Ankle injuries – what a family doctor needs to know

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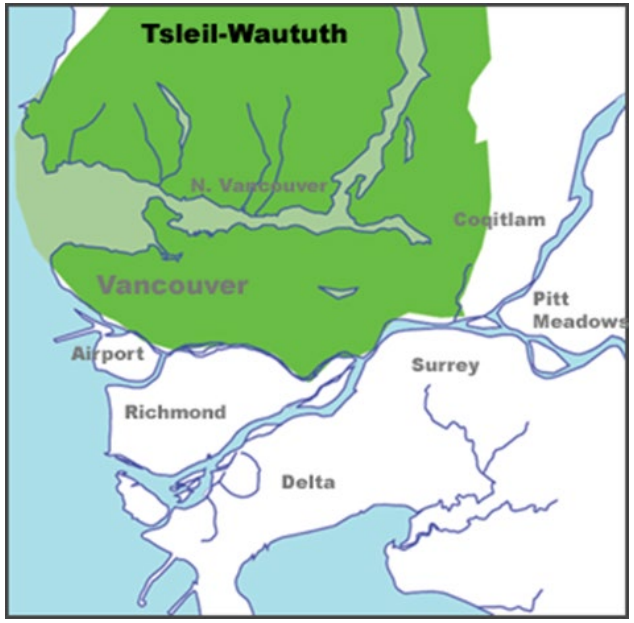
Conflict of interest

- Consultant:
- Acumed, Wright /Stryker medical, Zimmer, Bioventus, Biocomposites, Precision OS.
- Royalties
  - Acumed, Wright /Stryker medical
- Institutional support:
  - Acumed, Arthrex, Wright medical, Zimmer, Bioventus, Biocomposites.
- Medical associations: AOFAS, COA. COFAS
- Reviewer: JBJS, BJJ, BMJ, FAI, CJS, CORR

We would like to acknowledge that we are gathered today on the traditional territories of the Musqueam, Squamish and Tsleil-Waututh peoples.

Source: www.johomaps.net/na/canada/bc/vancouver/firstnations/firstnations.html



Topics covered

- Accessibility
- Affordability
- Assessment
- Pathologies
  - Acute sprains
  - Ankle, talus, midfoot fractures
  - Achilles tendon
  - Injuries in patients with neuropathy

Accessibility

- The issue – the massive volume of these patients seeking care
- They are not cancer
- They will not die
- But they may lose their employment and mobility
- Recovery may be longer than need be
- What conditions?
  - Ankle sprains, fractures, tendon tears, midfoot injuries
  - 10 referrals per day while on call at SPH – these are the ones I see!

Accessibility

- The reality – system issues
  - There is a scarcity of fracture clinic time
  - Scarcity of family doctors
  - New EMR’s
  - COVID
- What happens?
  - Patients get lost to follow up
  - Patients fail to present

Action items

- Be aware
- Support your colleagues
- Advocate
- Manage the situation as it is
- “we are here now – lets see what can be done”

Affordability

- Many patients cannot afford
  - Physiotherapy
  - Walker boots
  - Travel for follow up

Action items

- Find work arounds
- Online physio tools
- Recycle walker boots
- Ask donors to help

Assessment

- Essentials of history and physical in the acute injury pt
- What investigations to get
- Follow up care

A mechanism of assessment

- 1. Always examine –
- Need a process to make it easy
- How to assess a trauma patient in the office / urgent care/ walk in clinic

