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## REHABILITATION GUIDELINES FOR ACHILLES TENDON REPAIR ACCELERATED PROTOCOL

### PHASE I (0-2 WEEKS)

DATES:

Appointments	Begin physical therapy 14-16 days after surgery
Rehabilitation Goals	Protection of the surgically repaired tendon Wound healing
Precautions	In splint applied by MD postoperatively TTWB X 2 weeks using the axillary crutches Keep the incision dry Watch for signs of infection Avoid long periods of dependent positioning of the foot during the first week to assist in wound healing
Suggested Cardiovascular Exercise	Upper Body Ergometer (UBE) circuit training
Progression Criteria	Two weeks after surgery

### PHASE II (2 - 4 WEEKS)

DATES:

Appointments	PT Typically 1-2 times per week
Rehabilitation Goals	WBAT 2-4 weeks with CAM boot in neutral with axillary crutches <b>(must be cleared by MD to progress to WBAT at first post-op visit)</b> Protection of the post-surgical repair Active dorsiflexion to neutral
Precautions	Can immerse wound into water after 3 weeks or 1 week s/p suture removal

	<p>Watch for signs of poor wound healing</p> <p>Instructed to begin active dorsiflexion (to neutral DF only) with passive plantar flexion 10 repetitions 3x/day (start at 2 weeks)</p> <p>WBAT in CAM boot in neutral with axillary crutches</p>
Suggested Therapeutic Exercises	<p>Pain-free active ankle range of motion (ROM), including ankle alphabet (<b>neutral DF only no active PF</b>), ankle pumps, etc.</p> <p>Pain-free isometric ankle inversion, eversion, and dorsiflexion to neutral only</p> <p>Open chain hip and core strengthening</p>
Suggested Cardiovascular Exercises	Upper body ergometer or upper extremity circuit training
Progression Criteria	<p>4 week post operative</p> <p>Pain-free active dorsiflexion to 0°</p> <p>No wound complications; however if wound complications occur then consult with a physician</p>

**PHASE III (4-8 WEEKS)**

**DATES:**

Appointments	Rehabilitation appointments are 1 – 2x per week
Rehabilitation Goals	<p>Normalize gait on level surfaces without boot or heel lift</p> <p>Active ROM between 5° of dorsiflexion and 40° of plantarflexion</p>
Precautions	<p>Slowly wean from use of the boot</p> <p>Avoid over-stressing the repair (avoid large movements in the sagittal plane; any forceful plantarflexion while in a dorsiflexed position; aggressive passive ROM; and impact activities)</p>
Suggested Therapeutic Exercises	<p>Frontal and sagittal plane stepping drills (side step, cross-over step, grapevine step)</p> <p>Active ankle ROM</p> <p>Gentle gastroc/soleus stretching</p> <p>2 foot standing nose touches</p> <p>Static balance exercises (begin in 2 foot stand progress to narrow base of support and gradually progress to single leg stand)</p> <p>Ankle strengthening with resistive tubing</p>

	<p>Low velocity and partial ROM for functional movements (squat, step back, lunge)</p> <p>Hip and core strengthening</p> <p>Pool exercises if the wound is completely healed</p>
Suggested Cardiovascular Exercise	Upper body ergometer or upper extremity circuit training
Progression Criteria	<p>Normal gait mechanics without the boot</p> <p>Squat to 30° knee flexion without weight shift</p> <p>Single leg stand with good control for 10 seconds</p> <p>Active ROM between 5° of dorsiflexion and 40° of plantarflexion</p>

**PHASE IV (USUALLY 8 WEEKS POST-OP)**

**DATES:**

Appointments	Rehabilitation appointments are once every 1 to 2 weeks
Rehabilitation Goals	<p>Normalize gait on all surfaces without boot or heel lift</p> <p>Single leg stand with good control for 10 seconds</p> <p>Active ROM between 15° of dorsiflexion and 50° of plantarflexion</p> <p>Good control and no pain with functional movements, including step up/down, squat and lunges</p>
Precautions	<p>Avoid forceful impact activities</p> <p>Do not perform exercises that create movement compensations</p>
Suggested Therapeutic Exercises	<p>Frontal and transverse plane agility drills (progress from low velocity to high, then gradually adding in sagittal plane drills)</p> <p>Active ankle range of motion</p> <p>Gastroc/soleus stretching</p> <p>Multi-plane proprioceptive exercises – single leg stand</p> <p>1 foot standing nose touches</p> <p>Ankle strengthening – concentric and eccentric gastroc strengthening</p> <p>Functional movements (squat, step back, lunge)</p> <p>Hip and core strengthening</p>
Cardiovascular Exercises	Stationary Bike, Stair Master, Swimming

Progression Criteria	<p>Normal gait mechanics without the boot on all surfaces</p> <p>Squat and lunge to 70° knee flexion without weight shift</p> <p>Single leg stand with good control for 10 seconds</p> <p>Active ROM between 15° of dorsiflexion and 50° of plantarflexion</p>
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*PHASE V (USUALLY 4 MONTHS POST-OP) DATES:*

Appointments	Rehabilitation appointments are once every 1 to 2 weeks
Rehabilitation Goals	Good control and no pain with sport and work specific movements, including impact
Precautions	<p>Post-activity soreness should resolve within 24 hours</p> <p>Avoid post-activity swelling</p> <p>Avoid running with a limp</p>
Suggested Therapeutic Exercises	<p>Impact control exercises beginning 2 feet to 2 feet, progressing from 1 foot to other and then 1 foot to same foot</p> <p>Movement control exercise beginning with low velocity, single plane activities and progressing to higher velocity, multi-plane activities</p> <p>Sport/work specific balance and proprioceptive drills</p> <p>Hip and core strengthening</p> <p>Stretching for patient specific muscle imbalances</p>
Cardiovascular Exercise	Replicate sport or work specific energy demands
Return to Sport/Work Criteria	Dynamic neuromuscular control with multi-plane activities, without pain or swelling

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References: University of Wisconsin Sports Medicine

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