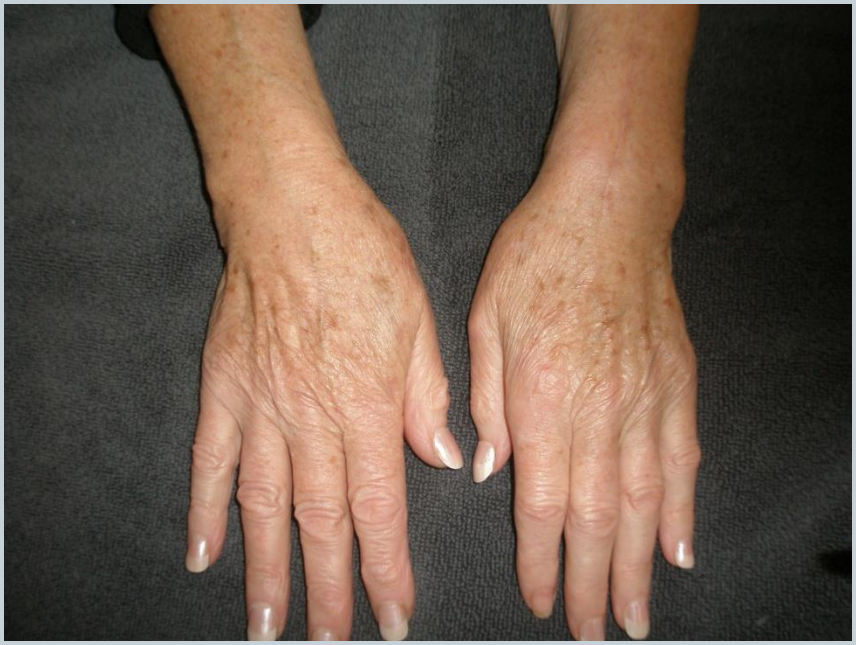
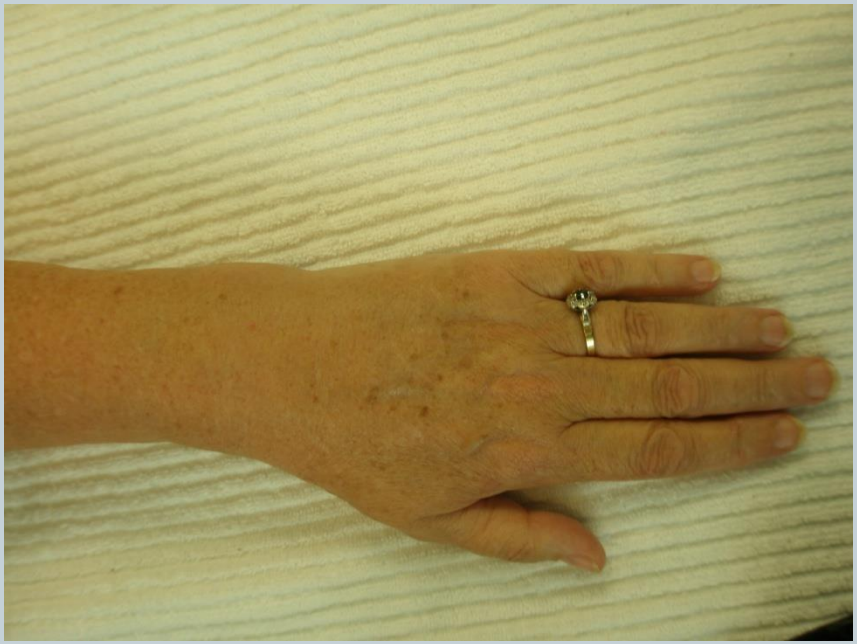
Gaining pain free function after distal radius fracture.

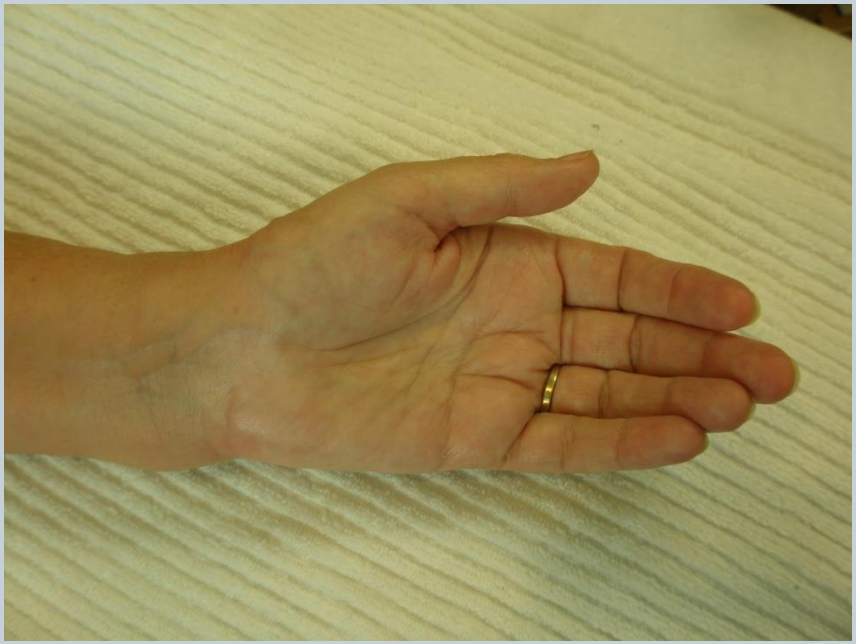
- 13% of all fractures seen in emergency depts
- Occurs in all ages
- Often fall on outstretched hand
- Hand and carpus are compressed, bent or rotated relative to the forearm
- Often referred as a Colles # - while not technically fitting the classification

“It doesn’t look right”



Or may look like this….





Factors affecting outcome include :-

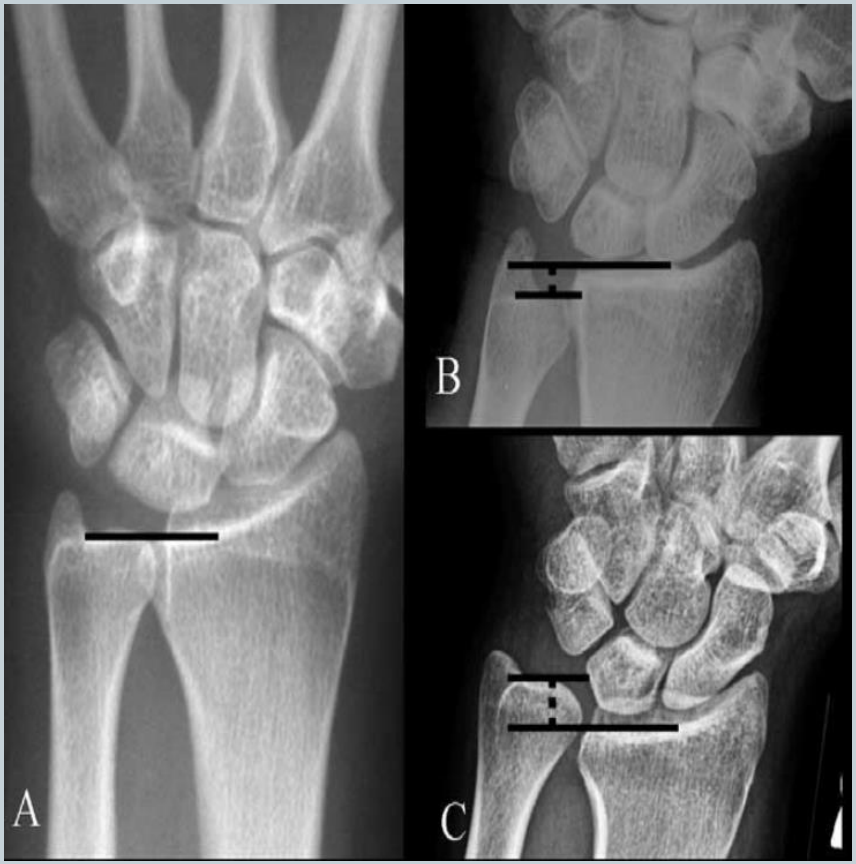
- Radial shortening more than 2mm *(tightens TFCC, ulna becomes long, may limit rotation*)
- Radial inclination more than 15degs *(causes alteration in loading)*
- Dorsal angulation more than 10degs *(can reduce flexn and rotatn)*
- Articular step 1-2mm *(correlates with increased pain/decreased ROM, strength)*

