Dr. Meyer

Orthopaedic & Spine Clinic of Louisiana

Postoperative Instructions and Recovery
ACL Reconstruction

This guide offers general milestones; however, your surgeon may adjust instructions based on your specific condition. Always follow the instructions given by your healthcare team.

This document is intended to be used with the attached ACL Reconstruction Rehabilitation Protocol.

Immediate Post-Op (0-2 Weeks)

1. Incision and Wound Care

- ○Keep your incision and dressing clean and dry.
- ○Do not remove your dressing unless instructed by your surgeon.
- ○The dressing is usually left in place until your first postoperative visit, or it may be changed earlier if it becomes wet, loose, or saturated.
- ○If the dressing falls off, replace it with a clean, dry bandage.
- ○Do not apply ointments, creams, peroxide, or alcohol to the incision unless instructed.
- ○Check daily for redness, warmth, increased swelling, drainage, foul odor, or wound opening.
- ○Sutures or staples, if present, are usually removed at the 2-week office visit.

2. Bathing

- ○You may usually shower 24-72 hours after surgery if the dressing can be kept dry.
- ○Cover the knee with a waterproof covering while showering unless specifically told the dressing may get wet.
- ○Do not scrub the incision or dressing.
- ○No baths, hot tubs, swimming, lake water, or submerging the incision until the wound is fully healed and cleared by your surgeon.
- ○If the dressing becomes wet, replace it with a clean, dry dressing or call the office for instructions.

3. PainManagement

- ○ Take prescribed pain medications only as needed, following the instructions.
- ○ Ice may be used frequently for pain and swelling, especially after therapy or home exercises.
- ○ Elevate the leg with the knee straight. Avoid placing a pillow directly under the knee for long periods because this can make it harder to regain full extension.
- ○ Mild bruising, swelling, soreness, and stiffness are common after surgery.
- ○ If no restrictions, it is OK to utilize non-narcotic medications like Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) and Tylenol (Acetaminophen). Examples of NSAIDS include: Follow the bottle instructions for dosing.
    - i. Ibuprofen (Advil, Motrin IB)
    - ii. Naproxen (Aleve, Anaprox DS)
    - iii. Meloxicam (Mobic)

iv. Diclofenac
v. Indomethacin
vi. Etc.

- ○ Narcotic medications you may be taking for pain control can cause constipation. You may take stool softener to avoid this. Keep bowels regular by drinking fluids, adding fiber to diet, and being active within your restrictions.
- ○Restart home medications as directed by primary care or your surgical team.
- ○Take aspirin, blood thinner, or DVT-prevention medication exactly as instructed if it was prescribed.

4. Brace,Crutches,andWeightBearing

- ○Use the knee brace and crutches as instructed.
- ○ The brace is commonly used for comfort and protection early after ACL reconstruction.
- ○Keep the brace locked straight for walking unless your surgeon or therapist specifically instructs otherwise.
- ○Weight bearing is commonly limited at first and advanced based on pain control, swelling control, quadriceps activation, and therapy progression.
- ○Many isolated ACL reconstructions begin with partial weight bearing and progress toward full weight bearing over the first several weeks.
- ○If you also had a meniscus repair, cartilage procedure, revision ACL, allograft ACL, or additional ligament reconstruction, your restrictions may be slower and more protective.

5. Activity

- ○Work on ankle pumps, quad sets, straight-leg raises if able, and range-of-motion exercises as directed by therapy.
- ○The early priorities are swelling control, full knee extension, quadriceps activation, and safe improvement in knee flexion.
- ○Walk short distances multiple times per day using the brace and crutches as directed.
- ○Do not run, jump, pivot, cut, twist, or return to sports during this phase.
- ○If a hamstring autograft was used, avoid active hamstring strengthening until approximately 6 weeks after surgery unless directly cleared by your surgeon or therapist.

6. WorkandSchool

- ○Return to work or school depends on pain, swelling, transportation, and job demands.
- ○Desk work or school may be possible within several days to 2 weeks if pain is controlled, the leg can be elevated, and transportation is safe.
- ○Jobs requiring standing, climbing, kneeling, squatting, lifting, patient care, or manual labor usually require longer restrictions until cleared.

7. Driving

- ○ Do not drive while taking narcotic pain medication.

- ○For right knee surgery, driving usually requires adequate reaction time, good quadriceps control, and clearance by your surgeon.
- ○For left knee surgery, driving may be possible sooner if you are off narcotics and can safely enter, exit, and control the vehicle.
- ○Do not drive while wearing a brace that prevents safe control of the vehicle unless specifically cleared.

