



Ankle Mobility

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Who the Heck am I?

- Owner of the Elite Performance Center
 - www.eliteperformancecenter.ca
- Director of Trainer Development for World Gym
- Business Consultant
- Owner of A.T.S. (Arko Training Systems)
- Strength and Conditioning Coach and Nutritionist
 - UFC Fighters and Fitness Competitors main clients
- National Kickboxing Team of Canada
- Strength and Conditioning and Mobility Director for Boxing Ontario
- Host of two TV Shows: Body Fuel and Training with Pros
- Published writer in major fitness magazines
- Avid fisher!

Agenda

1. Overview for Today
2. Ankle Anatomy
3. Testing Ankle Mobility
4. What Stops Mobility?
5. Corrective Techniques you can use
TOMORROW

Overview

Today is about simplifying the ankle, understanding it's anatomy better, learning how to test it and figuring out ways to correct it that you can use right away.

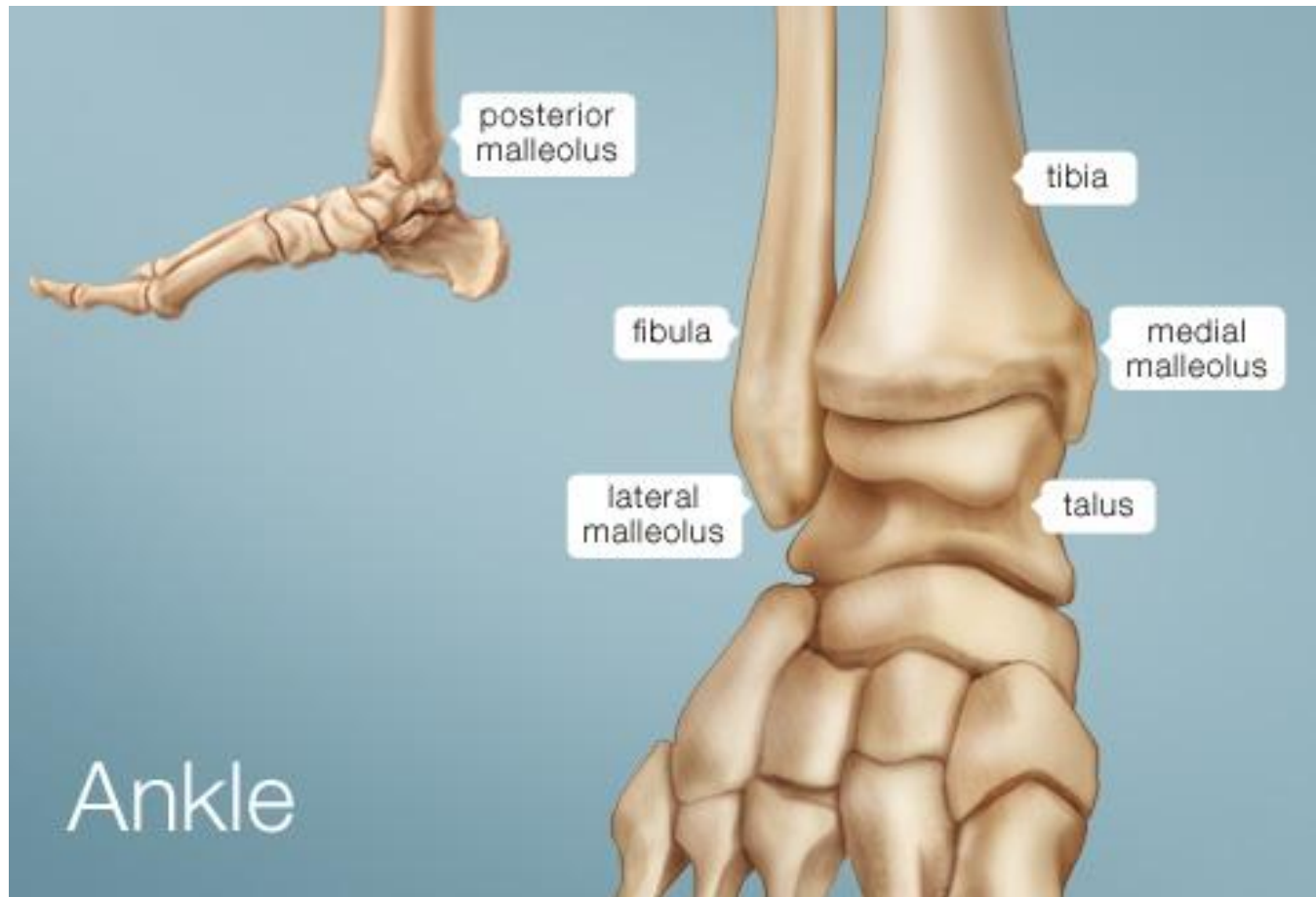
Today's Focus

- ▶ Testing and increasing mobility of the ankle
- ▶ Out of our scope to peel off ALL layers today
- ▶ Want to help a client lunge, squat, walk and run more effectively starting tomorrow
- ▶ STILL need to further evaluate CAUSES of any major or minor issues
- ▶ Proper proprioceptive, balance and strength training needs to be prescribed

