

Novant Health Perry & Cook Orthopedics & Sports Medicine

James R. Romanowski, M.D.

Novant Health Perry & Cook Orthopedics and Sports Medicine
2826 Randolph Rd.
Charlotte, NC 28211
704-358-0308 (Office)
704-358-0037 (Fax)
www.charlotteshoulder.com

DISCHARGE INSTRUCTIONS & PHYSICAL THERAPY PROTOCOL FOR FULKERSON OSTEOTOMY

Recovery after knee surgery entails controlling swelling and discomfort, healing, return of range-of-motion of the knee joint, regaining strength in the muscles around the knee joint, and a gradual return to activities. The following instructions are intended as a guide to help you achieve these individual goals and recover as quickly as possible after your knee surgery.

A. COMFORT:

- 1. Elevation** – Elevate your knee and ankle above the level of your heart. The best position is lying down with two pillows lengthwise under your entire leg. This should be done for the first several days after surgery.
- 2. Swelling** – A cooling device may be provided to control swelling and discomfort by slowing the circulation in your knee. Initially, this can be used continuously for the first 3 days, (while the initial post-op dressing is on). After 3 days, the cooling device should be applied 3 times a day for 10-minute intervals.

If a cooling device is not provided at the time of surgery, place crushed ice in a plastic bag over your knee for no more than 20 minutes, three (3) times a day.

3. Medication –

Pain Medication- Take medications as prescribed, but only as often as necessary. Avoid alcohol and driving if you are taking pain medication.

4. Driving – Driving is NOT permitted for six weeks following right knee surgery.

B. ACTIVITIES:

1. Range-of-Motion – Move your knee through range of motion as tolerated. This must be done while sitting or lying down.

2. Exercises – These help prevent complications such as blood clotting in your legs. Point and flex your foot and wiggle your toes. Thigh muscle tightening exercises should begin the day of surgery and should be done for 10 to 15 minutes, 3 times a day, for the first few weeks after surgery.

3. Locking Knee Brace – The brace is to be worn for up to 4-6 weeks following surgery. It will be locked straight until bone healing and good knee strength have been achieved, (usually 6 weeks after surgery). At that time your doctor will determine if your leg has enough strength to allow your brace to be unlocked. You may unlock the brace while sitting but lock the brace before standing. Sleep with the brace on until directed by your doctor.

4. CPM – (Continuous Passive Motion Machine) – A Continuous Passive Motion (CPM) machine should be started the day **after** your surgery. This machine will be set at 30°. Motion on the machine should be increased at 10-15° per day or as much as tolerated, to a maximum of 110° in one week. The machine should be used 6 hours per day (i.e. 2 hours in the morning, 2 hours in the afternoon and 2 hours in the evening). Use of the machine will continue for 1-2 weeks, or until maximum flexion of the machine is reached (110°).

DO NOT WEAR LEG BRACE OR COOLING DEVICE WHILE USING CPM MACHINE.

5. Weightbearing Status – You are allowed to put all of your weight on your operative leg using your brace in the **locked straight** position. Do this within the limits of pain. Two crutches should be used until directed to discontinue by your doctor.

6. Physical Therapy – PT should be started 3-5 days after surgery. You should call the physical therapist of your choice for an appointment as soon as possible after surgery. A prescription for physical therapy, along with physical therapy instructions (included in this packet) must be taken to the therapist at your first visit.

7. Athletic Activities – Athletic activities, such as swimming, bicycling, jogging, running and stop-and-go sports, **should be avoided** until allowed by your doctor.

8. Return to Work – Return to work as soon as possible. Your ability to work depends on a number of factors – your level of discomfort and how much demand your job puts on your knees. If you have any questions, please call your doctor.

C. WOUND CARE:

1. Keep the dressing on, clean and dry until your 1 week post op follow up appointment.
2. Should your dressing come off, you may apply band-aids to the small incisions around your shoulder.
3. You may shower the first day after surgery with the dressings in place.
4. Bathing, swimming, and soaking should be avoided for two weeks after your surgery.

D. EATING:

1. Your first few meals, after surgery, should include light, easily digestible foods and plenty of liquids, since some people experience slight nausea as a temporary reaction to anesthesia.

