

THE ROBERT JONES AND AGNES HUNT ORTHOPAEDIC AND DISTRICT FOUNDATION NHS TRUST

REHABILITATION GUIDE FOLLOWING ACI TO THE ANKLE

This is not an exhaustive list of all rehabilitative techniques or therapies and this should not over rule any clinical judgement.
Additional restrictions may be added as per consultant opinion.

PHASE	IDEAL CRITERIA FOR PROGRESSION	RANGE OF MOVEMENT	MOBILITY	REHABILITATION EXERCISES	GOALS	ADDITIONAL RESTRICTIONS (if applicable)
Post-Op Discharge	<ul style="list-style-type: none"> Good understanding of post-operative rehabilitation. No complications following surgery. Mobilise independently with elbow crutches 	Splint @ plantigrade post-surgery if Osteotomy performed	NW/B	<ul style="list-style-type: none"> SQ/SLR/Calf/ Glut --> circ. ex. Active Quads/ Hams. Active Add./ Abductors, adding resistance as tolerated. Upper body exercises. Leg exercises. Flexibility. Rest in elevation when not mobilising or exercising. 	<ol style="list-style-type: none"> Promote distal circulation. Alleviate pain and swelling. Encourage patient compliance. 	

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Following Consultant appointment; approx. Week 2	<ul style="list-style-type: none"> Consultant approval 	Aircast boot insitu when mobilising/ weight-bearing. No limit to passive movement unless in POP for osteotomy.	PWVB	<ul style="list-style-type: none"> Passive physiological and accessory ROM mobilisations foot and ankle. Cryotherapy if appropriate. 	<ol style="list-style-type: none"> Alleviate pain and swelling. Improve function 	Be guided by instructions following Consultant appointment/ satisfactory healing of osteotomy.
From Week 3	<ul style="list-style-type: none"> Minimal symptoms when PWVB Pain and swelling controlled 	No limit to NWVB and PWVB active movement. Aircast boot in situ when mobilising/ weight-bearing unless in POP for osteotomy.	Progressive PWVB	<ul style="list-style-type: none"> Progress above Active assisted → active ROM foot and ankle exercises PWVB CKC exercises, mini-squats, low step ups/downs. Early Proprioception (e.g. joint placing). Specific soft tissue/ Scar massage if indicated 	<ol style="list-style-type: none"> Good co-contracting muscle control. Pain free. Reduce effusion. Prevent scar adherence. Prevent joint stiffness. 	

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From Week 6 - 12	<ul style="list-style-type: none">○ Consultant approval○ ≥80% ROM parity○ Minimal discomfort○ FWB○ SLR with no lag	Gradually wean off Aircast boot if osteotomy has united.	FWB	<ul style="list-style-type: none">• Hydrotherapy• Heel raises (knee in extension and flexion) reps to fatigue• Gymball and Theraband work• Lower body active exercise → resis/reps/sets/speed• Muscle balance exercises as appropriate• Core stability exercises as appropriate• Flexibility exercises as appropriate• Rowing → dist./speed/resis• X-Trainer → dist./speed/resis• Proprioception → wobble boards/Trampoline/crash mats/etc.• PWB (parallel bars/hydro pool) jumps, hops, leaps → control technique/speed/reps → progress load as clinical judgement suggests.	<ol style="list-style-type: none">1. Promote independent gait.2. Reduce pain.3. Avoid mechanical symptoms.4. Good biomechanical and dynamic control.5. Promote appropriate muscle strength/power and endurance.6. Improve proprioception.7. Maintain/improve cardiovascular fitness.	Be guided by instructions following Consultant appointment/satisfactory union of osteotomy.

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From Month 3	<ul style="list-style-type: none"> Normal symmetrical gait Full AROM No/minimal effusion Single leg stance $\geq 80\%$ parity Single Leg Heel Raises ≥ 25 reps 	<ul style="list-style-type: none"> Train strength and endurance 3 – 4 x per week Train strength and endurance on separate days Have a minimum of 24 hours between strength days Strength: <ul style="list-style-type: none"> 10 – 20 min CV warm-up (exception of jogging/running) Choose a load 1 – 12 RM Choose numbers of sets and rest time between sets Alternate upper/lower body exercises within session Moderate to fast speed under control Vary load/set/rest between sessions Adjust if necessary based on symptoms Endurance: <ul style="list-style-type: none"> Gradually progress toward ≥ 45 min continuous CV exercise (exception of jogging/running) Choose a load 15 – 20 RM Choose numbers of sets and rest time between sets Alternate upper/lower body exercises within session Moderate to fast speed under control 	<ol style="list-style-type: none"> Promote appropriate strength, power and endurance based on individuals needs Improve neuromuscular performance Increase confidence 	

		Vary load/set/rest between sessions Adjust if necessary based on symptoms		
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From Month 6 - 8	<ul style="list-style-type: none"> Single leg squat 60° 5 sec hold with good alignment Muscle strength and power ≥80% parity 	<ul style="list-style-type: none"> Add FWB double footed plyometrics → control technique/speed/reps Progress to single footed plyometrics as dictated by control Introduce jogging → running when strength and control is adequate Add agility drills when sufficient control and confidence is achieved e.g. twist/turn/pivot/cut/accelerate/decelerate/direction Progress from predictable agility to unpredictable Advance dynamic proprioceptive exercises e.g. volleying football, throwing, catching, racket and ball while balancing on trampoline Perturbation training e.g. therapist randomly nudges patient off balance during a single leg throw-catch drill 	<ol style="list-style-type: none"> No altered jogging pattern (limp) with respect to fatigue. Prepare physical and psychological ability for complete return to unrestricted function. 	
From Month 8 - Onwards	<ul style="list-style-type: none"> Hop for distance ≥80% parity 	<ul style="list-style-type: none"> Contact sport specific training Earliest return to contact sport 	<ol style="list-style-type: none"> Unrestricted confident function Injury prevention 	

Terminology Key:

NWB	Non-Weight Bearing	ROM	Range of Movement
PWB	Partial Weight Bearing	AROM	Active Range of Movement
FWB	Full Weight Bearing	PROM	Passive Range of Movement
SLR	Straight Leg Raise	CKC	Closed Kinetic Chain
CV	Cardio-vascular	Resis.	Resistance
RM	Repetition Maximum	Reps.	Repetitions
		Dist.	Distance