8. Concerning Symptoms

Call the office if:

- ●Fever over 101.5°F or chills
- ●Increasing redness, warmth, swelling, foul odor, drainage, wound opening, or excessive bleeding through the dressing
- ●Worsening pain despite medication, ice, and elevation
- ●Increasing calf pain, calf swelling, or concern for blood clot
- ●Worsening numbness, weakness, inability to move the foot or ankle, or loss of knee motion

Present tothe Emergency Department if:

- ●Difficulty breathing / Shortness of breath
- ●Chest pain
- ●Fainting, severe dizziness, or symptoms concerning for pulmonary embolism
- ●Rapidly worsening leg swelling, severe calf pain, or concern for circulation problems

We will see you back in the office 2 weeks after surgery for a wound check.
Please call the office to make or confirm this appointment.

Early Recovery (2-6 Weeks)

1. IncisionandWoundCare

- ○Continue to observe the incision for signs of infection or delayed healing.
- ○Once sutures or staples are removed and the incision is healed, you may keep the incision uncovered.
- ○If the incision is still sensitive, you may cover it with a small bandage for comfort.
- ○Do not use creams, lotions, scar gel, or ointments until the incision is fully healed and cleared by your surgeon.
- ○Continue to avoid soaking the incision until cleared.

2. TherapyFocus

- ○ Physical therapy is important during this period and should follow the attached ACL Reconstruction Rehabilitation Protocol.
- ○ The main goals are decreasing swelling, restoring full extension, improving flexion, regaining quadriceps control, and normalizing gait.

- ○ Therapy may include patellar mobilization, range-of-motion work, quad activation, straight-leg raises, closed-chain strengthening, balance work, stationary bike, and swelling control.
- ○ Do not advance exercises faster than instructed, even if the knee feels better.

3. Brace,Crutches,andWalking

- ○Crutches are gradually weaned when pain is controlled, swelling is improving, full extension is maintained, and quadriceps control is adequate.
- ○The brace may be discontinued or unlocked only when instructed by your surgeon or therapist.
- ○Your gait should be controlled and non-limping before walking without support.

4. PainManagement

- ○You may start tapering off stronger pain medications if your pain levels allow.
- ○Continue to use ice, elevation, NSAIDs, or Tylenol if allowed.
- ○Persistent or increasing swelling usually means activity should be reduced and discussed with therapy or the office.

5. Activity

- ○Continue working on full knee extension and progressive flexion as directed.
- ○Continue home exercises exactly as instructed by therapy.
- ○Avoid running, jumping, pivoting, cutting, sports drills, deep squatting, kneeling, and twisting.
- ○Do not perform open-chain resisted knee extension unless it is included in your therapy protocol and cleared by your therapist or surgeon.
- ○If a hamstring autograft was used, avoid active hamstring strengthening until approximately 6 weeks after surgery unless cleared.

6. WorkandDriving

- ○Desk work may resume when pain is controlled and the leg can be safely positioned.
- ○Driving may resume only when you are off narcotics and can safely control the vehicle.
- ○Physical labor usually remains restricted.

We will see you back in the office 6 weeks after surgery
Please call the office to make or confirm this appointment.

Mid-Recovery (6-12 Weeks)

1. IncisionandWoundCare

- ○Your incisions should be well on their way to fully healing at this point.
- ○You may keep the incisions uncovered.
- ○You may start using over-the-counter ointment or creams at 8 weeks if the incision is fully healed and cleared by your surgeon.

2. Bathing

- ○Youmay begin to use baths, hot tubs, and return to swimming only once the incision is fully healed and you have been cleared.

3. Pain Management

- ○Youshouldbe relying less on prescription pain medications.
- ○Over-the-counter medications, ice, and activity modification should usually be sufficient.
- ○Swelling after activity is a sign that the knee may not be ready for that level yet.

4. Activity and Therapy

- ○Therapy usually progresses strengthening, balance, endurance, gait mechanics, and functional movement patterns.
- ○Expected goals include minimal swelling, near-full or full range of motion, improved quadriceps control, and a normal walking pattern.
- ○Stationary bike, elliptical, stair machine, pool walking, and controlled strengthening may be introduced or advanced as tolerated.
- ○Straight-line jogging is typically not started until adequate strength, motion, swelling control, and surgeon or therapist clearance are achieved.
- ○No pivoting, cutting, jumping, contact sports, or uncontrolled agility drills unless cleared.

5. Work

- ○Light duty may be reasonable for many patients during this phase.
- ○Heavy labor, climbing, kneeling, squatting, and unpredictable terrain usually remain restricted until strength and control improve.

We will see you back in the office 3 months after surgery
Please call the office to make or confirm this appointment.

