#### Dr Kwan Yeoh

www.orthosports.com.au

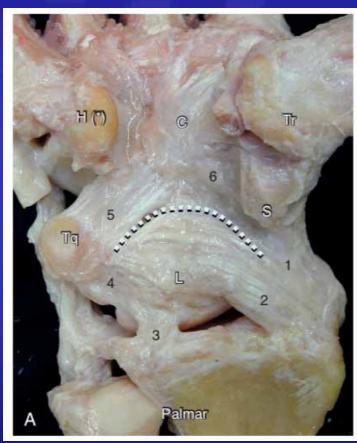
47-49 Burwood Road, Concord 29-31 Dora Street, Hurstville 119-121 Lethbridge Street, Penrith 20 Lexington Drive, Bella Vista

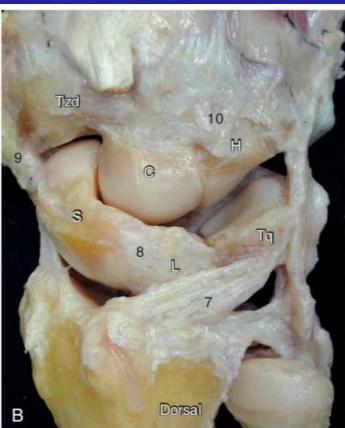


# Wrist ligament trauma and instability



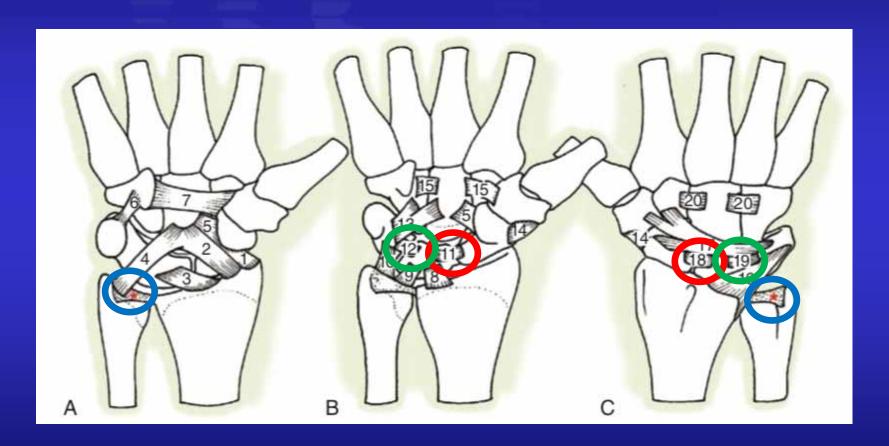
# Ligaments







# Ligaments



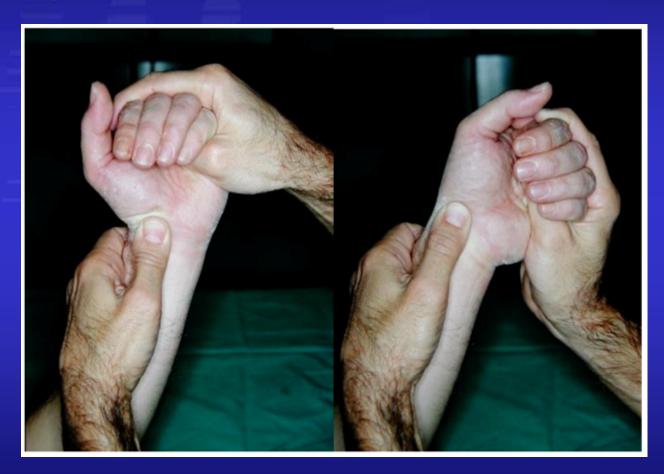


# Wrist stability





# Carpal stability





#### Carpal instability

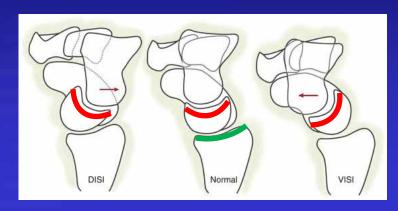
Abnormal balance between articulating surfaces of carpal bones under normal load & movement

- Not all ligament ruptures lead to instability
- Not all instability is due to ligament ruptures
- Not all wrists with malalignment are clinically unstable
- Not all instability leads to progressive osteoarthritis



