



32nd INTERNATIONAL PAK ORTHOCON 2018

Extending Standard Musculoskeletal Care to Less Privileged Areas



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DRUJ my Take on It

پاکستان اک عشق اک جنوں



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DRUJ my Take on It

Disclosure

Consultant for Lima
Consultant for Arthrex EMEA
Consultant for Lavander Medical
Consultant For Stryker
Consultant For Orthospace



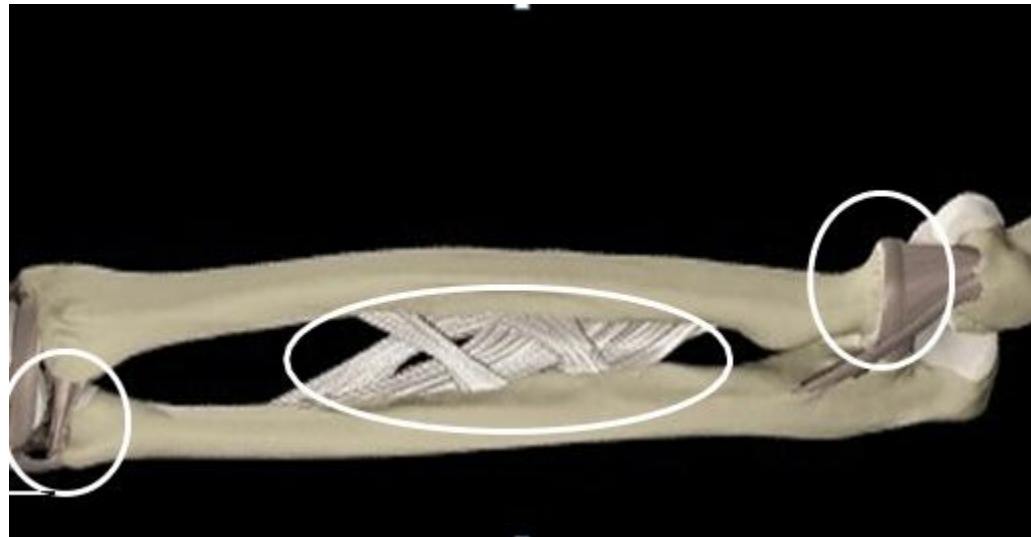


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“Forearm Joint”



One functional unit



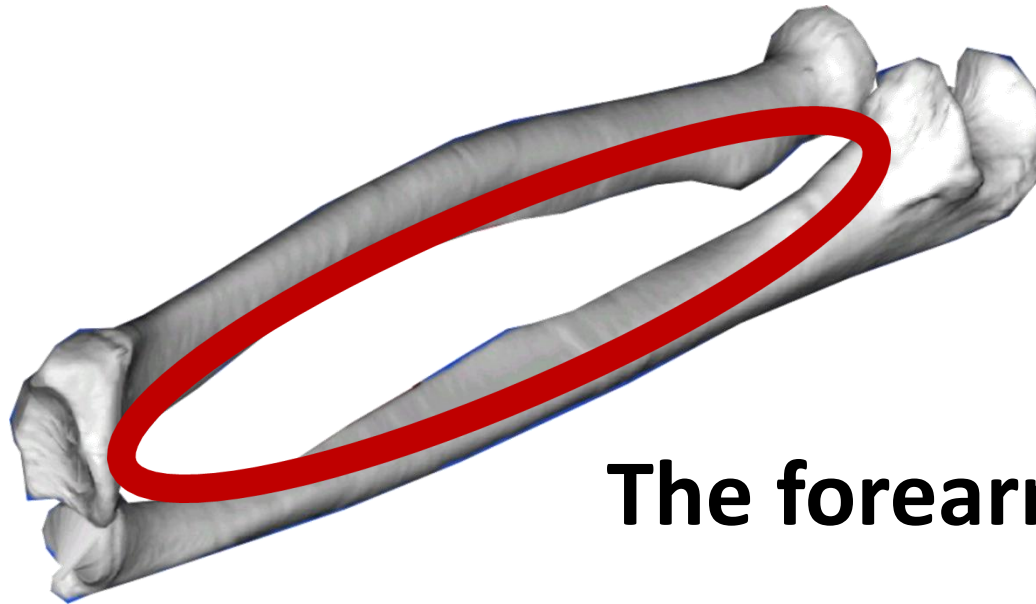


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“Forearm Joint”



