QUADRICEPS/PATELLA TENDON REPAIR PROTOCOL



This protocol should be used as a guideline for progression and should be tailored to the needs of the individual patient. WBAT with brace locked in extension for 6 weeks ***For Dr. Rogers: NO ROM until 8wks, can ambulate with brace locked in extension

Phase 1 Weeks 0-3:

Goals: Protect post-surgical repair

Precautions: Ambulate with crutches. Keep the incision and sutures dry. Continually use the brace locked in extension and crutches for weight bearing as tolerated (WBAT). The brace must always be worn and locked other than when performing rehabilitation exercise ***For Dr. Rogers: brace must be worn and locked in extension while performing exercises Weeks 0-2 ROM: 0-30 degrees, unless

otherwise stated by your physician Weeks 2-4 ROM: 0-60 degrees, unless otherwise stated by your physician

Initial Exercises:

Weeks 1-2:

- Ankle pumps
- Sub max guad sets
- Hamstring sets
- Gluteal sets
- Patella mobs
- UE exercises

Week 3: Cont exercises above, if appropriate

- SLR flexion opposite leg
- Posterior pelvic tilts
- Supine hamstring stretch with strap opposite leg
- AROM ankle with band

- Long sitting trunk rotations with band
- Seated/standing (with brace) bicep curls/tricep extensions with band/free weights
- Seated/standing (with brace) shoulder extension with band
- Seated/standing (with brace) rows with band

Phase 2 Weeks 4-6: Begin after meeting Phase 1 criteria

Goals: Normalize gait with WBAT with gradual progression, continuing to use the brace locked in extension, the ability to discontinue the crutches will be determined by the rehabilitation provider and physician based on your progress and leg control. Protection of post-surgical repair

Precautions: Continually use the brace locked in extension and use crutches for WBAT, with gradual progression, for ambulation. The brace must always be worn and locked other than when performing rehabilitation exercises.

Weeks 2-4 ROM: 0-60 degrees without active knee ext

Weeks 4-6 ROM: 0-90 degrees without active knee ext

Precautions and ROM limits may be altered by the surgeon based on the integrity of the repair and associated injury. These changes will be specifically stated by the surgeon.

See Notes throughout protocol for Dr. Rogers

Intermediate Exercises Weeks 4-6:

- Heel slides
- Chair slides
- 4-way leg lifts (standing progressing to table) brace on/locked in extension
- Heel raises
- Patella mobilizations
- Weight shifts with brace on locked in extension
- Seated knee flexion hang with assistance from opposite leg
- Cont UE's exercises

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Phase 3 Weeks 6-12: Begin after meeting Phase 2 criteria

Goals: Initiate active quadriceps contractions in weight bearing.

Weeks 6-8: Normalize gait on level surfaces using brace opened to 30-40 degrees of knee flexion without crutches Week 7: Brace opened to 90 degrees of knee flexion

Week 8-12: Begin progression to full ROM of knee flexion. ***For Dr. Rogers: Can begin AROM 14-16 weeks.

Weeks 8-10: Wean out of brace

*** For Dr. Rogers: CANNOT wean
out of brace until week week 12:

***For Dr. Rogers: Full ROM and
begin strength training

Precautions: Graduate progression to weight bearing with knee flexion with avoidance of weight bearing knee flexion past 70 degrees for 12 weeks after surgery

Continue to follow ROM limits for the specific time frame, as described below 0-130 degrees of ROM by Week 12

Intermediate exercises Weeks 6-8:

- LAQ
- SLR 4 way on table
- Supine clamshells progressing to side lying with band
- Reverse clamshells progressing with band at ankles
- Dead bug
- Slight mini squat 0-40 degrees
- Sit to stand
- Stationary bike
- Prone knee flexion
- Hamstring stretch with strap or legs up wall
- Supine IT band stretch with strap
- Calf stretch with strap knee straight

Weeks 8-10:

- Begin treadmill walking program forward and backward walking
- Begin elliptical
- Bridging
- Forward step ups
- Lateral step ups
- Continue progression of above listed exercises

- Continue core strengthening
- Hamstring stretch with strap or legs up wall
- Supine IT band stretch with strap
- Calf stretch with strap knee straight

Weeks 10-12: Progress both open and closed chained exercises to single leg when appropriate

- Leg press
- Shallow lunge step
- Marching bridges progressing to feet on t-ball
- Sidestepping progressing to band at knees/ankles
- Monster walks to band at knees/ankles
- Warrior walks
- Wall squats with t-ball behind back
- Hamstring stretch
- IT band stretch
- Calf stretch with strap knee straight
- Mini squat to 70 degrees progressing to airex/BOSU

Phase 4 Weeks 12-16: Begin after meeting Phase 3 criteria ***For Dr. Rogers: Full ROM and begin strength training

Goals: SLS with good control for 10 secs.

Full knee ROM. Good control with squat at 70 degrees of knee flexion

Precautions:

- Avoid forceful eccentric contractions
- Avoid impact activities
- Avoid exercises that create movement compensations

Advanced Exercises Weeks 12-16:

- Single leg stance with progression to air-ex/BOSU
- Standing fire hydrant progressing to band at knees
- Supine hamstring curls on t-ball
- Bridging progressing to marching to single leg
- Bridging on t-ball progressing to single leg

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- Side plank progressing to side plank clamshell, progressing to band at knees
- Single leg cone touch
- Single leg with diagonal forward reach/touch
- Backward step downs
- Romanian dead lift with UE curl to press
- Single leg running stance balance with progression to air-ex/BOSU
- Hamstring stretch
- IT band stretch
- Piriformis stretch
- Calf stretch

Phase 5 Weeks 16+: Begin after meeting Phase 4 criteria

Goals: Good control and no pain with sport and work specific movements, including impact

Precautions: Post-activity soreness should resolve within 24 hours- Avoid post-activity swelling. Avoid running with limp

Exercise progression:

- Impact control exercises beginning bilateral progressing to single leg
- Movement control exercise beginning with low velocity single plane activities progressing to higher velocity, multi-plane activities
- Sport/work specific balance and proprioceptive drills
- Hip/core strengthening
- Stretching for patient specific muscle imbalances

Weeks 16+:

- Squat jumps progressing to single leg
- Quick taps to step
- Lateral/diagonal/forward/retro jumps progressing to single leg
- Forward/lateral hops to step/platforms
- Jump rope
- Lunge with anchored lateral/medial resistance
- Single leg squat progressing to band at knees

- Forward/reverse lunge walking
- Planks with hip abduction
- Side planks with hip abduction
- Hamstring stretch
- IT band stretch
- Piriformis stretch
- Calf stretch