Common problems which affect recovery

- +ve ulnar variance
- TFCC injury
- Unstable DRUJ
- Adherent scar

Ulnar variance normal is 0 +/- 2 mm

- A. Normal = same length
- B. Negative = shorter
- C. Positive = longer

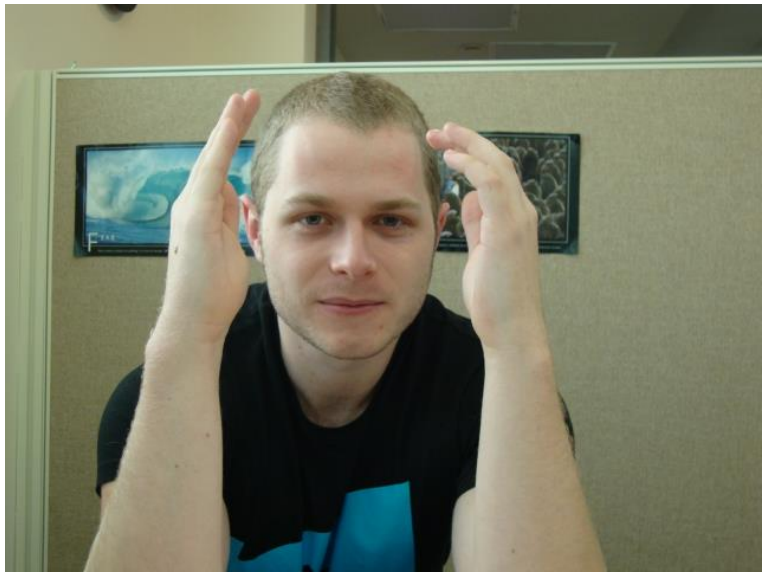


TFCC injury

-prominent distal ulna

-ulnar carpal slump

- May look like this:-



TFCC Tests :-

- Articular shear
- Axial load
- Re-location test
- G.R.I.T.

TFCC tear

- Articular shear

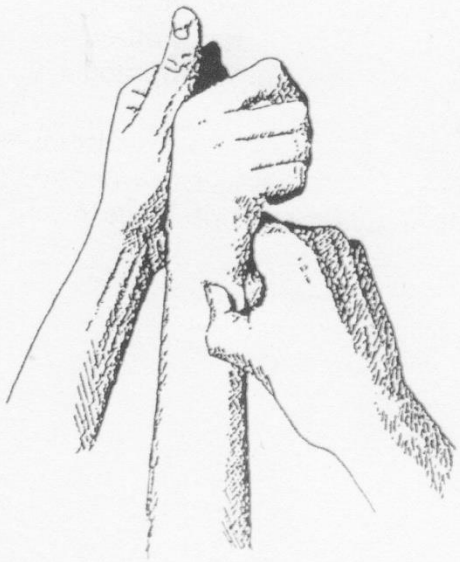


FIGURE 16. Ulnomeniscotriquetral dorsal glide test used to assess the TFCC. From Hertling D, Kessler RM: Management of Common Musculoskeletal Disorders: Physical Therapy Principles and Methods. Philadelphia, J. B. Lippincott, 1990; with permission.

- TFCC load

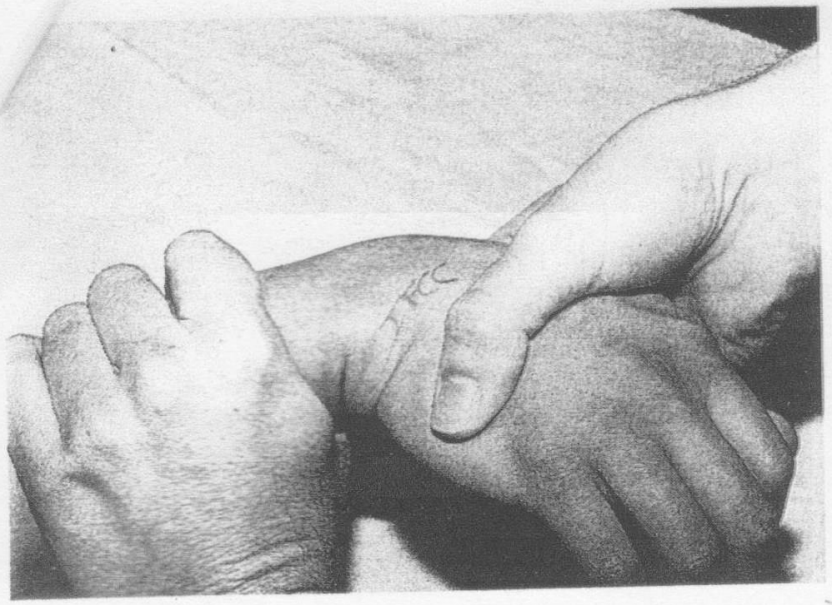
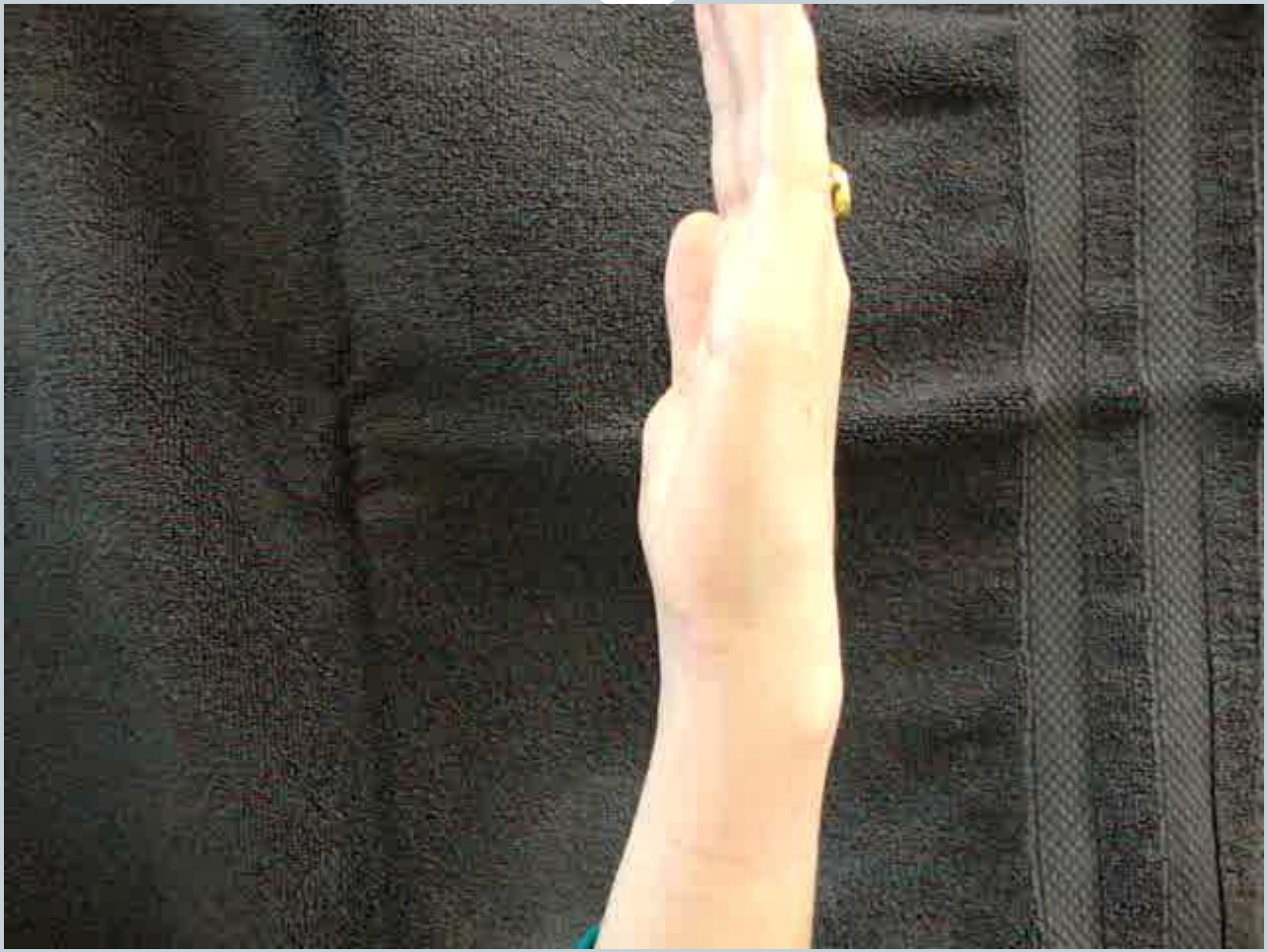