Advanced Recovery (3-6 Months)

1. Strength, Balance, and Conditioning

- ○Therapytypically focuses on progressive strengthening, endurance, proprioception, balance, and movement quality.
- ○Straight-line running may be introduced when cleared and when swelling, motion, gait, and strength criteria are met.
- ○Cutting, agility, plyometrics, and sport-specific drills are usually delayed until later and should be supervised.
- ○Good landing mechanics and single-leg control are required before higher-level activity is advanced.

2. Return-to-Sport Preparation

- ○Return tosport is basedon time and clinical progression, not time alone.
- ○Testing may include strength testing, hop testing, balance testing, movement assessment, and completion of a structured return-to-play program.
- ○A common goal is a single-leg hop test at least 90% of the opposite side before full return to sport consideration.
- ○Patients should not return to full sport without surgeon clearance.

3. Graft-Specific Timing

- ○Autograft ACL reconstruction commonly requires approximately 6-9 months before return to sport when testing and clinical criteria are met.
- ○Allograft ACL reconstruction commonly requires a slower timeline, often approximately 9-12 months before return to sport.
- ○Meniscus repair, cartilage restoration, revision ACL, or additional ligament reconstruction may delay return further.

We will see you back in the office around 6 months after surgery, or sooner if your recovery requires closer monitoring.

Long-Term Recovery (6-12 Months and Beyond)

1. Ongoing Recovery

- ○Fullactivityrequires good strength, flexibility, endurance, balance, confidence, and knee control.
- ○Return to sport is individualized and should be based on surgeon clearance, therapy progression, and objective testing.
- ○Continue strengthening even after formal therapy ends. Deconditioning increases reinjury risk.

2. Return to Activity

- ○Autograft ACL reconstruction patients commonly return to sport around 6-9 months if clinical and testing criteria are met.
- ○Allograft ACL reconstruction patients commonly return to sport around 9-12 months if clinical and testing criteria are met.
- ○Athletes should complete the attached return-to-play progression, including jump training and sport-specific progression, before full release when applicable.

3. Lifestyle Modifications

- ○ Avoidsmoking or tobacco use, as this can impair wound and graft healing.
- ○ Maintain good nutrition, hydration, and sleep to support recovery.
- ○ Continue a regular program for quadriceps, hamstring, hip, and core strength.
- ○ Use proper landing, squatting, pivoting, and deceleration mechanics.

We will see you back in the office 6 and 12 months after surgery
Please call the office to make or confirm this appointment

Key Reminders Throughout Recovery

- ●Keep the incision cleanand dry until healed.
- ●Do not soak the knee until cleared.
- ●Extension matters. Regaining and maintaining full knee extension is one of the most important early goals.
- ●Control swelling. Persistent swelling slows quadriceps activation and delays recovery.
- ●Protect the graft. Feeling good early does not mean the graft is biologically ready for sport.
- ●Attend physical therapy and perform home exercises as directed.
- ●Do not run, jump, pivot, cut, or return to sports until cleared.
- ●Follow the attached ACL Reconstruction Rehabilitation Protocol unless your surgeon gives modified instructions.
- ●Call the office for increasing redness, swelling, drainage, fever, worsening pain, calf pain, numbness, weakness, instability, or wound concerns.

Contact Information

Dr.AndrewMeyers
Office Phone: (318) 323-8451

Calltheoffice if:

- ●Fever over 101.5°F or chills
- ●Increasing redness, swelling, warmth, foul odor, or drainage
- ●Worsening pain despite medication
- ●Increasing calf pain, calf swelling, or concern for blood clot
- ●New numbness, tingling, weakness, instability, or inability to move the foot or ankle
- ●Wound opening or excessive bleeding

Presentto the Emergency Department if:

- ●Difficulty breathing or shortness of breath
- ●Chest pain
- ●Fainting, severe dizziness, or symptoms concerning for pulmonary embolism
- ●Rapidly worsening leg swelling, severe calf pain, or concern for circulation problems

Disclaimer: This timeline is a general guide. Individual recovery can vary based on factors like age, overallhealth, graft type, associated procedures, and the extent of surgery. Always follow the personalized instructions provided by your surgeon and healthcare team.

Orthopaedic & Spine Clinic of Louisiana
Experience You Can Trust Since 1951

Dr. Meyer

ACCELERATED REHABILIATION PROTOCOL
ANTERIOR CRUCIATE LIGAMENT (ACL) RECONSTRUCTION

The purpose of this protocol is to provide the physicians, therapists and other care providers with a guideline of the post-operative rehabilitation course. This rehabilitation protocol has been formulated for ACL reconstruction patients with patellar tendon (BTB) autograft or hamstring autograft.

A delayed protocol is utilized for ACL reconstruction with allograft, meniscal repair, other ligament reconstruction, in revision settings, or with cartilage repair/restoration.