First step

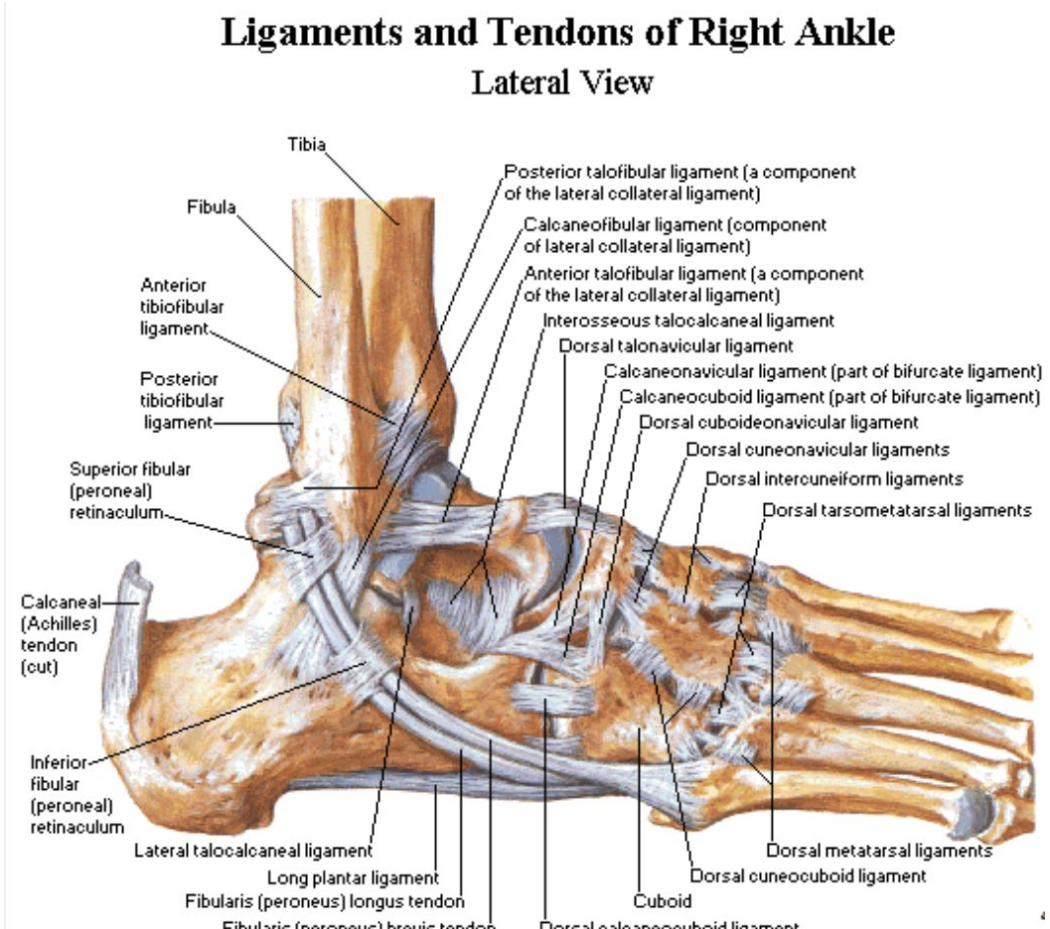
- Introduce yourself
- Please can you remove your socks and shoes
- Allows the pt to point to where they hurt
- Allows you to examine them

Three important pieces of information on History and physical

- 1. Where do you hurt?
  - Finger to the point of maximum tenderness
- 2. What can’t you do because of the pain?
  - Can’t walk; can’t work; can’t do sport;
- 3. What is the location of the point of maximum tenderness

Foot and ankle examination is easy

- Because all the major structures are milimeters away from your finger tip



Example

- Pt presents with an inversion injury to the ankle
- They localize pain over the peroneal tendons
- They report that they have been unable to walk more than a block since the injury three weeks ago
- Examination demonstrates pain over the peroneal tendons at the ankle

- Dx? Peroneal tendon sheath injury or peroneal tendon tear

How to examine

- The lateral collateral ligaments

Inversion stress

Key history features

Key investigations

- Plain x ray
- Always

Plain x ray – avulsion injury peroneal tendons

- Standing x ray

Second investigation

- Ultrasound

Third investigation

- MRI or CT

Ottawa ankle rules

- Know them
- Big concerns
- 1. Generalizability
- 2. Liability
- 3. One arm of the study has no tangible gain for the physician or patient, only the health system
- 4. Until the health system rewards the physican taking the risk the Ottawa ankle rules should not be followed

Legal risk

- Not getting an x ray exposes you to legal risk

Neuropathy

- Always x ray

Management of Achilles tendon tears

- Can be operative or non operative
- Both should be discussed

How to examine

- The Achilles tendon

- Palpate the gap
- Determine the length using dorsiflexion with the knee extended

Should we repair Achilles tendons

- Willits paper JBJS 2010
- Demonstrated similar re rupture rates in surgical and non surgical repair
- However – re rupture not the whole answer
- Strength more important

