

## Total Knee Arthroplasty/Uni Knee Arthroplasty Patients

### *Phase One*

revised 9/21/2020 tpg/tl

#### 1. Points to remember:

- **DO NOT** rest with a pillow under the bend of your knee. Pillows should be positioned from the calf down. Resting with your knee in a slightly bent position will affect your ability to fully straighten your knee.
- You can sleep on either side. It is okay to use a pillow(s) **between** your legs for comfort when on your side.
- Do not spend too much time on your feet the first week. Overdoing it can increase swelling and pain. During the day, have your legs propped up on a couch or a recliner unless you are eating meals, sitting on a toilet or sitting as a passenger in the front seat of the car.
- Ice can help control pain and swelling. Never ice your knee when sleeping and never put the ice directly on your skin. Icing with your knee above your heart is recommended after exercise sessions and your daily walk.

#### 2. Walking:

The best possible exercise for your knee is simply walking. Week 1 you must use two crutches or a walker at all times and limit your distance to functional/necessity walking only. No walking for exercise. No roaming. Week 2 you will start your home walking program and progress to one crutch or a cane held in your opposite hand. Your home walking program is one walk each day for your knee on a level surface. If necessary you can walk on a treadmill at a slow walking pace holding on with both hands and no incline. Gradually increase your distance. **Do not walk a mile at week 2.** Week 4 you can try to walk without anything. Watch your soreness and your limping. It is okay and recommended to continue to use a cane or walking stick for your long walks. Weeks 5-6 most patients can walk one continuous mile with a slight limp. Three months after surgery you should be able to walk any distance and climb stairs without a handrail if you are medically and physically fit.

*Recommended distance progression:*

*Week 2- ¼ mile. Week 3- ½ mile. Week 4- ¾ mile. Weeks 5-6- one mile.*

#### **Crutch/Walker Walking Sequence**

**Level Surface-** Move your crutches or walker forward first then your operated leg then your non-operated leg. Try to bend your knee when you pick your leg up and then land heel/toe to straighten your knee when you put your weight on it. It may feel like you are learning how to walk correctly all over again.

**Up Steps-** “up with the strong”. One step at a time. Your non-operated leg will go up first then your operated leg then the crutches. You can use a handrail on both sides or handrail on one side and crutch or cane on the other side. You cannot use a walker on multiple steps.

**Down Steps-** “down with the weak”. One step at a time. Your crutches will go down first then your operated leg and then your non-operated leg. You can use a handrail on both sides or a handrail on one side and crutch or cane on the other side. You cannot use a walker on multiple steps.

### 3. Perform the following exercises:

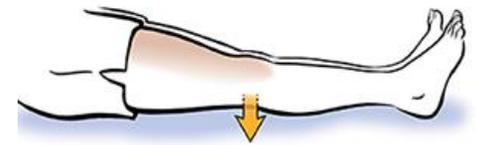
#### a. Ankle Pumps

Sitting up or lying down, bend your feet up and down at your ankles. Move through the full range of motion for blood circulation. Do this exercise 30 times every waking hour for the first two weeks.



#### b. Quad Sets

Sitting up or lying down with your legs straight, tighten the muscles on the front of your thighs (quadriceps) by pressing your knees flat. Hold five seconds. Relax. Repeat. Start with 20 times two times per day. Okay to do more. Do not hold your breath during this exercise.



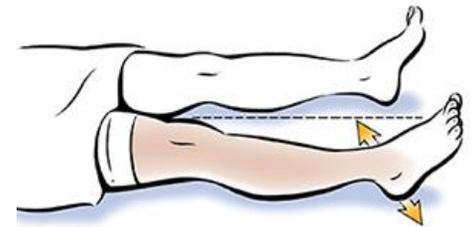
#### c. Gluteal Sets

Sitting up or lying down with your legs straight, tighten your buttocks muscles by squeezing your buttocks cheeks together. Hold five seconds. Relax. Repeat. Start with 20 times two times per day. Okay to do more. Do not hold your breath during this exercise.



