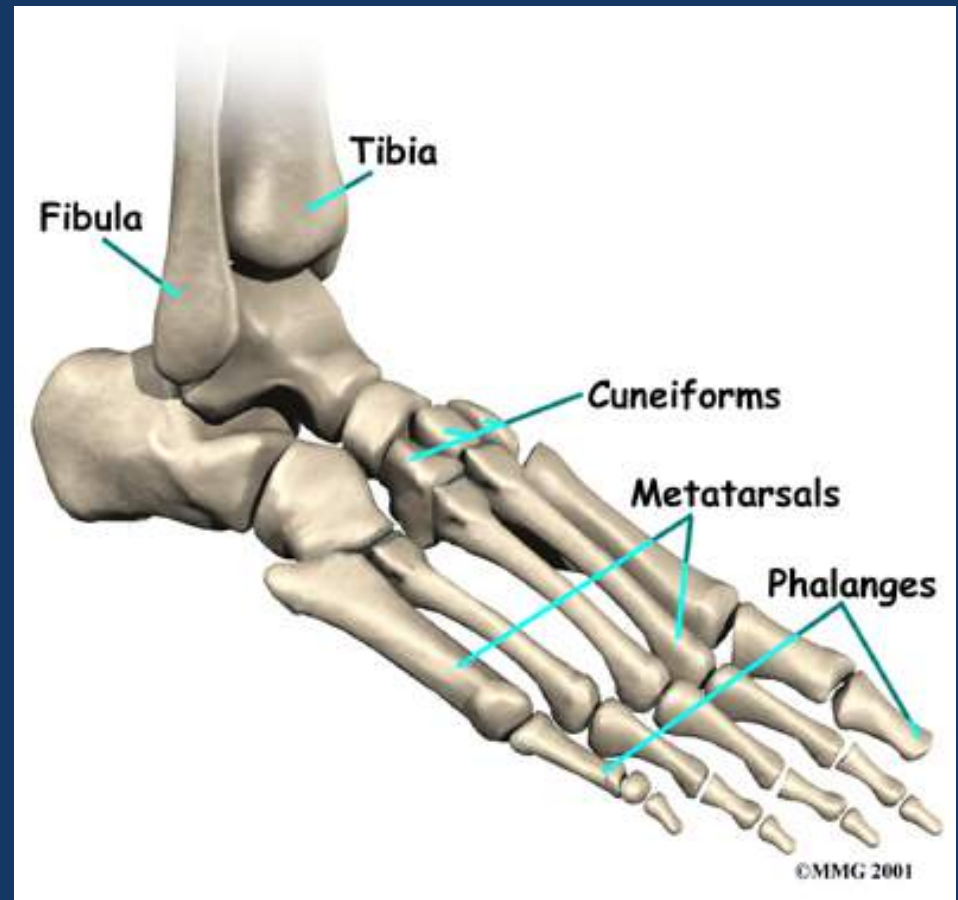


Treatment

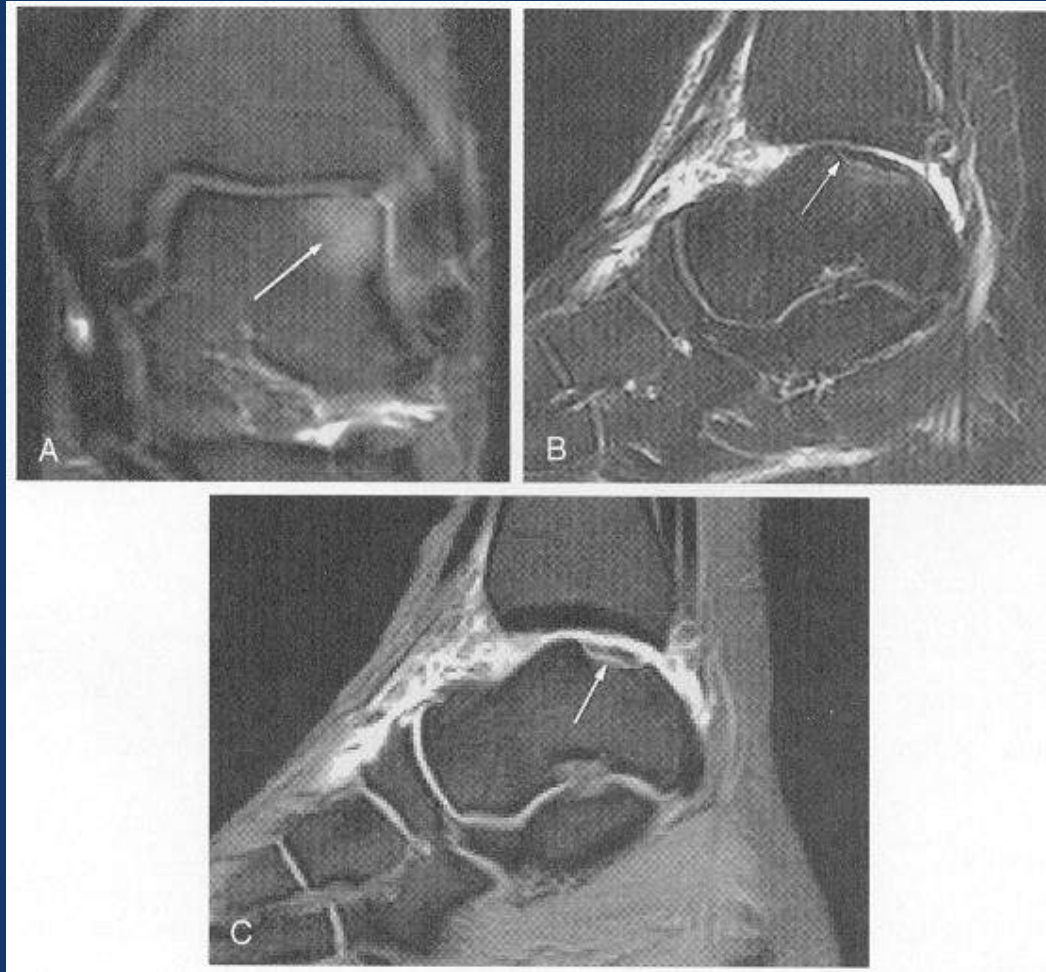
- **Symptomatic treatment**
- **STRETCH Achilles:**
 - Standing
 - Towel stretch
- **Strengthen lateral ankle stabilizers:**
 - everters, inverters
- **Ice**
- **Use Heel Cups for padding at all times (esp. when active)**
- **Activity modification**
- **SLC immobilization if persistent pain**

