

## Bronson Joint Replacement Program

# Knee Replacement Exercises

### Exercise Program

**Before surgery:** You should start practicing these exercises twice per day for at least three weeks prior to surgery. The more you do the exercises before surgery, the better your body will remember how to do them after surgery.

**After surgery:** You should complete approximately 5-10 minutes of exercise per hour followed by rest for the remainder of the hour. You will need to rotate which exercises you do. Try to complete 5-10 repetitions of each exercise, at least three times per day. Our goal is for you to exercise frequently throughout the day for short amounts of time.

### Exercise Video

You can watch a video of these exercises.

Follow the link below, or use your phone to capture the QR code to the right.

<https://www.bronsonhealth.com/services/orthopedics-sports-medicine/education/knee-replacement-surgery/>



### Supine Exercises (on your back)

#### 1. Ankle Pumps

Lie on your back with your leg straight. Gently bend and straighten your ankle. Be sure to move through your full range of motion (go as far as you can).





## 2. Quadriceps Set (Quad Set)

Lie on your back with both legs extended straight. Straighten your leg by tightening the muscles on top of your leg and pushing the knee flat towards the table. Use your finger to push on the muscle. If it is not tight to the touch, re-tighten the muscle until it feels tight to the touch. Hold 5-10 seconds, and then relax leg.



## 3. Straight Leg Raises

Lie on your back with your operative leg straight and your non-operative leg bent. Tighten the muscles on the front of the thigh then lift the leg about 6 inches from the bed and hold for a few seconds. Slowly lower the leg back down to the mat. Be sure to keep the knee straight throughout the exercise.

## 4. Short Arc Quads (SAQ)

Lie on your back with your operative knee bent over a bolster or towel roll. Slowly straighten your knee by tightening the muscles on the front of your thigh. Be sure to keep the knee resting on the bolster throughout the exercise.

**Please Note:** Do not let your foot drop down to the bed. Control the leg by lowering it slowly.



## 5. Passive Knee Extension

Put folded blanket or towel under the ankle of your operative leg so that gravity will act to straighten your knee. Try to relax in this position for 2 minutes then add 1 minute every day up to 20 minutes maximum.



## 6. Sitting Knee Thrusts

Sit on the edge of the chair and slide the foot on your new knee back until you feel a gentle stretch on your knee.

Plant your foot on the floor and scoot your hips forward to stretch a little more.

Hold the stretch as you count out loud to 5.

Scoot your hips back to release the stretch.

Slide your foot forward to fully release the stretch.



## 7. Standing Knee Thrusts (Lunges)

Put operative foot onto a stable step and push your thigh forward and hold for 5 seconds. Keep head and shoulders in line over hips. Use walker for support.



### **8. Terminal Knee Extension (Standing)**

Hold the walker. With operated knee slightly bent, gently pull knee back straight. Tighten your thigh and buttocks and hold for 5 seconds.

## 9. Riding Bike

Begin the day after your surgery.

**Mounting the Bike:** Approach the same side of the bike as your operative leg (example if your right leg is your operative leg, approach the right side of the bike). Turn your back to the bike and stool while holding your walker or crutches. Step backward onto the stool with your non-operative leg first and reach one hand for the seat and one hand for the handles. Boost yourself onto the seat and slowly turn forward, bringing your non-operative leg through first. *Follow these instructions only if your physical therapist instructed you on this method.*

Use no tension. Start by rocking back and forth with the seat in the high position so that the knee is straight when the pedal is at its lowest point.

Progress from rocking to full revolutions. As it gets easier to ride with improved knee range of motion, gradually keep lowering the seat height so that the knee bends more to complete a revolution.

Ride for 5 minutes duration for 4 times per day. Increase to 6 times each day while at home.

**Step 1:**



**Step 2:**



**Step 3:**



**Step 4:**



**Step 5:**



**Step 6:**



**Alternative Method for Mounting the Bike:** Stand facing the side of the bike with your new operative leg facing the handlebars and the non-operative leg facing the seat. Step through the bike with the non-operative leg. Then place the non-operative foot on the pedal and stand-up to place the buttocks on the seat and the operative foot on the other pedal while the pedal is at the bottom of the arc.



|                               | To Do List  | Day 8<br>_/_ | Day 9<br>_/_ | Day 10<br>_/_ | Day 11<br>_/_ | Day 12<br>_/_ | Day 13<br>_/_ | Day 14<br>_/_ |
|-------------------------------|---|--------------|--------------|---------------|---------------|---------------|---------------|---------------|
| <b>Activity Session<br/>A</b> | 1. Ankle pumps  | ○○○○         | ○○○○         | ○○○○          | ○○○○          | ○○○○          | ○○○○          | ○○○○          |
|                               | 2. Quadriceps sets  | ○○○○         | ○○○○         | ○○○○          | ○○○○          | ○○○○          | ○○○○          | ○○○○          |
|                               | 3. Straight leg raise   | ○○○○         | ○○○○         | ○○○○          | ○○○○          | ○○○○          | ○○○○          | ○○○○          |
|                               | 4. Short arc quads  | ○○○○         | ○○○○         | ○○○○          | ○○○○          | ○○○○          | ○○○○          | ○○○○          |
|                               | 5. Passive knee extension   | ○○○○         | ○○○○         | ○○○○          | ○○○○          | ○○○○          | ○○○○          | ○○○○          |
|                               | ❖ Walk  | ○○○○         | ○○○○         | ○○○○          | ○○○○          | ○○○○          | ○○○○          | ○○○○          |
| <b>Activity Session<br/>B</b> | 6. Sitting knee thrust  | ○○○○         | ○○○○         | ○○○○          | ○○○○          | ○○○○          | ○○○○          | ○○○○          |
|                               | 7. Standing knee thrust   | ○○○○         | ○○○○         | ○○○○          | ○○○○          | ○○○○          | ○○○○          | ○○○○          |
|                               | 8. Terminal knee extension  | ○○○○         | ○○○○         | ○○○○          | ○○○○          | ○○○○          | ○○○○          | ○○○○          |
|                               | ❖ Walk  | ○○○○         | ○○○○         | ○○○○          | ○○○○          | ○○○○          | ○○○○          | ○○○○          |
| <b>Activity Session<br/>C</b> | 9. Riding Stationary Bike: You should ride for 5-10 minutes each time. No resistance on the bike until approved by your doctor. | ○○○○         | ○○○○         | ○○○○          | ○○○○          | ○○○○          | ○○○○          | ○○○○          |

