Rehabilitation Guidelines for Meniscal Repair

The rehabilitation guidelines are presented in a criterion based progression. Specific time frames, restrictions and precautions are given to protect healing tissues and the surgical repair/reconstruction. General time frames are also given for reference to the average, but individual patients will progress at different rates depending on their age, associated injuries, pre-injury health status, rehab compliance and injury severity. The size and location of the meniscal tear may also affect the rate of rehab progression.

Specific attention must be given to impairments that caused the initial problem. For example if the patient is s/p partial medial meniscectomy and they have a varus alignment, post-operative rehabilitation should include correcting muscle imbalances or postures that create medial compartment stress.

**PHASE I (Surgery to 4 weeks)**

| APPOINTMENTS                        | Meet with physician within 10 days post op  
|                                    | Begin physical therapy 3-5 days post-op, meet 1x week |
| REHAB GOALS                         | 1. Protection of the post surgical knee  
|                                    | 2. Restore normal knee extension  
|                                    | 3. Eliminate effusion  
|                                    | 4. Restore leg control |
| PRECAUTIONS                         | 1. Weight-bearing status may differ depending on repair – consult the operating physician for guidelines  
|                                    | 2. The patient may gradually wean from 2 crutches to 1 crutch to no crutches as long as the knee is in the locked ELS brace and there is no increase in pain for swelling for 4 weeks  
|                                    | 3. ELS brace locked at 0° all weight bearing activities for 4 weeks  
|                                    | 4. Do not flex the knee past 90 degrees |
| RANGE OF MOTION EXERCISES           | Knee extension on a bolster  
|                                    | Prone hangs  
|                                    | Supine wall slides to 90 degrees  
|                                    | Heel slides to 90 degrees |
| SUGGESTED THERAPEUTIC EXERCISE      | Quad sets  
|                                    | SLRs  
|                                    | 4 way leg lifts in standing with brace on for balance and hip strength (depending on weight-bearing status) |
| CARDIOVASCULAR EXERCISE             | Upper body circuit training or UBE |
| PROGRESSION CRITERIA                | 1. Pain free gait using locked brace without crutches  
|                                    | 2. No effusion  
|                                    | 3. Knee flexion to 90 degrees |
### PHASE II (begin at 4 weeks)

| APPOINTMENTS | Meet with physician at 1 and 2 months post-op  
| Physical therapy 1x every 1-2 weeks |
| REHAB GOALS | 1. Single leg stand control  
| 2. Normalize gait  
| 3. Good control and no pain with functional movements, including step up/down, squat, partial lunge (staying less than 60 degrees of knee flexion) |
| PRECAUTIONS | 1. No forced flexion – as in PROM flexion or weight bearing activities that push past 60 degrees of knee flexion  
| 2. Avoid post activity swelling  
| 3. No impact activities |
| SUGGESTED THERAPEUTIC EXERCISE | Non-impact balance and proprioceptive drills  
| Stationary bike  
| Gait drills  
| Hip and core strengthening  
| Stretching for patient specific muscle imbalances  
| Quad strengthening – closed chain exercises short of 60 degrees knee flexion |
| CARDIOVASCULAR EXERCISE | Non-impact endurance training: stationary bike, Nordic track, swimming, deep water run, cross trainer |
| PROGRESSION CRITERIA | 1. Normal gait on all surfaces  
| 2. Ability to carry out functional movements without unloading affected leg or pain while demonstrating good control  
| 3. Single leg balance greater than 15 seconds |
**PHASE III (begin after meeting Phase II criteria—3 months)**

| APPOINTMENTS               | Meet with physician at 14-16 weeks post-op  
|                          | Physical therapy 1x every 1-2 weeks         |
| REHAB GOALS               | 1. Good control and no pain with sport and work specific movements, including impact |
| PRECAUTIONS               | 1. Post-activity soreness should resolve within 24 hours  
|                          | 2. Avoid post activity swelling           
|                          | 3. Avoid posterior knee pain with end range flexion |
| SUGGESTED THERAPEUTIC EXERCISE | • Impact control exercises beginning 2 feet to 2 feet, progressing from 1 foot to other and then 1 foot to same foot  
|                          | • Movement control exercise beginning with low velocity, single plane activities and progressing to higher velocity, multi-plane activities  
|                          | • Strength and control drills related to sport specific movements  
|                          | • Sport/work specific balance and proprioceptive drills  
|                          | • Hip and core strengthening  
|                          | • Stretching for patient specific muscle imbalances |
| CARDIOVASCULAR EXERCISE   | Replicate sport or work specific energy demands |
| RETURN TO SPORT/WORK CRITERIA | 1. Dynamic neuromuscular control with multi-plane activities, without pain or swelling |
DISCHARGE INSTRUCTIONS & PHYSICAL THERAPY PROTOCOL FOR ARTHROSCOPIC MENISCAL REPAIR

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.
   Antibiotic Medication – If an antibiotic has been prescribed, start taking the day of your surgery. The first dose should be around dinnertime. Continue taking until the prescription is finished.
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. Locking Knee Brace – The brace is to be worn for up to 4-6 weeks following surgery. It will be locked straight until 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 Sports Medicine.
3. 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.
4. Weightbearing Status – You are NOT allowed to put any weight on your operative leg for the first week after surgery. Walk using two crutches and your brace in the locked straight position. After the first week you may 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 Sports Medicine.
5. **Physical Therapy** – PT should be started after your first post-operative visit with Sports Medicine. 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.

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

7. **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. Tub bathing, swimming, and soaking of the knee **should be avoided** until allowed by your doctor – Usually 2-3 weeks after your surgery. Keep the dressing on, clean and dry for the first 3 days after surgery.
2. Remove the dressing 3 days after surgery. The steri-strips (small white tape that is directly on the incision areas) should be left on until the first office visit. You may apply band-aids to the small incisions around your knee.
3. You may shower 5 days after surgery with band-aids on. Apply new band-aids after showering.

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.