The forearm as a ring



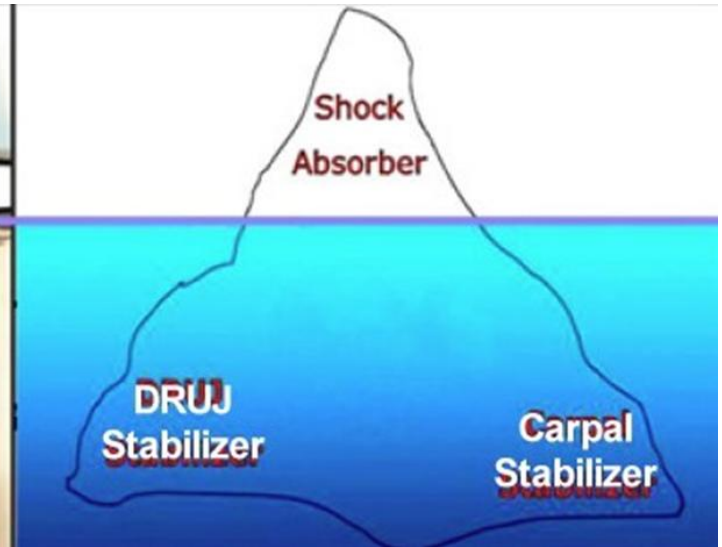
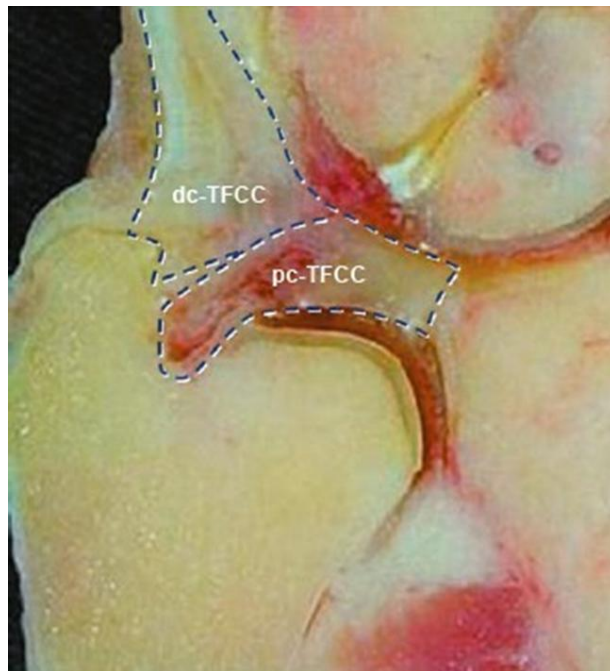


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The Iceberg Concept



Atzei & Lucetti 2011



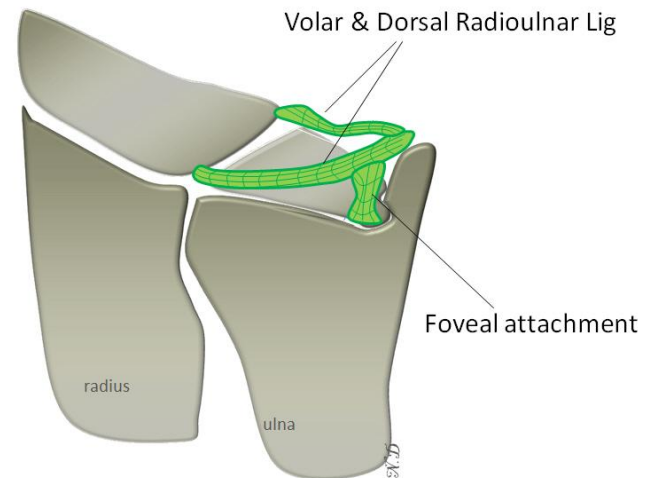
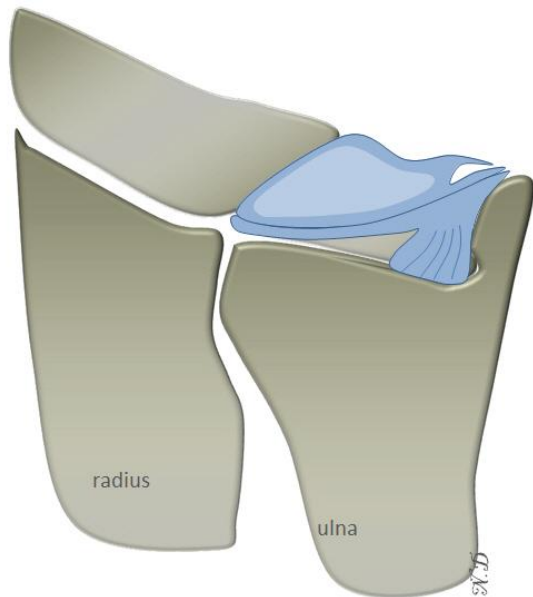


