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Quad Patella Tendon Repair Rehabilitation Protocol

PHASE I – IMMEDIATE POST SURGICAL PHASE (WEEK 0-2):

- Will typically delay formal therapy 2 weeks to allow early healing
- Goals
 - Maintain integrity of repair
 - Decrease pain and inflammation
 - Prevent muscular inhibition
- Cryotherapy for pain/inflammation
 - Ice 15-20 minutes every hour
- Brace
 - Hinged knee brace locked in extension for ambulation
 - May unlock 0-30 degrees when not ambulating
- Weight Bearing
 - As tolerated in knee brace locked in extension with crutches

PHASE II – PROTECTION PHASE (WEEK 2-6):

- Goals
 - Allow healing of soft tissue
 - Do not overstress healing tissue
 - Gradually increase ROM
 - Progression based on swelling/inflammation
 - Decrease pain and inflammation
 - Restore patellar mobility
 - Restore muscle activation
- Week 2-4
 - Continue use of ice as needed
 - Progress ROM to 0-60 degrees in therapy
 - Continue brace locked in extension for ambulation for first 6 weeks
 - May open brace to 0-60 degrees when not ambulating
 - Weight bearing- discontinue crutches when appropriate
 - Begin quad sets and Kneehab protocol
- Week 4-6
 - May use heat prior to exercises
 - Progress ROM to 0-90 in therapy
 - Muscle retraining
 - Active knee extension 0-60, pain free arc
 - Stationary bicycle if pain permits (in brace)
 - Proprioception training
 - Anti-gravity SLR

PHASE III – INTERMEDIATE PHASE (WEEK 7-12):

- Goals
 - Control forces during ambulation and ADL's
 - Eliminate swelling
 - Functional exercise movements
 - May unlock brace for ambulation when good quad control returns
 - Discontinue brace after week 8
- ROM Goals
 - Week 7: 0-100
 - Week 8: 0-110
 - Week 10: 0-120+
- Gradually introduce quadriceps strengthening
- Continue above exercises
- May begin pool program

PHASE IV –STRENGTHENING PHASE (WEEK 13-18):

- Goals
 - Maintain full ROM
 - Improve limb strength and endurance
 - Restore limb confidence and function
- Criteria to progress to Phase IV
 - Adequate, non-painful ROM
 - Absence of swelling/inflammation
 - Knee extension strength 70% of contralateral knee
- Continue above exercises
- Progress to functional drills as tolerated

PHASE V –RETURN TO ACTIVITY PHASE (WEEK 19-24):

- Goals
 - Gradual return to strenuous work activities
 - Gradual return to recreational sports activities
- Criteria to progress to Phase V
 - Appropriate strength level/Clinical exam
 - Strength and proprioception 80% of contralateral leg
- Continue strengthening exercises
- Emphasis on eccentrics and functional exercises
- May initiate plyometrics at month 5 (if appropriate)
- May initiate light running at month 5 (if appropriate)