

POST-OPERATIVE MENISCAL REPAIR PROTOCOL

- **The protocol is divided into 4 phases**
- **Patient must achieve milestones of each phase prior to progression to the next**
- **Each phase is adaptable based on the individual patient, and dependent upon the location and size of the repair**
- **Weight bearing status post-operatively as well as the intensity and time frame of functional activities may vary**
- **Return to gentle non-contact, non-competitive sports at physiotherapist's discretion but must be over 12 weeks post-op.**
- **Any problems during rehabilitation please contact your Physiotherapist or your Consultant Secretary.**

PHASE 1: Post meniscal repair surgery. Day 1 to 6 weeks post-op

Goal	Treatment	Milestone to Progress
Minimise swelling and pain	<ul style="list-style-type: none"> • Use of ice • Ensure adequate pain relief • Elevate leg • Use of crutches – must remain PWB for full 6 weeks 	<ul style="list-style-type: none"> • Minimal or no effusion • Full extension/hyperextension • 90° knee flexion • SLR with no lag (10 reps) • Normal, symmetrical gait pattern with crutches
Regain full range of extension/hyperextension (compare to non-operative knee)	<ul style="list-style-type: none"> • Extension exercises: static quads, heel props, prone hanging • Passive stretching 	
Increase knee flexion as pain allows to 90° (unless otherwise stated by surgeon)	<ul style="list-style-type: none"> • Active flexion exercises • Passive flexion over edge of bed • Patella mobilisations • Ensure no flexion past 90° for full 6 weeks 	
Improve quads control and lower limb strength	<ul style="list-style-type: none"> • Static quads, SLRs. Ensure patient can SLR with no lag • Co-contraction quads and hams • Hamstring curls (no weight & under 90°) • Gluteal strengthening 	
Ensure flexibility	<ul style="list-style-type: none"> • Hamstring and calf stretches 	
Restoration of normal gait pattern	<ul style="list-style-type: none"> • Gait re-education with elbow crutches, PWB 	

PHASE 2: Must have achieved phase 1 milestones. Weeks 6-12 post-op.

Goal	Treatment	Milestone to Progress
Minimise swelling and pain (ensure no swelling before progression) Prevent anterior knee pain	<ul style="list-style-type: none"> Continue as above, as necessary 	<ul style="list-style-type: none"> No effusion Full range of extension Normal gait pattern without crutches Full range of NWB flexion Single leg stand eyes shut at least 5 seconds Bilateral squat with even, symmetrical weight bearing 10 x single leg squats to 60° with good biomechanical alignment and control (i.e. no valgus and good hip/knee/ankle alignment)
Regain/maintain full range of extension/hyperextension (compare to non-operative knee)	<ul style="list-style-type: none"> Extension exercises as above Passive stretching 	
Restoration of normal gait pattern	<ul style="list-style-type: none"> Ensure FWB, wean off crutches 	
Regain full range of flexion	<ul style="list-style-type: none"> Active flexion exercises past 90° non-weight bearing Progress to full quads stretch No WB flexion past 90° 	
Improve quads, hamstring and general lower limb strength	<ul style="list-style-type: none"> CKC – wall slide squats with gym ball, squats, leg press, single leg small knee bends etc. Ensure no flexion past 90° Hamstring curls, bridging Calf raises, gluteal strengthening 	
Increase aerobic capacity	<ul style="list-style-type: none"> Exs bike Treadmill walking Step ups Cross trainer Rower Pool exercise 	
Improve proprioception	<ul style="list-style-type: none"> Single leg stand eyes open/eyes closed Wobble board BOSU Sitfit Trampoline 	
Neuromuscular control	<ul style="list-style-type: none"> Core stability work Knee alignment/prevent valgus – squats, lunges, step ups, single leg squats (ensure good hip/knee/ankle alignment) 	

PHASE 3: Upon achievement of phase 2 goals. Over 12 weeks post-op.

Goal	Treatment	Milestone to progress
Control activity related swelling and pain	<ul style="list-style-type: none"> Use of cryotherapy post exercise if knee swells with increased activity 	<ul style="list-style-type: none"> No activity related effusion Full ROM Normal gait and stair pattern – good alignment and control 10 x single leg squats to 60° with good biomechanical alignment and control (i.e. no valgus and good hip/knee/ankle alignment) Normal straight line running pattern Single leg press >75% body weight
Regain/maintain full range of movement	<ul style="list-style-type: none"> Continue stretches 	
Normalise gait and stair pattern	<ul style="list-style-type: none"> Treadmill walking – forward/backward/incline 	
Improve quads, hamstring, and general lower limb strength	<ul style="list-style-type: none"> Continue CKC & OKC – double & single leg press, squats, lunges, increase weight Hamstring curls – double & single leg, increase weight Calf, gluteals, adductor strengthening 	
Increase aerobic capacity	<ul style="list-style-type: none"> Exs bike Treadmill walking Step ups Cross trainer Rower Pool walking/running Running (when good control) 	
Improve proprioception	<ul style="list-style-type: none"> Single leg stand eyes closed Wobble board BOSU Sitfit Trampette Progress to dynamic proprioception 	
Neuromuscular control	<ul style="list-style-type: none"> Core stability work Knee alignment/prevent valgus as above – add trunk rotation 	

Commence load acceptance/plyometrics	<ul style="list-style-type: none"> • Jumps with symmetrical squat landing • Progress to straight line jogging when good load acceptance • Squat jumps, forward/ back/ rotational • Bilateral plyometric static and multi-plane exs • Single leg hop with controlled landing • Forward, side hops/ drops from step with controlled single leg landing • Unilateral plyometric static and multi plane activities • Progress above by increasing speed/intensity to fatigue 	
Normal straight line running pattern without pain and in full control	<ul style="list-style-type: none"> • Progress from jogging to running • Increase speed/distance • Change surface/incline • Forward running/backward running 	

PHASE 4: Upon achievement of Phase 3 goals.

Goal	Treatment	Milestone to progress
Commence sports specific running agility drills	<ul style="list-style-type: none"> • Sprinting • Cutting and pivoting • Acceleration/deceleration 	<ul style="list-style-type: none"> • Maximal strength, endurance and control equal to opposite side • Flexibility equal to opposite side
Commence sports specific skills	<ul style="list-style-type: none"> • Ball skills • Dribbling • Boxing • Kicking • Sports specific activity with controlled opposition e.g. one on one practice drills 	
Neuromuscular control following fatigue	<ul style="list-style-type: none"> • Ensure ability to control alignment under random practice and after fatigue 	
Return to sport	<ul style="list-style-type: none"> • Controlled sport specific activity and progress to unrestricted sporting activity 	

RETURN TO DRIVING: Patient must be fully weight bearing and have the ability & strength to perform an emergency stop

RETURN TO SPORT: to safely & most efficiently return to normal or high level functional activity, the patient requires adequate strength, flexibility & endurance. Return to intense activities such as impact loading, jogging, deep knee flexion, or pivoting and twisting early post-operatively may increase the overall chance of a repeat meniscal tear. **No deep squats until at least 12 weeks. Instructions may vary for root repairs and RAMP lesions.**

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