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Anatomy





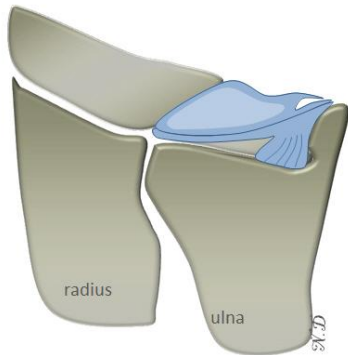
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Anatomy

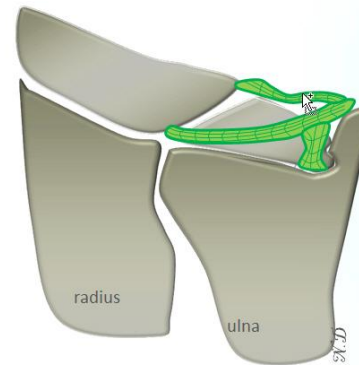
TFC



MENISCUS



TFC



CRUCIATE Lig



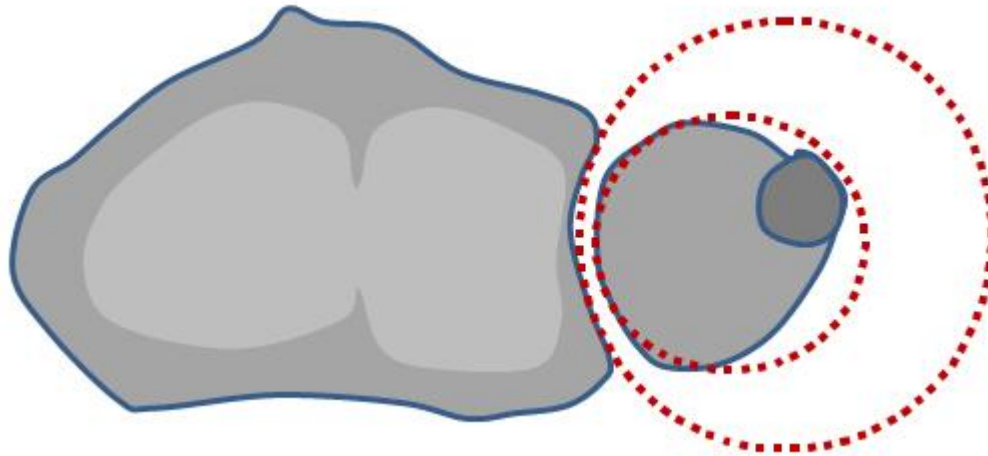


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Congruity of DRUJ



10mm vs 15mm

Full congruity impossible





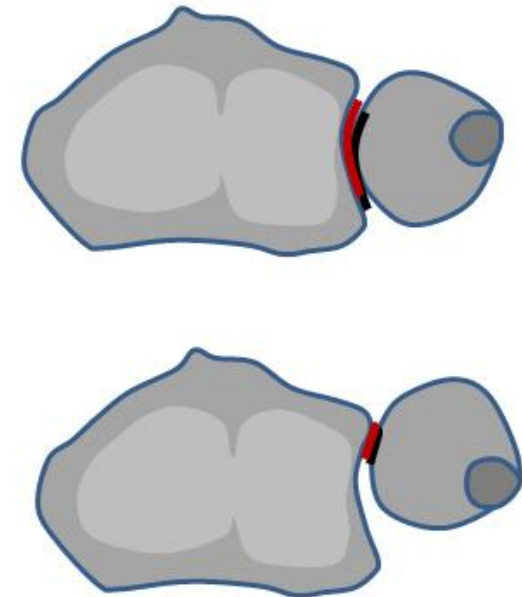
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Congruity of DRUJ

Neutral rotation: 60% of
sigmoid notch in contact
Extremes of rotation: 10%
Dorsal and palmar rims
important



