



Rolled Again

Kate Quinn, DO

**Maine Medical Partners Orthopedics and Sports Medicine
Portland, Maine**

AOBFP- Family Medicine/OMT

AOBNMM- Neuromusculoskeletal Medicine/OMM

AOBNMM- Sports Medicine/OMM CAQ



- I have no relevant financial disclosures

Case



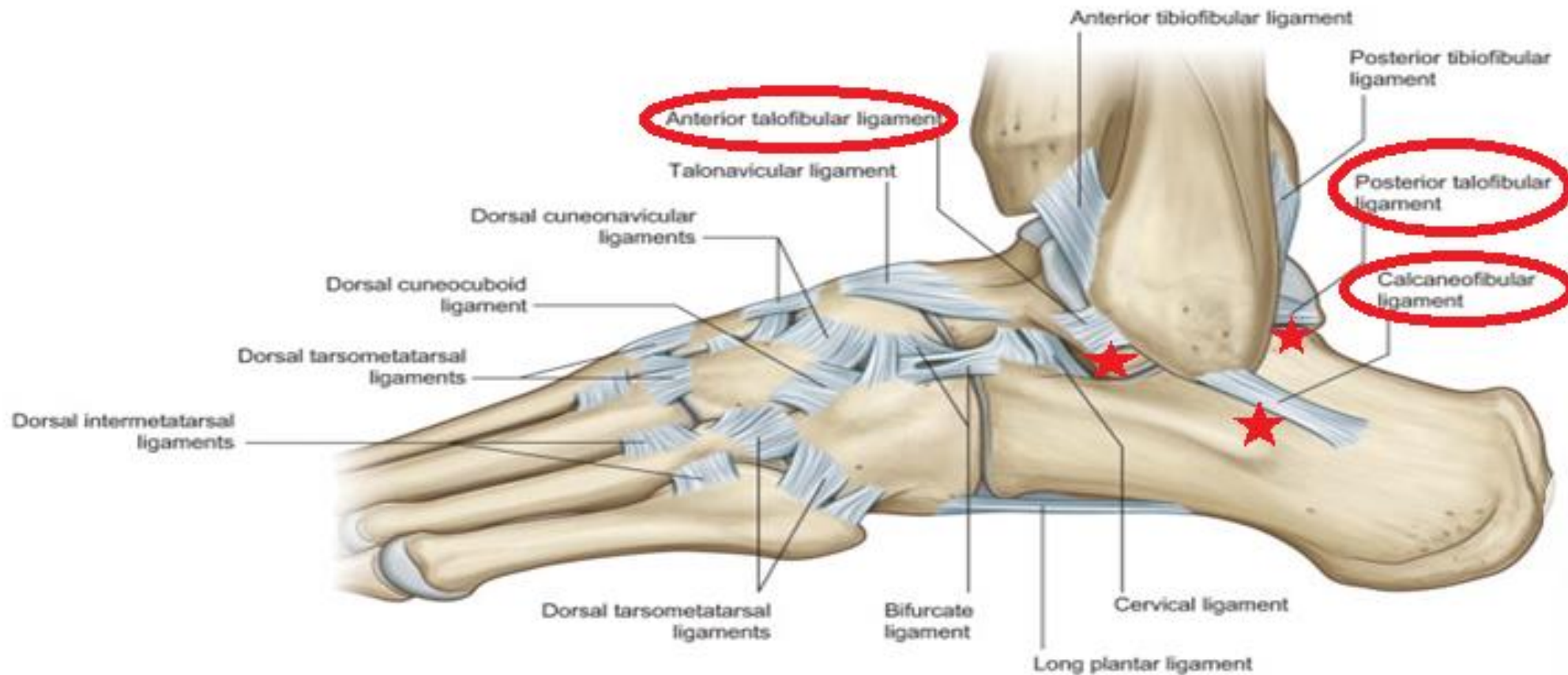
Physical Exam

- **General:** A&O x3 with no distress; appears well nourished, very fit
- **Skin:** no rashes, no bruising, moist skin
- **Neuro:** Intact sensation lower extremities bilaterally

Physical Exam Ankle

- Tenderness to palpation
- No edema noted ankle – taped
- ROM restricted – taped
- Strength 5/5 bilaterally with pain on resisted eversion ankle
- Drawer/Talar Tilt/Squeeze/Kleiger's

