



Mid-America Orthopedics

Dr. Justin Strickland

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ACL REPAIR PROTOCOL

(Hamstring Autograft/Quad Tendon Autograft)

Week 1 (2-4 Visits/week)

- **Brace:** Opened to full ROM
Ambulation: WBAT w/ 1-2 crutch(s) until normal gait achieved
ROM: 0°-100° at minimum
- **Strengthening:**
SLR (All planes)
Quad sets
Ankle pumps (PF with band)
Weight Shifts
Mini squats, mini anterior lunge (0°-20° only)
Step-ups, step-downs
Balance and proprioception work
Lunges: all planes
Gentle lateral movements: Side steps, walk through carioca, etc.
- **Aerobic conditioning**
Stationary bike

Week 2 (2-4 Visits/week)

- **Brace:** continue with brace
- **Ambulation:** should be off crutches
- **ROM:** 0°-110° at minimum
- **Incisions:** begin scar massage on portals
- **Strengthening:**
Challenge balance: medicine ball tosses, walking lunges
Continue to progress closed chain strengthening

Weeks 3-6 (2-4 Visits/week)

- **Brace:** continue with brace
- **ROM:**
 - 0°-120° at week 4 at minimum
 - 0°-135° at week 6 at minimum
 - DO NOT FORCE PAST 135
- **Strengthening:**

Cardio equipment: NO running, jumping, sport activity

Weight equipment:

Squat rack (1/4 to 1/2 squats)

Unilateral leg press

Free weights

Lunges with handheld weights

- **Total body control:** dumbbell activities for combo work or strength/ balance/ proprioception
- **No open chain activities for at least 8 weeks**

Weeks 6-10 (2-4 Visits/week)

- **Brace:** Wean out of brace
- **ROM:** Full range by 6-8 weeks
- **Strengthening:** Continue advancing
 - Cardio
 - Strength training
 - Proprioception
 - Increased range
 - Increased load/demand
 - Simulation of functional activities: return to sport positions/ reaches
 - Lunge matrix with dumbbells
 - Light, short distance throwing (NO pitching), free throws, and chipping/putting
- **Weeks 9-10:** Low level step and sticks to work toward bent-knee landing in preparation for running

3 Months

- **Straight ahead running**
 - Start with 100 yds at half speed on soft level surface
 - Add 100 yds every other day
 - Work up to 1 mile or 1760 yds
- **Gentle lateral movements:**
 - Defensive slide
 - Floor ladder
 - Figure 8's
 - Carioca's
- **Transverse plane movements:**
 - Pivots
 - Steps with rotation
- **Low level plyometrics:** stationary jumps, hops, skipping rope. Refer also to MAO plyometric program
- Golf and Outdoor bike

6 Months

- **Cutting drills**
- **Advance sport specific drills:**
 - Soccer: Hard kicks if surgery leg is kick leg, do not plant on surgery leg
 - Basketball: lay ups and jump shots, no scrimmaging or one on one
 - Softball/Baseball: Throwing, hitting, running bases
 - Raquet sports: low level hitting against backboard

- **Increase running program**
 - Speed
 - Rounded turns
 - Backpedal
 - Low level direction changes
- **Aggressive agility drills:**
 - Jump
 - Hop
 - Plyometric activities
- **Teach deceleration and injury prevention techniques:**
 - Rounded turn
 - Bent knee landings
 - 3-step stops

Patient progression during the time frames along with general modality and exercise choice is left up to the discretion of the treating therapist. If you have any questions regarding this protocol, please contact (316) 630-9300.