Little osseous stability



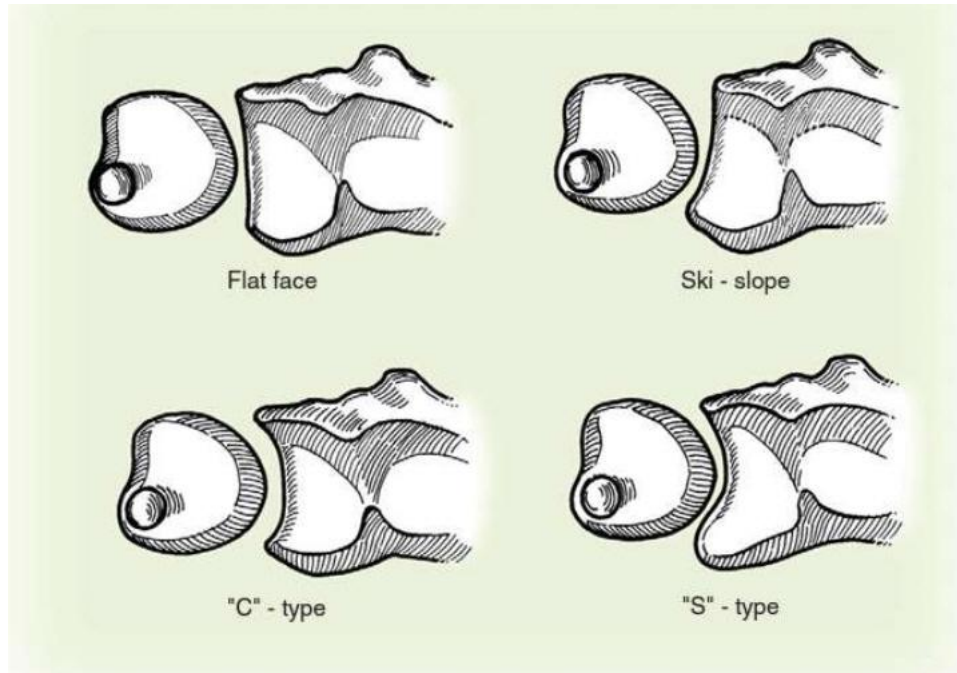


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Congruity of DRUJ





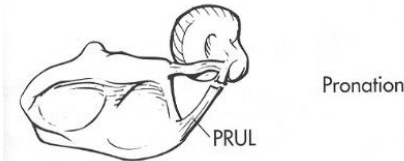
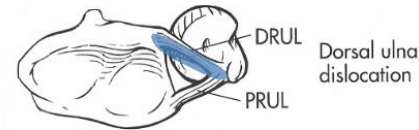
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Instability

- Pronation
 - Ulnar head dorsal
 - DRUL taut
 - If PRUL ruptures, dislocates dorsally
- Supination
 - Ulnar head volar
 - PRUL taut
 - If DRUL ruptures, dislocates volarly





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Function

Rotation

Load transmission

Stability





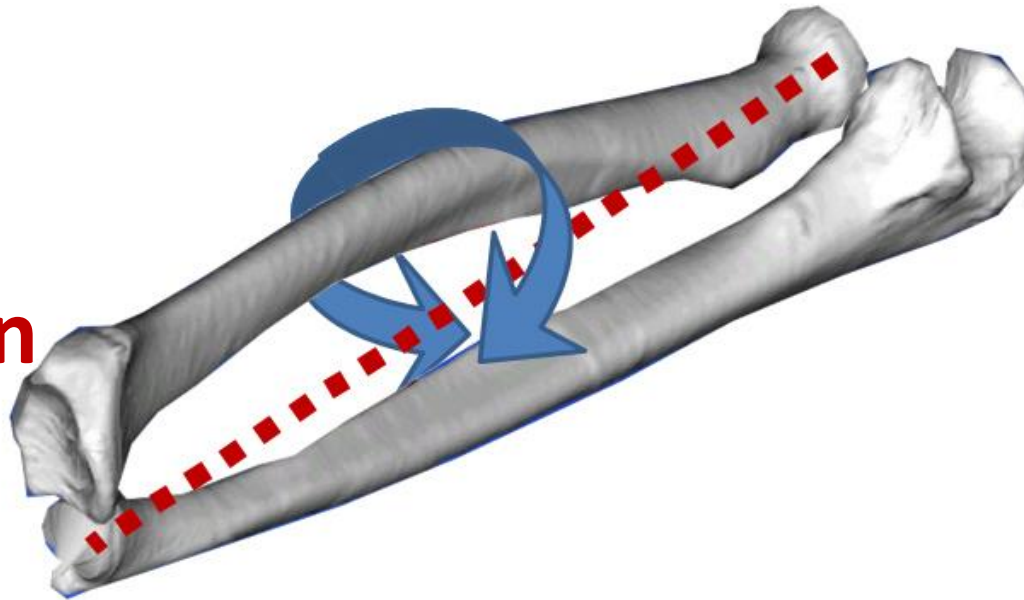
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Kinematics

