

### Tibialis Anterior

**Origin:** Lateral surface of tibia, interosseous membrane

**Insertion:** Medial cuneiform bone, base of 1st metatarsal

**Innervation:** Deep fibular nerve (L4, L5)

**Action:** Dorsiflexion & inversion

**Muscle test:**  
**Pt:** plantarflex & evert foot  
**DC:** resistance hand on medial foot & resist pt's movement  
**Pt:** dorsiflex & invert foot

**Weakness:** Difficult/impossible to walk on heels, but doesn't usually interfere with normal walking

**Trigger points:** Upper 1/3 of muscle w/ referred pain along it & 1° pain referral to the front of the ankle & dorsal part of medial foot & big toe

**Active release:** Shorten muscle (dorsiflex & invert); lock after pt inhales; bring foot to plantarflexion & eversion while pt breathing out

**Taping:** **Activation:** shorten muscle (dorsi & invert); tape origin to insertion, "I" tape  
**Inhibition:** lengthen muscle (plantar & evert); insertion to origin; "I" tape

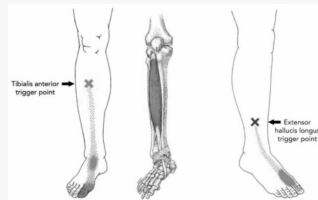
### Tibialis Anterior (cont)

**Associated injuries:** Plantar fasciitis; Achilles tendonitis; Morton's neuroma; Shin splints; General calf pain

### TibA Management



### TibA Trigger Points



### Soleus

**Origin:** Solar line, medial border of tibia, head of fibula, posterior border of fibula

**Insertion:** Posterior surface of the calcaneus (via calcaneus tendon)

**Innervation:** Tibial nerve (S1, S2)

**Action:** Foot plantarflexion

**Muscle test:**  
**Pt:** prone; knee bent to 90°; foot dorsiflexed  
**DC:** resistance hand on ball of foot & resist pt  
**Pt:** plantarflex foot

**Weakness:** Inhibits blood flow to foot & ankle; fatigue during running

### Soleus (cont)

**Trigger points:** Along inside aspect of the muscle just above the achilles tendon; referred pain in achilles tendon, belly of muscle, calcaneus bone, sacroiliac joint

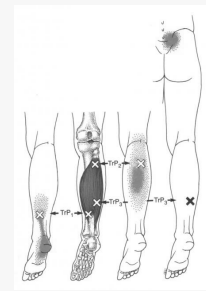
**Active release:** Shorten muscle (pt prone, 90° knee, plantar); lock (pt inhaled); lengthen muscle (bring foot to 0° & dorsiflex)

**Taping:** **Activation:** shorten muscle (pt prone & plantar); tape origin to insertion, thin "Y" tape  
**Inhibition:** lengthen muscle (pt prone & dorsi); tape insertion to origin, thin "Y" tape

### Soleus Management



### Soleus Trigger Points



### Quadriceps

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

### Erector Spinae

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

### Infraspinatus

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

### Supinator

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

### Levator Scapulae

Origin:

Insertion:

Innervation:

Muscle test:

Trigger points:

Active release:

Taping:

### Tibialis Posterior

**Origin:** Posterior surface of tibia, posterior surface of fibula & Interosseous membrane

**Insertion:** Tuberosity of navicular bone, all cuneiform bones, cuboid bone, bases of metatarsal bones 2-4

**Innervation:** Tibial nerve (L4, L5)

**Action:** Plantarflexion, inversion, supports medial longitudinal arch of foot

**Muscle test:**  
**Pt:** prone, dorsiflex & invert foot  
**DC:** resistance hand on lateral foot & resist pt  
**Pt:** plantarflex & evert foot

**Weakness:** Arch slowly collapses, heel drifts into valgus, & forefoot gradually abducts → painful acquired flatfoot

**Trigger points:** Near muscle origin, upper middle calf w/ referred pain to achilles tendon, belly of muscle, calf, heel of the foot & occasionally may cause shin splint pain

### Tibialis Posterior (cont)

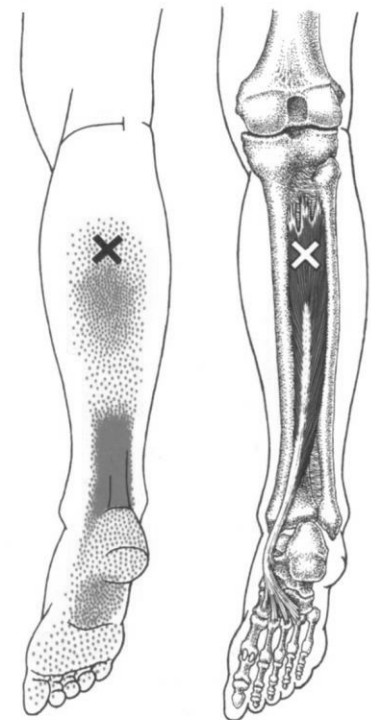
**Active release:** Shorten muscle (plantarflex & evert); lock after pt inhales; bring foot to dorsiflexion & inversion while pt exhaling

