



BRADLEY W SMITH MD

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YOU DESERVE A COMEBACK STORY



**UTAH
ORTHOPAEDIC
SPECIALISTS**

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Rehabilitation Protocol: Quad/Patellar Tendon Repair and Patella Fracture ORIF

Phase I: 0-14 days after surgery

Weight Bearing: Weight-bearing as tolerated with hinged knee brace locked in extension

Brace: Hinged Knee Brace

- Locked in full extension and worn at all times (sleeping, standing, ambulating, etc.) (Weeks 0-2)
 - May unlock for range of motion exercises

Range of Motion:

- No active knee extension
- No passive knee flexion beyond 60 degrees - do not push motion at this point

Therapeutic Exercises (in brace)

- PROM
- Heel slides with towel
- Low intensity, long duration extension stretches: prone hang, heel prop
- Seated hamstring/calf stretch
- Gentle patellofemoral joint mobilization
- Strengthening:
 - Calf raises
 - Quad sets
 - Glute sets

Phase II: 4-6 weeks after surgery

Weight Bearing: Begin 25% weight bearing at week 4. Increase 25% per week so that the patient is 100% weight bearing by week 7.

Brace: Discontinue brace use when patient has achieved full extension with no evidence of extension lag

Range of Motion:

- Progressive flexion with goal of 120° by week 6
- Maintain full extension

Therapeutic Exercises

- Closed chain extension exercises
- Toe raises
- Balance exercises
- Progress to weight bearing stretch of the Gastroc/Soleus
- Begin to use stationary bike

Phase III: 6-16 weeks after surgery

Weight Bearing: Full

Range of Motion: Full/painless

Therapeutic Exercises

- Advance closed chain strengthening exercises, proprioception activities
- Core/hip strengthening exercises
- Begin use of stairmaster/elliptical
- Can Start Straight Ahead Running at 12 Weeks

Phase IV: 4-6 months after surgery

Therapeutic Exercises

- Increase strength/coordination/proprioception/endurance
- Agility drills
- Sport specific drills

Brace: Consider functional brace when returning to contact or pivot sports

Phase V: 6+ months after surgery

Criteria for return to sports:

1. Full and painless active ROM
2. No patellofemoral joint pain
3. Gross manual muscle testing strength 90-100% of contralateral side
4. Patient can pass single leg hop for distance, single leg squat test, and figure of eight hop test
5. Quadriceps/thigh circumference should be within 1 cm of non-operative side (if normal)

Weekly strengthening program – independently (2–3 times per week):

- Full speed jog/run: 20–30 minutes
- Exercise stationary bike: increasing resistance, set bike so low leg is flexed no more than 10–15 degrees – 20 minutes
- Agility drills (figure 8's, shuttle runs, turns, teeter-totter balancing)
- Continue quad sets, SLR's (300 repetitions per day)
- Hills/Stairs – running up hills and up stairs can be utilized to help build muscle mass and strength
- Care should be taken running downhill and down steps. This can irritate the knee and should be one of the last exercises added to the workout program.