

# Lessons from the RACE Line: “It’s Just an Ankle Sprain”

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Dr Jeffrey Nacht

## Key takeaways

- Dr. Jeff Nacht presented on lessons from the RACE line, focusing on ankle sprains, lateral malleolar fractures, and metatarsal fractures
- The RACE (Rapid Access to Consultative Expertise) line is a valuable service for healthcare providers to get quick consultations
- 80-85% of RACE line calls were for conditions that could be managed by primary care providers with proper guidance
- Ankle sprains can be managed conservatively in most cases, but persistent symptoms may indicate other injuries
- Weber classification is useful for assessing lateral malleolar fractures and determining management
- Jones fractures require careful management due to their high risk of non-union
- Advanced imaging techniques like SPECT scans can be valuable for diagnosing certain foot and ankle conditions

## Discussed topics

### RACE line overview and common topics

- Dr. Nacht explained the RACE line service and its purpose
- Analysis of 5 years of RACE line calls revealed common topics:
  - Metatarsal fractures
  - Lateral malleolar fractures
  - Phalanx fractures
  - Knee sprains
  - Foot pain
  - Osteoarthritis of the knee
  - Ankle sprains
- **Conclusion**
  - Most calls (80-85%) were for conditions manageable by primary care providers with proper guidance

### Principles of fracture management

- Dr. Nacht shared key principles for managing fractures:
  - Bone pain comes from the periosteum, not the bone itself
  - Fractures with 50-60% bridging will likely heal
  - Undisplaced fractures that have been weight-bearing for a week are unlikely to displace

- Importance of examining imaging personally
- Caution with fractures threatening soft tissue
- Clinical union often precedes radiological union

## **Ankle sprains**

- Dr. Nacht discussed the anatomy and classification of ankle sprains
- Management depends on severity:
  - Mild sprains: RICE protocol, weight-bearing as tolerated
  - Moderate sprains: Similar management, may require more protection
  - Severe sprains: May need referral, especially if symptoms persist after 6 weeks
- **Conclusion**
  - Most ankle sprains can be managed conservatively
  - Persistent symptoms may indicate other injuries (e.g., osteochondral lesions)

## **Lateral malleolar fractures**

- Dr. Nacht explained the Weber classification for lateral malleolar fractures:
  - Weber A: Below syndesmosis
  - Weber B: At level of syndesmosis
  - Weber C: Above syndesmosis
- Management recommendations:
  - Weber A: Can be managed conservatively if undisplaced
  - Weber B: May need further evaluation for syndesmosis injury
  - Weber C: Should be referred to orthopedics
- **Conclusion**
  - Weber classification helps guide management and referral decisions

## **Jones fractures**

- Dr. Nacht discussed the importance of recognizing Jones fractures:
  - Located at base of 5th metatarsal
  - High risk of non-union due to poor blood supply
  - Management depends on patient factors (age, activity level)
- **Conclusion**
  - Jones fractures may require longer immobilization or surgical intervention
  - Referral to orthopedics may be necessary for active patients or those with high risk of non-union

## **Advanced imaging techniques**

- Dr. Nacht introduced SPECT (Single Photon Emission Computed Tomography) scans:
  - Combines CT and bone scan
  - Useful for diagnosing stress fractures and other conditions not visible on regular X-rays
- **Conclusion**
  - SPECT scans can be valuable when other imaging modalities are inconclusive

## **Peroneal tendon injuries**

- Dr. Nacht briefly discussed peroneal tendon injuries:

- Can present as tears, subluxations, or avulsions
- May mimic ankle sprains
- Often require surgical intervention if symptomatic
- **Conclusion**
  - Consider peroneal tendon injuries in patients with persistent lateral ankle pain or instability

## Q & A summary

Q- Ankle braces: Where in Vancouver do you send patients for the ASO brace?

A- I usually send them to one of 3 places:

Paris Orthotics on Broadway at Burrard

Kintech across from Toys R Us on Broadway

Vancouver Orthopedic group at GF Strong

You can also get them on Amazon, but having a technician show proper application is valuable.

Q- Jones fracture management: Can patients weight bear right away with the Jones fracture?

A- No. With a Jones fracture, I have them non-weight bearing for the first 3 weeks or so because these are delicate fractures. You don't want to wiggle it around while it's trying desperately to put some blood supply back.

Q- Foot drop bracing : What brace would you recommend for an elderly person with a mild foot drop causing them to trip a lot?

A- I recommend an AFO (ankle foot orthosis). It's a molded polyethylene brace with straps that fits in the shoe over the sock. They're thin, comfortable, and limit ankle motion. You can order an AFO from brace shops like Paris Orthotics.

Q- Point-of-care ultrasound for ankle injuries: Has anyone tried using POCUS for suspected ankle soft tissue injuries that are not healing?

A- I don't have any experience with that. A lot of those lack evidence-based studies, and when they do have an evidence-based study, it's usually a study of about 20 patients, which is not really valid.

Q- Peroneal tendon repair: Can peroneal tendon injuries be repaired surgically if diagnosis is delayed, eg until a month later?

A: Yes, these can be repaired. For subluxations, we recreate the proper groove and repair the ligaments that should have restrained it. For tears, we usually repair them if repairable, or we can sew the peroneus brevis to the peroneus longus and take out the segment that's no good.