E. CALL YOUR PHYSICIAN IF:

1. Pain in your knee persists or worsens in the first few days after surgery.
2. Excessive redness or drainage of cloudy or bloody material from the wounds (Clear red tinted fluid and some mild drainage should be expected). Drainage of any kind 5 days after surgery should be reported to the doctor.
3. You have a temperature elevation greater than 101°
4. You have pain, swelling or redness in your calf.
5. You have numbness or weakness in your leg or foot.

F. RETURN TO THE OFFICE:

1. Your first return to our office should be within the first 1-2 weeks after your surgery. Call your physician's office to make an appointment for this first post-operative visit.

REHABILITATION GUIDELINES AFTER FULKERSON OSTEOTOMY

The intent of this protocol is to provide the therapist with guidelines of the post-operative rehabilitation course after a Fulkerson Osteotomy. It should not be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam findings, individual progress, and/or the presence of post-operative complications. The therapist should consult the referring physician with any questions or concerns.

PHASE I (0-6 weeks)

Goals

- Control inflammation and pain
- Protect soft tissue and tubercle fixation
- CPM to 90 degrees (60 degrees when medial imbrication is also performed)
- Full active extension and 90 degrees of flexion
- Achieve quadriceps control

Brace

- Locked in extension for 6 weeks during ambulation
- Sleep with brace locked for 4 weeks, then discontinue for sleep
- May remove for CPM and exercises except straight leg raises

Weight-Bearing Status

- Weight-bearing as tolerated with crutches and brace locked in extension

Therapeutic Exercises

- Straight leg raises in all planes (use brace locked in extension for SLRs)
- Heel slides to 90 degrees, calf pumps, quadriceps sets
- Electrical stimulation and biofeedback to regain quad function
- Patellar mobilization
- Ankle ROM and resistive exercises with sports tubing (Theraband)

PHASE II (6- 8 weeks)

Criteria

- Good quad set, straight leg raise without extension lag
- 90 degrees of knee flexion
- Full extension

Goals

- Increase ROM
- Establish normal gait with unlocked brace

Brace/Weight-bearing status

- Continue with full weight bearing
- Use crutches and unlock brace for ambulation, when quad is ready
- May discontinue crutches and brace when normal gait pattern and quad control is achieved

Therapeutic Exercises

- Increase ROM
- Progress to SLRs without brace
- Mini-squats (0-45 degrees)
- Stationary Bike (high seat, low tension)
- Closed chain extension (leg press:0-45 degrees)
- Pool walking/jogging
- Toe raises
- Hamstring and gastroc/soleus stretches
- Proprioception
 - Mini-tramp standing
 - Stable and unstable platform (BAPS) with eyes open and closed
 - Standing ball throwing and catching

PHASE III (8-12 weeks)

Criteria

- Normal gait
- Full range of motion
- Sufficient strength and proprioception to initiate functional activities

Goals

- Improve confidence in the knee
- Protect the patellofemoral joint
- Progress with strength, power, and proprioception

Brace/Weight-Bearing Status

- Discontinue brace and crutches

Therapeutic Exercise

- Continue with flexibility exercises
- Hamstring curls
- Mini-squats and leg press to 60 degrees
- StairMaster, elliptical trainer, cross-country ski machine, lap swimming
- Stationary bike, increase resistance
- Step-up, start 2 inches and increase to 8 inches
- Continue to work on proprioception and balance (lateral slide board, ball throwing and catching on unstable surface)
- Treadmill walking

PHASE IV (3 months+)

Criteria

- Full, pain-free range of motion
- No patellofemoral irritation
- Sufficient strength and proprioception to progress to recreational activities

Goals

- Return to unrestricted activity by 4-5 months

Therapeutic Exercises

- Progress with flexibility and strengthening program
- Advance with closed chain exercises
- Begin pool jogging and progress to running on land
- Begin to incorporate cutting drills into agility training
- Advance heights with plyometric conditioning
- Sports specific drills (start a 25% on speed and advance as tolerated)

Criteria for Return to Sports

- Full range of motion
- No effusion
- Quad and hamstring strength 90% of contralateral side
- No patellofemoral symptoms