FIGURE 15. TFCC load test performed to detect TFCC tears or ulnocarpal abutment.

G.R.I.T.

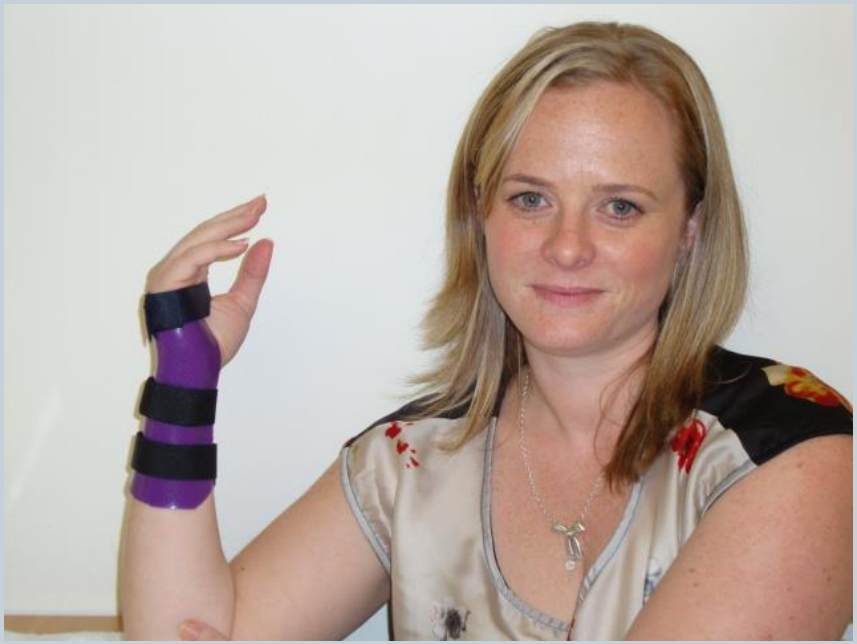
- Gripping rotatory impaction test
- Test grip in neutral, supination, pronation
- Compare against the unaffected side
- Useful as a measure of improvement also

relocation

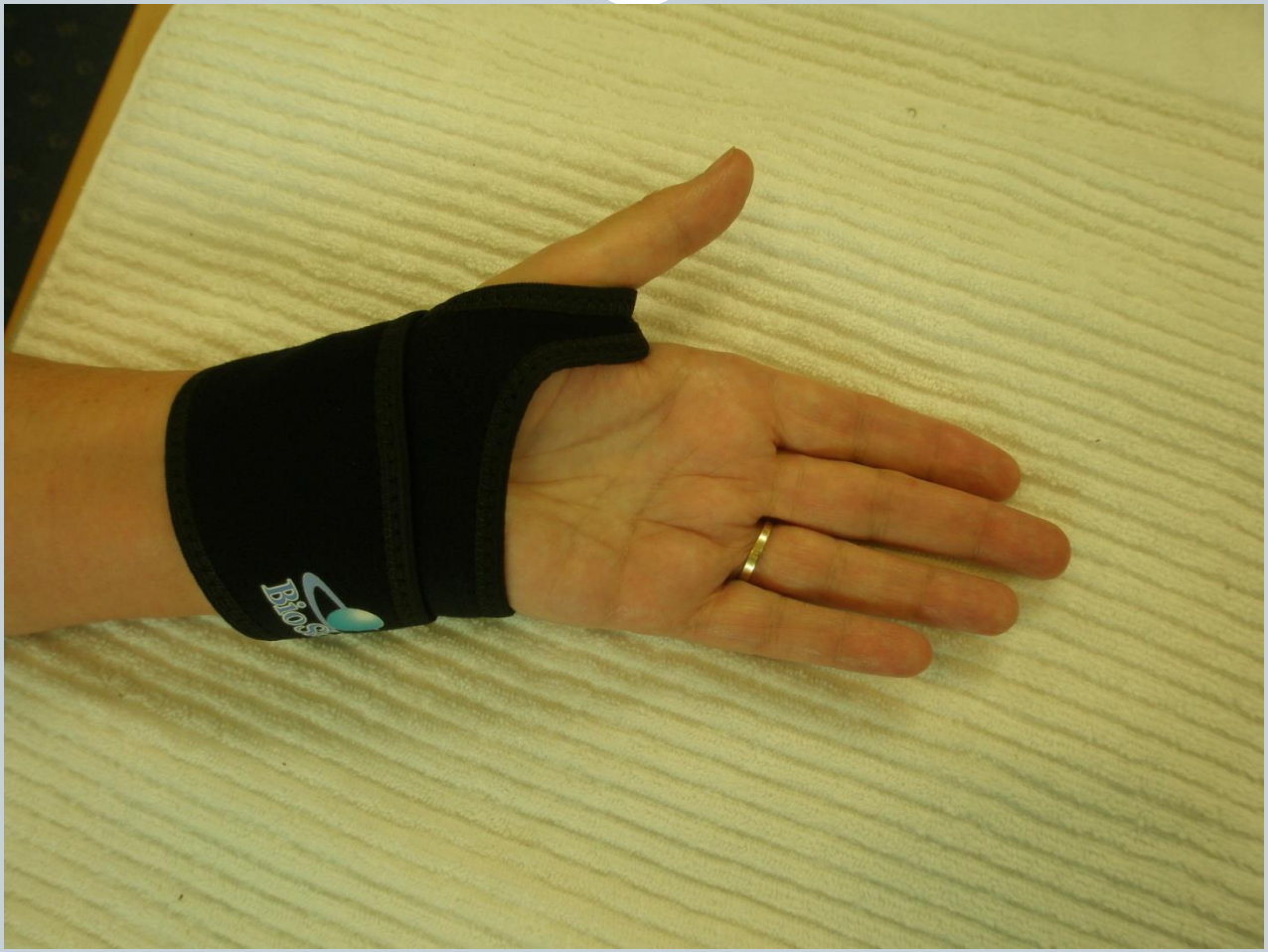


Ulnar carpal tape

?add an ulnar gutter splint - down the line....