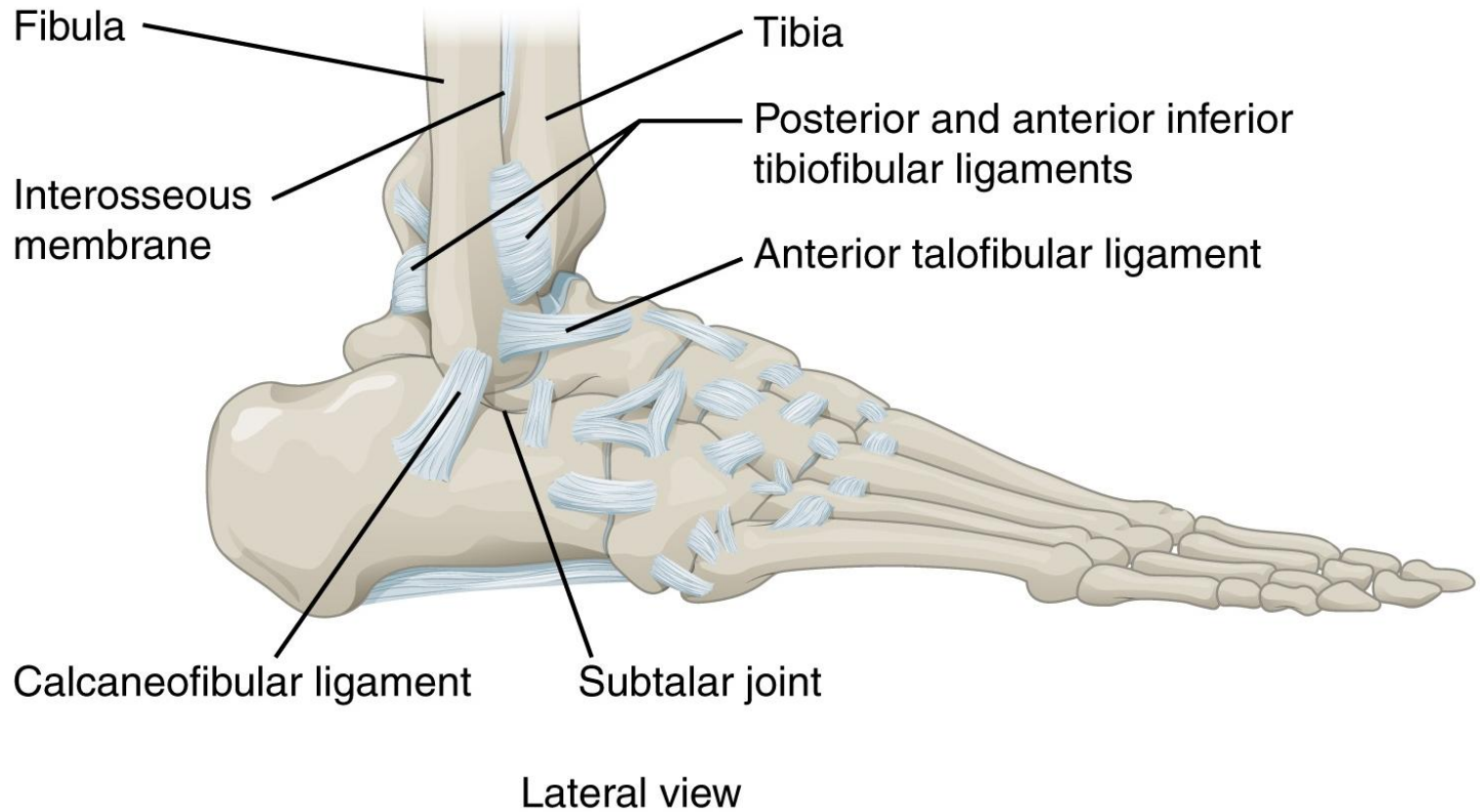
Common Causes of Poor Ankle Mobility

- ▶ Previous Injuries
- ▶ Flexibility issues due to tissue restriction
- ▶ Joint restriction (joint/ligaments)
- ▶ Joint compression from overuse and poor mechanics
- ▶ Anterior pelvic tilt: brings body's center of mass forward, causing the ankle to plantar flex to balance it out
- ▶ Glute med issues: controls internal rotation of the leg
- ▶ Tight "heel chord": how well the skin/tissue slides over the achilles tendon

