### **Total Knee Replacement Home Exercise Program**

- After surgery, you should do only those exercises recommended by your Doctor, Physical Therapist, or Physician Extender.
- Keep moving (home exercise program), early mobility reduces the chances of complications following surgery.
- Some exercises help control pain and improve movement in the knee. Other exercises strengthen the thigh muscles.
- Do not push through pain, locking or catching while performing the exercises. You should stop where your mobility ends and look to gain improvements each day. Do not force any movements.
- Extra pain felt after these or other exercises will let you know if you are overdoing it. You may need to change the number of repetitions or how often you do the exercises.

#### **PRECAUTIONS**

Follow your doctor's instructions for the amount of weight you can put on the foot of your operated leg. It is encouraged to place as much weight as tolerated on the operated leg within those instructions.

#### For the first TWO WEEKS after surgery or until adjusted by your Doctor:

- Don't pivot on your surgical leg while fully weight bearing through it
- > Avoid placing a pillow, towel directly under the knee
- Avoid activities that put strain on the surgical area
- > Let pain guide your decisions

#### **EXERCISE/ACTIVITY --- FIRST TWO WEEKS AFTER SURGERY**

- Your exercises are broken down into three categories: bed exercises, sitting exercises, and standing exercises. It is recommended these exercise sessions are spread out throughout the day.
  - Do your bed exercises 2-3 times a day.
  - Do your sitting exercises 2-3 times a day.
  - Do your standing exercises 2-3 times a day.
- Walk every other hour
  - Start with 200 feet (or 3-5 minutes) and increase your distance by 30 seconds each day. Then lie down and elevate your leg once completed.
  - You should use your assistive device (walker, crutches) for 2 weeks, until your post-op appointment, or until released by your Doctor or Physical Therapist.
- It is recommended that you take time in between exercise sessions to elevate your leg.
- Limit sitting to 30 minutes at a time. Prolonged sitting may increase the risk of developing blood clots.
- In order to help keep track of your exercise frequency, utilize the Daily Activity Flow Sheet to document your progress every day. There is an example page to demonstrate what it may look like as you fill out the form. Blank copies for your use are located at the end of this packet.
- Continue these exercises as instructed until your physical therapy sessions begin. Adapt the protocol per your physician or physical therapist's instructions.
- After two weeks, continue exercising and walking. It is recommended that you lie down two different hours during the day to elevate your leg.



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### **Total Knee Replacement Exercises**

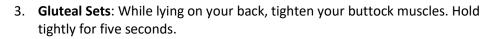
Begin by completing <u>10 repetitions</u> of each exercise, <u>2-3 times every day</u>. Increase by 2 repetitions as the exercises get easier.

#### **BED EXERCISES**

1. **Ankle Pumps**: Slowly paddle your feet by bending your ankles up and down. This exercise should be done with both feet.



2. **Quad Sets**: With your knee straight, tighten the muscle on top of your thigh by pressing the back of your knee down toward the bed. Hold the contraction for five seconds.







4. **Heel Slides**: Lying flat on your back, bend your knee by sliding your heel back toward your buttocks. Try to increase the bend in your knee a little more with each repetition. This should be a <u>pain free range of motion</u>, although you may feel a stretching sensation over the knee.

5. **Short Arc Quads**: With your knee bent over a towel roll, straighten your knee by tightening the muscles in the front of your thigh. Then lower your foot back down.





6. **Hip Abduction**: Lying flat, complete a quad set to lock your knee, and move the operated leg out and then back to midline.

7. **Straight Leg Raise**: With your non-operated knee bent to take the strain off your back, complete a quad set to lock your knee, and raise the leg twelve inches off the bed. Hold for five seconds, and then lower your leg back down.



8. Extension Stretch: Place your leg straight out, resting your ankle on a rolled towel. Relax the muscles in your thigh and allow gravity to pull your knee down toward the bed. This may cause slight discomfort behind the knee. To help relieve some pain and/or feelings of tightness, you may need to bend your knee occasionally during the stretch, then go back to the extended position. Hold for 2-5 minutes as tolerated in place of the 10 repetitions.





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#### **SITTING EXERCISES**

1. **Knee Extension**: Sit in a chair with the back of your thigh well supported. Straighten your knee, and hold five seconds before lowering it down.





2. **Knee Flexion Stretch**: While sitting in a chair, pull your operated foot back, bending your knee as far as you comfortably can. Do this several times to loosen the tissues surrounding your knee joint. Slide your foot back as far as possible and hold it there. Leave your foot planted on the floor, and slowly scoot your bottom forward to the edge of the chair until you feel a good stretch in your knee. Hold for 15-30 seconds and repeat.

