



Indiana University Health

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Sports Medicine and Arthroscopic Surgery
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Reconstruction (Autograft or Allograft) +/- Meniscus Repair

General Post Op Instructions

Wound Care	<ul style="list-style-type: none"> ✓ Dressings can be removed 2 days after surgery, or they can be removed at the first physical therapy appointment ✓ If desired, incisions may be covered with simple dressings (band-aids)
Swelling	→ Swelling and bruising are to be expected after a surgical procedure
Ice and Elevate	<ul style="list-style-type: none"> ✓ Ice 20 minutes on 20 minutes off, several times a day to help with swelling ✓ Do not place ice or cold back directly onto the skin ✓ Elevate the limb above the heart when able
Showering	<ul style="list-style-type: none"> → Do not soak incisions in water until after stitches are removed → You may begin to shower 2 days after surgery after dressings are removed <ul style="list-style-type: none"> ▪ Allow soapy water to run over the incision but do not scrub ▪ Dry, apply band-aids if needed
Driving	<ul style="list-style-type: none"> ✓ Dr. Call does not release people to drive at a specific date or week post op ✓ It is unlawful to drive under the influence of opioid (strong pain) medications ✓ Must be able to safely apply the brakes before returning to drive ✓ Driving in a brace/sling/boot is not recommended

Weight Bearing Restrictions and Brace Use

	ACL Reconstruction	ACL Reconstruction <u>AND</u> Meniscus Repair
Week 1-2	<ul style="list-style-type: none"> ✓ WBAT with crutches ✓ Brace locked in extension for ambulation and sleep 	<ul style="list-style-type: none"> ✓ Flatfoot Weight Bearing (only leg weight on the ground) with crutches ✓ Brace locked in extension for ambulation and sleep
Weeks 3-4	<ul style="list-style-type: none"> ✓ WBAT without crutches (if good quad control) ✓ Brace unlocked, unless quad control prohibits 	<ul style="list-style-type: none"> ✓ Flatfoot Weight Bearing (only leg weight on the ground) with crutches ✓ Brace locked in extension for ambulation and sleep unlock brace to 90° for sitting
Weeks 5	<ul style="list-style-type: none"> ✓ Discontinue brace if <ol style="list-style-type: none"> 1. Strong quad strength 2. Pain free WB and minimal gait deviation 	<ul style="list-style-type: none"> ✓ PWB with crutches, progress to FWB ✓ Brace unlocked ✓ Wean off crutches when good quad control is reached
Week 6 +	<ul style="list-style-type: none"> <ol style="list-style-type: none"> 3. Minimal effusion 4. Full extension 	<ul style="list-style-type: none"> ✓ WBAT when little to no effusion, good SLR with no quad lag & absent pain at meniscus repair site ✓ Discontinue brace at home, use until week 8 if needed



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Immediate Post Operative Phase (up to week 4)

Overall Goals	<ul style="list-style-type: none">✓ Restore ROM, minimize pain, and decrease effusion with cryotherapy/compression✓ Educate on home exercise program and proper gait patterns✓ Improve neuromuscular control
Cautions	<ul style="list-style-type: none">→ Avoid weighted open chain knee extension exercises > 45° for 8 weeks→ If meniscus was repaired avoid closed kinetic chain exercises > 90° for 8 weeks→ No need to perform ligamentous stress testing of reconstructions
Range of Motion	<ul style="list-style-type: none">✓ Recover patellar mobility in all four directions✓ Achieve full extension by 2 weeks, use prone or bag hangs✓ Aim for symmetrical ROM in flexion, > 115° by end of week 4 (if allowed)
Therapeutic Suggestions	<ul style="list-style-type: none">→ Teach home exercise program (HEP)→ Ambulate with appropriate gait pattern, emphasis on quad activation→ Quad isometrics including 4 way SLR→ Terminal knee extensions into physio ball or by week 2-3 Total Gym (level 1-3; 0-45 degree knee flexion double leg)→ Standing weight shifts forward/lateral, Standing mini squats, BLE leg press→ TKE; weighted bag hangs, prone hangs as needed to increase extension (with up to 10 lbs)→ Modalities: may use ultrasound, NMES, manuals, BFR, aqua therapy after week 3→ Stationary bike at appropriate seat height (no elliptical)
Progression Ready to Next Phase	<ul style="list-style-type: none">✓ 0-120° of motion✓ Minimal effusion✓ Strength: appropriate quad activation, able to perform straight leg raise without fatigue <p><i>If not all goals are met, patient may progress to the next phase with intervention plan in place to address deficiencies</i></p>