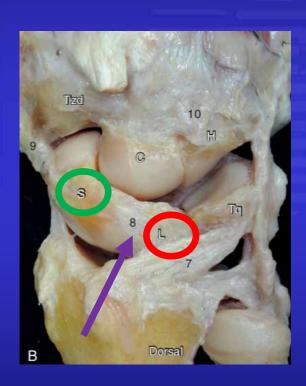
#### Carpal instability

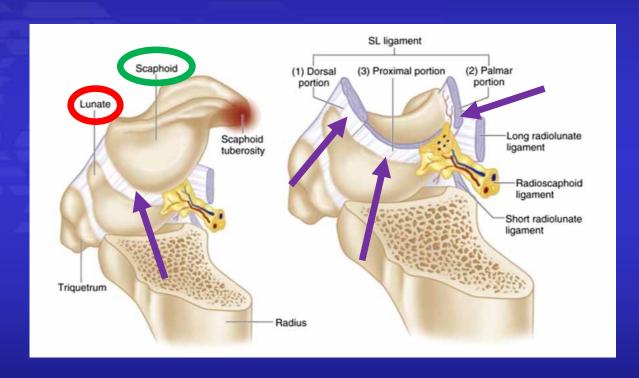
- Location in carpus
- Acute vs subacute vs chronic
- Dynamic vs static
- Traumatic vs inflammatory vs other
- VISI vs DISI vs ulnar translocation
- Dissociative vs non-dissociative vs complex vs adaptive