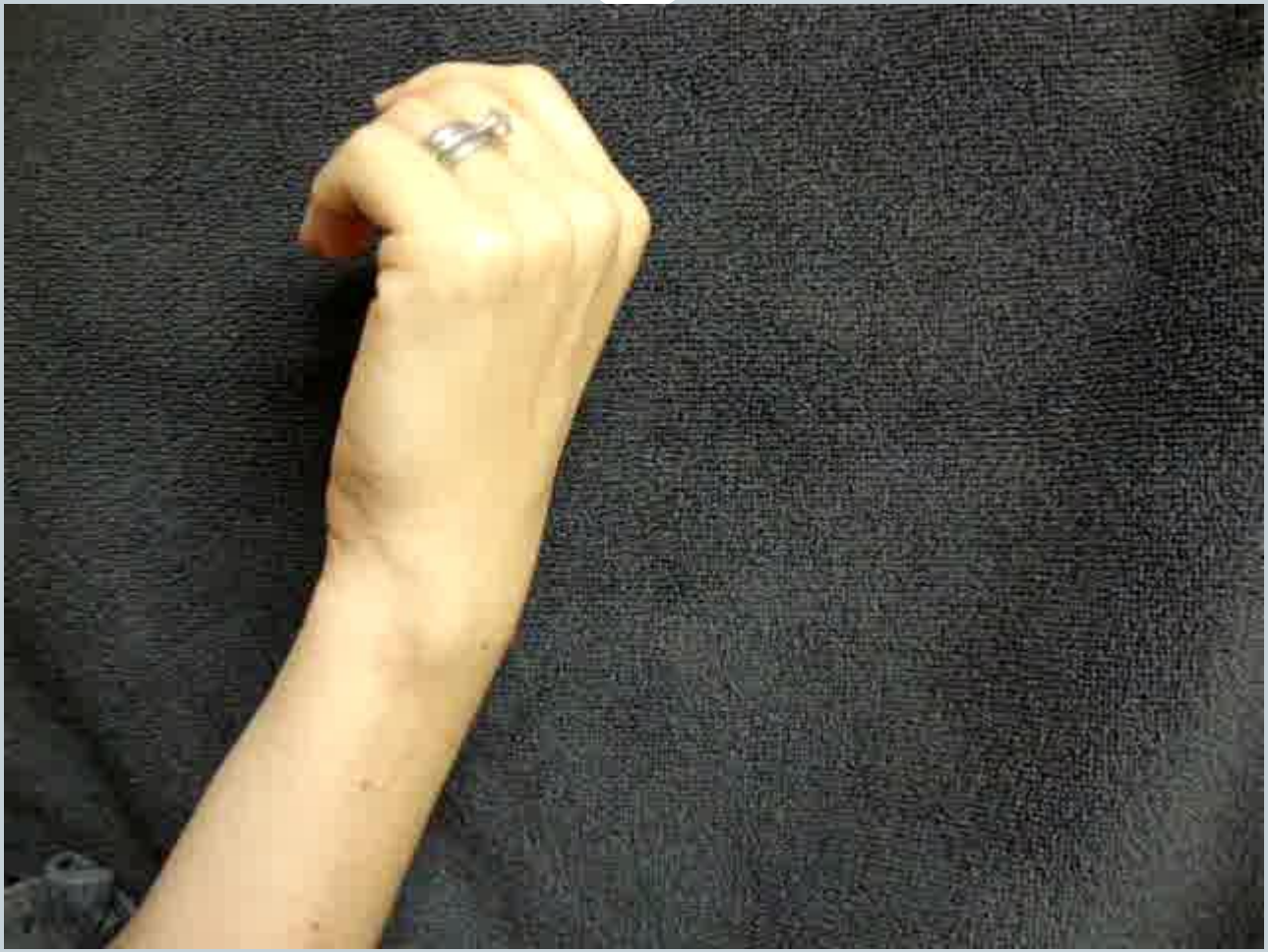
boomerang



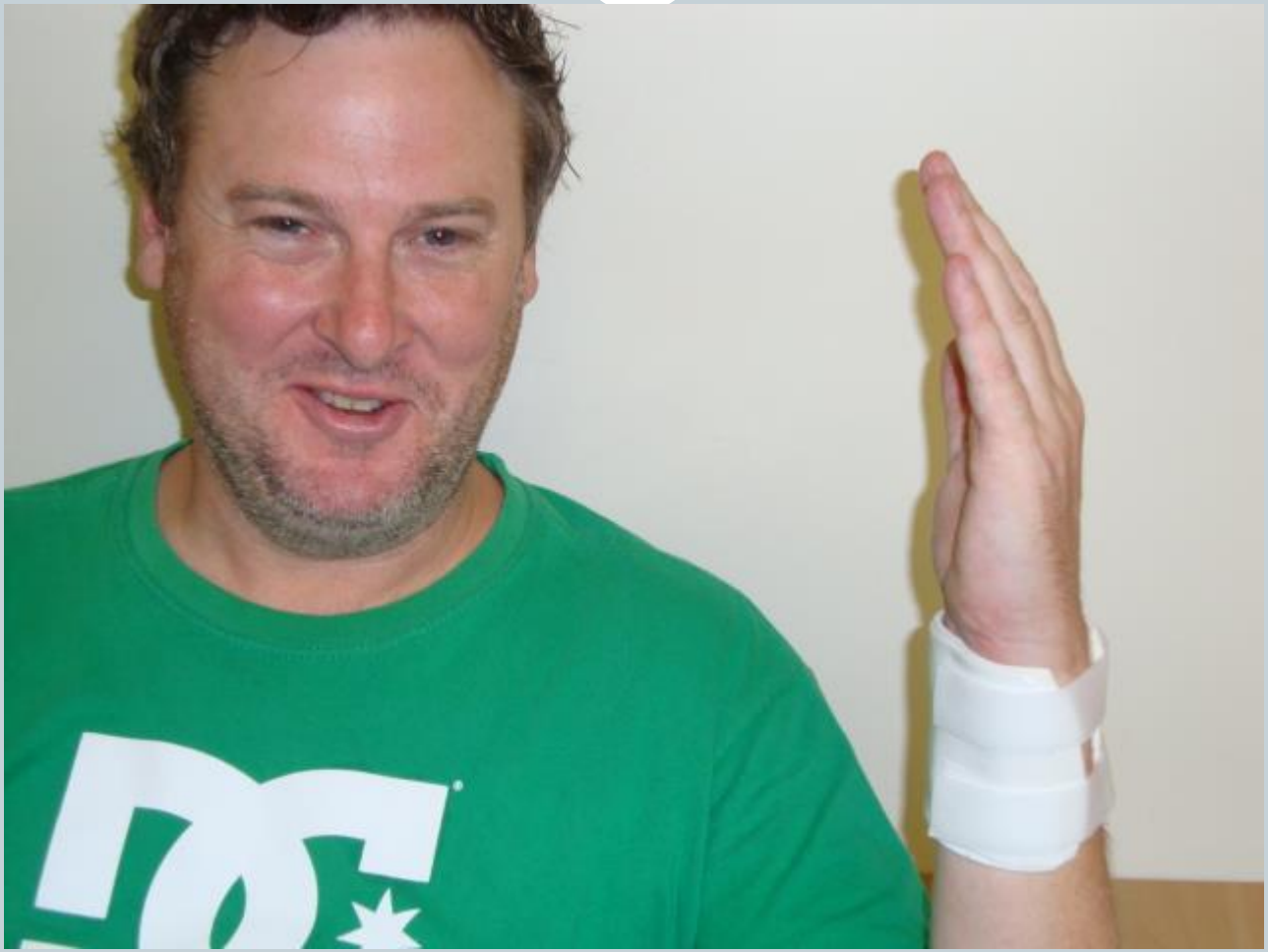
DRUJ instability

- #distal radius - most common cause
- Accurate alignment and stabilisation of the radius will correct
- Initial wide displacement and radial shortening
  ⇨ persistent DRUJ instability
- IOM, ECUsubsheath, ulno-carpal ligs, and LTinterosseous ligs secondary stabilisers

