TWIN CITIES ORTHOPEDICS

Achilles Tendon Repair Protocol

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PHASE I: 0-2 WEEKS AFTER SURGERY

- Appointments:
  - Rehabilitation appointments begin 2 weeks after surgery
- Rehabilitation Goals:
  - Protection of the surgically repaired tendon
  - Wound Healing
- Precautions:
  - Posterior slab splint or continuous use of the Cam Boot.
  - Non-weight bearing with crutches
  - Keep incision dry
  - Watch for signs of infection (redness, warmth, purulent discharge.
- Suggested Therapeutic Exercise:
  - Ankle range of motion with respect to precautions
  - Pain-free isometric ankle inversion, eversion, dorsiflexion, and sub-maxplantarflexion (Alphabet range of motion exercise)
  - Open chain hip and core strengthening
- Cardiovascular Exercise:
  - Upper extremity circuit training
- Progression Criteria:
  - 2 weeks after surgery

PHASE II: BEGIN AFTER MEETING PHASE 1 CRITERIA, USUALLY 2-4 WEEKS AFTER SURGERY

- Appointments:
  - Rehabilitation appointments are 1-2 times per week
- Rehabilitation Goals:
  - Normalize gait with weight bearing as tolerated using the boot and crutches
  - Active dorsiflexion to neutral Precautions:
- Precautions:
  - Placed into walking boot with heel lifts (boot in 20-30° PF)
  - Do not soak the incision (i.e. no pool or bath tub)
  - Watch for signs of poor wound healing
- Suggested Therapeutic Exercise:
  - Ankle range of motion with respect to precautions
  - Pain-free isometric ankle inversion, eversion, dorsiflexion, and sub-maxplantarflexion (Alphabet range of motion exercise)
  - Open chain hip and core strengthening

- Cardiovascular Exercise:
  - Upper extremity circuit training
- Progression Criteria:
  - Six weeks post-operatively
  - Pain-free active dorsiflexion to 0°
  - No wound complications. If complications occur, consult with a physician

PHASE III: BEGIN AFTER MEETING PHASE II CRITERIA, USUALLY 6-8 WEEKS AFTER SURGERY

- Appointments:
  - Appointments are once a week
- Rehabilitation Goals:
  - Normalize gait on level surfaces without boot or heel lift
  - Single leg stand with good control for 10 seconds
  - Active ROM between 5° of dorsiflexion and 40° of Plantarflexion
- Precautions:
  - Slowly wean from use of the boot: Begin using 1-2 ¼ inch heel lifts in tennisshoes for short distances on level surfaces then gradually remove the heel lifts during the 5th and 8th week
  - Avoid over stressing the repair (avoid large movements in the sagittal plane;any forceful plantarflexion while in a dorsiflexed position; aggressive passiveROM; and impact activities)
- Suggested Therapeutic Exercise:
  - Frontal and sagittal plane stepping drills (side step, cross-over step,grapevine step)
  - Active ankle ROM
  - Gentle gastroc/soleus stretching
  - Static balance exercises (begin in 2 foot stand, then 2 foot stand on balance board or narrow base of support and gradually progress to single leg stand)
  - 2 foot standing nose touches
  - Ankle strengthening with resistive tubing
  - Low velocity and partial ROM for functional movements (squat, step back,lunge)
  - Hip and Core strengthening
  - Pool exercises if the wound is completely healed
  - Upper extremity circuit training
- Cardiovascular Exercise:
  - Upper extremity circuit training or UBE
- Progression Criteria:
  - Normal gait mechanics without the boot
  - Squat to 30° knee flexion without weight shift
  - Single leg stand with good control for 10 seconds
  - Active ROM between 5° of dorsiflexion and 40° of plantarflexion

PHASE IV: BEGIN AFTER PHASE III CRITERIA, USUALLY 8 WEEKS AFTER SURGERY

- Appointments:
  - Rehabilitation appointments are once 1-2 weeks
- Rehabilitation Goals:
  - Normalize gait on all surfaces without boot or heal lift
  - Single leg stand with good control for 10 seconds
  - Active ROM between 15° of dorsiflexion and 50° of plantarflexion
  - Good control and no pain with functional movements, including step up/down, squat and lunges
- Precautions:
  - Avoid forceful impact activities
  - Do not perform exercises that create movement compensations
- Suggested Therapeutic Exercise:
  - Frontal and transverse plane agility drills (progress from low velocity to high, then gradually adding in sagittal plane drills)
  - Active ankle ROM
  - Gastroc/soleus stretching
  - Multi-plane proprioceptive exercises – single leg stand
  - 1 foot standing nose touches
  - Ankle strengthening – concentric and eccentric gastroc strengthening
  - Functional movements (squat, step back, lunge)
  - Hip and core strengthening
- Cardiovascular Exercise:
  - Stationary bike, Stair master, swimming
- Progression Criteria:
  - Normal gait mechanics without the boot on all surfaces
  - Squat and lunge to 70° knee flexion without weight shift
  - Single leg stand with good control for 10 seconds
  - Active ROM between 15° of dorsiflexion and 50° of plantarflexion

PHASE V: BEGIN AFTER MEETING PHASE IV CRITERIA, USUALLY 4 MONTHS AFTER SURGERY

- Appointments:
  - Rehabilitation appointments are once 1-2 weeks
- Rehabilitation Goals:
  - Good control and no pain with sport/work specific movements, including impact
- Precautions:
  - Post-activity soreness should resolve within 24 hours
  - Avoid post-activity swelling

- Avoid running with a limp

- Suggested Therapeutic Exercise:
  - Impact control exercises beginning 2 feet to 2 feet, progressing from 1 foot to other then 1 foot to same foot
  - Movement control exercise beginning with low velocity, single plane activities and progressing to higher velocity, multi-plane activities
  - Sport/work specific balance and proprioceptive drills
  - Hip and core strengthening
  - Stretching for patient specific muscle imbalances
- Cardiovascular Exercise:
  - Replicate sport/work specific energy demands
- Progression Criteria:
  - Dynamic neuromuscular with multi-plane activities, without pain or swelling