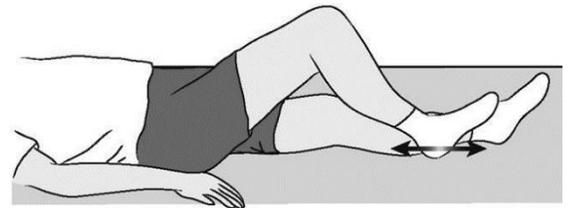
#### d. Supine Hip Abduction and Adduction

Lying flat on your bed with your knee straight, lift your heel up slightly off your bed. Bring your leg out to the side and then back to your starting point (up-out-in-down). Relax. Repeat. Do this exercise 20 times two times per day only. You have to do this on your operated side. Optional on the other leg. Do not do both legs at the same time. \*Do not drag your heel across your bed.\*



#### e. Supine Heel Slides (knee flexion/bending range of motion)

Lying flat on your bed with your knee straight, slide your heel back towards your buttocks in small increments. Then slide your heel out until your knee is straight. Do not pull with your hip. Sliding your heel will activate your hamstring muscles in the back of your thigh. The hamstrings are your knee bending muscles. Increase your bending motion as you can. You may experience discomfort. Work hard and do not let your knee get stiff. Do this exercise 10-20 times two times per day only. You have to do this on your operated side. Optional on the other leg. Do not do both legs at the same time.



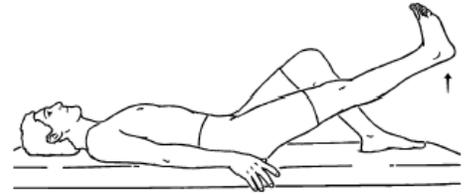
#### f. Short Arc Quads

Lying flat on your bed with your knee resting on a rolled towel 3-4 inches wide, lift your heel off your bed straightening your knee. Keep your knee on the roll. Hold five seconds. Slowly lower. Relax. Repeat. Do this exercise 20 times two times per day only. You have to do this on your operated side. Optional on the other leg. Do not do both legs at the same time.



### g. Straight Leg Raises

Lying flat on your bed with your opposite knee bent, lift your leg almost to the height of the opposite knee. Keep your knee straight. Hold 5 seconds. Slowly lower. Relax. Repeat. Do this exercise 20 times two times per day only. You have to do this on your operated side. Optional on the other leg. Do not do both legs at the same time.



**Please take a narcotic pain pill about 1/2 hour prior to starting the following range of motion exercises (h & i) so that you are able to tolerate more motion. After 3-4 weeks start doing them with only Tylenol and anti-inflammatory medications.**

### h. Seated Heels Slides (knee bending/ flexion range of motion)

Sitting on the edge of a kitchen/dining room type chair, slide your heel back in small increments. Once you cannot go any further slide your heel forward. Keep your hip down and do not pull with your hip. Sliding with your heel activates the hamstring muscles behind your thigh which are your knee bending muscles. Do this exercise 20 times two times per day only. You have to do this on your operated side. Optional on the other leg. Do not do both legs at the same time. Work hard. Try to gain more knee bend motion every day without forcing it. You may have discomfort but you do not want your knee to get stiff. Putting a towel or a pillow case on the floor may help reduce friction and allow your heel to slide easier. **After a week, you can add sliding your hips forward after you have slid your heel back as far as it will go.**



### i. Knee straightening (extension range of motion)

You have two options for straightening your knee after you have worked on your seated heel slides. Stay seated in your chair. Place your foot up on another chair.

#### Option 1: Hamstring Stretch

Place one hand above your knee and the other hand below your knee. Push down gently as you lean forward. Keep your back straight and keep looking straight ahead. Stop when you feel a **gentle** stretch behind the back of your knee and thigh. Hold 20 seconds. Relax. Repeat. Do this exercise 5 times two times per day only.



#### Option 2: Passive Knee Extension

Place a five pound ankle weight or a five pound bag of rice on your thigh just **above** your knee. Relax and let the weight and gravity straighten your knee for 10 minutes two times per day only.