Wobbly DRUJ

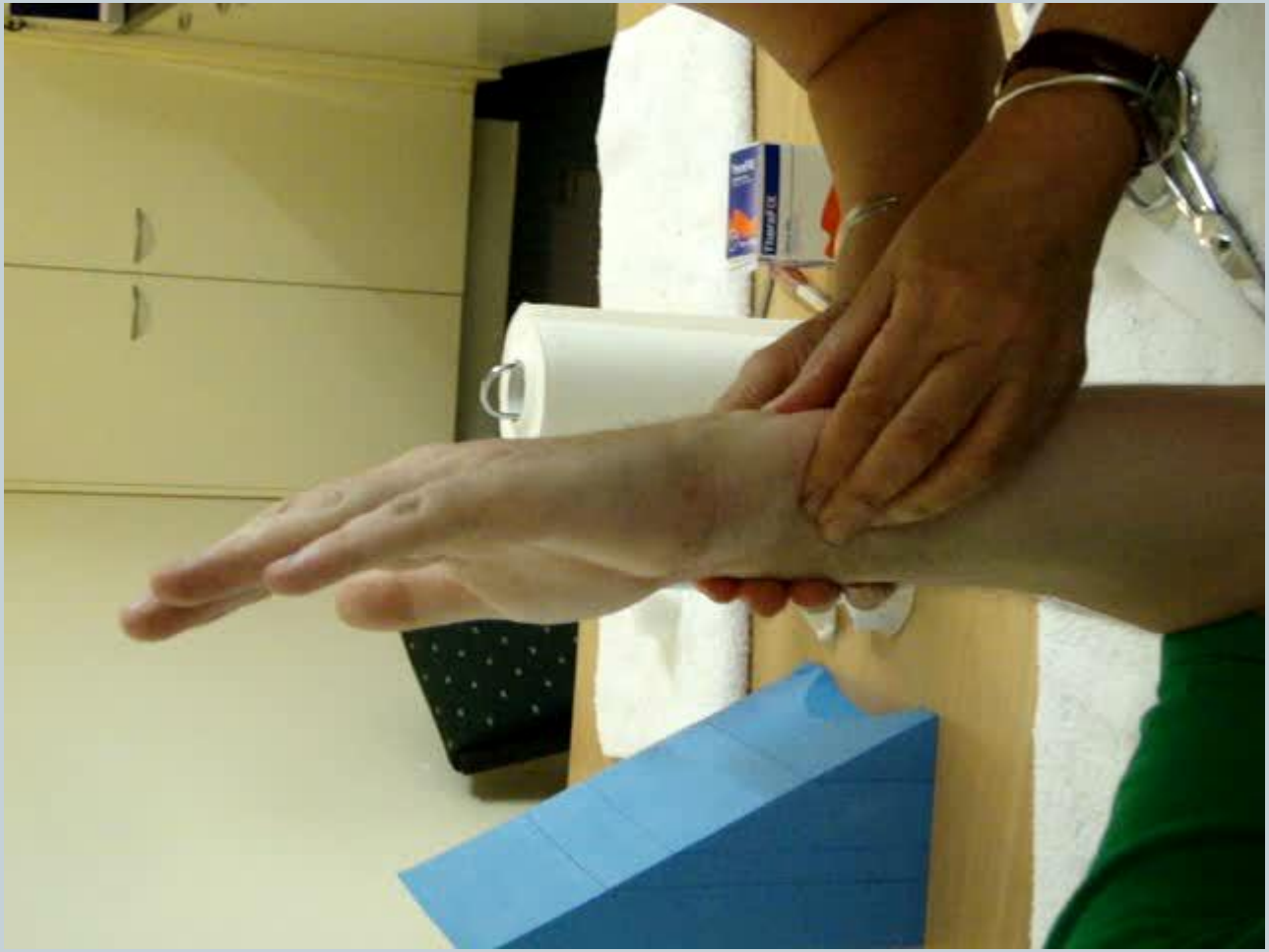


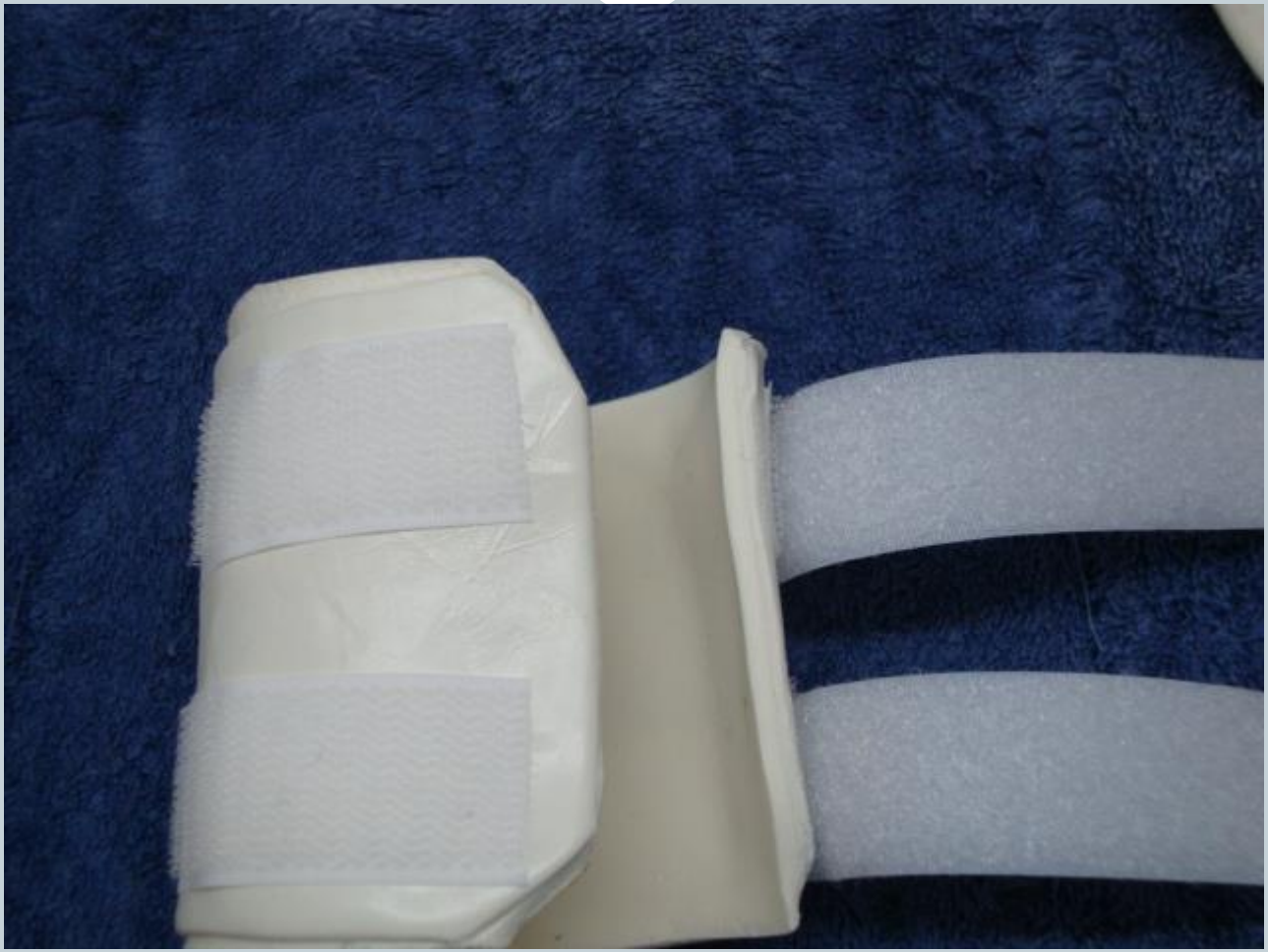
Grant



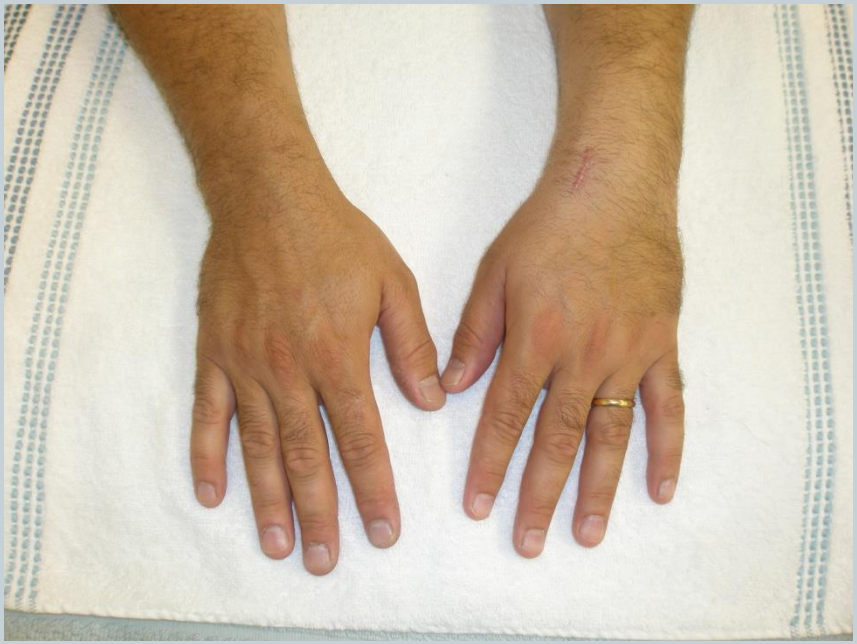
Gt Barrier Island

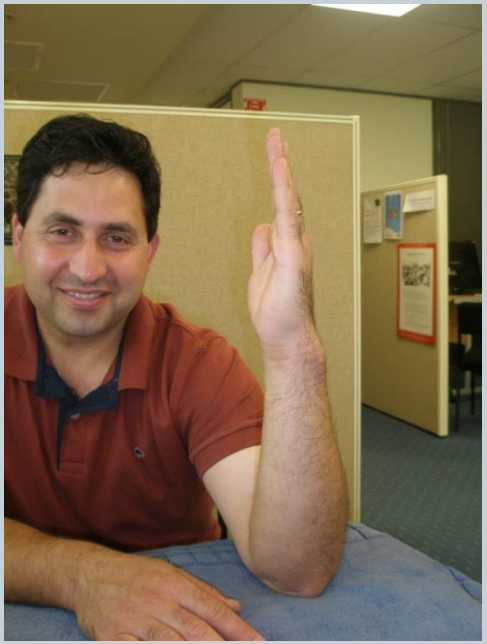
Ulnar lift



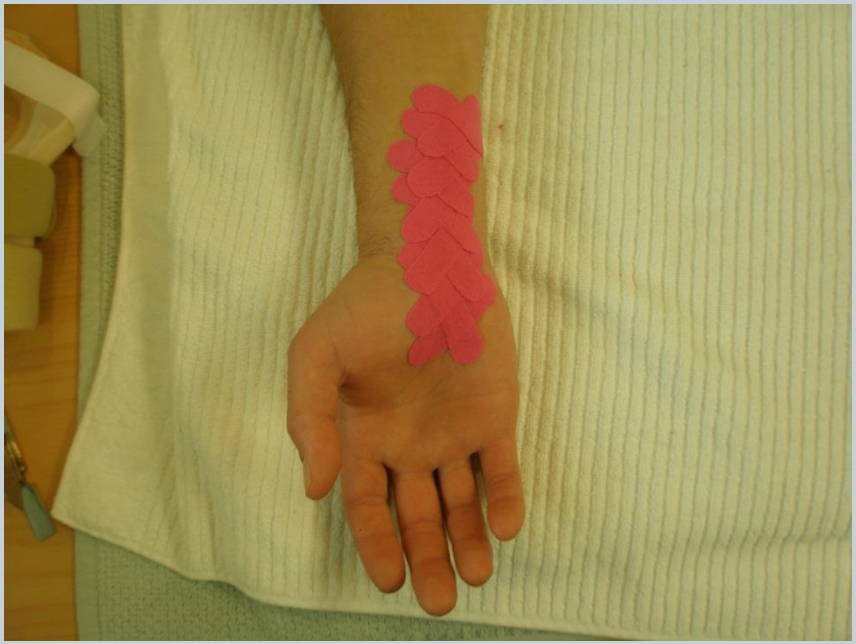