Goals of ACL reconstruction:

1. Diminish inflammation, pain and swelling
2. Obtain normal knee range of motion (focus on knee extension)
3. Regain voluntary muscle activation
4. Obtain normal proprioception, balance and coordination for ADLs
5. Return to sport

During your postoperative course, it is imperative to be mindful of:

1. Persistentswelling
2. Abnormalpain or hypersensitivity
3. Limitedrange of motion
4. Weaknessof quadriceps
5. Whenhamstring autograft is used: avoid active hamstring exercises until 6weekspostop – use towel for heel slides

Return to sport/activity

This is dependent on timeand clinical progression. A typical return to sport timeline for autograft ACL is 6-9 months after surgery. For allograft ACL, it is typically 9-12 months. Full return to activity requires good strength, flexibility and endurance.

This includes single leg hop test (90% of contralateral side) and completion of the SportsMetrics Return to Play program (pages 10-11, autograft start weeks 20-24, allograft weeks 24-28).

	Postoperative Weeks					Postoperative Months			
	1-2	3-4	5-6	7-8	9-12	4	5	6	7-12
Brace: immobilizer for patient comfort	X	(X)							
Range of motion minimum goals:									
0°-110°	X								
0°-120°		X							
0°-135°			X						
Weight bearing:									
1/2 body weight	X								
Full		X							
Patella mobilization	X	X	X						
Modalities:									
Electrical muscle stimulation	X	X	X						
Pain/edema management (cryotherapy)	X	X	X	X	X	X	X	X	X
Stretching:									
Hamstring, gastroc-soleus, iliotibial band, quadriceps	X	X	X	X	X	X	X	X	X
Strengthening:									
Quadriceps isometrics, straight leg raises, active knee extension	X	X	X	X					
Closed-chain: gait retraining, toe raises, wall sits, mini-squats	X	X	X	X	X				
Knee flexion hamstring curls (90°)	X	X	X	X	X	X	X	X	X
Knee extension quadriceps (90°-30°)	X	X	X	X	X	X	X	X	X
Hip abduction-adduction, multi-hip	X	X	X	X	X	X	X	X	X
Leg press (70°-10°)	X	X	X	X	X	X	X	X	X
Balance/proprioceptive training:									
Weight-shifting, cup walking, BBS	X	X	X	X					
BBS, BAPS, perturbation training, balance board, mini-trampoline				X	X	X	X	X	
Conditioning:									
UBC	X	X	X						
Bike (stationary)		X	X	X	X	X	X	X	X
Aquatic program		X	X	X	X	X	X	X	X
Swimming (kicking)				X	X	X	X	X	X
Walking				X	X	X	X	X	X
Stair climbing machine			X	X	X	X	X	X	X
Ski machine			X	X	X	X	X	X	X
Elliptical machine				X	X	X	X	X	X
Running: straight					X	X	X	X	X
Cutting: lateral carioca, figure-8's						X	X	X	X
Plyometric training						X	X	X	X
Full sports							X	X	X

BAPS = Biomechanical Ankle Platform System (Camp, Jackson, MI), BBS = Biodex Balance System (Biodex Medical Systems, Inc, Shirley, NY), UBC = upper body cycle (Biodex Medical Systems, Inc, Shirley, NY).

SOURCE: Heckmann T, Noyes FR, Barber-Westin SD: Rehabilitation of primary and revision anterior cruciate ligament reconstructions. *Noyes' Knee Disorders: Surgery, Rehabilitation, Clinical Outcomes*, Saunders, Philadelphia, 2009, pp. 306-336.

Phase 1. Weeks 1 to 2

General Observation	50% weight bearing with 2 crutches when: - Postoperative pain controlled - Hemarthrosis controlled - Voluntary quadriceps contraction achieved	
Factors Evaluated		**Goals**
	Pain	Controlled
	Hemarthrosis	Mild
	Patellar mobility	Good
	Range of motion (minimum)	0°-110°
	Quadriceps contraction & patella migration	Good
	Soft tissue contracture	None
	Joint arthrometer (day 14)	< 3 mm
Frequency		**Duration**
3-4 x/day 10 minutes	**Range of motion** Range of motion passive, 0°-90° Patella mobilization Ankle pumps (plantar flexion with resistance band) Hamstring, gastroc-soleus stretches	 5 reps x 30 secs
3 x/day 15 minutes	**Strengthening** Straight leg raises (flexion, extension, abduction, adduction) Active quadriceps isometrics (full extension) Knee flexion (active, 0°-90°) Knee extension (active-assisted. 90°-30°) Multi-hip machine (flexion, extension, abduction, adduction) Leg press (70°-10°) Closed-chain - Mini-squats (0°-45°, 1/2 weight bearing)	 3 sets x 10 reps 1 set x 10 reps 3 sets x 10 reps 3 sets x 10 reps 3 sets x 10 reps 3 sets x 10 reps 3 sets x 20 reps
3 x/day 5 minutes	**Balance training** Weight shift side/side and forward/back	 5 sets x 10 reps
1-2 x/day 5 minutes	**Aerobic conditioning** UBC	
As required	**Modalities** Electrical muscle stimulation Cryotherapy	 20 minutes 20 minutes
Goals	Range of motion 0°-110° Adequate quadriceps contraction Control inflammation, effusion 50% weight bearing	

