



Lyman Orthopedics

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REHABILITATION PROGRAMME FOR PATELLOFEMORAL RECONSTRUCTION.

STAGE	AIMS	TREATMENT GUIDELINES
Stage I Acute Recovery Week 1-2	-Minimize muscular atrophy -Minimize muscular tightness -Minimize swelling -To achieve full extension and flexion to 90 degrees - Minimize concurrent postoperative complications	-Static cocontraction exercises at full extension and 30 degrees knee flexion in neutral and internal hip rotation, with biofeedback if possible -Soft tissue treatment to tight lateral structures, hamstrings and calf muscle -Reduction of swelling and pain using ice, elevation, co-contractions -Active range of motion exercises to encourage ROM as permitted by brace (if used) -If brace is used to remain insitu until 2 weeks postoperatively -Remain PWB on crutches for 2 weeks, instruction regarding same AVIOD: Quadriceps exercises in external hip rotation, open chain quadriceps exercises, patellofemoral mobilizations, full weight bearing until sufficient muscular control
Stage II Week 3-6	-Regain muscular strength and flexibility -Normalize gait -Regain full ROM	-Progress cocontraction exercise to eccentric quadriceps in weight bearing positions -Gym equipment such as stationary bike, leg press to 45 degrees flexion, mini tramp with low resistance -Soft tissue treatment to tight lateral structures, hamstrings and calf muscle scar massage -Commence full weight bearing with gait reeducation focusing on correct heel strike/toe off -Active range of motion exercises to regain full range of motion AVIOD: Quadriceps exercises in external hip rotation, open chain quadriceps exercises, patellofemoral mobilizations
Stage III Week 6-12	-Restoration of muscular strength and ROM	-Continue quadriceps and cocontraction exercises encouraging VMO activation. -Progress by increasing repetitions, length of contraction and dynamic conditions -Full range of motion using active and passive techniques -Eccentric quadriceps exercises in external hip rotation may be commenced only after sufficient - VMO strength to perform eccentric quads in neutral hip rotation from 10cm step, 10 reps X 3 sets without fatigue -Commence stepper, rower and cross trainer, pool work once sufficient ROM and quadriceps control -Commence proprioceptive and balance training eg wobble board Treat generalized lower limb deficits, e.g. gluteal control and flexibility, hamstrings flexibility, ITB, gastrocs and soleus, etc. AVOID: open chain quadriceps exercises, patellofemoral mobilizations
Stage IV 12 weeks +	-Continuation of functional rehabilitation	-Progress co-contractions to more dynamic movements, e.g. step lunges, half squats, wall squats -Patellofemoral taping should be introduced and continued for 1 year following surgery during sporting activities Introduce sport specific activities for strengthening and agility -Start cycling on normal bicycle -Progress resistance on gym equipment such as exercise bike, rower, cross trainer Pool work can include using flippers AVOID: continue to open chain quadriceps exercises which increase the patellofemoral joint forces