



Mid-America Orthopedics

Dr. John Babb

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QUAD TENDON REPAIR PROTOCOL

Day 1- Day 3 Post-op

- PT removes bandages on POD #3, keep steri-strips intact until Dr Babb can remove them.
- **NO ice bags** on any oozing or open wounds without being covered first with a bandage.
- If any wounds are oozing delay range of motion until wounds are closed and healed.
- **NO water on wounds** for 2 weeks (including showers) even if covered, no submersion of wounds in water (baths) until wounds are scars.
- No ointments, betadine etc should be used on the incisions or portals.
- If any drainage/oozing is present recover with 4x4's, and notify Dr Babb (may need antibiotics).
- **Brace: Locked in extension at all times for 6 weeks**
- **Crutches for 6 weeks post-op- reducing to single crutch at Day 28 post-op.**
- **ROM: No ROM for 6 weeks**
 - Heel prop (brace off)
 - Patellar mobilizations (brace off)
 - Hamstring/gastroc stretching (brace off)
- **Ambulation: TTWB w/ crutches until Day 4 post-op.**
- **Strengthening:**
 - Quad sets
 - Hip abduction/adduction (with brace on)
 - Ankle pumps (PF with band)
- **Ice and elevation**
- **Russian stim/NMES to restore normal quadriceps contraction**

Day 4- 27 Post-op (2-4 Visits/week)

- **Brace: Locked in extension at all times for 6 weeks.**
- **ROM: No ROM for 6 weeks**
 - Heel prop (brace off)
 - Patellar mobilizations (brace off)
 - Hamstring/gastroc stretching (brace off)
- **Ambulation: WBAT w/ crutches until Day 4 post-op.**
- **Strengthening:**
 - Quad sets
 - Glute sets

- Hip abduction/adduction (with brace on)
- Ankle pumps (PF with band)
- Initiate gravity eliminated SLR- flexion (assisted or assisted side-lying) with brace locked in extension
- **Aerobic conditioning**
 - UBE (No leg involvement)
- **Russian stim/NMES to restore normal quadriceps contraction**

Day 28-41 Post-op (2-4 Visits/week)

- **Brace: Locked in extension at all times for 6 weeks. Progress to single crutch if appropriate.**
- **ROM: No ROM for 6 weeks**
 - Heel prop (brace off)
 - Patellar mobilizations (brace off)
 - Hamstring/gastroc stretching (brace off)
- **Ambulation: WBAT w/ single crutch if appropriate**
- **Strengthening:**
 - Quad sets
 - Glute sets
 - Ankle 4-way isotonic strengthening
 - SLR- all planes with brace locked in extension
 - Proprioceptive drills
 - Weight shifting
- **Aerobic conditioning**
 - UBE (No leg involvement)
- **Russian stim/NMES to restore normal quadriceps contraction**

6- 8 Weeks Post-op (2-4 Visits/week)

- **Brace: Unlock from 0 deg. to 45 deg. if good quadriceps tone and SLR without ext. lag. If poor quadriceps tone/ext. lag c SLR, keep brace locked**
 - Discontinue sleeping in brace at 7 weeks s/p
- **ROM:**
 - 6 weeks post-op: **0-90 deg.**
 - 7 weeks post-op: **0-100 deg.**
 - 8 weeks post-op: **0-115 deg.**
 - Active knee extension 90-30 deg.
 - Multi-angle knee extension isometrics (sub-max)
 - Heel prop (brace off)
 - Patellar mobilizations (brace off)
 - Hamstring/gastroc stretching (brace off)
- **Ambulation: WBAT w/ crutches until Day 4 post-op.**
- **Strengthening:**
 - Quad sets
 - Glute sets
 - Ankle 4-way isotonic strengthening

- SLR- all planes
- Weight shifts
- **Mini squats 0-45 deg.**
- **Aerobic conditioning**
 - UBE (No leg involvement)
- **Russian stim/NMES to restore normal quadriceps contraction**

8-12 weeks Post-op (2-4 Visits/week)

- **Brace:**
 - Wean out of brace if strength is 80% of other leg or d/c'd by Dr. Babb (8-10 weeks post-op)
 - Fully unlocked
- **ROM:**
 - 8 weeks post-op: **0-115 deg.**
 - 9 weeks post-op: **0-130 deg.**
- **Strengthening:**
 - Progress previous strengthening/proprioception activities
 - Active knee extension 90-0 deg.
 - Leg press (vigor/total gym)
 - Front/lateral lunges
 - Calf raises
 - Hamstring curls (within allowed ROM)
 - Bicycle
 - 1/2 squats
 - **Low-level step ups at 10 weeks post-op**

3 Months Post-op

- **ROM:**
 - **Progress to full ROM**
- **Strengthening:**
 - Continue all previous strengthening/proprioceptive activities
 - Initiate lateral step-ups
 - Initiate front step-downs
 - Initiate backward lunges
 - Initiate functional activities including walking program

4 Months Post-op

- **Strengthening:**
 - Continue previous strengthening/proprioceptive activities
 - Continue emphasis on eccentrics and functional exercises

5 Months Post-op

- **Strengthening:**
 - Continue strengthening exercises
 - Continue emphasis on eccentrics and functional exercises

- **Initiate light running**
- **Initiate agility drills:**
 - lateral shuffling/cutting
 - Rounded turns
 - Low level direction changes
 - Jump
 - Hop
 - Plyometric activities
- **Teach deceleration and injury prevention techniques:**
 - Rounded turn
 - Bent knee landings
 - 3-step stops

7 Months Post-op

- **Possible return to sport activity**
 - Continue strengthening exercises
 - Continue agility program
 - Continue sport-specific training
- **Criteria for return to sport:**
 - Isometric quad/hamstring testing on surgery leg \geq 95% of non-surgery leg
 - Functional hop testing (broad jump, single leg hop, single leg triple hop with control, single leg triple hop with crossover) on surgery leg \geq 95% of non-surgery leg

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.