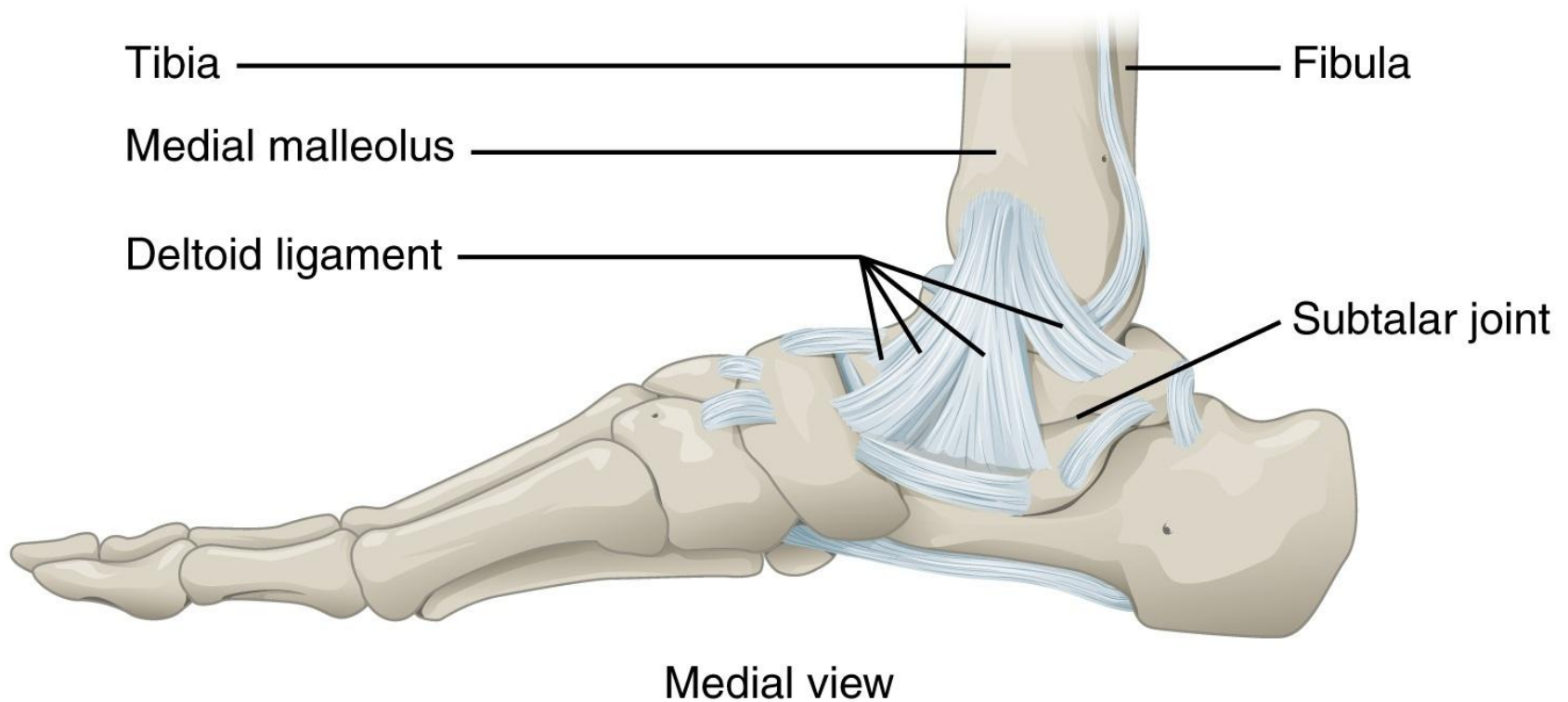
Ankle Anatomy: Bones



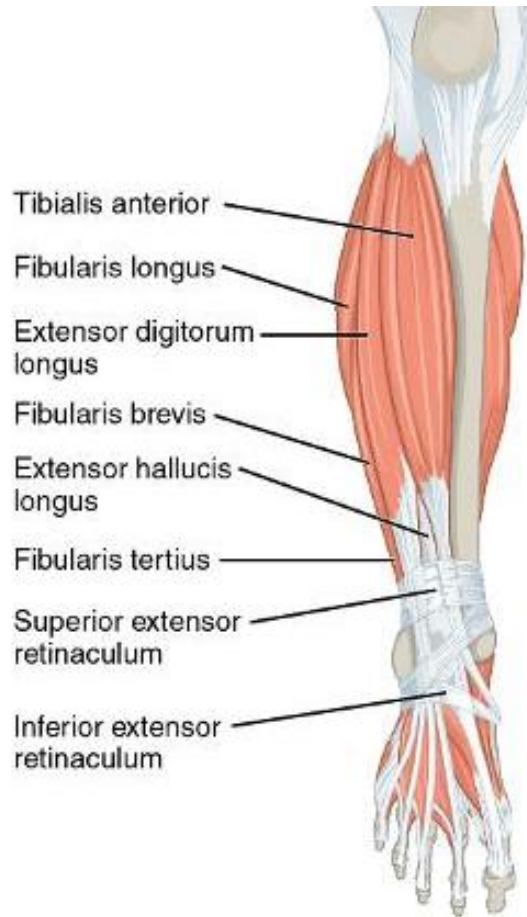
Ankle Anatomy: Ligaments



