



Patellar Tendon Repair Rehabilitation Protocol

Phase 1 (0-6 weeks post-op)

Rehabilitation Goals

- Protect surgical repair
- Minimize pain & swelling
- Activation of quad muscle
- ROM: 0°- 90°

Precautions

- ROM
Weeks 1-2: 0°- 30°
Week 3: NWB, knee ROM
0°- 60°; progress by 10°
each week
- Follow WB restrictions at
discretion of Ortho

Brace

- Wear brace locked in extension for ambulation
- May unlock or remove for rehab

Wound

- Post-op dressing remains
intact until post-op day #3
(~72 hours after surgery)
- Shower after post-op day
#4 (no need to cover
incision site)
- **DO NOT SUBMERGE** knee
in water until authorized to
do so by Ortho
- Suture removal @ 10-14
days post-op per Ortho

Cryotherapy

- Cold with compression/elevation (ice with
compression wrap)

Rehabilitation

- Begin scar massage after incision has healed and scar is
formed
- Begin patellar mobilizations

Weeks 1-2

- Quad, glute and HS isometrics (submaximal
contraction intensity); use estim. if needed
- Multi-directional open chain hip muscle
endurance exercises
- Calf pumps with thera-band
- Heel slides (assisted as needed)
- Supine passive extension to 0°

Weeks 3-6

- Continue exercises from weeks 1-2 as
appropriate
- Gradually increase knee flexion to goal of
90 degrees by Week 6
- Multi-directional open chain hip muscle
endurance exercises with increased
resistance
- Progressive PF strengthening
- Short arc quads
- General LE stretching
- Stationary bike within limits of ROM
- Beginner level pool exercises when
incisions are fully healed; primarily in the
sagittal plane (i.e. no breaststroke or whip
kick motion)

Follow up

- Supervised rehab: 2-3x per week
- PT re-eval: every 1-2 weeks
- Ortho re-eval: ~2 and ~6 weeks

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Patellar Tendon Repair Rehabilitation Protocol

Phase 2 (7-12 weeks post-op)

Rehabilitation Goals

- Normal gait and stair ambulation
- Full ROM
- 2) > 80% quad and HS strength relative to uninjured limb

Precautions

- Avoid tendon overload (i.e. squatting, deep knee bends, and lunges)
- Be careful walking up/down steps or inclined surfaces
- **NO RUNNING**
- **NO PARTICIPATION** in contact/collision sports or military schools

Brace

D/C brace & crutches when gait is normal and 120° knee flexion is achieved

Rehabilitation

- Begin scar massage after incision has healed and scar is formed
- Begin patellar mobilizations

Weeks 7-8

- Stationary bicycle or elliptical for conditioning
- General LE strengthening with very gradual increase on loading of knee extension exercises (i.e. squats, lunges, and leg press)
- Gait training as needed (i.e. cone walking, marching, retro-walking, and cariocas)
- Forward, lateral, and retro step-ups (start with 2" step and progress as tolerated)
- Continue beginner level pool exercises (i.e. no breaststroke or whip kick motion)

Weeks 9-10

- Continue progressing exercises from Weeks 7-8 as appropriate
- DL balance and proprioceptive exercises; progress to SL
- General LE stretching
- Elliptical: add gradually with stationary bike for conditioning
- Progressive LE strengthening (i.e. calf press, leg press, squats 0°- 45°, HS curls, and hip abductors/adductors)
- Progressive pool program as tolerated

Weeks 11-12

- Continue progressing exercises from Weeks 9-10 as appropriate
- Progress ROM of squats, leg press, etc. while being mindful of ROM restrictions and pain

Follow up

- Supervised rehab: 2-3x per week
- PT re-eval: every 2-3 weeks
- Ortho re-eval: ~12 weeks post-op

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Patellar Tendon Repair Rehabilitation Protocol

Phase 3 (3-6 months post-op)

Rehabilitation Goals

- Full ROM
- Jog at own pace and distance without pain
- > 90% quad and HS strength return
- > 90% of uninvolved limb on hop test battery (i.e. hop for distance, triple hop, crossover hop, and 6-meter timed hop)
- Meet occupational requirements at 6-8 months

Precautions

Minimal to no pain at the repair site

Rehabilitation

- Continue Phase 2 exercises as needed
- Progress to the following exercises and increase intensity gradually when patient is ready (i.e. no increase in knee pain or effusion since the previous exercise session)
- Build up resistance and repetitions gradually

Weeks 13-16

- Swimming
- Step-up progression
- Gradual quad stretching
- Progressive SL balance and proprioceptive training as needed
- Progressive LE strengthening (i.e. calf press, leg press, squats 0°- 60°, HS curls, and hip abductors/adductors)

Weeks 16-20

- Progressive strengthening of quads while monitoring symptoms closely
- Step-down progression
- Initiate walk to jog progression

Weeks 20-26

- Progressive speed/agility training beginning at 25-50% intensity and progress gradually (i.e. jumping, hopping, directional jogging, cariocas, and shuffles)
- Jump training initiated after 24 weeks

Follow up

- Supervised rehab: 1-2x per week
- - PT re-eval: monthly
- - Ortho re-eval: ~6 months post-op

Miscellaneous

- After 6 months post-op, Phase 3 exercises are continued and gradually increased in intensity and duration as tolerated
- Pass Service fitness test at 9-10 months
- Progress activities for return to sport/collision sports or aggressive military training (i.e. airborne school) based on the patient's functional performance and endurance. This time period will be directed by the Ortho Surgeon and the Physical Therapist. This may require between 9-12 months before cleared without restrictions.

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