#### STANDING EXERCISES- hold onto a solid surface for balance and stability

1. **Toe Raises**: Hold onto a chair and rock back onto your heels and raise your toes up.





2. **Heel Raise**: Hold onto a chair and rock forward onto your toes lifting your heels up.



- 3. **Hip Abduction**: Use a chair for maintaining your balance. Slowly move your leg out to the side, keeping your knee straight and your trunk upright. Return to starting position and repeat.
- 4. **Hip Extension**: While holding onto a chair for stabilization, extend your surgical leg behind you, keeping your knee straight and your trunk upright. Return to the starting position and repeat.





- 5. **Hip Flexion**: Hold onto a chair and bring your surgical leg forward, keeping your knee straight and trunk upright. Return to starting position and repeat.
- 6. **Hamstring Curl**: Stand holding the back of a chair for balance and support. Keeping your thigh in the same position, slowly bend your knee by raising your heel toward your buttock. Continue as far as you can, and then return your foot to the ground and repeat.





7. **Single Leg Marches**: Stand, holding onto the back of a chair. Slowly lift your surgical hip and knee up. Return to starting position and repeat.



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### **Example Daily Activity Flow Sheet Following Knee Surgery**

(Blank copies of this form are located in the back of this packet for you to fill out)

| Time     | Ankle    | Bed        | Sitting    | Standing   | Walking      | Rest, Ice   |
|----------|----------|------------|------------|------------|--------------|-------------|
|          | Pumps    | Exercises  | Exercises  | Exercises  | (Every other | and Elevate |
|          | (Hourly) | (2-3 times | (2-3 times | (2-3 times | hour)        | (Between    |
|          |          | each day)  | each day)  | each day)  |              | exercise    |
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| 8:00 am  | ✓        | x10        |            |            | 3 minutes    |             |
|          | <b>√</b> |            |            |            |              | <b>√</b>    |
| 10:00 am | <b>√</b> |            | x10        | x10        | 3 minutes    |             |
|          | <b>√</b> |            |            |            |              | <b>✓</b>    |
| 12:00 pm | <b>√</b> | x10        |            |            | 4 minutes    |             |
|          | <b>√</b> |            |            |            |              | <b>√</b>    |
| 2:00 pm  | <b>√</b> |            | x10        | x10        | 5 minutes    |             |
|          | <b>√</b> |            |            |            |              | <b>✓</b>    |
| 4:00 pm  | <b>√</b> |            |            |            | 3 minutes    |             |
|          | <b>√</b> |            |            |            |              | <b>√</b>    |
| 6:00 pm  | <b>√</b> |            | x10        | x10        | 3 minutes    |             |
|          | <b>√</b> |            |            |            |              | <b>√</b>    |
| 8:00 pm  | <b>√</b> | x10        |            |            | 5 minutes    |             |
|          |          |            |            |            |              | <b>√</b>    |



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## **Daily Activity Flow Sheet Following Knee Surgery**

| ate: |          |            |                         |                         |              |             |  |
|------|----------|------------|-------------------------|-------------------------|--------------|-------------|--|
| Time | Ankle    | Bed        | Sitting                 | Standing                | Walking      | Rest, Ice   |  |
|      | Pumps    | Exercises  | Exercises               | Exercises               | (Every other | and Elevate |  |
|      | (Hourly) | (2.2 times | /2 2 times              | /2 2 times              | hour)        | (Between    |  |
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# **Daily Activity Flow Sheet Following Knee Surgery**

| ate: |          |            |            |            |              |             |  |
|------|----------|------------|------------|------------|--------------|-------------|--|
| Time | Ankle    | Bed        | Sitting    | Standing   | Walking      | Rest, Ice   |  |
|      | Pumps    | Exercises  | Exercises  | Exercises  | (Every other | and Elevate |  |
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# **Daily Activity Flow Sheet Following Knee Surgery**

| ate: |          |            |            |            |              |             |  |
|------|----------|------------|------------|------------|--------------|-------------|--|
| Time | Ankle    | Bed        | Sitting    | Standing   | Walking      | Rest, Ice   |  |
|      | Pumps    | Exercises  | Exercises  | Exercises  | (Every other | and Elevate |  |
|      | (Hourly) | /2 2 times | /2 2 times | /2 2 times | hour)        | (Between    |  |
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|      |          | each day)  | each day)  | each day)  |              | sessions)   |  |
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