Rotation
Axis
Dislocation





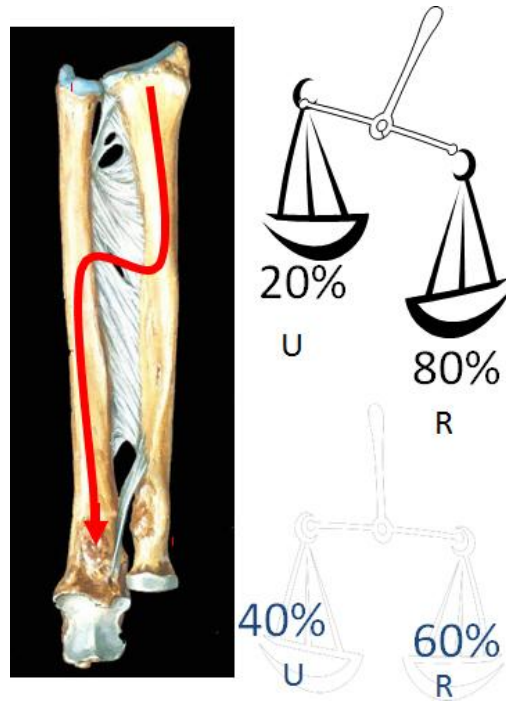
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Load transmission

Halls 1964,
Palmer 1984,
Birkbeck 1997





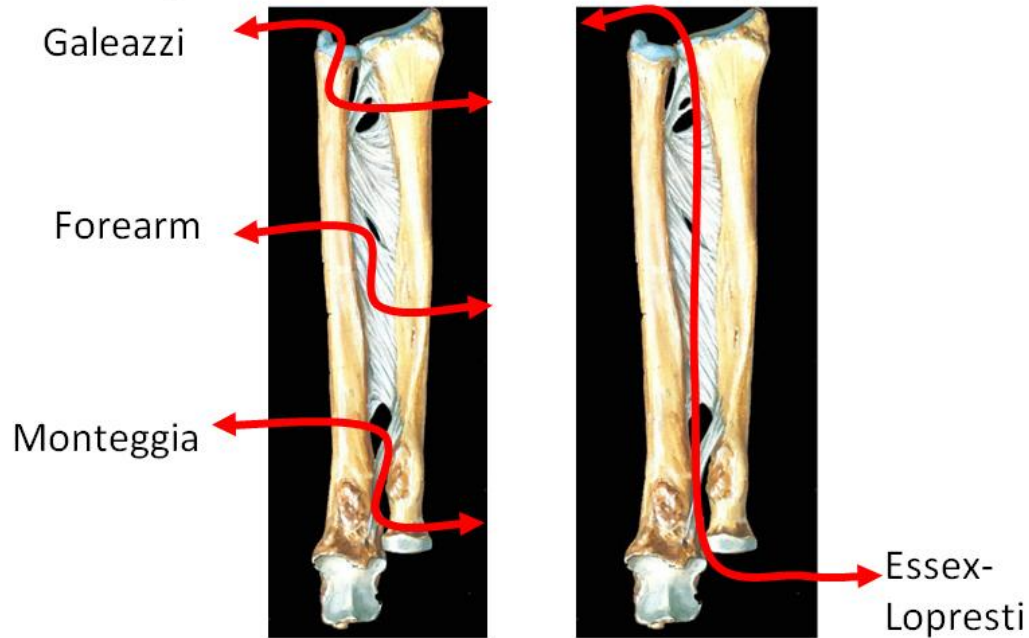
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Load transmission

Explains common fracture patterns





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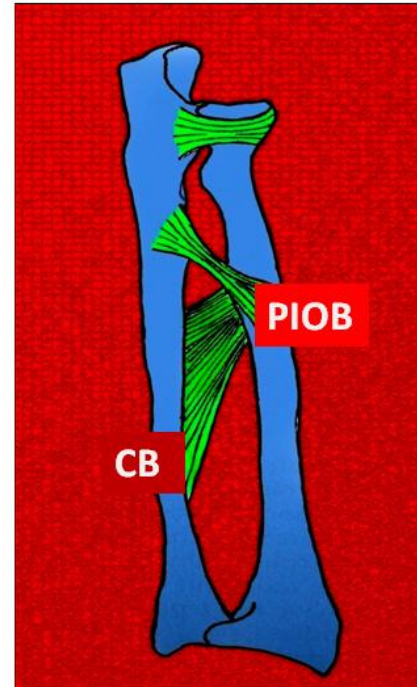
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Interosseous Membrane

