

ACUTE KNEE INJURY (HEMARTHROSIS)

This protocol was developed to treat the acutely injured knee pre-surgically. It is aimed at decreasing inflammation/effusion and restoring ROM and neuromuscular control to decrease post-surgical morbidity. It is not intended for use with pathologies where weight-bearing or ROM restrictions are indicated.

GOALS:

- Restore functional ROM (full passive extension and flexion > 120°)
- Decrease pain, inflammation and effusion
- Restore neuromuscular control and strength of quadriceps
- Normalize gait pattern with/without assistive device
- Educate client about joint protection techniques
- Prepare client pre-operatively for the surgical procedure

PHASE I – Maximal Protection Phase

- WBAT with crutches and immobilizer if necessary to normalize gait pattern
- Anti-inflammatory modalities (ice, electrical stimulation, elevation etc.)
- Emphasize ROM exercises (heel props, prone hangs, heel slides)
- Patellar mobilizations
- Strengthening:
 - Quadricep sets (E-stim if necessary to increase quad control)
 - SLR's (4 planes)

PHASE II – Moderate Protection Phase

- Progress out of immobilizer when client has good quad control and off crutches when there is no pain, swelling or limp
- Continue anti-inflammatory modalities prn
- Progress ROM exercises (add light cuff weight to prone hang if necessary)
- Flexibility exercises for hamstrings, ITB, calf etc.
- Progress strengthening:
 - Weighted SLR's
 - Closed chain strengthening (body weight)
- Initiate stationary cycling with high seat/low resistance

PHASE III – Minimal Protection Phase

- Continue anti-inflammatory modalities to maintain decrease in pain, inflammation and effusion
- Continue ROM, flexibility, and pain-free strengthening
- Continue stationary cycling if not irritating joint
- Educate client in home exercise program, joint protection techniques and expectations for upcoming surgical procedure
- Advise client in the safe and appropriate return to ADL's and work activities if appropriate



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