Ankle Anatomy: Ligaments



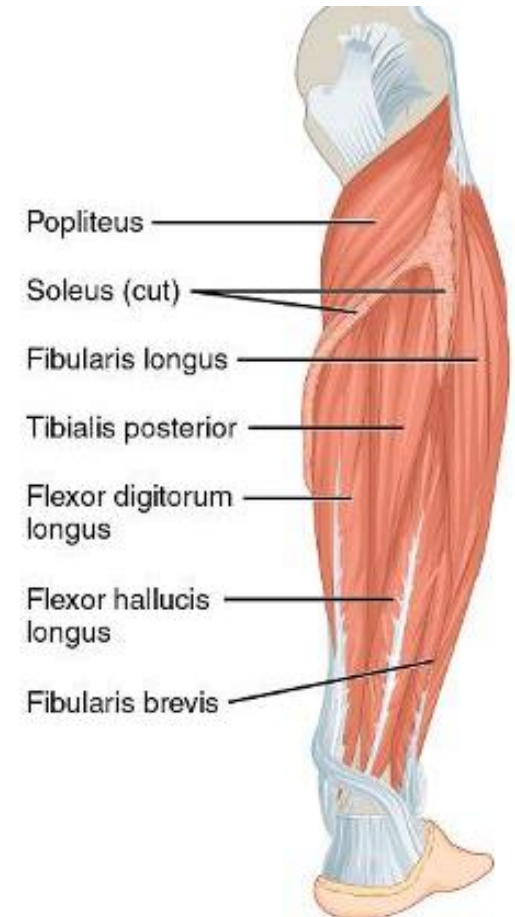
Ankle Anatomy: Tissue



Superficial muscles of the right lower leg (anterior view)