Two main bands:

- Central Band (volar)
- Proximal Interosseous Band (dorsal)
- Accessory bands (1-5)
- Membranous portion





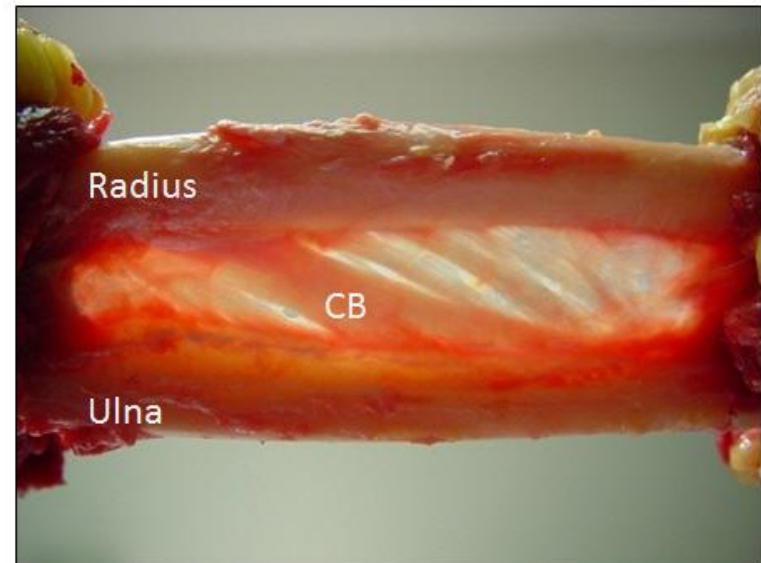
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Interosseous Membrane

- 70% of forearm stability
- Injury of other elements of IOM (partial tears), increase CB strains



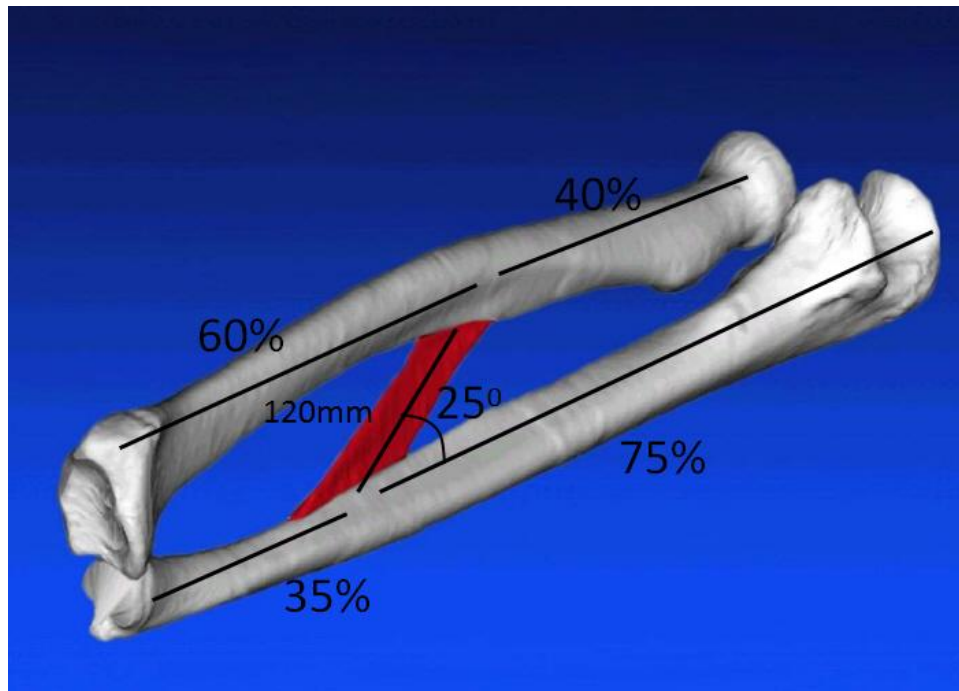


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Central Band



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Misconceptions

- TFCC tear \neq DRUJ instability
 - In fact: most tears don't cause instability
- Ulnar styloid fracture \neq DRUJ instability
 - Styloid fractures may co-exist with TFCC tears