Phase 2. Weeks 3 to 4

General Observation	Full weight bearing with 1 crutch when: - Pain controlled without narcotics - Effusion controlled - ROM 0°-100° - Muscle control throughout ROM	
Evaluation		**Goals**
	Pain	Mild
	Effusion	Minimal
	Patellar mobility	Good
	Range of motion minimum	0°-120°
	Muscle control	3/5
	Joint arthrometer (day 28)	< 3 mm
	Inflammatory response	None
Frequency		**Duration**
3-4 x/day 10 minutes	**Range of motion** Range of motion passive, 0°-120° Patella mobilization Ankle pumps (plantar flexion with resistance band) Hamstring, gastroc-soleus stretches	 5 reps x 30 secs
2-3 x/day 20 minutes	**Strengthening** Straight leg raises (flexion, extension, abduction, adduction) Isometric training: multi-angle (90°, 60°, 30°) Heel raise/toe raise Hamstring curls (active, 0°-90°) Knee extension (active, 90°-30°) Closed-chain - Wall sits - Mini-squats Multi-hip machine (flexion, extension, abduction, adduction) Leg press (70°-10°)	 3 sets x 10 reps 1 set x 10 reps 3 sets x 10 reps 3 sets x 10 reps 3 sets x 10 reps 5 reps 3 sets x 20 reps 3 sets x 10 reps 3 sets x 10 reps
3 x/day 5 minutes 1-2 x/day 5 minutes	**Balance training** Weight shift side/side and forward/back Balance board/2 legged Cup walking Single leg stance (level surface)	 5 sets x 10 reps 5 reps
2 x/day 5 minutes	**Aerobic conditioning** UBC Water walking Stationary bicycling (patellofemoral precautions)	
As required	**Modalities** Electrical muscle stimulation Cryotherapy	 20 minutes 20 minutes
Goals	Range of motion 0°-125° Muscle control Arthrometer within 3 mm Control inflammation, effusion 100% weight bearing	

Phase 3. Weeks 5 to 6

General Observation	Independent ambulation when: - Pain controlled - Effusion controlled - ROM 0°-120° - Muscle control throughout ROM	
Evaluation		**Goals**
	Pain	No RSD
	Effusion	Minimal
	Patellar mobility	Good
	ROM	0°-135°
	Muscle control	4/5
	Inflammatory response	None
	Gait	Symmetrical
Frequency		**Duration**
3 x/day 10 minutes	**Range of motion** Range of motion passive, 0°-135° Patella mobilization Hamstring, gastroc-soleus stretches	 5 reps x 30 secs
2 x/day 20 minutes	**Strengthening** Straight leg raises (ankle weight, not to exceed 10% of body weight) Straight leg raises, rubber tubing Isometric training: multi-angle (90°, 60°, 30°) Heel raise/toe raise Hamstring curls (active, 0°-90°) Knee extension with resistance (90°-30°) Closed-chain - Wall sits - Mini-squats Multi-hip machine (flexion, extension, abduction, adduction) Leg press (70°-10°)	 3 sets x 10 reps 3 sets x 10 reps 2 sets x 10 reps 3 sets x 20 reps 3 sets x 10 reps 3 sets x 10 reps 5 reps 3 sets x 20 reps 3 sets x 10 reps 3 sets x 10 reps
3 x/day 5 minutes	**Balance training** Balance board/2 legged Lateral step-ups: 2-4”	
2 x/day 10 minutes	**Aerobic conditioning** (patellofemoral precautions) UBC Stationary bicycling Water walking Stair machine (low resistance, low stroke) Ski machine (short stride, level, low resistance) Elliptical (low resistance)	
As required	**Modalities** Cryotherapy	 20 minutes
Goals	Range of motion 0°-135° Control inflammation, effusion Muscle endurance Recognition complications (motion loss, pain syndrome, increased AP displacement) Recognition patellofemoral changes Full weight bearing, normal gait	