Non operative treatment results in weakness

- Willitt's paper documents this

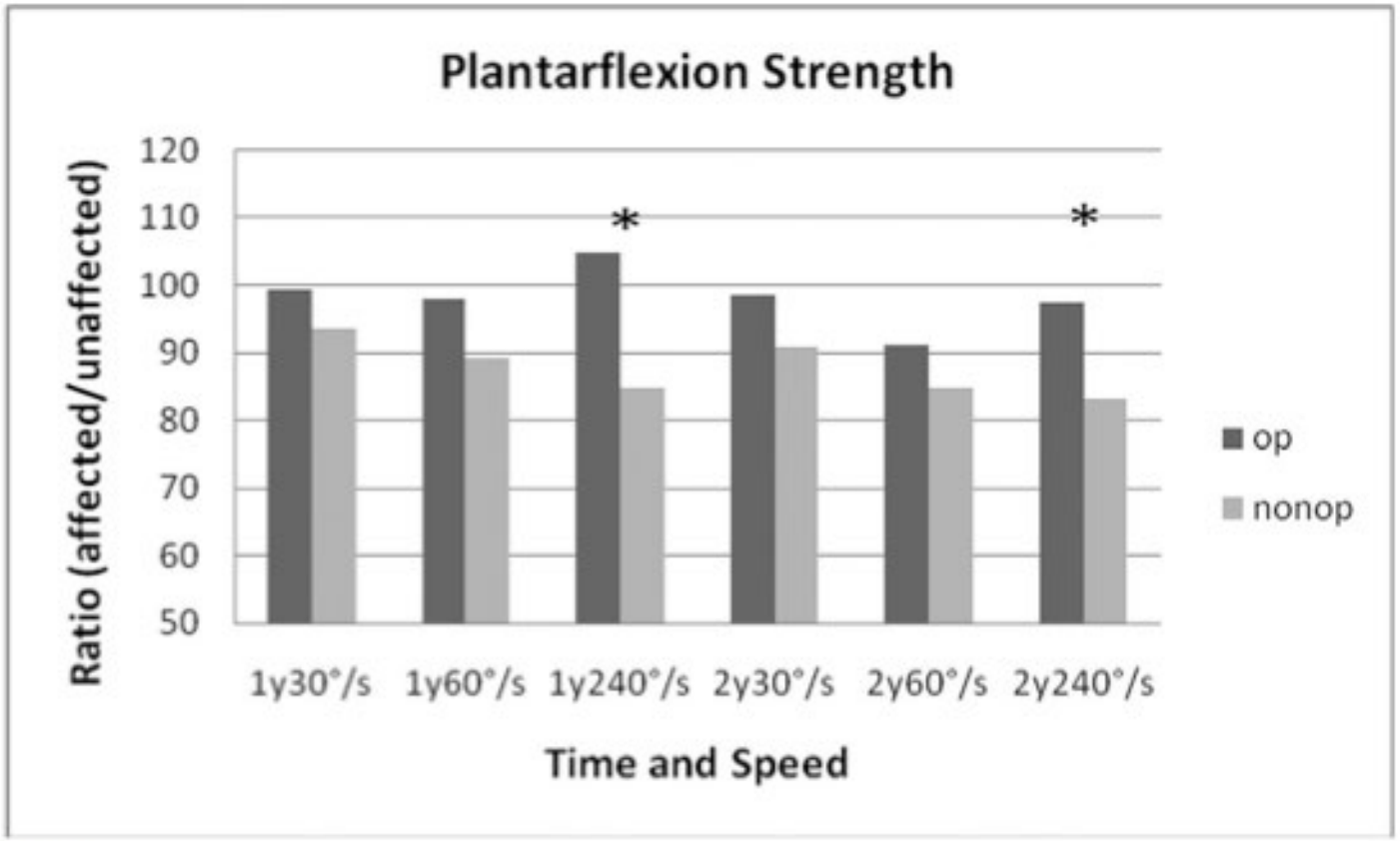
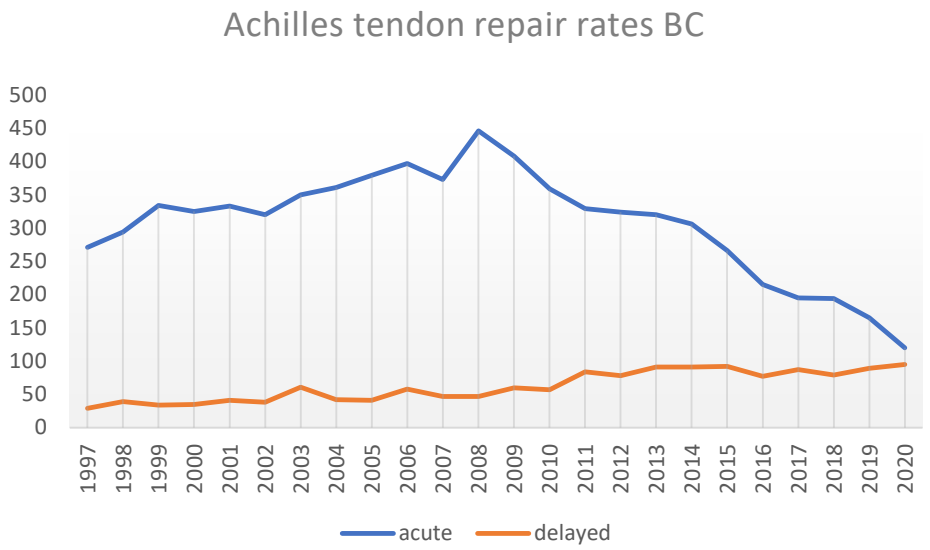
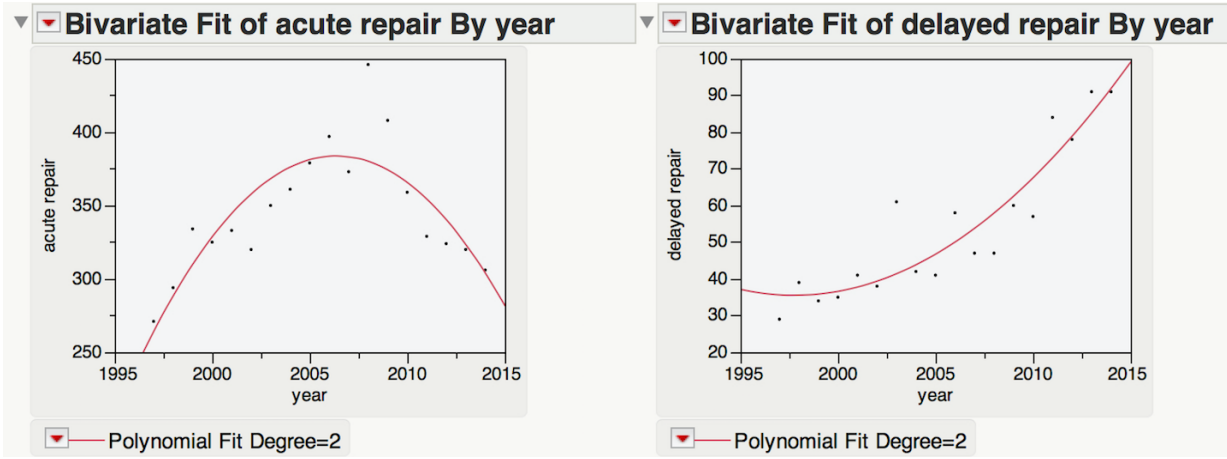