Adherent scar



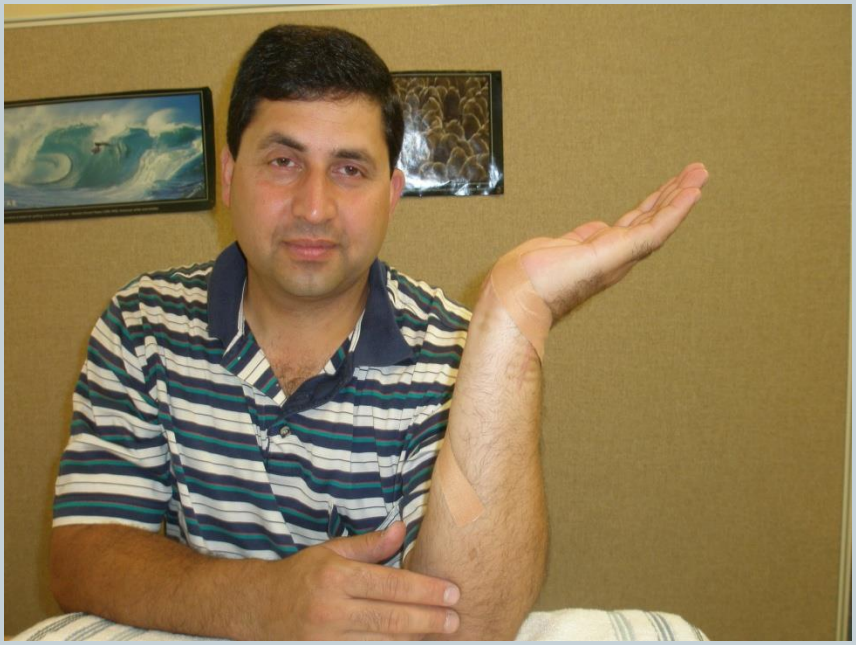


Try kinesio tape

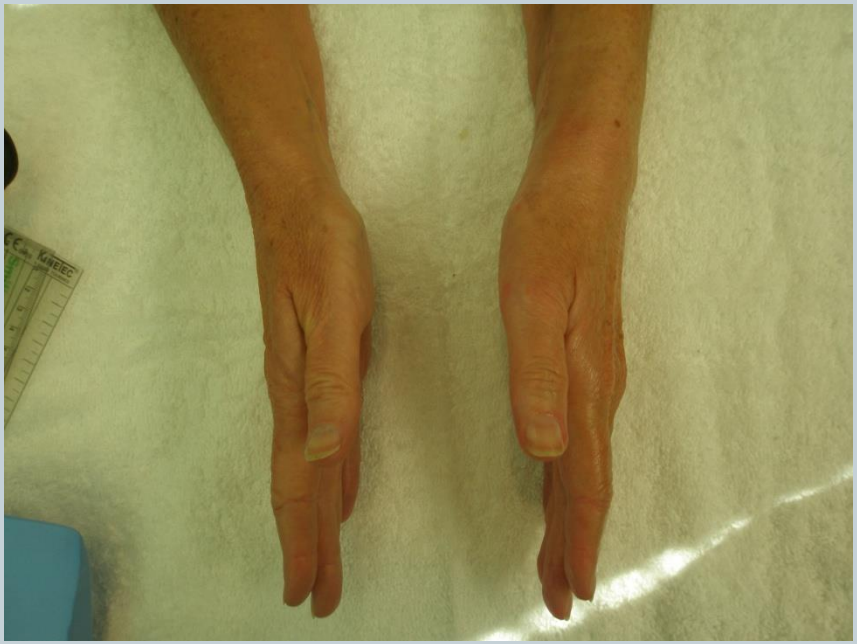


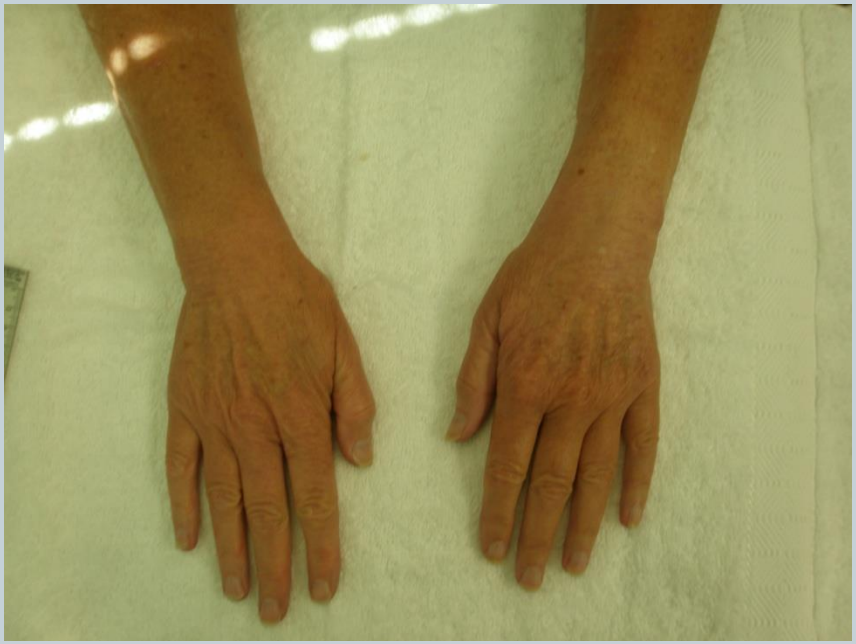
Mulligan

- Gain after MWM and tape

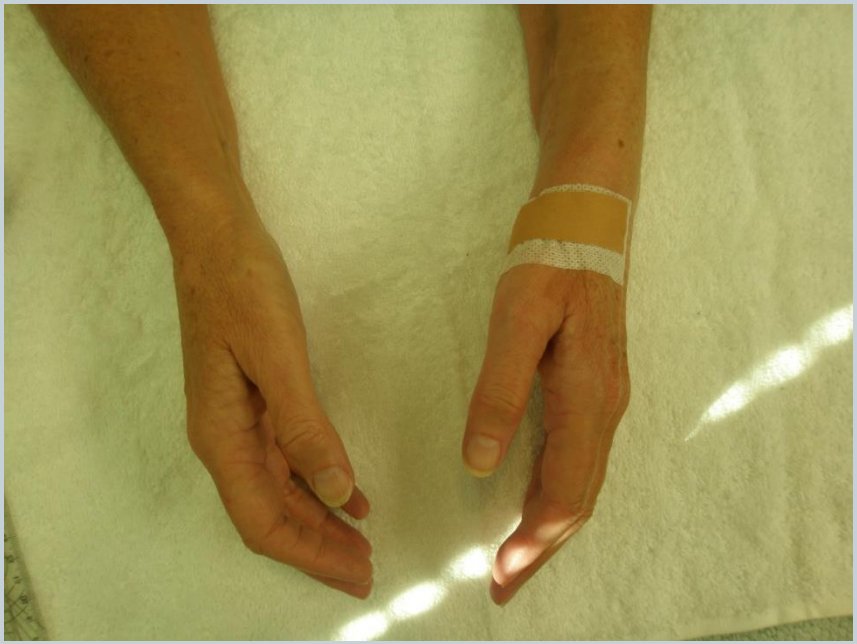


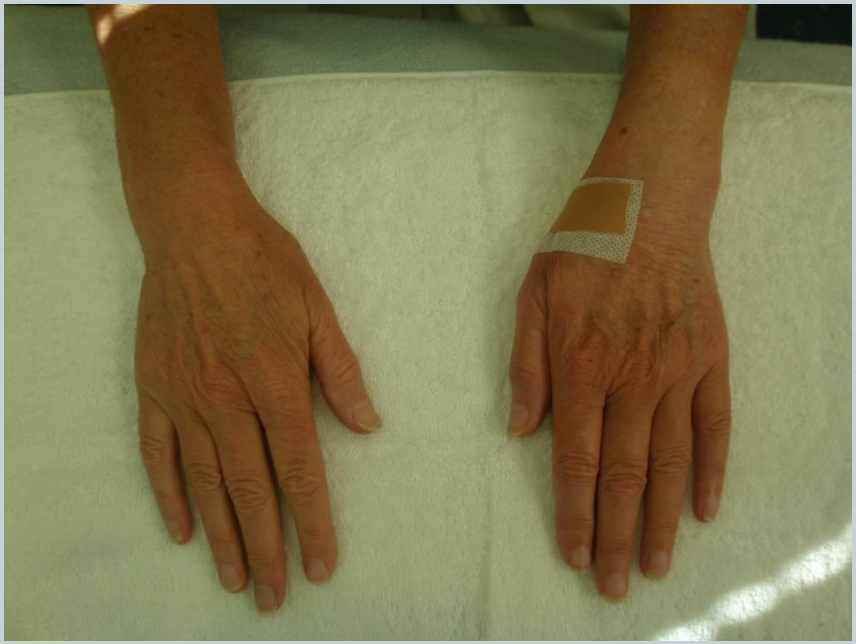