Intermediate Rehabilitation Phase (Weeks 5 – 8)

Overall Goals	<ul style="list-style-type: none">✓ Normalize gait pattern, improve lower extremity strength symmetry while avoiding compensatory movement patterns (such as valgus knee collapse or hip drop)✓ Advance strengthening
Cautions	<ul style="list-style-type: none">→ Start open chain knee extension exercises from 90-45° (no weight > 45° for 8 weeks)→ If meniscus was repaired avoid closed kinetic chain exercises > 90° for 8 weeks
Range of Motion	<ul style="list-style-type: none">✓ Maintain/improve patellar mobility in all four directions✓ Maintain full extension, improve ROM in flexion > 120°



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Therapeutic Suggestions	→ Ambulate with appropriate gait pattern → Begin open chain long arc quadricep exercises without resistance → Continue quad exercise progression including isometrics and 4 way SLR → Hamstring curls, leg press (progress to single leg) → Single leg balance while improving gluteal stability → Core strengthening
Progression	✓ 0 – >120° of motion, mobile patella
Ready to	✓ Minimal effusion
Next Phase	✓ Strength: appropriate quad activation, good lower extremity neuromuscular control

Advance Strengthening Phase (Weeks 9 – 12)

Overall Goals	✓ Advance lower extremity strength symmetry while avoiding compensatory movement patterns
Cautions	→ Counsel on avoiding too rapid return to activities
Range of Motion	✓ Maintain knee and patella ROM
Therapeutic Suggestions	→ Ambulate with appropriate gait pattern → Begin open chain long arc quadricep exercises without resistance → Continue quad exercise progression including isometrics and 4 way SLR → Hamstring curls, leg press (progress to single leg) → TKEs if needed → Can add pulley weights or therabands → Single leg balance while improving gluteal stability → Stationary bike at appropriate seat height, elliptical can start at end of week 8 → May add side lunges
Progression	✓ Quad and hamstring muscle strength \geq 80% of contralateral limb
Ready to	✓ Shows proper lower extremity mechanics
Next Phase	



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Late Rehabilitation and Strengthening Phase (Week 13 – 24)

Overall Goals	✓ Encourage independence with home exercises
Cautions	→ Counsel on avoiding too rapid progression to activities → No cutting or pivoting activities until 7 months post op
Range of Motion	✓ Maintain knee and patella ROM
Therapeutic Suggestions	→ Plyometrics ▪ Examples: single leg hops, box jumps, double leg hops on unstable surfaces → Jogging and flutter kick (swimming) around week 16 + if patient is ready → Ladder drills → Core and trunk strengthening
Progression Ready to Agility Training	✓ Tolerates jogging ✓ Land with good control and correct form on mat jumps ✓ MMT at least 5/5, ROM equal to uninvolved side or at least 0-125 ✓ Normal gait pattern at least 20 minutes without symptoms ✓ Leg Press Test/Reach Test/Lateral Step Test within 75-80% of contralateral LE ✓ No pain, crepitus, edema or giving way
Return to Sports	✓ Clearance by surgeon (usually month 12 post op) ✓ Completion of running and agility/plyometric program without symptoms with good form ✓ Quadriceps strength 85-90 % ✓ Quad torque to body weight ratio: 1. Males: @180°/sec 65-75% 2. Females: @180°/sec 50-60% ✓ Hamstring strength 100% for patellar tendon graft, at least 85% for hamstring graft ✓ Hamstring to quadriceps ratio is 65% ✓ Good balance and proprioception ✓ Functional tests (single leg hop for distance, single-leg triple crossover hop, 6 meter timed hop) is 85% compared to opposite LE ✓ KT test < 3mm laxity compared to non-involved side ✓ Vertical Jump 85% ✓ Leg Press 85% ✓ Lateral shuttle – between 3-meter line, timed for 10 reps (5 in each direction); look for knee control, knee position and or compensation