Phase 4. Weeks 7 to 8

General Observation	No effusion, painless ROM, joint stability ROM 0°-135° Performs activities of daily living, Full weight can walk 20 minutes without pain bearing	
Evaluation		**Goals**
	■ Manual muscle test Hamstrings, quadriceps, hip abductors/adductors/flexors/extensors	4/5
	■ Swelling	None
	■ Joint arthrometer (8 weeks)	< 3 mm
	■ Patellar mobility	Good
	■ Crepitus	None/slight
Frequency		**Duration**
2 x/day 10 minutes	**Range of motion** Hamstring, gastroc-soleus stretches	 5 reps x 30 secs
2 x/day 20 minutes	**Strengthening** Straight leg raises, rubber tubing Hamstring curls (active, 0°-90°) Knee extension with resistance (90°-30°) Leg press (70°-10°) Multi-hip machine (flexion, extension, abduction, adduction) Closed-chain - Wall sits - Mini-squats	 3 sets x 30 reps 3 sets x 10 reps 3 sets x 10 reps 3 sets x 10 reps 3 sets x 10 reps 5 reps 3 sets x 20 reps
3 x/day 5 minutes	**Balance training** Balance board/2 legged Single leg stance Resistance band walking Plyoback ball toss Perturbation trarining	
1-2 x/day 15-20 minutes	**Aerobic conditioning** (patellofemoral precautions) Stationary bicycling Water walking Swimming (straight leg kicking) Walking Stair machine (low resistance, low stroke) Ski machine (short stride, level, low resistance) Elliptical machine (low resistance)	
As required	**Modalities** Cryotherapy	20 minutes
Goals	Increase strength and endurance	

Phase 5. Weeks 9 to 12

General Observation	No effusion, painless ROM, joint stability ROM 0°-135° Performs activities of daily living, Full weight can walk 20 minutes without pain bearing	
Evaluation		**Goals**
	■ Manual muscle test Hamstrings, quadriceps, hip abductors/adductors/flexors/extensors	4/5
	■ Isometric test (12 wks, mean avg torque/% deficit quads & hams)	30
	■ Swelling	None
	■ Joint arthrometer (12 weeks)	< 3 mm
	■ Patellar mobility	Good
	■ Crepitus	None/slight
Frequency		**Duration**
2 x/day 10 minutes	**Range of motion** Hamstring, gastroc-soleus, quad, ITB stretches	 5 reps x 30 secs
2 x/day 20 minutes	**Strengthening** Straight leg raises, rubber tubing Hamstring curls (active, 0°-90°) Knee extension with resistance (90°-30°) Leg press (70°-10°) Multi-hip machine (flexion, extension, abduction, adduction) Closed-chain - Wall sits - Mini-squats - Lateral step-ups (2-4" block)	 3 sets x 30 reps 3 sets x 10 reps 3 sets x 10 reps 3 sets x 10 reps 3 sets x 10 reps 5 reps 3 sets x 20 reps 3 sets x 10 reps
3 x/day 5 minutes	**Balance training** Balance board/2 legged Single leg stance Resistance band walking Plyoback ball toss Perturbation trarining	
3 x/week 15 -20 minutes	**Aerobic conditioning** (patellofemoral precautions) Stationary bicycling Water walking Swimming (kicking) Walking Stair machine (low resistance, low stroke) Ski machine (short stride, level, low resistance) Elliptical machine (low resistance)	
3 x/week 10 minutes	**Running program** (straight) Jog Walk Backward walk	 1/4 mile 1/8 mile 20 yards
As required	**Modalities** Cryotherapy	 20 minutes
Goals	Increase strength and endurance	

Phase 6. Weeks 13 to 26

General Observation	No effusion, painless ROM, joint stability Performs activities of daily living, can walk 20 minutes without pain	
Evaluation		**Goals**
	Isokinetic test (isometric + torque 300°/sec, % difference quads & hams, tested monthly)	20-25%
	Swelling	None
	Joint arthrometer	3 mm
	Patellar mobility	Good
	Crepitus	None/slight
	Single-leg function tests (hop distance, timed hop, % inv/uninv)	75%
Frequency		**Duration**
2 x/day 10 minutes	**Range of motion** Hamstring, gastroc-soleus, quad, ITB stretches	 5 reps x 30 secs
1 x/day 20-30 minutes	**Strengthening (patellofemoral precautions)** Straight leg raises, rubber tubing (high speed) Hamstring curls (active, 0°-90°) Knee extension with resistance (90°-30°) Leg press (70°-10°) Multi-hip machine (flexion, extension, abduction, adduction)	 3 sets x 30 reps 3 sets x 10 reps 3 sets x 10 reps 3 sets x 10 reps 3 sets x 10 reps
3 x/day 5 minutes	**Balance training** Balance board/2 legged → Single leg Single leg stance → Unstable platform	
3 x/week 20-30 minutes	**Aerobic conditioning** (patellofemoral precautions) Stationary bicycling Water walking Swimming (kicking) Walking Stair machine (low resistance, low stroke) Ski machine (short stride, level, low resistance) Elliptical machine (low resistance)	
3 x/week 15-20 minutes	**Running program** (straight) Jog (progression of speed: ½, ¾, full) Walk Backward run	 1/4 – 1 mile 1/8 mile 20 yards
3 x/week	**Cutting program** – lateral, carioca, figure 8's	20 yards
3 x/week	**Functional training** Plyometric training: box hops, level, double-leg Sport specific drills	 15 secs, 4-6 sets
As required	**Modalities** Cryotherapy	 20 minutes
Goals	Increase strength and endurance	

