



# mTrigger<sup>®</sup> Suggested Protocol: Achilles Tendinopathy

## BASIC SETUP

### ELECTRODE PLACEMENT

Target: triceps surae

Primary channel: Palpate to isolate soleus or medial gastrocnemius; place both electrodes on the body of the muscle

Secondary channel (optional): Antagonist: Tibialis anterior

Note: These protocols show minimal concern of co-contraction, so CH2 antagonist measurement is optional; CH2 is suggested for measurement of healthy limb in bilateral exercises

### DETERMINE MVC

Set time parameters: Total: 30 sec  
Contract: 5 sec  
Relax: 5 sec

Set CH1 goal: 1000uV

Complete Train session and SAVE

Enter Track, select session and tap graph to view average MVC

Enter Settings; adjust goal in relation to MVC

## SINGLE CHANNEL

### ISOMETRIC

Goal: Long hold isometric contractions of triceps surae

Perform: Traditional wall squat position with knee flexed to 30 degrees and held bilateral heel-rise.

Alternative: without wall, use finger tips to maintain balance.

Time: Total: 1 min.  
Contract: 5-10 sec  
Relax: 5-10 sec.

### DYNAMIC

Goal: Fatigue triceps surae musculature

Perform: Single involved limb heel rises. Monitor and measure during both eccentric and concentric movements of involved limb with full body weight load.

Time: 3 sets of  
Total: 2 min. 30 sec.  
Contract: 4 sec.  
Relax: 6 sec.

Note: Each repetition should include

1-sec concentric rise | 1-sec isometric hold | 2-sec eccentric lower

Note: The greater the flexion in the leg, the less the gastrocnemius will activate

Option: Monitor TA activity for guarding on CH2

## DUAL CHANNEL

### BILATERAL ASSESSMENT

Goal: Assess bilateral differences in activation

Perform: Bilateral heel rises. Monitor and measure during both eccentric and concentric movements of involved limb with full body weight load.

Time: 3 sets of  
Total: 2 min. 30 sec.  
Contract: 4 sec.  
Relax: 6 sec.

Note: Desired that injured limb show equal or greater muscle activation than healthy limb.

### ECCENTRIC LOADING

Goal: "Overload" the Achilles tendon to promote remodeling

Perform: Bilateral concentric heel-rise; lift uninjured limb off ground; unilateral eccentric heel-rise on injured side only

Time: 3 sets of  
Total: 2 min. 30 sec.  
Contract: 4 sec.  
Relax: 6 sec.

Note: Each repetition should include

1-sec concentric rise | 1-sec isometric hold | 2-sec eccentric lower