Complications

- Recurrence rate is high with return to activity



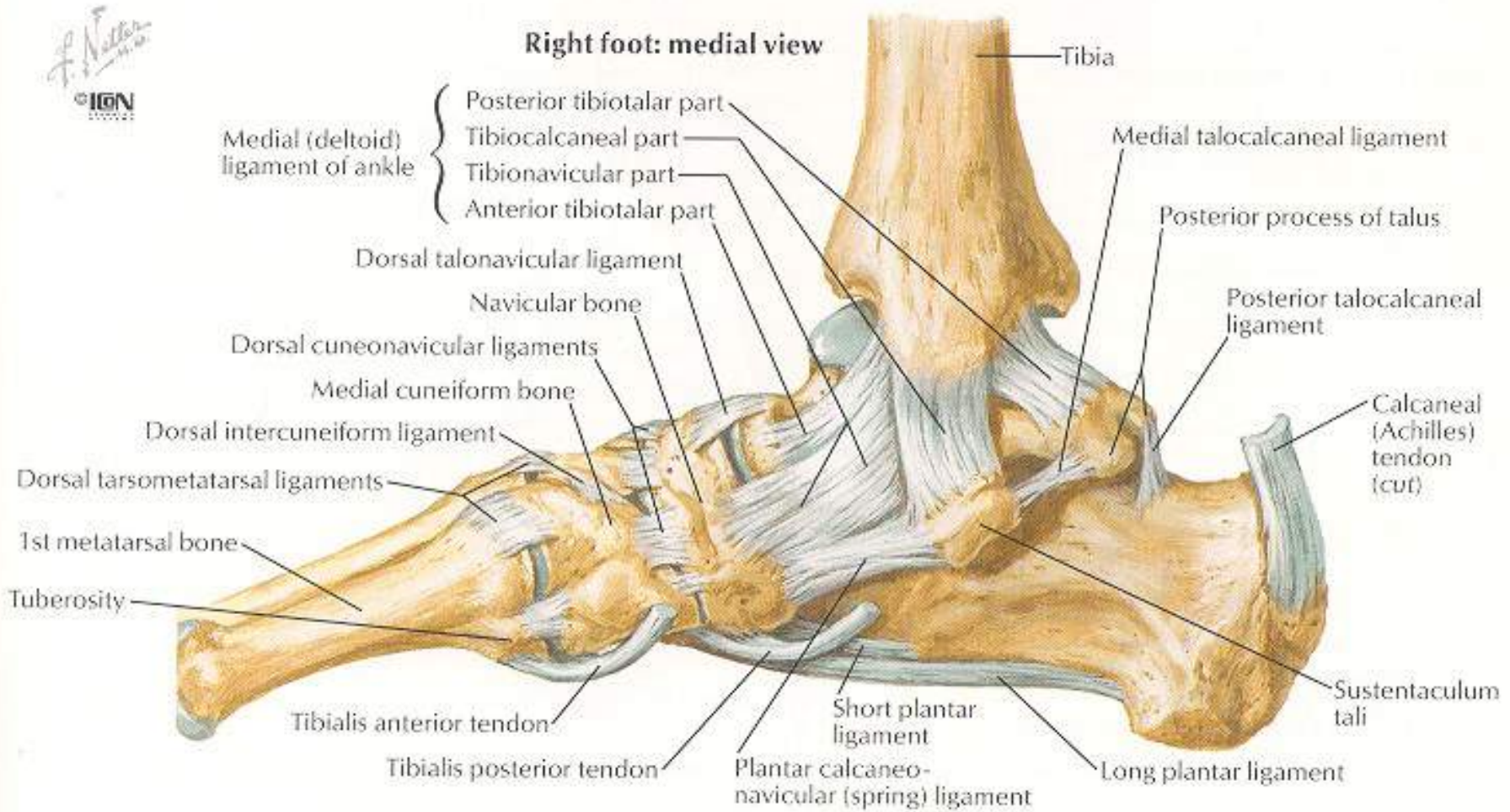
Other Diagnosis – OCD Talus



OCD of the Ankle

- Lesions with gradual onset, progressively worsening over time, are typically medially
- Lesions related to trauma are typically lateral
- Average age: 10-14 for girls and 12-16 for boys
- Smaller lesion in comparison to the knee
- Less likely to heal nonoperatively
- Initial treatment nonweightbearing immobilization for minimum 6 weeks

Posterior Ankle Impingement



What is Posterior Ankle Impingement

- Bone and soft tissue compressed with plantarflexion
- Os trigonum
- Stieda process of the talus
- Soccer players and dancers (particularly on pointe)



Treatment

- Ice
- NSAIDs
- **Activity modification avoidance of plantarflexion**
- **Physical Therapy**
 - Modalities to decrease soft tissue swelling
 - Ankle eccentric strengthening of peroneals, FHL, achilles
 - Intrinsic foot muscle strengthening
- **Progress towards sport specific therapy**
- **Posterior soft tissue steroid injection with US guidance**



Key Points

- Kids are not little adults
- Open growth plates are the most important predictor of healing
- Remember the adolescent growth spurt and tightness of muscles
- Relative weakness of the bone
- Activity modification is key non-op principle
 - Strengthen
 - Stretch
 - Rest

WHAT CAN WE DO DIFFERENTLY?



INJURY PREVENTION

- **Intervention efforts are more successful when started EARLY before adolescence**
 - Hip abduction strength decreased during puberty
 - Hamstring to quadriceps ratio decreased during puberty
- **A meta-analysis did not reveal any significant sex differences in the efficacy of resistance training. However, the authors noted that there was a distinct imbalance in the number of male and female participants (1162 males to 317 females)**

