

ACI Femoral Condyle Protocol

Weeks one and two	Weeks three to five
Initial Evaluation	Evaluate
<ul style="list-style-type: none"> ➤ Range of motion ➤ Joint hemarthrosis ➤ Ability to contract quad/vmo ➤ Gait ➤ Size and location of lesion ➤ Inspect for infection/signs of DVT ➤ Assess RTW and functional expectations ➤ Be aware that precautions may change per Physician if concomitant surgery is required 	<ul style="list-style-type: none"> ➤ Range of Motion ➤ Joint Hemarthrosis ➤ Ability to contract quad/vmo ➤ Signs of infection or DVT ➤ Patella mobility
Patient Education	Patient Education
<ul style="list-style-type: none"> ➤ Support Physician prescribed meds ➤ Ensure compliance w/ hep and CPM if applicable ➤ Reinforce use of brace and assistive device ➤ NWB for 4 weeks in locked brace per physician ➤ Sleep in locked brace for 4 weeks per Physician ➤ Discuss frequency and duration of treatment (2-3x/wk is expected for the first 12 weeks, followed by intermittent appointments over another 6-8 weeks) 	<ul style="list-style-type: none"> ➤ Reinforce precautions ➤ Progress to approximately 50% WB by week 5 per Physician ➤ Sleep in locked brace for 4 weeks per Physician ➤ Progressively open brace to 10 degrees less than available pain free ROM if appropriate quad control has been established
Therapeutic Exercise	Therapeutic Exercise
<ul style="list-style-type: none"> ➤ Review and update pre-op hep ➤ May complete AROM and Isometrics within surgical precautions ➤ Heel slides, quad sets, ankle pumps, 4 way leg raises, and hamstring/calf stretching ➤ Consider aquatics for PWB and NWB exercise 	<ul style="list-style-type: none"> ➤ Initiate bicycle for partial revolution (do not force flexion) ➤ Progress SLR, and open chain hamstring curl with ankle weights ➤ Multi-angle isometrics
Manual Techniques	Manual Techniques
<ul style="list-style-type: none"> ➤ Grade I and II patella mobilizations ➤ PROM as tolerated (focus on extension) 	<ul style="list-style-type: none"> ➤ Grade III-IV patella mobilization ➤ Posterior capsule mobilization (if needed) ➤ Incisional mobilization
Modalities	Modalities
<ul style="list-style-type: none"> ➤ CPM to be initiated 0-30 degrees, 6-8hrs/day, and increased 5-10°/day as tolerated ➤ NMES / Interferential / biofeedback as needed ➤ Ice 	<ul style="list-style-type: none"> ➤ Modalities may be used as needed ➤ CPM x 4 weeks if able
Goals	Goals
<ul style="list-style-type: none"> ➤ Protect healing tissue from load and shear forces ➤ Decrease pain and effusion ➤ Restore voluntary quad contraction ➤ Independence with post-op precautions ➤ 0-90 degrees ROM 	<ul style="list-style-type: none"> ➤ Gain full knee extension ➤ Restore voluntary quad contraction ➤ Decrease Hemarthrosis ➤ Prevent excessive soft tissue scarring ➤ 0-115 degrees ROM

Weeks six to twelve	Weeks twelve to twenty
Evaluate	Evaluate
<ul style="list-style-type: none"> ➤ Gait and brace needs ➤ Quad Contraction ➤ ROM ➤ Balance 	<ul style="list-style-type: none"> ➤ Patella mobility / crepitus ➤ Gait ➤ Balance / single leg stance ➤ HEP compliance
Patient Education	Patient Education
<ul style="list-style-type: none"> ➤ Unlock brace by week six per Physician ➤ Discharge brace at 6-8 weeks if appropriate quad control and physician agreement ➤ WBAT to be determined per Physician 	<ul style="list-style-type: none"> ➤ Discuss progress, and expectations prior to discharge
Therapeutic Exercise	Therapeutic Exercise
<ul style="list-style-type: none"> ➤ Closed chain exercises for quad contraction and proprioception (heelraises, minisquat 0-45, leg press, 4-6 inch step up, and TKE) ➤ Progress isotonic to include hamstring curl, and multi-hip. ➤ Single leg stance ➤ Bilateral dynamic balance activity 	<ul style="list-style-type: none"> ➤ Progress squats 0-60⁰, and leg press 0-90⁰ ➤ Progress height of forward and lateral step-ups ➤ Initiate lunges forward/lateral ➤ Progress to closed chain exercises on unstable surfaces ➤ Single leg dynamic balance activity (OTIS/IT IS airex activities)
Manual Techniques	Manual Techniques
<ul style="list-style-type: none"> ➤ Patella mobilizations as indicated ➤ PROM and posterior capsule stretch as indicated 	<ul style="list-style-type: none"> ➤ Patella mobilizations as indicated ➤ PROM and posterior capsule stretch as indicated ➤ Incisional mobilization
Modalities	Modalities
<ul style="list-style-type: none"> ➤ Any as Indicated 	<ul style="list-style-type: none"> ➤ Any as Indicated
Goals	Goals
<ul style="list-style-type: none"> ➤ 4/5 strength with manual testing ➤ Single leg stance with eyes closed for at least 10 seconds ➤ Normal ROM ➤ Normal gait pattern without brace or crutches on flat level surfaces 	<ul style="list-style-type: none"> ➤ FWB without brace or assistive device ➤ No pain with ADL's ➤ Quad strength at least 4+/5 ➤ Normal ROM ➤ Normal gait pattern on all surfaces

Weeks twenty to discharge	Return to sport (Typically post formal therapy)
Evaluate	
<ul style="list-style-type: none"> ➤ Consider isokinetic testing and functional movement screen per physician discretion ➤ HEP compliance 	<ul style="list-style-type: none"> ➤ Address any deficits that may limit return to work or sport goals ➤ HEP compliance ➤ Discuss return to sport timeframes, and the physicians role in decision making
Therapeutic Exercise	Therapeutic Exercise
<ul style="list-style-type: none"> ➤ Continue with progression of closed chain exercises, isotonic, and balance activity focusing on proper form and avoiding common movement faults 	<ul style="list-style-type: none"> ➤ Continue strength and conditioning ➤ Encourage participation in the CFA for sport specific and agility activities
Goals	Goals
<ul style="list-style-type: none"> ➤ 5/5 strength with manual testing ➤ Good stability across tibiofemoral joint particularly with single leg balance and control of terminal knee extension ➤ May complete exercise independently with intermittent follow up appointments when above criteria is met 	<ul style="list-style-type: none"> ➤ Low-impact sports (Swimming, Skating, and cycling) at 6 months post-op with physician approval ➤ Moderate impact sports (Jogging, running, and aerobics) at 9 months post-op for small lesions, and 9-12 with larger lesions with physician approval ➤ High impact sports (Tennis, basketball, football, and baseball) at 12-18 months with physician approval