

Phase	Estimated Timeline	Variable	Exercises and Recommendations
Phase 1 (Acute Rehabilitation)	Weeks 0-2	Goals and General Comments	Closely monitor signs of irritation and/or overload Progressively increase pain-free hip ROM in all planes Improve lower limb proprioception, muscular control and activation Normalize heel-toe pattern during full WB gait (1 crutch for painful cases)
		Plinth Exercises	Soft tissue release as needed (psoas, rectus femoris, adductors, TFL) Psoas (supine/kneeling/standing) and quadriceps stretching Supine hip external rotation with theraband Supine bridging (\pm theraband resistance for isometric hip abduction) Ball bridging Progress bridging exercises (i.e. single limb and ball bridge variations) Prone isometric heel (and gluteal) squeeze Prone hip extension (with extended and flexed knee) Clam exercises Side lying hip abduction
		WB Exercises	Single leg balance and proprioceptive exercises (as pain permits) Standing 'weight shift' activities (using slide boards) Wall/ball and free standing squats (0-75°) with theraband resistance as tolerated
		Cardiovascular	Stationary 'high-seat' cycling if ROM permits (no-low load), 2 x daily (10-20 mins)
		Criteria to Progress	Well managed pain and inflammatory control Good tolerance to load during 'weight shift' activities Proficiency in all non-WB and WB exercises prescribed Normalized heel-toe gait pattern Adequate single limb balance and proprioceptive control (-ve trendelenburg)
Phase 2 (Early Rehabilitation)	Weeks 3-4	Goals and General Comments	Continue Phase 1 activities Progress toward full and pain-free hip ROM Progressively increase lower limb strength Further enhance proprioception, balance and neuromuscular control Improve confidence in walking gait, exercises and daily activities
		Plinth Exercises	Side lying knee extension with theraband (in positions of hip abduction) 4pt hip extension with theraband Supine hip thrust (single leg)
		WB Exercises	Standing hip extension and abduction using therabands Full range wall/ball and free standing squats (theraband resistance as tolerated) Bosu (unstable surface) squats Lunges (theraband resistance as tolerated) Step Exercises (step ups and downs, front step downs, lateral drops) Progress proprioceptive exercises (i.e. ball throws etc.)
		Cardiovascular	Stationary cycling (duration/load as tolerated), including interval training
		Criteria to Progress	Pain-free hip ROM in all planes $\geq 90\%$ of contralateral limb Proficiency in all non-WB and WB exercises prescribed
Phase 3 (Late Rehabilitation)	Weeks 5-6	Goals and General Comments	Continue variation in Phase 1-2 exercises Progressive increase in trunk, core and lower limb endurance and strength Progressive increase in lower limb muscular strength and power
		Plinth Exercises	Side and prone bridging
		WB Exercises	Arabesque Pelvic drops Walking lunges (straight line) Lateral (crab) and frontal (sumo) theraband walks Single leg squats (ball/wall, free stand, with hip abduction on ball) Functional and proprioceptive single limb exercises (e.g. star excursion)
		Cardiovascular	Elliptical and crosstrainers introduced, including interval training Jogging - flat surface, straight lines
		Criteria to Progress	Peak isometric hip strength (all planes) using a HDD $\geq 90\%$ of contralateral limb Proficiency in undertaking ≥ 15 consecutive single leg squats (75-90° knee flexion) Performance on the modified star excursion balance test $\geq 90\%$ contralateral limb

Phase 4 (Advanced Rehabilitation)	Weeks 6-12	Goals and General Comments	Continue variation in Phase 1-3 exercises Progressive increase in lower limb muscular strength and power Restoration of sound jump, hop and land mechanics
		Jump, Hop and/or Plyometric Exercises	Bilateral jumping exercises (horizontal and vertical) Bilateral jumping exercises (with plyometric focus) Bilateral jumping exercises (with single limb land ± plyometric focus) Side-to-side jumps over box (± additional weight as required) Cross directional jumping exercises (clock jumps ± theraband) Single limb hop (horizontal and vertical) Single limb hop variations (side, 6m timed, triple and triple crossover) Varied hop exercises (clock hop, square hop etc.) Bench drops (controlled single limb lands) Bench drops (with bilateral plyometric jump) Bench drops (with plyometric jump and land on single limb) Bench drops (with plyometric jump and land on single limb on bosu) Bench drops (with plyometric jump and land on single limb with ball)
		Cardiovascular and/or Agility	Running - flat surface, straight lines, backwards, lateral shuffle Introduce agility exercises (i.e. T-test, Illinois, Figure-8 runs etc.)
		Criteria to Progress	Sound jump/land mechanics during all jump/hop/plyometric exercises introduced Competency and well tolerated return to running activities Single limb hop performance ≥85% of contralateral limb
		Goals and General Comments	Continue variation in Phase 3-4 exercises Restore lower limb strength and functional symmetry
Phase 5 (Agility and Return to Activity-Specific Training)	Weeks 12-16	Cardiovascular and/or Agility	Advance agility exercises Running - unrestricted, cross directional, cutting manoeuvres
		Sport Activities	Sport-specific drills Return to training (non-competitive and competitive)
		Criteria to Progress	Competency and well tolerated return to progressive agility drills Competent and confident return to non-competitive, sport-specific training drills Single limb hop performance ≥90% of contralateral limb Peak isokinetic quadriceps and hamstrings strength ≥85% of contralateral limb
Phase 6 (Return to Sport)	Week 16 onwards	Goals and General Comments	Continue to build general fitness, as well as lower limb strength and power Successful return to sport
		Sport Activities	Return to sport Provision (and competency) of relevant injury prevention program
		Prior to RTS	Competent and confident return to competitive, sport-specific training drills Sound patient-perceived pain/function (consider ≥96/100 on the HOS-ADL Score) Sound patient-perceived sport capacity (consider ≥80/100 on the HOS-Sport Score) Hip ROM in all planes ≥90% of contralateral limb Hop symmetry (single, triple and triple crossover) ≥90% contralateral limb 16-hop timed agility test symmetry ≥90% contralateral limb Modified Agility T-test symmetry ≥90% contralateral limb Peak isokinetic quadriceps and hamstrings strength ≥90% contralateral limb Sound hop and land lower limb and trunk mechanics Successful completion of competitive, sport-specific training drills