**Taping:** **Activation:** shorten muscle (plantar & evert); tape origin to insertion, "I" tape  
**Inhibition:** lengthen muscle (dorsi & invert); tape insertion to origin, "I" tape

### TibP Management



### TibP Trigger Points



### Fibularis

**Origin:** Longus head: head & proximal 2/3 of the lateral surface of the shaft of fibula, adjacent surface of the intermuscular septum  
Brevis head: distal 2/3 of the lateral surface of the fibula, adjacent intermuscular septum

**Insertion:** Plantar side of the medial cuneiform & first metatarsal bone  
Brevis head: tuberosity of the 5th metatarsal bone

**Innervation:** Longus head: fibular (peroneal) nerve (L5, S1)  
Brevis head: superficial fibular (peroneal) nerve (L5, S1)

**Action:** Longus: **plantarflex** & **evertfoot**, provides support to longitudinal & transverse arches  
Brevis: foot **eversion**

**Muscle test:** **Pt:** supine; dorsiflex & invert  
**DC:** resistance on lateral aspect of foot & resist pt  
**Pt:** plantarflexes & everts

**Weakness:** Instability in ankle, & a tendency to ankle sprain

**Trigger points:**

**Active release:**

**Taping:**

### Quadratus Lumborum

**Origin:**

**Insertion:**

**Innervation:**

**Muscle test:**

**Trigger points:**

**Active release:**

**Taping:**

### Serratus Anterior

**Origin:**

**Insertion:**

**Innervation:**

**Muscle test:**

**Trigger points:**

**Active release:**

**Taping:**

### Pectoralis Major

**Origin:**

**Insertion:**

**Innervation:**

**Muscle test:**

**Trigger points:**

**Active release:**

**Taping:**

### Flexor carpi radialis

**Origin:**

**Insertion:**

**Innervation:**

**Muscle test:**

**Trigger points:**

**Active release:**

**Taping:**

### Scalene muscles

**Origin:**

**Insertion:**

**Innervation:**

**Muscle test:**

**Trigger points:**

**Active release:**

**Taping:**

### Gastrocnemius

**Origin:** **Lateral head:** upper posterolateral surface of lateral condyle of the femur  
**Medial head:** posterior surface of medial femoral condyle, popliteal surface of femoral shaft

**Insertion:** Posterior surface of the calcaneus via the calcanea tendon

**Innervation:** Tibial nerve (S1, S2)

**Action:** Foot **plantarflexion** & **leg flexion**

**Muscle test:** **Pt:** supine; knee extended; foot slight dorsiflexion  
**DC:** resistance hand on ball of foot & resist pt  
**Pt:** plantarflex foot

**Weakness:** Results in calcaneal gait (sole of foot doesn't contact ground); struggle climbing stairs & uphill walking



### Gastrocnemius (cont)

**Trigger points:** Just below knee crease (medially), inch or two below (belly of muscle) & referred pain to achilles tendon, ankle, muscle belly, foot, lower 1/3 of post. thigh, post. knee

**Active release:** Pt prone; **plantar**flex feet; lock (after pt inhales); bring foot to dorsiflexion (while pt exhales)

**Taping:** **Activation:** shorten muscle (pt prone & plantar); tape origin to insertion, "Y" tape  
**Inhibition:** lengthen muscle (pt prone & dorsi); tape insertion to origin, "Y" tape

### Gastrocnemius Management



### Gastrocnemius Trigger Points



### Hamstrings

**Origin:**

**Insertion:**

**Innervation:**

**Muscle test:**

**Trigger points:**

**Active release:**

**Taping:**

### Iliopsoas

**Origin:**

**Insertion:**

**Innervation:**

**Muscle test:**

**Trigger points:**

**Active release:**

**Taping:**

### Trapezius

**Origin:**

**Insertion:**

**Innervation:**

**Muscle test:**

**Trigger points:**

**Active release:**

**Taping:**

### Pronator Teres

**Origin:**

**Insertion:**

**Innervation:**

**Muscle test:**

**Trigger points:**

**Active release:**

**Taping:**

### Extensor carpi radialis

**Origin:**

**Insertion:**

**Innervation:**

**Muscle test:**

**Trigger points:**

**Active release:**

**Taping:**