Gastrocnemus-Soleus Strain (Calf) Non-operative Rehab Program
Dr. Jeffrey Witty, MD, FAAOS
drjeffreywitty.com

General Notes:

- Protocol can typically be advanced as patient discomfort allows
- Progress into the the next phase once the previous phase can be completed pain free
- More severe injuries can take up to 3 – 4 months to fully recovery

	Weight-bearing	**Splint/Brace**	**ROM**	**Modalities**	**Exercise**
Phase I Initial Treatment and Pain Management Phase	WBAT Utilize crutches to offload extremity as much as needed to eliminate pain.	If more significant injury, a CAM boot may be utilized. (Typically used if patient is unable to weight-bear with ankle neutral due to pain) CAM boot with 1 – 2cm heel lift to offload area	Ok to start AROM/AAROM/PROM if minimal symptoms.	Rest, Ice, Compression, Elevation. Compression sleeve, 20 – 30mmHg (to include foot and extend above calf) Ice/cryo As needed NSAIDs	None
Phase II Goal: Restore painfree ROM	WBAT Wean off crutches as pain resolves.	CAM boot: Begin to remove heel lift as pain improves. Remove lift completely if pain free during full weightbearing with ankle neutral.	Continue and progress Phase I ROM	As per Phase I. Avoid deep and friction type massage and soft tissue mobilization.	None
Phase III Goal: Restore normal gait	WBAT No crutches	Advance into normal shoe. Utilize crutches as needed.	Normalize ROM	As Phase I and II.	Begin isometrics
Phase IV Goal: Strengthening	WBAT	None	Full	All modalities ok as long as not painful.	Begin PREs and progress Address hip, core, kinetic chain. Begin to restore cardiovascular fitness **(see additional notes below)**
Phase V Goal: Return to full activities	WBAT	None	Full	As above	Continue PRE Incorporate sport/activity/work specific appropriate training. **(see additional notes below)** Education on home exercise program (HEP)

Gastrocnemus-Soleus Strain (Calf) Non-operative Rehab Program
Dr. Jeffrey Witty, MD, FAAOS
drjeffreywitty.com

Additional Notes:

- This injury pattern most common in poorly conditioned individuals in their 40's – 60's. Address this risk factor with HEP of stretching and strengthening program.
- **<u>Return to running:</u>**
    - No clear data exists on optimal time to progress a running athlete back to full activity. General guidelines to begin running program:
        - Able to ambulate without crutches and without any pain without a heel lift.
        - Able to complete 15 reps of single leg heel raise with minimal discomfort before starting return to running program
- **<u>Return to unrestricted running/training regimen:</u>**
    - No clear data exists on optimal time to progress a running athlete back to full activity. General guidelines to begin unrestricted program:
        - Able to complete 3 sets of 15 single leg heel raises with minimal discomfort
        - Able to complete 30 min slow pace run without pain.

Adapted from:
Fields KB and Rigby MD. Current Sports Medicine Reports 2016
Mann's Surgery of the Foot and Ankle 2014
Campbell et al Foot Ankle Clin N Am 2009