Ligamentous Anatomy

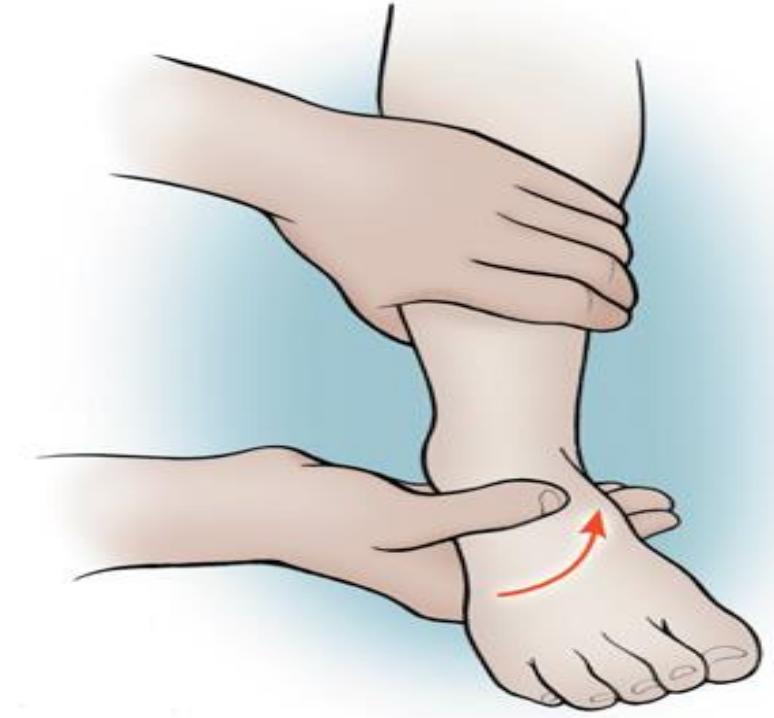


Physical Exam – Special tests



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Drawer Test



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Talar Tilt

Physical Exam – Special tests



http://www.drchiodo.com/Pages/disorders/images_anklesprains/16_squeeze_Test.jpg

Squeeze Test



<http://www.pirforme.fr/bdd/orthopedie/cheville/Kleiger>

Kleigher's Test

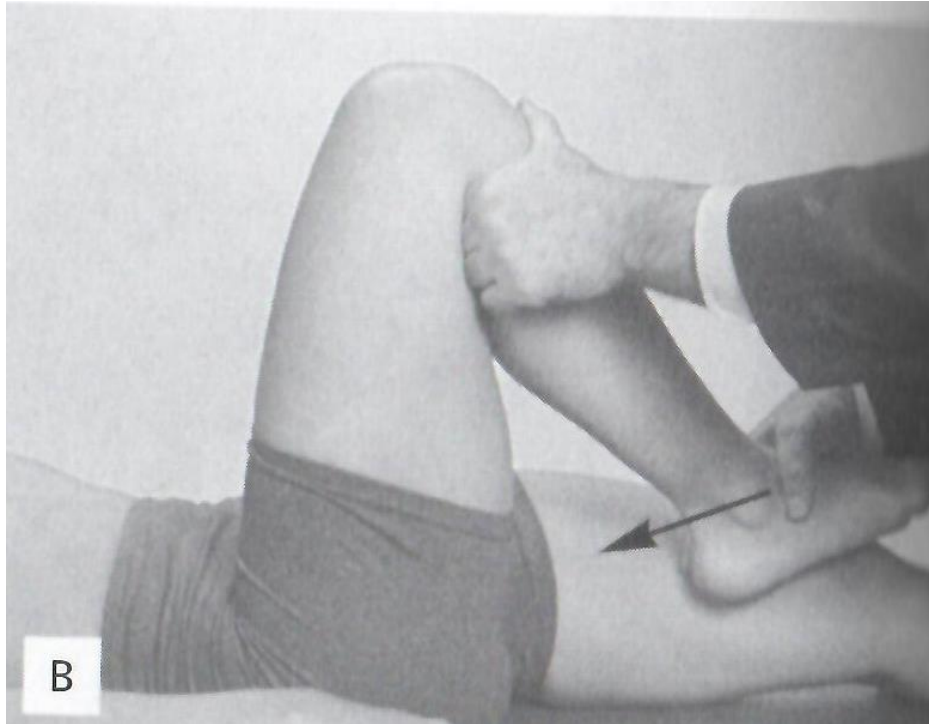
Focused Sideline Osteopathic Exam Findings:

- Left fibular head posterior
- Left talus posteriorlateral to calcaneus
- Posterior left innominate



https://www.al.com/sports/2013/10/relief_duty_alabama_state_rb_m.html

Osteopathic Treatment:



Karageanes, Steven. Principles of Manual Sports Medicine. 2005. Foot and Ankle. Chapter 24.

HVLA Posterior Fibular Head



Nicholas, A. S., & Nicholas, E. A. (2008). *Atlas of osteopathic techniques*. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.

