

ACL RECONSTRUCTION (WITH MENISCUS REPAIR)

Restrictions: As Detailed Below

Patient's choice for physical therapy location

****YOU NEED TO HAVE YOUR PHYSICAL THERAPY SCHEDULED TO START WITHIN ONE WEEK. THIS IS EXTREMELY IMPORTANT.****

Please follow MOON ACL rehabilitation protocol. If you are unfamiliar with MOON ACL rehabilitation program, you may utilize the program below. Not every patient will get a brace. If the patient does not have a brace, disregard all references to a brace. The entire MOON ACL rehabilitation protocol is available online for free at <https://acltear.info>

Rehabilitation exercises are essential to full recovery from your knee injury and subsequent surgical procedure. Following the guidelines and principles described below will minimize your recovery time and maximize return to full activity.

Immediate Post-Operative Goals (within 2 weeks)

- Full knee extension ROM (equal to uninjured knee)
- Active control of quadriceps muscle
- Swelling controlled
- Knee flexion ROM of at least 0-90°

Expected Recovery

1. Anticipate approximately 24-36 post-operative PT appointments (3x/week for the first month, 2x/week for second month, 1x-2x/week thereafter)
2. Walking without crutches by approximately 2 weeks after surgery
3. Back to desk type work/school within 1 week following surgery
4. Manage stairs normally by approximately 6 weeks after surgery
5. Begin running approximately 12 weeks after surgery
6. Progress back to sports 5-6 months after surgery if you have met the goals below

Wound Care

- Remove bandages two days after surgery
- May shower two days after surgery. Make sure to dry wound thoroughly, no soaking of wound (i.e. bath) for 10-14 days
- Clean wounds using hydrogen peroxide. Pat dry
- Cover with fresh band-aids/gauze pads (if needed)
- Reapply elastic bandage/compression stocking until swelling is minimal
- Follow-up with physician as scheduled at approximately 10-14 days after surgery

Pain/Swelling Control

- **Rest**→ avoid long periods of standing/walking/strenuous activity
- **Ice**→ 3x/day for 20 minutes each, following rehab/activity/work or as needed to control pain
- **Compression**→ apply ACE bandage to involved knee (tighter at bottom)
- **Elevation**→ keep leg (knee) elevated as often as possible
- **Medication**→ pain and anti-inflammatory medications will be prescribed for a period of seven days after surgery. Refills of this medication are NOT permitted. However, over-the-counter medications such as Ibuprofen (Motrin) and Acetaminophen (Tylenol) are very effective

Progression Criteria

1. Outside of rehabilitation sessions, try to limit activity as much as possible for first 2-3 days. Progress slowly initially using pain and swelling as a guide (indication) to progress in rehabilitation sessions
2. Add only 1-2 new exercises/activities to your routine each day
3. Ice the involved knee for 20 minutes following each rehabilitation session and after strenuous activities
4. If activities or exercises added to your routine cause pain, swelling or recurrence of other symptoms, discontinue exercise and consult physician and/or physical therapist immediately

Return to Sport Progression

1. Progress from physical therapy exercises to cardiovascular conditioning/strength training and then sport-specific activities
2. Progress from straight-ahead running to cutting and changes of direction
3. Progress to jumping/plyometric exercises as needed
4. Progress from controlled to uncontrolled situations
5. Progress from participating in limited practice ("safe" drills, limited repetitions), to full practice, and finally competition

Return to Sport Criteria→ your physician or physical therapist will "clear" you to return-to-sport when you have accomplished the following goals:

1. No complaints of pain
2. No swelling

3. Full ROM
4. Appropriate knee stability upon clinical examination
5. Adequate strength and performance on functional performance tests
6. Running/cutting without a “limp”

In addition to accomplishing the above goals, you should not return-to-sport until you feel that you are “ready” to safely return at or near your pre-injury level.

FYI→ I do not **ALWAYS** utilize post-operative bracing for isolated ACL reconstructions

Phase 1--Initial Post-Op (Weeks 0 to 2)

- WBAT in brace locked at 0°
- PROM 0-90°, passive terminal extension (40°-0°)
- Goals
 - 70° flexion by end week 1, maximum 90° for weeks 0-4
 - The allowed brace ROM should be adjusted to reflect this progression (**by physical therapist if needed**)
- Quadriceps re-education (electrical stim, biofeedback)
- Hamstring and hip progressive resistance exercises
- Isometrics at 90°/straight leg raises
- Patellar mobilization
- Short crank bicycle ergometry
- Cryotherapy
- Open brace for ambulation at 4 weeks

At Week 4, resume normal ACL rehab program

- Avoid forced hyperflexion of the knee for the first three months after surgery
- No deep squatting for 3 months

Phase 2--Progressive Rehabilitation (Weeks 4 to 6)

- At 4 to 6 weeks
 - Minimum expected ROM→ 0-120°
 - Therapeutic exercises
 - ROM→ PROM or bike with low seat if not meeting flexion goals
 - Strengthening→ advance as appropriate, add unilateral leg press and/or shuttle if not doing so already, add isotonic hamstring curls
 - Proprioceptive exercise→ progress as tolerated on gradually less stable surfaces, eyes closed, perturbation training, etc
 - CV conditioning→ stationary bike or in pool

Phase 3--Advanced Strengthening (Weeks 6 to 12)

- Therapeutic exercises
 - Strengthening→ step-ups, single leg wall squats, sport cord, slide board, open-chain knee extension 90-40°, stool scoots or manually resisted hamstring curls to maximize hamstring strength
 - Proprioceptive exercise→ progress as tolerated
 - CV conditioning→ increase times/workout intensity

Phase 4--Return to Sport (Week 12 to 6 Months)

- Running/cutting without limp
- Therapeutic exercises
 - Strengthening→ add open knee extension full ROM
 - Proprioceptive exercise, CV conditioning→ continue as previously done
 - Running→ begin with straight-ahead jogging on “soft level surface”, gradually incorporate turns/cutting
 - Plyometric exercises→ start with two leg jumping on level surface, gradually progress to unilateral jumping and box jumps
 - “Head up, land soft, flexed knees, knees pointing straight ahead”