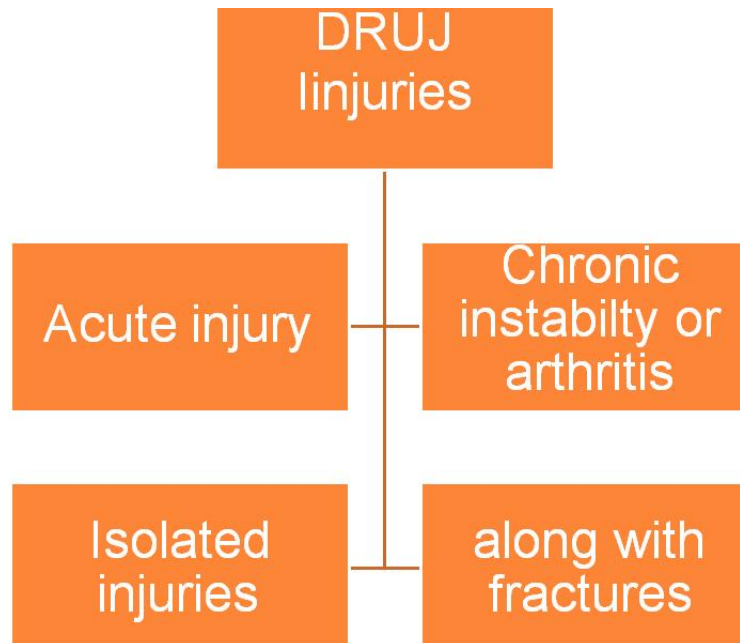


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Classification



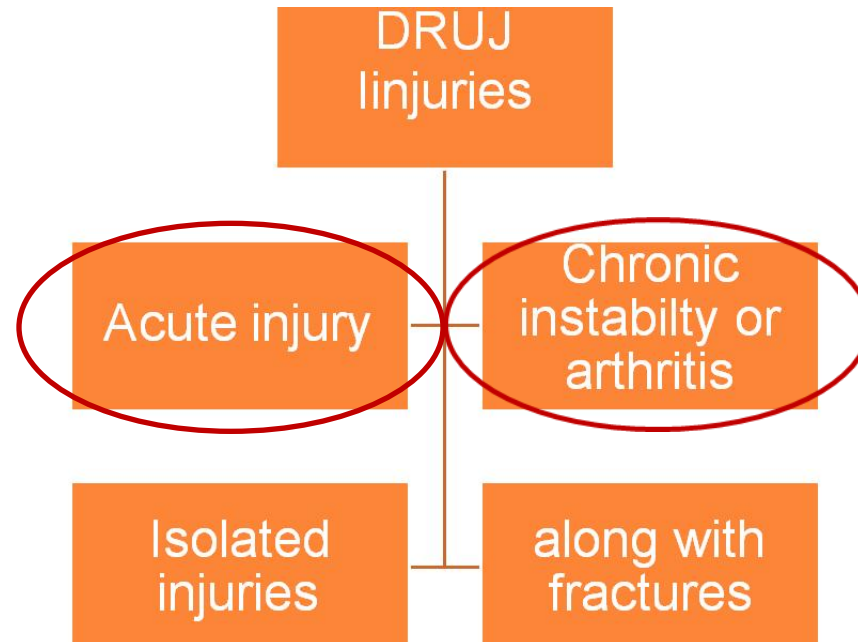


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Classification





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Isolated Ulnar head Dislocation

Dorsal: reduce in supination

Palmar: reduce in pronation

Global instability: usually requires
stabilization





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Isolated Ulnar head Dislocation

Failed closed reduction may result from
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tendon

Open reduction dorsal - 5th compt.

