

PT09: Strayer/ Volpius gastrocnemius/ soleus intramuscular lengthening

Indications: Achilles tendon contracture with weak triceps surae

Procedure: Distal gastrocnemius tendon/ fascia separated from the soleus and transected resulting in intramuscular lengthening

Casting: Short leg cast for 3-6 weeks, weight bearing as tolerated

Healing Time: Approximately 6 weeks

Precautions:

- Avoid post-op tissue tightness resulting in loss of dorsiflexion

Contraindications:

- Avoid forceful, resisted muscular contraction, avoid impact activities until ~6-8 weeks post-op

Phase 1: Post-op day 1-7

- Goals:
- protect the surgical site including the incision and underlying surgical tissues
 - home exercise instruction including positioning, stretching, ADL function
 - isometric contraction of the gluts, quads, hamstrings
 - independent SLR all planes with cast donned

Criteria to Progress:

- safe mobility for ADL completion
- able to demonstrate understanding of home exercises and precautions

Phase 2: Post-op day 8-21

- Goals: -begin weight bearing activities with cast

Criteria to Progress:

- uneventful healing of surgical tissues

Phase 3: Post-op 22 to completion of PT care

- Goals:
- begin active assist/ active ankle dorsiflexion once the cast is removed, may use electrical stim to enhance strengthening of ankle dorsiflexors
 - full ankle ROM, all planes
 - able to heel walk, active dorsiflexion in standing
 - emphasize gastroc-soleus stretching to avoid tissue shortening
 - neutral foot alignment during stance phases and sufficient DF swing phases of gait
 - gait training to achieve heel first initial contact position when walking
 - improve strength of the lower leg with emphasis on ankle dorsiflexion, gastroc-soleus, may use theraband for ankle strengthening at 6 weeks post-op
 - closed chain proprioception exercises, balance activities
 - Transverse friction massage to surgical scar to improve mobility once the incision is closed (Approx. 4-6 weeks)
 - independent management with home exercises

When multiple procedures are performed at the same surgical event, the post-op physical therapy care needs to default to the most conservative time frames and guidelines.