Phase 7. Weeks 27 to 52

General Observation	No effusion, painless ROM, joint stability Performs ADL, can walk 20 minutes without pain	
Evaluation		**Goals**
	Isokinetic test (torque at 180°/sec & 300°/sec, % difference quads & hams, tested quarterly; isometric if symptomatic PF joint	10-15
	Swelling	None
	Joint arthrometer	< 3 mm
	Patellar mobility	Good
	Crepitus	None/slight
	Single-leg function test (hop distance, timed hop, % inv/uninv)	85
Frequency		**Duration**
2 x/day 10 minutes	**Range of motion** Hamstring, gastroc-soleus, quad, ITB stretches	 5 reps x 30 secs
3-4 x/week 20-30 minutes	**Strengthening (patellofemoral precautions)** Straight leg raises, rubber tubing (high speed) Hamstring curls (active, 0°-90°) Knee extension with resistance (90°-30°) Leg press (70°-10°) Multi-hip machine (flexion, extension, abduction, adduction)	 3 sets x 30 reps } 1-2 sets x 8-12 reps
3 x/day 5 minutes	**Balance training** Balance board/2 legged ⟶ Single leg Single leg stance - unstable platform w/secondary activity	
3 x/week 20-30 minutes	**Aerobic conditioning** (patellofemoral precautions) Stationary bicycling Water walking Swimming (kicking) Walking Stair machine (low resistance, low stroke) Ski machine (short stride, level, low resistance) Elliptical (low resistance)	
3 x/week 20 minutes	**Running program** (straight) Interval training (20, 40, 60, 100 yards) Walk/rest phase (3:1 rest: work) Backward run	 20 yards
3 x/week	**Cutting program** – lateral, carioca, figure 8's	20 yards
3 x/week	**Functional training** Plyometric training: box hops, level, double-leg Sport specific drills	 15 secs, 4-6 sets
As required	**Modalities** Cryotherapy	 20 minutes
Goals	Increase function, strength, endurance Return to previous activity level	

SPORTSMETRICS JUMP TRAINING

SportsMetrics is the first ACL Injury Prevention Program that is scientifically proven. It was created by a team of athletic trainers, physical therapists and researchers, under the direction of Dr. Frank Noyes.
Sportsmetrics™ is the foundation upon which sports-specific skills are built. Jumping drills are used to teach the athlete to preposition the entire body safely when accelerating (jumping) or decelerating (landing). A solid foundation of strength, coordination and overall physical conditioning is required for athletes to attain their highest potential in their sport-specific skills.

JUMP DESCRIPTIONS

18O JUMPS
Two-footed jump, rotating 180° in mid-air. Keep arms At the side in a 90° angle. Hold each landing for 2 sec. Repeat in reverse direction

BOUNDING FOR DISTANCE
Start bounding in place and slowly increase distance with each step, keeping knees high.

BOUNDING IN PLACE
While leaning forward over the toes, jump from one leg to the other straight up and down, progressively increasing rhythm and knee height.

BROAD JUMP-STICK LANDING
Two-footed jump as far as possible. Hold landing (knees bent) for 5 seconds.

CONE JUMPS
With feet together, jump side-to-side over cones quickly. Then perform jumps forward and backward. (♦)

HOP,HOP, STICK
Perform three single leg hops, holding the third landing for 5 seconds with knees slightly bent. Increase distance of hop as technique improves. Alternate legs. (♦)

JUMP INTO BOUNDING
Two-footed broad jump. Land on single leg, then progress into bounding for distance. (♦)

SCISSORS JUMP
Start in stride position with one foot well in front of the other. Jump up, alternating foot positions in mid-air.

SINGLE LEG JUMPS FOR DISTANCE
One-legged hop for distance. Hold landing for 2 seconds with knee slightly bent. (♦)

SQUAT JUMPS (FROG JUMPS)
Standing jump raising both arms overhead, land in squatting position touching both hands to the floor. (♦)

STEP,JUMP UP,DOWN, VERTICAL
Two-footed jump onto a 6 to 8 inch box or stacked gym mats. Reverse and jump forward off box with two feet. After landing, quickly jump straight up with arms raised overhead.