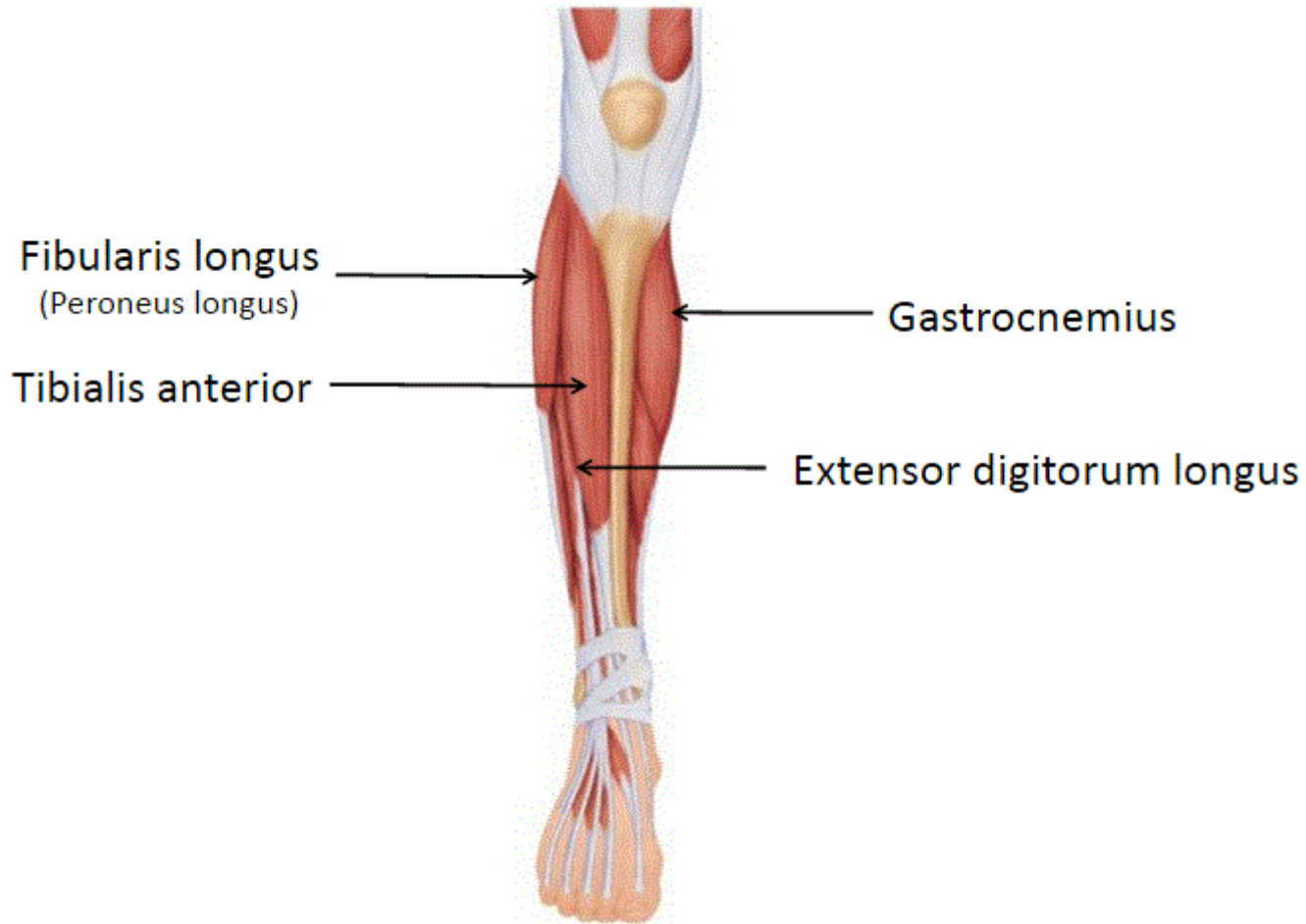
Superficial muscles of the right lower leg (posterior view)