Fig. 2-A

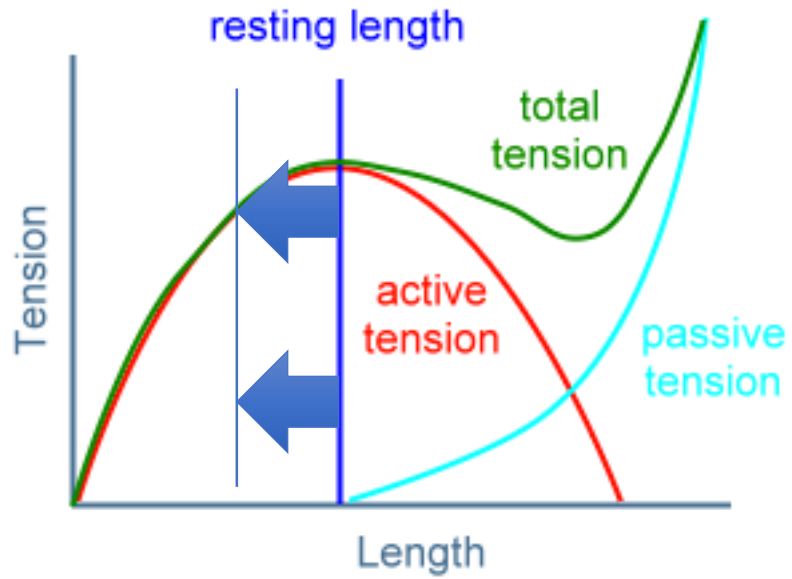
Since this paper in our province…





After healed too long

- No plantar flexion strength – 2 cm lengthening



Length-Tension Curve of a Muscle