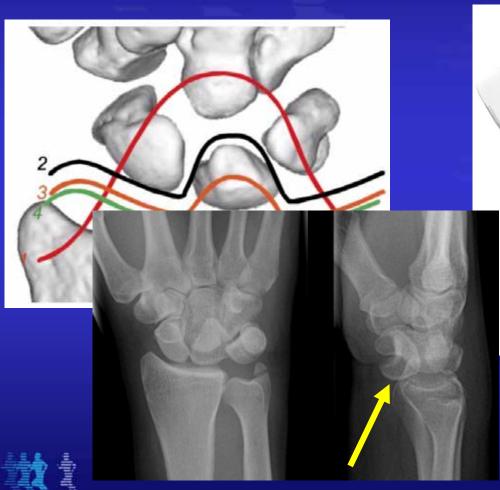
### Scapholunate ligament

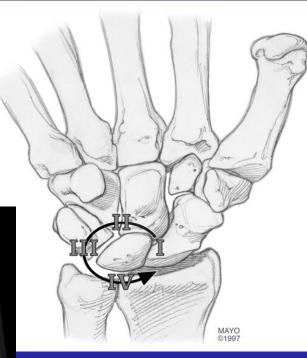






# Scapholunate ligament

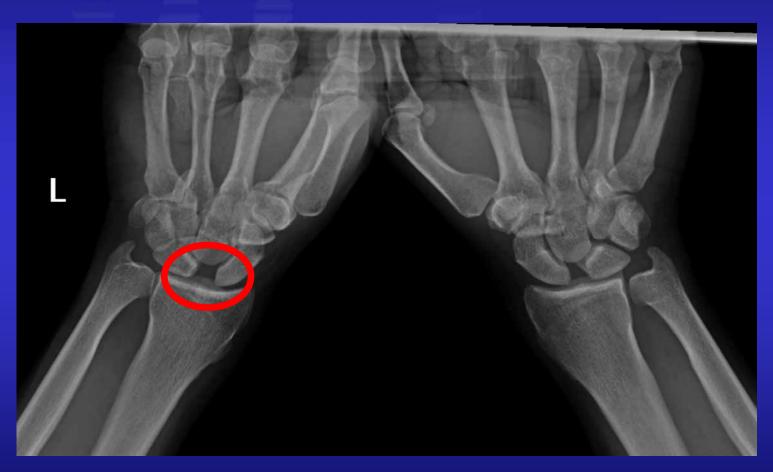




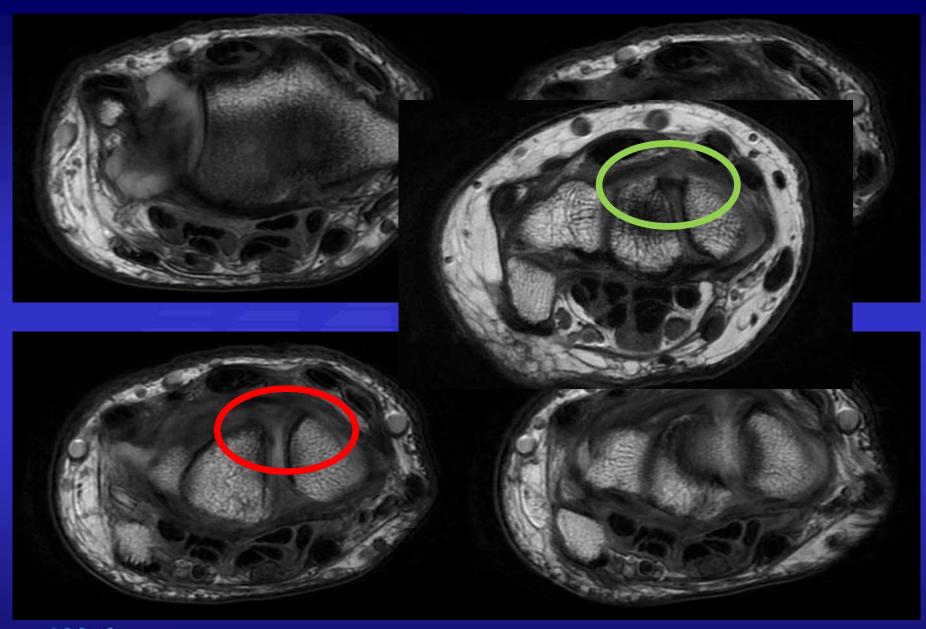
Dr Kwan Yeoh Hand, Wrist & Upper Limb Surgeon

Image: Haerle, 2016

# Scapholunate ligament



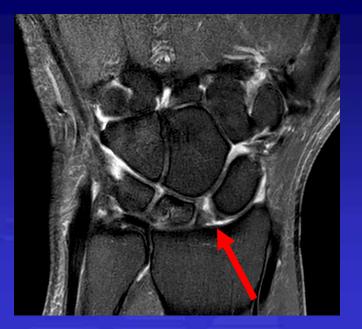




















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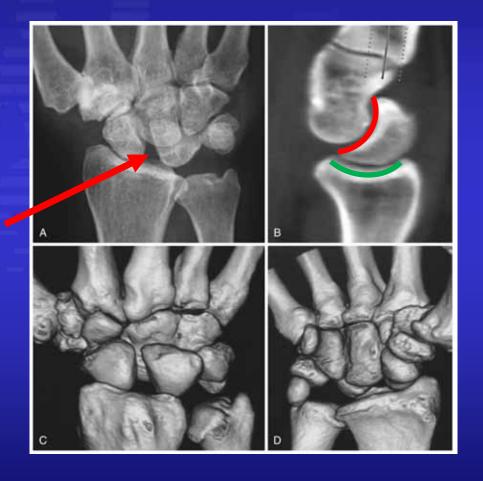
#### Scapholunate ligament treatment

- Acute partial tear
- Predynamic instability
  - Acute
  - Chronic
- Acute or chronic dynamic instability
- Reducible static instability
- Irreducible static instability or SLAC





## Lunotriquetral ligament





#### Chronic instability

Midcarpal instability

Adaptive instability



# **Chronic instability**

Midcarpal instability

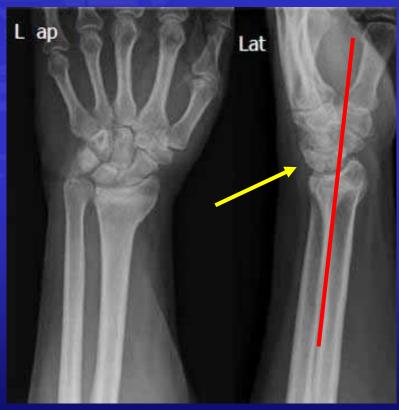
Adaptive instability





## **Chronic instability**

#### Adaptive instability





#### Hand therapy essentials

- Assess cause of instability
- Communicate with treating doctor
  - Refer when necessary
- Activity modification
- Supplement static stabilisers with splint
  - Temporary or permanent
- Dynamic stabilisers
  - Strengthening
  - Proprioception