Deep muscles of the right lower leg (posterior view)

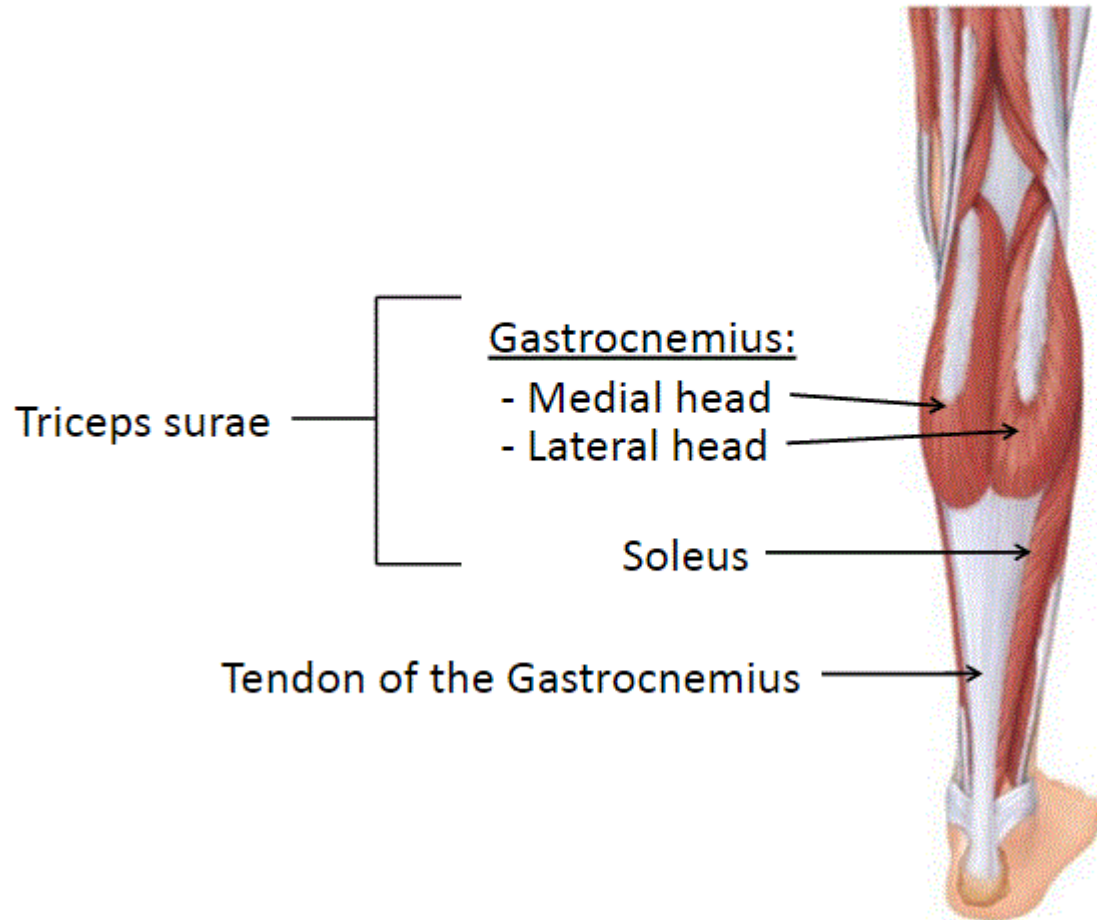
Ankle Anatomy: Tissue

Muscles of the leg (anterior view)



