per day maximum.
  - Swelling may continue for up to 6 months after surgery
- Use your crutches or walker for support but note you can be full weight bearing as tolerated (unless otherwise instructed).
- **Walking** is an **important** part of a total joint recovery program. Short walks several times a day is good. Work up to a regular walking program as swelling, pain and overall endurance levels allow. Speak to your therapist for more specific questions.
- You may bend and straighten your knee as tolerated. When in bed, be sure to keep the knee as straight as possible.
- DO NOT put anything under the knee! Instead, place a pillow under your heel as often as possible to encourage straightening of your knee.
- Don't forget those heel props! (See page 6) Place a towel roll under your heel at least three times each day for 5-30 minutes. More often if you are able.
- DO NOT **drive** until you are instructed.
- **Follow your surgeon's instructions regarding bandage removal.** Wound dressings typically stay in place for 7-14 days.

Typical bandage options include:

- **Aquacell dressing**
- **Prineo dressing**
- You may shower if the wound is totally dry. Pat the wound gently to dry. Do not take a bath or submerge the wound in water.
- Take your pain medication as directed. If you need a refill, call the office during working hours.
  - Monday-Friday 8:30am -5:00 pm.
  - Calls received after noon may be answered the next working day.

- Prescription refills cannot be filled after hours (weekends, holidays, and after 5:00pm).
- Pain medication may cause constipation. Consult with your pharmacist regarding recommendations on how to help counteract this.

**CONTACT YOUR ORTHOPEDIC SURGEON'S OFFICE IF YOU HAVE ANY OF THE FOLLOWING:**

- Fever over 101 degrees
- Drainage from the wounds that has increased or changed in color
- Severe knee, leg or calf pain or swelling
- Increasing numbness or weakness
- If you have any other questions or concerns.

**IF YOU HAVE CHEST PAIN OR DIFFICULTY BREATHING, CALL 911 OR IMMEDIATELY GO TO THE EMERGENCY ROOM!**

## PHYSICAL THERAPY AFTER SURGERY

- **Physical Therapy typically begins two to three days after surgery but may vary by surgeon preference and the specific circumstances regarding your surgery. Please call the office prior to your surgery to arrange if post-operative physical therapy has not been scheduled.**
- Starting your exercise program and mobility early is vital to making your rehabilitation successful. Come motivated and ready to work!
- Your first session with outpatient physical therapy will be on the third day after surgery at the OC therapy location of your choice.
- Your physical therapist will go over the exercises that you will be doing daily and make sure you are performing them properly. This will include range of motion exercises, quad and buttock activation exercises, cardiovascular and blood flow exercises.
- Your physical therapist will assist and instruct you in activities of daily living such as getting in and out of bed, using the restroom, etc. Your physical therapist will teach and/or review with you how to use a walker.
- Remember, there is typically a moderate amount of pain in the knee after having surgery, but this pain does not limit you from participating in a moderate amount of activity.

## ADJUSTING YOUR WALKER

Your therapist will adjust your walker for you during your visit prior to surgery. If your walker is not available to you prior to surgery, your therapist will check it for proper fit on your first visit. The guidelines below are for your reference.

### HOW TO ADJUST THE WALKER HEIGHT

- Stand with your shoulders relaxed and your arms hanging loosely at your sides.
- The walker handle should be at the crease of your wrist when your arm is extended. (See picture.)
  - To adjust the height of the walker legs, depress the spring button on the leg and slide the leg up or down.
  - Be sure the spring button is engaged into the hole that provides the correct height after adjusting.
  - Repeat for each leg, making sure the walker is level
- **WARNING:** Do not move the walker wheels to inside legs or to the back.



## HOW TO USE THE WALKER

- If using a folding walker, make sure that it is **LOCKED** in the open position prior to use.
- Ensure that the walker sits level and all legs are adjusted to an equal height.
- Ensure all spring buttons are fully engaged in the adjustment holes.
- When standing up from a seated position with your walker, **DO NOT** hold on to the walker with both hands when in the process of sitting down or standing up. Instead, push up with both hands on the chair.



**These instructions are guidelines only.**

**Use a walker only as instructed by your healthcare provider and follow the instructions given by your therapist.**

## WALKING WITH YOUR WALKER

- Starting from the standing position, push the walker forward as you advance the surgical leg.
- Step forward on your surgical leg, landing with the heel first. You may bear as much weight on your surgical leg as you feel comfortable.
- Putting as much weight as necessary through your arms onto the walker, step THROUGH with your stronger leg.
- Repeat the process. Take even, reciprocal steps with the walker. Your heel should land within the walker with each step.



## NAVIGATING STAIRS

### Going UP stairs:

- Step up with the non-surgical leg first (1). Push through your non-surgical leg to lift yourself onto the step
- Bring your surgical leg and cane onto the same step with you (2).
- Repeat.



(1)



(2)

### Going DOWN stairs:

- Prepare to go down the stairs by holding on to the railing (if available) (1).
- Step down with the cane first, then your surgical leg (2).
- Bring your non-surgical leg onto the same step with you (3).
- Repeat.



(1)



(2)



(3)

## IMPORTANT REMINDERS/PHONE NUMBERS

- You should have a follow-up appointment with the PA/surgeon scheduled. If not, please call the office ASAP to schedule an appointment for two weeks after surgery.
- Physical Therapy should be the 3rd day after your surgery. Please call the office prior to your surgery to arrange if it has not been scheduled.

Your OC location	To <b>schedule</b> an appointment with the <b>surgeon team</b> :	To <b>schedule a therapy appointment</b> :	To reach the surgeon's <b>triage line for urgent questions or concerns</b> :
Ballantyne	704-323-3400	704-323-3409	704-323-3420
Boone	828-264-1100	828-264-0501	828-263-5852
Concord	704-786-5122	704-262-4181	704-262-4143
Gastonia	704-867-2333	704-671-1860	704-671-3044
Hickory	828-322-5172	828-485-2160	828-322-3617
Hip and Knee Center	704-323-2564		704-323-3160
Huntersville	704-323-2800	704-323-2809	704-323-2828
Kernersville		336-659-3718	
King PT		336-765-7058	
Lincolnton	704-732-4064	704-732-4065	704-268-3135
Matthews	704-323-3200	704-323-3208	704-323-3265
Monroe	704-226-9550	704-323-2650	704-226-1919
Mooresville	704-658-1050	704-323-2921	704-323-2925
Pineville	704-323-3300	704-323-3303	704-323-3326
Rock Hill	803-328-6306	803-909-6447	803-909-6450
SouthPark	980-299-4895	704-323-2500	980-960-2430
Sports Center	704-323-3000	704-323-3009	704-323-3190
University	704-323-2100	704-323-2108	704-323-2178
Winston-Salem	336-768-1270	336-765-7058	336-659-3703