**mTrigger® 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

#### 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:**  1 min.  
- **Contract:** 5-10 sec  
- **Relax:** 5-10 sec

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

### 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**

### 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

### 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

### 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