Ankle Anatomy: Tissue

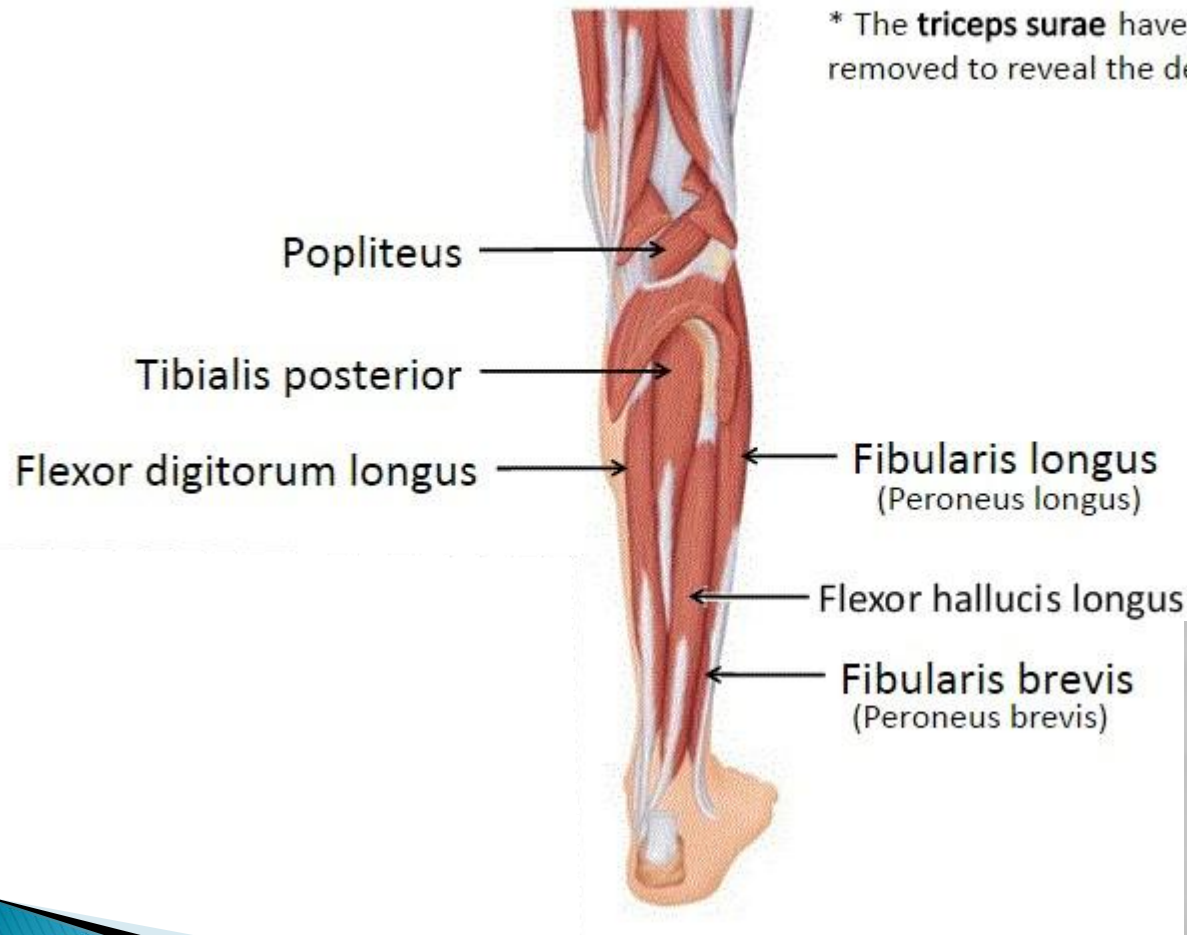
Muscles of the leg (superficial posterior view)



Ankle Anatomy: Tissue

Muscles of the leg (deep posterior view)

* The **triceps surae** have been removed to reveal the deep muscles.