Unable to place hand fully flat





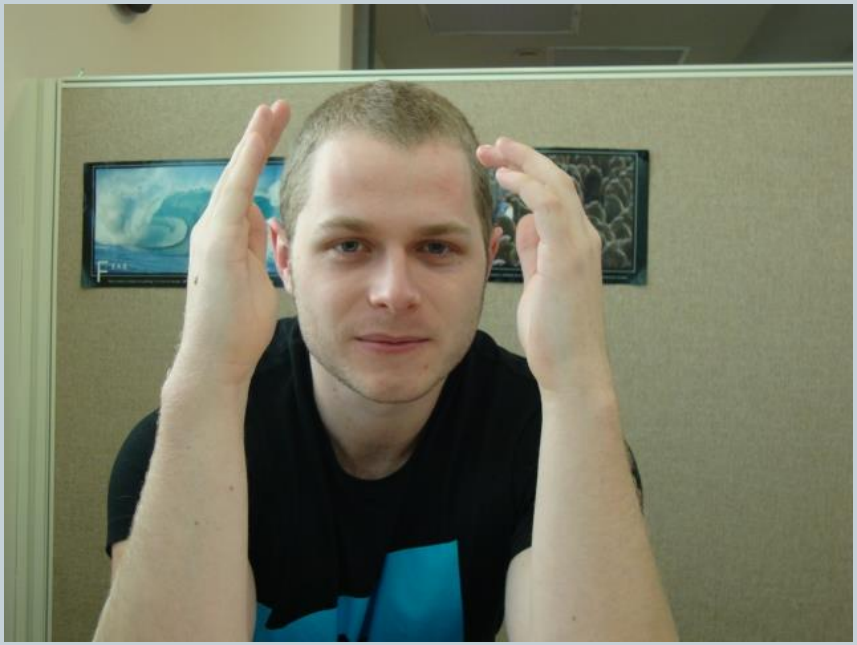
Tape to reposition CMCJ



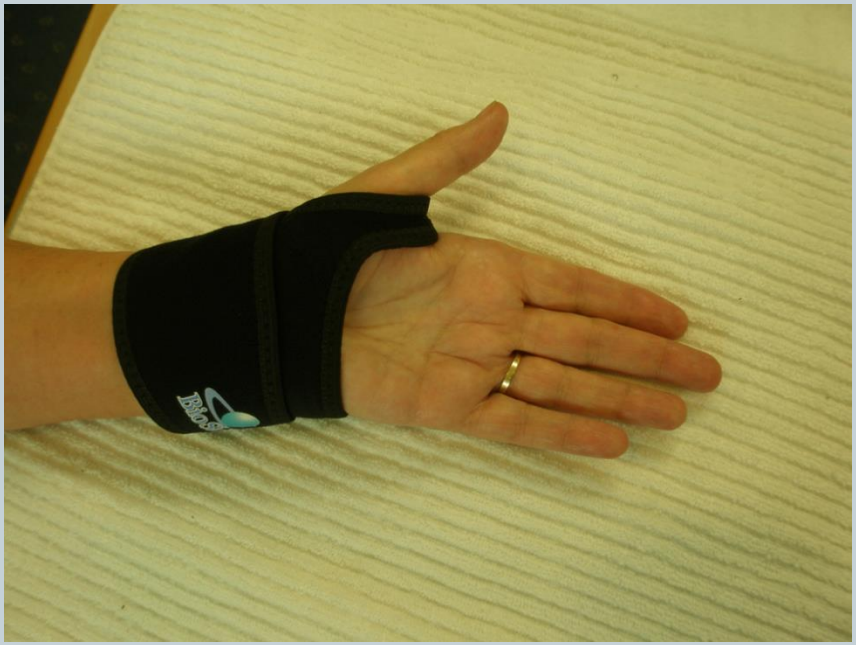


In summary:-

If it looks like this:

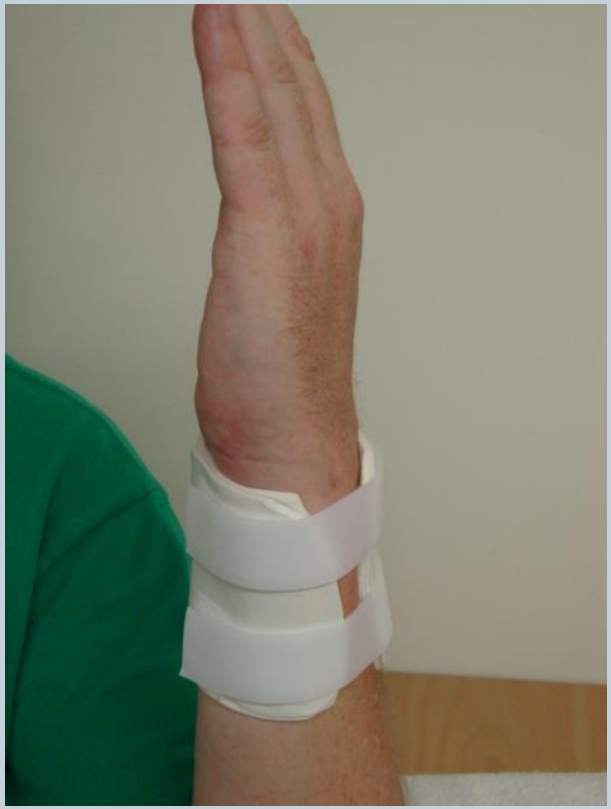


Try this:-



