Postoperative Care Following Patellar/Quadriceps Tendon Repair--Dr. Trueblood

Indications: Disruption of the extensor mechanism of the knee is a debilitating condition if left untreated. Surgical repair is indicated for all but the nonambulatory and medically compromised patients.

Technique: A longitudinal incision is made over the subcutaneous surface of the patella and full thickness flaps are elevated from the extensor mechanism. The torn surfaces of the tendon are freshened and the joint irrigated copiously to remove all remnant hematoma. The tendon is then prepared with running, locked #5 Fiberwire stitches (Krakow pattern) on at least one side of the rupture. If there is less than 1 cm of remnant tendon on the patella side, then the stitches are passed through the patella after preparing a bone trough for reimplantation. The core stitches are tensioned and tied. A running epitendinous stitch is then used to make a smooth, gliding surface and close the retinaculum. The wounds are then irrigated and closed in layers. A sterile dressing is applied with a knee immobilizer in place. The patient is typically discharged on the day of surgery.

Postoperative Precautions:
- PT assessment for gait training/ fall prevention in postoperative recovery.
- Full-time use of knee immobilizer. May weight bear as tolerated in the knee immobilizer.
- Dressing stays on until first follow-up. Keep dressing clean and dry.
- Patients with risk factors for venous thromboembolism (obesity, history of previous DVT, limited mobility) are started on Lovenox 40mg sq daily for 3 weeks on POD1. Lower risk patients may be managed on Aspirin 325mg po bid starting on POD1.

1st follow-up visit 10-14 days after surgery--
- Wound assessment. Stitches out and steri-strips are applied.
- Pain Assessment. Refill pain medications as needed.
- Work Note: Sedentary work. May not drive. Must wear brace at work.
- Therapy Referral- Start at 4 weeks after surgery.
- Schedule follow-up visit at 6 weeks after surgery.
- Expected Return to Work:
  - Sedentary/Cognitive: 2 weeks
  - Medium Duty: 8 weeks
  - Heavy Manual Labor: 3-4 months.

Phase 1 Therapy (Protect Repair, Prevent Stiffness)
Therapy 1-2 x/ week x 6 weeks
- Immobilization: Knee immobilizer on at all times except when doing ROM exercises.
• ROM:
  ○ Active/ Active assisted knee flexion to max of 90 degrees
  ○ Passive extension only (prone positioning or family/ therapist assistance)
• Strengthening:
  ○ Straight leg raises in knee immobilizer only.
  ○ Isometric hip abductor exercise.
  ○ Advance to quad sets in knee immobilizer at 4 weeks after surgery.
• Gait training in knee immobilizer. Fall prevention.
• Scar Massage
• Modalities prn
• HEP

2nd office visit at 6 weeks after surgery--
  □ X-ray: AP and lateral of knee.
  □ Pain Assessment. Refill pain medications as needed.
  □ Therapy Referral
  □ Work Note: Sedentary work. May not drive. Must wear brace at work.
    □ Advance to Medium duty at 8 weeks. Lifting up to 50# once, 25# for repetitions.
  □ Schedule follow-up visit at 12 weeks after surgery.
  □ Expected Return to Work:
    □ Sedentary/Cognitive: 2 weeks
    □ Medium Duty: 8 weeks
    □ Heavy Manual Labor: 3-4 months.

Phase 2 Therapy
1-2x/ week for 6 weeks
• Immobilization: Wean from knee immobilizer as tolerated
• Range of Motion
  ○ Active/ Active Assisted ROM
  ○ PROM
    ■ ITB stretching
    ■ If knee flexion <60 degrees at 8 weeks after surgery, start static progressive splinting for flexion.
    ■ If knee flexion contracture >15 degrees at 6 weeks, start serial extension splinting.
• Strengthening
  ○ Continue quad sets/ isometrics with VMO emphasis.
  ○ Start short arc quadriceps strengthening, closed chain exercise only.
  ○ Isotonic hip abductor exercise with theraband, ankle weights
• Gait training. Wean from knee immobilizer and assistive devices as tolerated.
• Modalities prn
• HEP
• May d/c to HEP when knee arc of motion is 0-140 degrees and patient is independent with home exercise program.
• Advance to work conditioning for patients with heavy, manual labor jobs when quad strength is 80% contralateral and arc of motion is 0-140 degrees.

Third office visit at 10-12 weeks--
☐ X-ray: 3 views of knee (AP, lat, Merchant)
☐ Functional Assessment: Knee Society Score
☐ Work note: No restrictions
☐ Continue therapy if still dependent on therapist for stretching or strengthening. Work conditioning as needed.
☐ Uncomplicated cases: f/u prn