Stracciolini A, Myer GD, Faigenbaum AD. Resistance Training for the Young Female Athlete. C.J. Stein et al. (eds.), The Young Female Athlete, Contemporary Pediatric and Adolescent Sports Medicine, Springer 2016.

Elementary School Intervention

- Injury prevention programs can be started as early as 6-10 years of age (IOC)
- One study found that for 5-17 year old athletes male and female rates of ACL tear were equal
- General trend towards early specialization and competition w/o physical preparedness and/or lack of free play

Renstrom P, Ljungqvist A, Arendt E, et al. Non-contact ACL injuries in female athletes: an International Olympic Committee current concepts statement. *Br J Sports Med.* 2016;42:394-412.

Straccolini A, Casciano R, Friedman HL, Stein C, Meehan WP, Micheli LJ. Pediatric Sports Injuries a comparison of males versus females. *The American Journal of Sports Medicine.* 2014;42(4):965-972.

TREATMENT

- **Physical therapy focused at peripelvic strengthening and SI joint stabilization**
- **Preventative programs focused on hip and core strengthening, and functional training exercises may positively influence the motor learning of the proper dynamic lower limb alignment**
- **Closed-chain, core training and functional exercises, with feedback concerning dynamic lower limb alignment**
- **Improvement noted in strength and symmetry after at least 19 sessions (it was over 8 weeks)**

Baldon RDM, Lobato DFM, Carvalho LP, Wun PYL, Santiago PRP, Serrao FV, Effect of functional stabilization training on lower limb biomechanics in women. *Medicine & Science in Sports & Exercise*. 2012; American College of Sports Medicine.

THANK YOU!

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