**Call the 24-hour phone line at (855) 618-2676 with any of the following concerns:**

- Questions about the exercises
- Drainage from incision
- Increased pain
- Fever greater than 101.5 F
- Fall at home
- Increasing redness around the incision
- Leg swelling that does not get better when elevated

**Please bring this exercise tracker with you when you see your doctor at your follow up appointment**

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## Precautions After Your Total Knee Surgery:

- Do not pivot, twist or kneel on your operative knee.
- Do not apply heat to your operative knee. This includes heating pads or hot water bottles.
- Do not use any ointments or creams around or on your incision.
- Do not scoop up your operative leg with either your good leg or a sheet when getting in and out of bed.

## Elevation:

To minimize the swelling in your leg, you need to elevate your operative leg above the level of your heart. This should be done at least three times per day for 30 minutes each time.

Place your leg on the top of several pillows while you lie on your back.

**Please Note:** Sitting up in a recliner chair is **not** the correct position for elevation. Your leg is still lower than your heart!

**Correct Elevation:** Your knee and ankle are above your heart.



**Do not** put a pillow under your operative knee for comfort. This will result in the muscle shortening behind your knee and will make it harder to straighten your knee. You may place a pillow or bolster under your operative knee for the “Short Arc Quad” Exercise only.



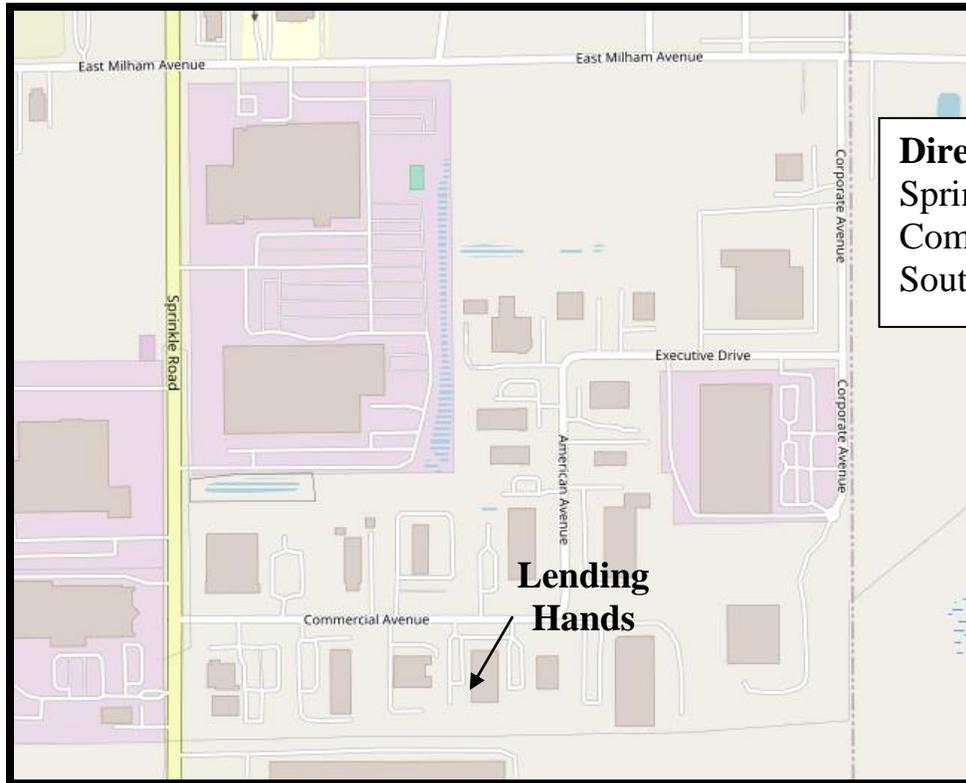
# Lending Hands:

4570 Commercial Ave Suite E, Portage, MI 49002 | Telephone: 269-567-4381 | Webpage: <http://lendinghandsmi.org/>

## Hours of Operation:

Monday, Wednesday, Friday & Saturday: 9:00 A.M. to 12:00 P.M.  
Closed Tuesday, Thursday, Sunday and Holidays.

Lending Hands is an all- volunteer Michigan nonprofit social service organization located in Portage, Michigan, lending home medical equipment, for free for up to 7 months, to residents of the Southwest Michigan counties of Allegan, Calhoun, Cass, Kalamazoo (including Hickory Corners), St. Joseph and Van Buren counties and beyond.



**Directions:**  
Sprinkle Road to  
Commercial Avenue just  
South of I-94

Equipment can be reserved online for pick-up: <http://lendinghandsmi.org/equipment>

## Equipment

Effective immediately, we are no longer providing bed grab bars due to an FDA recall identifying a choking hazard.

### Category

- Bath and Shower
- Bedroom Items
- Canes
- Crutches
- Dressing Aids
- Toilets and Accessories
- Walkers



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Toilets and Accessories  
Bariatric commode with drop arms (300 to 500 lbs.)

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