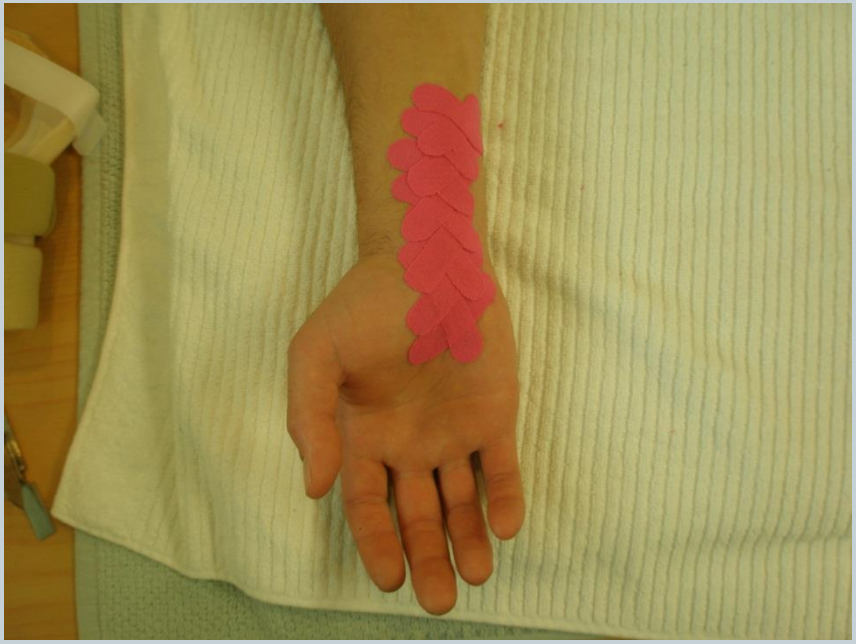
If it wobbles :-

Try this-



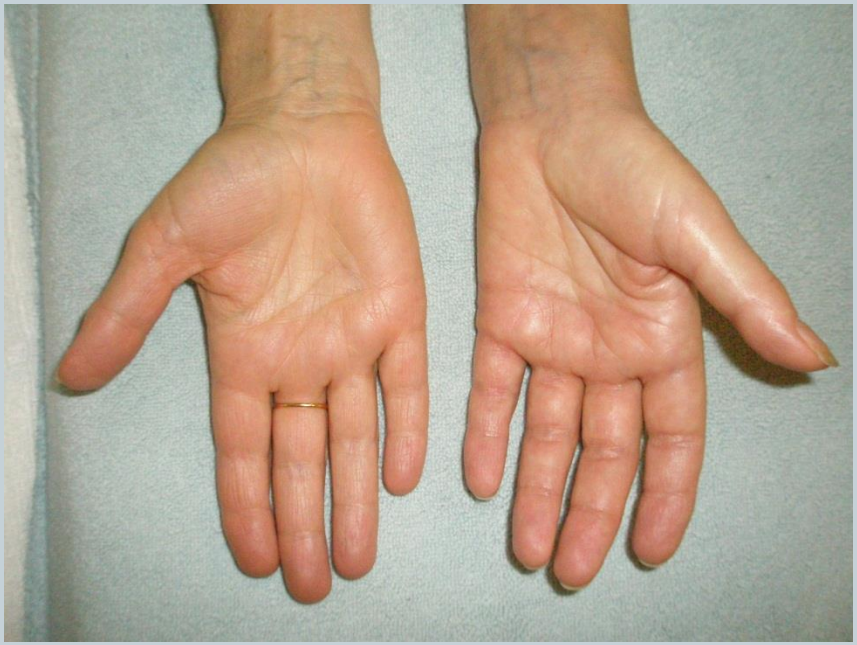
If it sticks/catches

Try this-



Reposition the 1st MC/thumb-

Try MWMs



And tape -

Acknowledgements

- patients and relatives
- colleagues at Handworks
- Moana Cameron