

Rehabilitation Protocol for ACL Reconstruction



Dr. Feinstein

Phase 1: (0-4 Weeks)

WEIGHT BEARING

- WBAT with brace locked and crutches
- Unlock brace when adequate quad control
- Wean off crutches as gait normalizes

BRACE

- 0-2 weeks:
 - Locked in full extension for ambulation and sleeping
- 2-4 weeks:
 - Unlocked with adequate quad control; may remove for sleep
- If meniscus repair, refer to PT script

ROM

- Advance as tolerated
- STRESS EARLY EXTENSION (avoid hypertext less than 10 degrees)
- If meniscus repair, refer to PT script

EXERCISES

- Extension exercises: Gastroc & hamstring stretches, prone hangs, manual overpressure
- Flexion exercises: heel slides, wall slides
- 4-way patellar mobility
- E-stim and biofeedback
- Early strengthening: quad sets, SLR x 4, TKE (CKC), mini squats, wall sits
- Progress strength: leg press, step ups/downs, bridges, hamstring curls
- Balance & proprioception exercises
- Gait training

GOAL PROGRESSION CHECK LIST (IF PARTICIPATING)

- Full ambulation without assistance:
- VAS ≤ 5 (worst) & IKDC ≥ 30
- Knee extension PROM $\geq 0^\circ$
- Knee Flexion PROM $\geq 110^\circ$
- ≥ 30 SLR without quad lag

- BESS (SL-FIRM) ≤ 5
- MD APPROVAL

Phase 2: (4-12 Weeks)

WEIGHT BEARING

- As tolerated

BRACE

- Discontinue when no extension lag & gait is normal in brace*

ROM

- Full

EXERCISES

- Continue with phase I
- Aggressive ROM exercises if lacking (weighted prone hangs)
- Progressive strengthening: add single leg squats and leg press, lunges, mini band walking, step ups
- Advance hip and core; perturbation exercises
- Cardio: Bike, elliptical, fast treadmill walking (limit under 20 min until week 8, then as tolerated)
- Aquatic: SLR x 4, squat, bicycle kick, fast walk to jog

Phase 3: (12-18 Weeks)

WEIGHT BEARING

- Full

BRACE

- Functional bracing dependent on patient activity and MD recommendation

ROM

- Full

*If you have any problems or questions,
please call your doctor's office (8am-5pm).*

Answering service for after hours.

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EXERCISES

- Advance closed chain strengthening
- Knee extensions 90°-30°, progress to eccentrics
- Progress proprioception activities
- Continue non-impact cardio as tolerated, begin swimming
- If meet “goal progression” criteria, begin straight line jog to run progression
 - Allografts delay to 16 weeks

GOAL PROGRESSION CHECK LIST

- Initiate Jogging Program:
- VAS ≤ 3 (Worst) & IKDC ≥ 30
- Knee extension PROM $\geq 0^\circ$ or symmetry
- Heel Height Difference ≤ 1 cm
- Knee Flexion PROM $\geq 120^\circ$
- Overhead squat (FMS) ≥ 2
- Single leg squats— Vail Test ≥ 1 minute
- MD APPROVAL

Phase 4: (18-24 Weeks)

WEIGHT BEARING

- Full

BRACE

- Functional bracing dependent on patient activity and MD recommendation

ROM

- Full

EXERCISES

- Continue and progress strengthening program based on goals and deficits
- Agility progression when criteria met: side steps, crossovers, figure 8 running, shuttle run, one/two leg jumping, cutting, acceleration decel sprints, agility ladders
- 20 weeks: Initiate plyometric program as appropriate for patient goals

- Allografts delay to 24 weeks
- Initiate sport specific drills as appropriate

GOAL PROGRESSION CHECK LIST

- Initiate Agility Training:
- VAS ≤ 2 (Worst) & IKDC ≥ 70
- Tampa Kinesiophobia Scale < 20
- Heel Height Difference ≤ 1 cm
- Quad & HS symmetry $\geq 80\%$
- Y Balance deficits < 4 cm (each direction)
- Landing error scoring system ≤ 5
- MD APPROVAL

Phase 5: (6+ Months)

WEIGHT BEARING

- Full

BRACE

- Functional bracing dependent on patient activity and MD recommendation

ROM

- Full and pain-free

EXERCISES

- Gradual return to sports participation
- Maintenance program

GOAL PROGRESSION CHECK LIST

- Full Return to Sport:
- VAS ≤ 2 (Worst) & IKDC ≥ 80
- Tampa Kinesiophobia Scale < 20
- Heel Height Difference ≤ 1 cm
- Quad & HS symmetry $\geq 90\%$
- HS/Quad strength ration $\geq 55\%$
- Symmetry for Hop testing $\geq 90\%$
- Agility: Agility T-test, Figure-of-8 Test
- Complete sports metrics
- MD APPROVAL

Updated 10/2022 *Modified with concomitant meniscal or cartilage procedure