TUCK JUMPS
From standing position, jump and bring both knees up to chest as high as possible. Repeat quickly. (♦)

WALL JUMPS (ANKLE BOUNCES)
With knees slightly bent and arms raised overhead, bounce up and down off toes.

JUMP,JUMP,JUMP, VERTICAL
Three broad jumps with vertical jump immediately after landing the third broad jump. Raise arms straight up with vertical jump.

IMPORTANT INFORMATION:

⇒ (♦) These jumps performed on a surface such as a track or gym mats.
⇒ Proper form is a must!
⇒ Stop when the athlete loses proper form or fatigue has set in.
⇒ Rest time is double the jump time. 30 sec rest for rep jumps.

Orthopaedic & Spine Clinic of Louisiana
Experience You Can Trust Since 1951

Dr. Meyer

SPORTSMETRICS JUMP TRAINING

Warm-up:
- 2 laps of jogging/skipping
- 2 laps of side shuffle
- Stretch for 5 to 10 minutes

Cool-down:
- Walk or light jog
- Stretch for 5 to 10 minutes
- Ice (if needed) for 15-20 minutes

PHASE 1: TECHNIQUE DEVELOPMENT

	WEEK 1 # OF REPS				WEEK 2 # OF REPS			
	TIME	MON	WED	FRI	TIME	MON	WED	FRI
Wall Jumps	20 sec	_____	_____	_____	25 sec	_____	_____	_____
Tuck Jumps	20 sec	_____	_____	_____	25 sec	_____	_____	_____
Broad jumps-stick landing	5 reps	_____	_____	_____	10 reps	_____	_____	_____
Squat Jumps	10 sec	_____	_____	_____	15 sec	_____	_____	_____
Cone Jumps								
Side-to-side	20 sec	_____	_____	_____	25 sec	_____	_____	_____
Back-to-front	20 sec	_____	_____	_____	25 sec	_____	_____	_____
180 Jumps	20 sec	_____	_____	_____	25 sec	_____	_____	_____
Bounding in Place	20 sec	_____	_____	_____	25 sec	_____	_____	_____
Total Contacts		_____	_____	_____		_____	_____	_____
	Maximum goal per day of total contacts = 120 contacts				**Maximum goal per day of total contacts = 150 contacts**			

PHASE 2: FUNDAMENTALS

	WEEK 3 # OF REPS				WEEK 4 # OF REPS			
	TIME	MON	WED	FRI	TIME	MON	WED	FRI
Wall Jumps	30 sec	_____	_____	_____	30 sec	_____	_____	_____
Tuck Jumps	30 sec	_____	_____	_____	30 sec	_____	_____	_____
Jump,jump,jump,vert jump	5 reps	_____	_____	_____	8 reps	_____	_____	_____
Squat Jumps	20 sec	_____	_____	_____	20 sec	_____	_____	_____
Bounding for Distance	1 run	_____	_____	_____	2 runs	_____	_____	_____
Cone Jumps								
Side-to-side	30 sec	_____	_____	_____	30 sec	_____	_____	_____
Back-to-front	30 sec	_____	_____	_____	30 sec	_____	_____	_____
Scissors Jump	30 sec	_____	_____	_____	30 sec	_____	_____	_____
Hop, hop, stick (double)	5 reps	_____	_____	_____	5 reps	_____	_____	_____
Total Contacts		_____	_____	_____		_____	_____	_____
	Maximum goal per day of total contacts = 160 contacts				**Maximum goal per day of total contacts = 190 contacts**			

PHASE 3: PERFORMANCE

	WEEK 5 # OF REPS				WEEK 6 # OF REPS			
	TIME	MON	WED	FRI	TIME	MON	WED	FRI
Wall Jumps	30 sec	_____	_____	_____	30 sec	_____	_____	_____
Step,jump up,down,vertical	5 reps	_____	_____	_____	10 reps	_____	_____	_____
Scissors Jump	30 sec	_____	_____	_____	30 sec	_____	_____	_____
Single leg jumps distance	5 reps/leg	_____	_____	_____	5 reps/leg	_____	_____	_____
Squat Jumps	25 sec	_____	_____	_____	25 sec	_____	_____	_____
Jump into bounding	3 runs	_____	_____	_____	4 runs	_____	_____	_____
Single leg hop,hop stick	5 reps/leg	_____	_____	_____	5 reps/leg	_____	_____	_____
Total Contacts		_____	_____	_____		_____	_____	_____
	Maximum goal per day of total contacts = 220 contacts				**Maximum goal per day of total contacts = 250 contacts**			