

REHABILITATION FOR THE ACTIFIT™ MENISCAL SCAFFOLD IMPLANTATION PATIENT

PHASE	CRITERIA	RANGE OF MOTION	WEIGHT BEARING	EXERCISE	GOALS
PHASE 0 PRE-OPERATIVE	Meets surgical criteria for meniscal transplant	Not restricted	Not restricted	<ul style="list-style-type: none"> Choose exercise, resistance and equipment after establishing patient's symptom severity and irritability Educate patient on expected post-operative outcome/ exercise protocol Teach VMO exercises to prevent AKP Introduce flexibility exercises Assess and correct any muscle imbalance Progress CV exercises e.g., static bike, swimming, etc. Add varied resisted exercises, working isometrically, concentrically and eccentrically Provide adequate rest periods between exercises and exercise sessions 	<input type="checkbox"/> Increase patient compliance/ knowledge <input type="checkbox"/> Maintain active and passive ROM <input type="checkbox"/> Maintain/ increase muscle strength and endurance <input type="checkbox"/> Maintain/ increase cardiovascular endurance <input type="checkbox"/> Prevent over-training <input type="checkbox"/> Prevent severe long term exacerbation of patient's symptoms <input type="checkbox"/> Establish patient's post-operative expectations/ functional goals
PHASE 1 IMMEDIATE POST-OPERATIVE/ MAXIMUM PROTECTION 0-6 WEEKS <div style="border: 1px solid black; padding: 2px; width: fit-content;">DRIVING allowed from 4 – 6 Weeks if can perform effective emergency stop and meets with surgeon's approval.</div>	Successful operative outcome Surgeon in agreement with post-operative rehabilitation protocol	Brace 0°-45° for first 3 weeks, then 0°-90° for following 3 weeks Brace may have a valgus or varus stress depending on medial or lateral meniscus and/ or on surgeon's preference Locked 0° E when mobilising and sleeping	PWB 0-2 wk Advance to FWB 2-4 wk	<ul style="list-style-type: none"> Cryotherapy CPM Circulatory exercises (dorsiflex, static quadriceps, static gluteus max's) Isometric Q exercises Heel slides (0°-45-90°) (See ROM Phase 1) H and calf flexibility exercises. Patella & Tibiofemoral (grade 1-3) joint mobilisations Abductor/ Adductor/ Gluteal exercises Unicam Bike™ (Passive swing setting for affected knee, adjusted to suit ROM) Upper Body work Core Stability exercises as able Hydrotherapy, dependant on wounds and brace suitability Soft Tissue mobilisation EOR E mobilisations Early Proprioception exercises (joint position, force reproduction sense, balance dependant on VIB status) 	<input type="checkbox"/> Protect Actifit scaffold and granulation tissue <input type="checkbox"/> Control inflammation <input type="checkbox"/> Establish full E <input type="checkbox"/> Restore function for D/C home <input type="checkbox"/> Improve confidence <input type="checkbox"/> Prevent adverse effects of immobilisation <input type="checkbox"/> Regain Q control <input type="checkbox"/> Prevent adhesions <input type="checkbox"/> Aid joint nutrition <input type="checkbox"/> Pain relief <input type="checkbox"/> Reduce deconditioning
PHASE 2 MODERATE PROTECTION/ STRENGTHENING 6-12 WEEKS	SLR with no lag Full terminal E F to 90° No/ minimal inflammation	No Brace Restrict WB ROM to 0°-60°	Full	<ul style="list-style-type: none"> Gait re-education Assess and correct muscle imbalance, progress core stability work Reintroduce VMO exercises Flexibility mobilisations and exercises Unicam Bike™ (Active drive setting for affected side) or Static Exercise bike/ turbo-trainer Progress proprioceptive exercises to sport/ function specific CKC 0°-60° Heel raises OKC Q & H exercises progressing range, resistance and volume as clinically appropriate (N.B. ensure adequate eccentric strength before progressing on to plyometric exercises) PNF Gymball exercises Progressively add resistance to gym exercises as clinically appropriate Encourage ideal dynamic biomechanics (progressing from static limb alignment, to double footed small knee bends to single leg bends to dynamic jumps, leaps and hops at speed but PWB i.e. in pool or using parallel bars progression will be dependant on clinical judgement) 	<input type="checkbox"/> Establish normal gait <input type="checkbox"/> Improve ROM <input type="checkbox"/> Avoid over-stressing the new meniscus tissue <input type="checkbox"/> Increase muscle strength and balance <input type="checkbox"/> Increase cardio-vascular fitness <input type="checkbox"/> Improve proprioception <input type="checkbox"/> Restoration of kinematics <input type="checkbox"/> Promote neuromuscular responses <input type="checkbox"/> Improve dynamic stability
PHASE 3 MINIMAL PROTECTION/ FUNCTION 3-4 MONTHS	Check with surgeon Normal gait F >100° No PFJ problems	No restriction		<ul style="list-style-type: none"> Advanced CKC Exercises Stepper/ Bike/ Nordic Track/ Rower Advanced proprioceptive exercises Vary load, set and rest times to resisted exercises in order to bias muscle strength & endurance Swimming (No breaststroke leg kick until 4 MONTHS) Interval jogging on a sprung surface (straight line) or pool, progressing duration or speed or volume following clinical judgement When eccentric strength allows teach low intensity, low volume plyometric exercises, progressing as appropriate Begin isokinetically resisted exercises 	<input type="checkbox"/> Avoid over-stressing the new meniscus tissue <input type="checkbox"/> Increase ROM, Strength, endurance and proprioception <input type="checkbox"/> Improve joint and muscle contraction coordination and firing <input type="checkbox"/> Encourage normal movement patterns
PHASE 4 RETURN TO FULL ACTIVITY 4 MONTHS ONWARDS	Necessary strength/ ROM/ Endurance/ Proprioception No AKP Surgeon's approval	No restriction		<ul style="list-style-type: none"> Increase volume and intensity of muscle strength, power, endurance and CV training Ensure periodisation and adequate rest periods are adhered to Liaise with coach if appropriate Gradually progress to all surface running, speed and agility work Commence advanced plyometric exercises specific to individuals needs Functional sport specific training Return to contact from 6-9months post-op if clinically appropriate 	<input type="checkbox"/> Safely improve physical condition and fitness preventing over training <input type="checkbox"/> Increase confidence <input type="checkbox"/> Injury prevention <input type="checkbox"/> Safe and gradual return to full function

PATIENT DETAILS

DATE OF SURGERY:

HOSP No:

NAME:

DOB:

ADDRESS:

TEL:

KEY

AKP	Anterior Knee Pain
CKC	Closed Kinetic Chain
OKC	Open Kinetic Chain
CPM	Continuous Passive Movement
CV	Cardio-vascular
D/C	Discharge
E	Extension
F	Flexion
FWB	Full Weight Bearing
H	Hamstrings
NWB	Non-Weight Bearing
PFJ	Patello-femoral joint
PNF	Proprioceptive Neuro-Facilitation
Q	Quadriceps
ROM	Range of Motion
SLR	Straight Leg Raise
VMO	Vastus Medialis Oblique
WB	Weight Bear