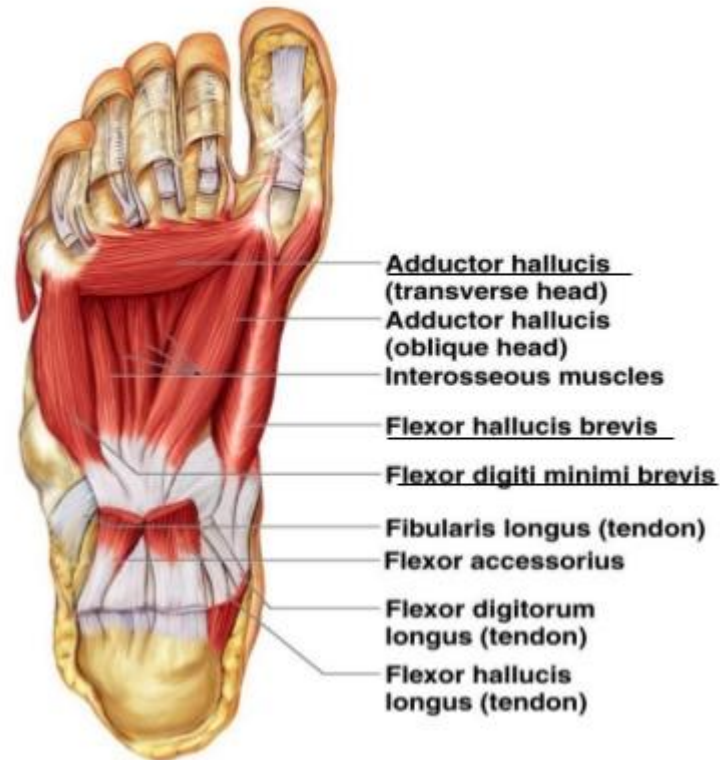
Ankle Anatomy: Tissue



FHL:
Little
forgot
gem!

Ankle Anatomy: Tissue

- Third layer
 - Flexor hallucis brevis
 - Adductor hallucis
 - Flexor digiti minimi brevis



(c) Third layer

Ankle Anatomy: Testing

1. Overhead Squat
2. Lunges Test
 - Standing
 - Kneeling
 - Heel Chord During Lunge Test
3. Lying Dorsi Flexion Range of Motion

Ankle Anatomy: Lunge Test

1. 3"–5" from wall (account for height)
2. *I use standing and kneeling to compare gastroc and soleus*
3. 35°–38° if using an inclinometer
4. Make sure to anchor the foot
5. Make sure there is no internal rotation
6. Identify cause of restriction
 1. Tightness in back of the foot
 2. Tightness in the front of the foot
 3. Restricted movement in the heel chord

Ankle Anatomy: What's Stopping Mobility?

1. Tightness in the Muscle
2. Tightness in the joint
3. Tightness in the ligaments

Ankle Anatomy: Corrective Techniques

Perform in This Order

1. Release the Tissue
2. Distract Joint (give it room to move)
3. Mobility/Flexibility with and without Distraction (regain normal range of motion)

Ankle Anatomy: Release Tissue

1. Flexor Hallicus Longus and Flexor Digitorum Longus (seek therapist)
2. Tibialis Posterior (inside shin, “spin and move”)
3. Peroneals
4. Calves and Soleus
5. Bottom of the foot

Ankle Anatomy: Release Tissue

Tibialis Posterior (inside shin, “spin and move”)



Ankle Anatomy: Release Tissue

Peroneals



Ankle Anatomy: Release Tissue

Calves and Soleus



Ankle Anatomy: Release Tissue

Bottom of Foot



Ankle Anatomy: Distraction

1. Heel Lock distraction
2. Distraction with dorsi flexion/plantar flexion/eversion/inversion



Ankle Anatomy: Mobility

1. Flexor Hallucis with bands
2. Standing Mulligan
3. Standing Mulligan foot elevated
4. Standing Mulligan foot elevated walk over
5. Kneeling Lunge (inside, straight, outside)
6. Kneeling lunge with distraction (inside, straight, outside)
7. Tibialis lunge stretch
8. Tibialis lunge stretch foot in

Ankle Anatomy: Mobility

Flexor Hallucis with bands



Ankle Anatomy: Mobility

Standing Knee Drive with Distraction



Ankle Anatomy: Mobility

Standing Knee Drive Heel Elevated with Distraction



Ankle Anatomy: Mobility

Standing Knee Drive foot elevated walk over



Ankle Anatomy: Mobility

Kneeling Lunge (inside, straight)



Ankle Anatomy: Mobility

Kneeling Lunge (outside, straight)



Ankle Anatomy: Mobility

Kneeling lunge with distraction (inside, straight)



Ankle Anatomy: Mobility

Kneeling lunge with distraction (outside)



Ankle Anatomy: Mobility

Tibialis lunge stretch



Ankle Anatomy: Mobility

Tibialis lunge stretch foot in

