

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

**REHABILITATION *GUIDE* FOLLOWING REPAIR ACHILLES TENDON RUPTURE**

**(This is not an exhaustive list of all rehabilitative techniques or therapies and this should not over rule any clinical judgement)**

WEEK	MOBILITY	REHABILITATION EXERCISES	GOALS
<u>Week 0-2</u>	NWB in posterior slab/ splint in equinus with appropriate walking aids	<ul style="list-style-type: none"> <li>○ Circulatory exercises</li> <li>○ SQ/IRQ/SLR/Glut/Hams exercises</li> <li>○ Upper body exercises</li> <li>○ Flexibility exercises</li> <li>○ Contralateral leg exercises</li> <li>○ AROM exercise for hip and knee</li> <li>○ Rest in elevation when not exercising or mobilising NWB</li> </ul>	<ul style="list-style-type: none"> <li>• Good understanding of post- operative rehabilitation.</li> <li>• No complications following surgery.</li> <li>• Elevation to control swelling</li> <li>• Education and advice on self-monitoring /management of sensation, skin colour, circulation, temperature.</li> <li>• Safe and independently mobile with appropriate walking aids and correct weight bearing status as advised on discharge from hospital.</li> <li>• Safe with transfers and stairs if necessary</li> </ul>
<u>Week 2-4</u>	NWB/TTWB in pin cam boot at 40 degrees PF	<ul style="list-style-type: none"> <li>○ Active plantar flexion</li> <li>○ Dorsiflexion to neutral</li> <li>○ Inversion/ Eversion below neutral</li> <li>○ Scar mobilisation</li> <li>○ AROM exercise for hip and knee with no ankle involvement, e.g. in sitting, prone or side-lying position.</li> <li>○ NWB fitness/ CV exercises</li> <li>○ Hydrotherapy (with range of movement and weight-bearing limitations)</li> <li>○ Upper body exercises</li> </ul>	<ul style="list-style-type: none"> <li>• Control of swelling</li> <li>• Education and advice on self-monitoring /management of sensation, skin colour, circulation, temperature and swelling.</li> <li>• Safe independent use of elbow crutches to encourage gradual increase in weight bearing status.</li> <li>• Education on the use of the aircast boot to be worn at all times except for hygiene reasons or when exercising.</li> </ul>

WEEK	MOBILITY	REHABILITATION EXERCISES	GOALS
<u>Week 4-6</u>	Increase weight bearing in pin cam boot Change pin cam ROM 20-30 degrees PF	<ul style="list-style-type: none"> <li>○ Commence isometric plantarflexion, dorsiflexion, inversion, eversion in protected range of movement</li> <li>○ Mobilise midfoot/ forefoot/ 1<sup>st</sup> MTPJt</li> <li>○ Continue with week 2-4 rehabilitation plan</li> <li>○ Scar mobilisation</li> </ul>	<ul style="list-style-type: none"> <li>• Independently mobile in aircast boot +/- walking aid</li> <li>• Swelling and pain control as appropriate</li> <li>• Education and advice on self-monitoring /management of sensation, skin colour, circulation, temperature and swelling.</li> <li>• Maintain ankle ROM</li> <li>• Maintain Hip/ Knee ROM and strength</li> <li>• Prevent scar adherence.</li> </ul>
<u>Week 6-8</u>	Increase weight bearing to FWB as able Change pin cam ROM 0-15 degrees PF	<ul style="list-style-type: none"> <li>○ Commence graded resistance exercises (OKC, CKC and functional activities)</li> <li>○ Seated heel raises with graded resistance (soleus strengthening)</li> <li>○ Gait re-education</li> <li>○ Proprioceptive training</li> <li>○ Graded increase in active dorsiflexion (avoid overstretching to prevent a lengthened TA)</li> <li>○ Scar mobilisation</li> <li>○ CV training to include graded weight bearing activities</li> <li>○ Hydrotherapy</li> </ul>	<ul style="list-style-type: none"> <li>• Independently mobile in aircast boot</li> <li>• Swelling control as appropriate</li> <li>• Education and advice on self-monitoring /management of sensation, skin colour, circulation, temperature and swelling.</li> <li>• Maintain Hip/ Knee ROM and strength</li> <li>• Prevent scar adherence.</li> </ul>

WEEK	MOBILITY	REHABILITATION EXERCISES	GOALS
<u>Week 8-12</u>	<p>Commence normal footwear with heel lifts</p> <p>Return to using crutches if needed for weaning into normal footwear</p>	<ul style="list-style-type: none"> <li>○ Progressively wean off walking aids as able</li> <li>○ Double leg heel raises → Single leg heel raises</li> <li>○ Begin unilateral weight bearing exercises</li> <li>○ Strength exercises for foot and ankle and other muscle groups in kinetic chain as appropriate</li> <li>○ Higher level balance and proprioception exercises</li> <li>○ Manual Therapy – soft tissue techniques, joint mobilisations and scar massage if indicated.</li> <li>○ Hydrotherapy to progress strength and mobility</li> <li>○ Lower limb biomechanics/ kinetic chain assessment to address any findings including core stability progressions</li> </ul>	<ul style="list-style-type: none"> <li>● Promote independent gait</li> <li>● Optimise normal ankle and foot movement and restore gait pattern</li> <li>● Wear correct normal footwear</li> <li>● Achieve optimal ankle ROM</li> <li>● Optimise core strength and kinetic chain control</li> </ul>

<u>From 12 weeks</u>	FWB in normal footwear	<ul style="list-style-type: none"> <li>○ Gait re-education continued- progressions of mobility and function, increasing dynamic control with specific training towards functional goals</li> <li>○ Progression of ROM, strength, balance and kinetic chain exercises including increasing resistances/ loading (progress resistance/load as clinical judgement suggests.)</li> <li>○ Increase dynamic weight-bearing exercise, including plyometric training</li> <li>○ Sports/ activity specific retraining</li> <li>○ Manual Therapy – soft tissue techniques, joint mobilisations and scar massage if indicated.</li> </ul>	<ul style="list-style-type: none"> <li>● Promote independent gait- unaided or with walking aid if required long term</li> <li>● Good biomechanical and dynamic control.</li> <li>● Promote appropriate muscle strength/power and endurance</li> <li>● Achieve Grade 5 muscle strength around ankle.</li> <li>● Maintain/improve cardiovascular fitness</li> <li>● Return to gentle no impact sports/hobbies</li> </ul>
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