Talar Tug

Treatment: Day of Presentation

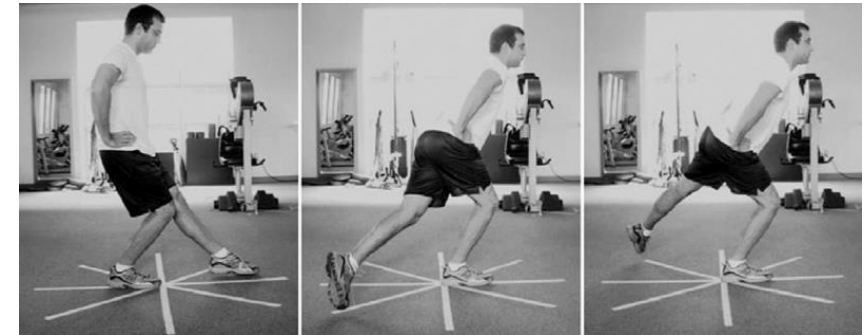
- On sideline:
 - OMT
 - Re-tape ankle
- After game completed:
 - Reassessment
 - Ice
 - Horseshoe compression
 - NSAID's



Training Room Follow Up

• Therapeutic Exercises with ATC

- Proprioception
- Isometrics
- Icing
- Manual therapy
- Pool workouts for cardiovascular conditioning
- Strengthening



<https://lermagazine.com/article/effects-of-targeted-exercise-on-chronic-ankle-instability>



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https://www.optp.com/files/image/item/large/478_optp-pro-balance-pad-xl-demo.jpg

Training Room Follow Up: Osteopathic Exam Findings

- Ribs 9-10 inhaled left
- Left on left sacral torsion
- L5FSIRr
- Left posterior innominate
- Posterior left fibular head
- Restricted left calcaneocuboid joint
- Internally rotated left 1st metatarsal



Training Room Osteopathic Treatment:



Nicholas, A. S., & Nicholas, E. A. (2008). *Atlas of osteopathic techniques*. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.



DeStefano, L. (2011). *Greenman's Principles of Manual Medicine*. 4th ed. Baltimore: Lippincott, Williams, and Wilkins.



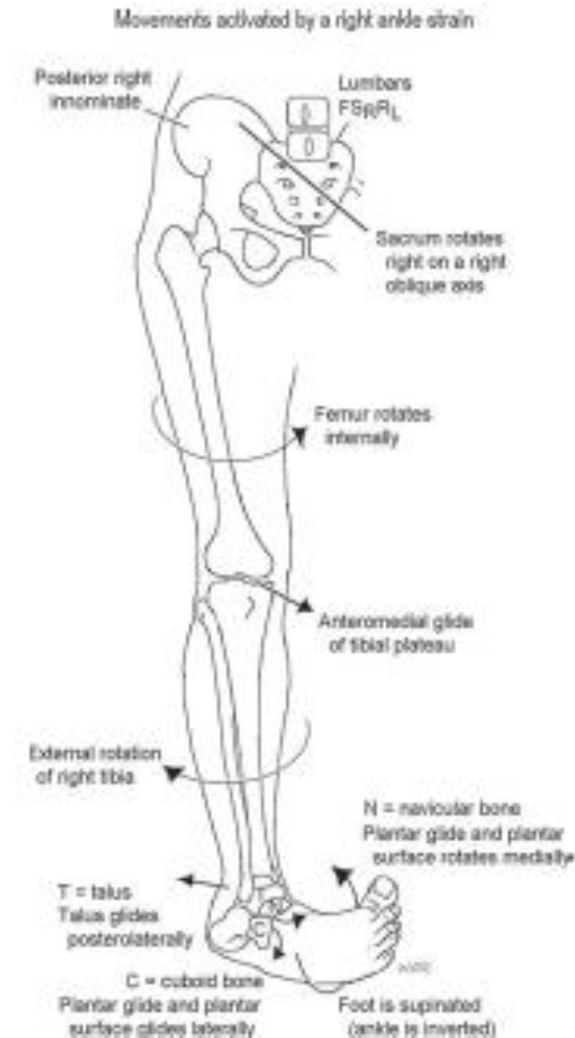
Nicholas, A. S., & Nicholas, E. A. (2008). *Atlas of osteopathic techniques*. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.

Ankle Sprains



Osteopathic Findings Inversion Ankle Sprain

- Posterior Innominate
- Lumbar: F S_{Side bent towards axis} R_{opposite}
- Sacrum: forward torsion on side of injury
- Femur IR
- Anteromedial glide Tibial plateau
- ER tibia
- Talus glides posterolateral
- Navicular glides plantar and medially rotates
- Cuboid glides plantar and lateral
- Foot supinated



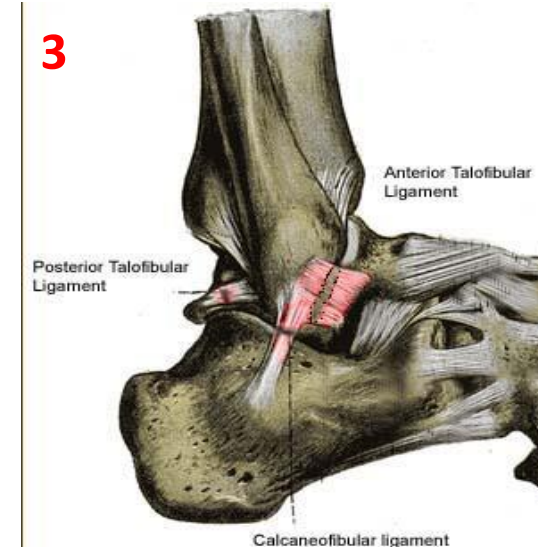
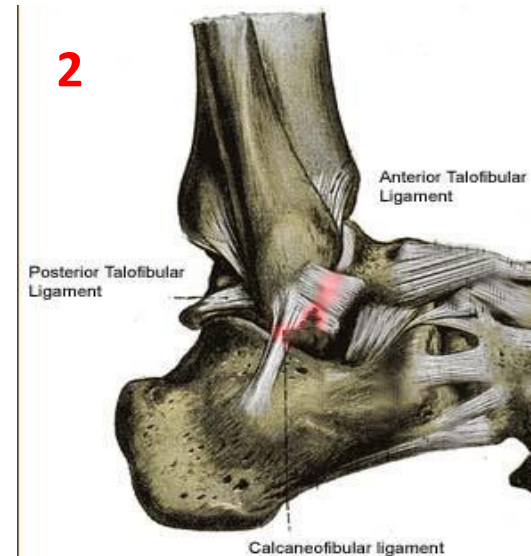
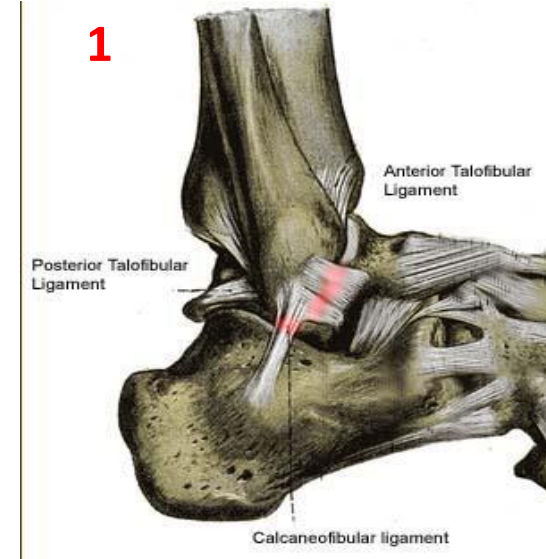
OMT for Ankle Sprains

- Reduces edema
- Reduction in perceived pain
- Less need for pain medication
- Earlier restoration of ROM and function
- Increased patient satisfaction



Case: Lateral Ankle Sprain

- Risk Factors:
 - Previous ankle sprains,
Height and weight, use of
ankle braces
- Etiology: Inversion/Plantar flexion
- Imaging: Xray: AP, Lateral, Mortise
views



Treatment/Prevention: Ankle Sprain

- PRICE
 - Protection
 - Relative Rest
 - Ice
 - Compression
 - Elevation
 - NSAIDs
 - Active ROM when pain allows
 - OMT!
- Proprioceptive Training
 - Strength Training
 - Taping
 - High Top Shoes
 - Semi-rigid Brace



<https://www.underarmour.com/en-us/mens-ua-highlight-mc-football-cleats/pid3021478>



<https://www.athletico.com/2011/11/15/5-ways-to-reduce-your-chance-of-an-ankle-sprain/>

Return to Play- Lateral Ankle Sprain

- Full active ROM
- Minimal or no swelling
- Ankle strength \geq 90% of uninjured ankle
- 10 toe raises and single leg hop affected side w/o pain
- Sport specific drills without pain
- Restored proprioception





Rehab Exercises

Ankle Sprain Rehabilitation Exercises



Resisted ankle inversion



Resisted ankle eversion



Heel raise



Step-up



Balance and reach exercise A



Balance and reach exercise B



Side-lying leg lift



AOASM²⁰₂₀

American Osteopathic Academy of Sports Medicine

APRIL 29-MAY 3

Preconference: April 27-28

Disneyland
RESORT



As to Disney properties/ artwork: © Disney