TFCC repair if avulsed





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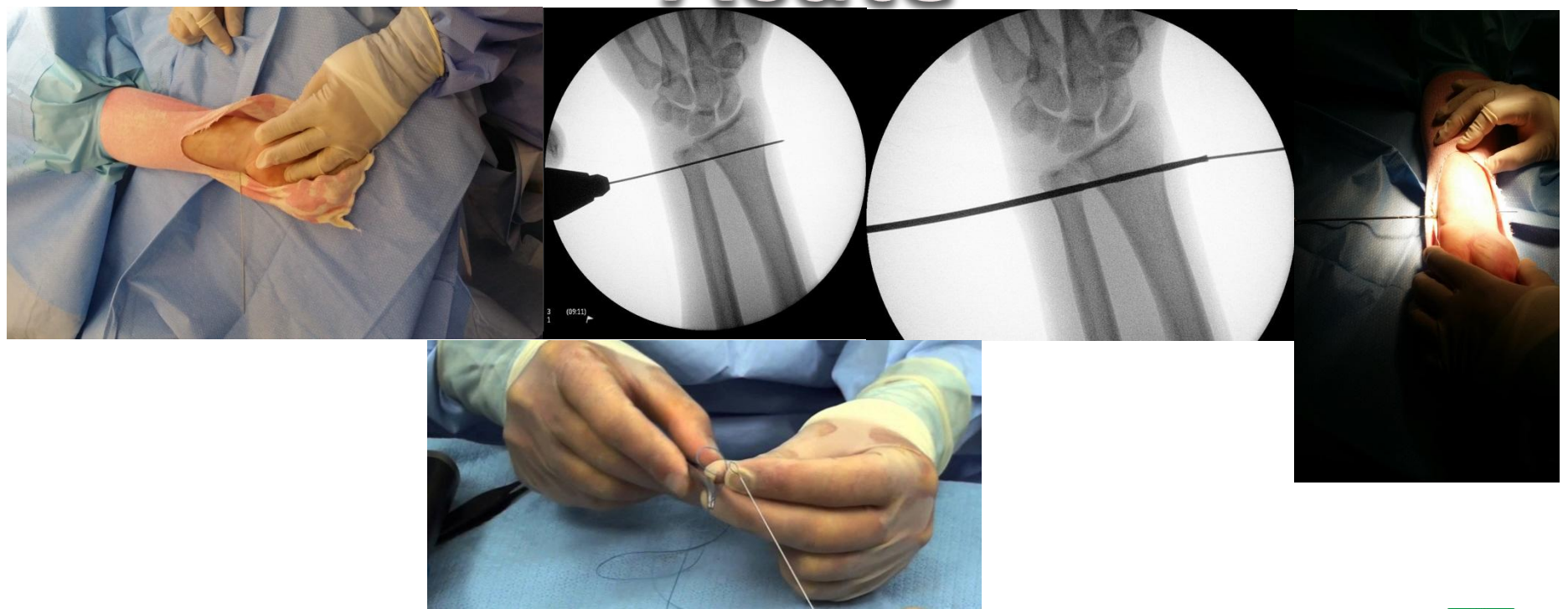


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Acute





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Acute



MINI TIGHT ROPE



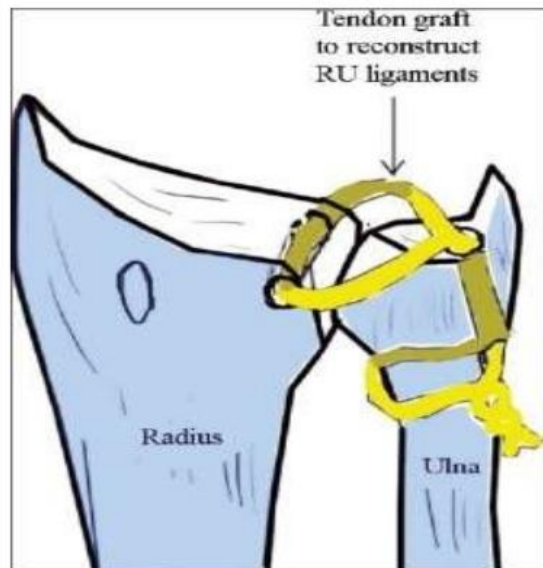


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Chronic



Diagrammatic representation of Adams-Berger procedure for chronic DRUJ instability. The dorsal and volar radioulnar ligaments are reconstructed with a palmaris longus graft.



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Chronic



Scheker semiconstrained total distal radioulnar joint arthroplasty



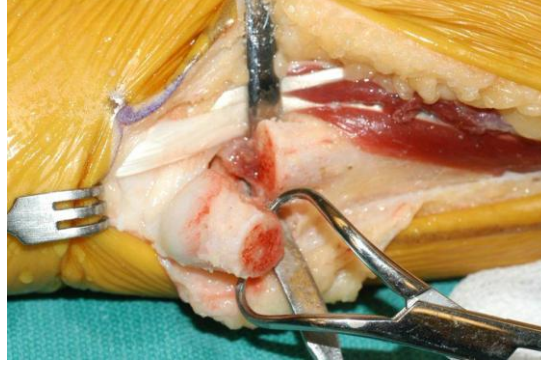
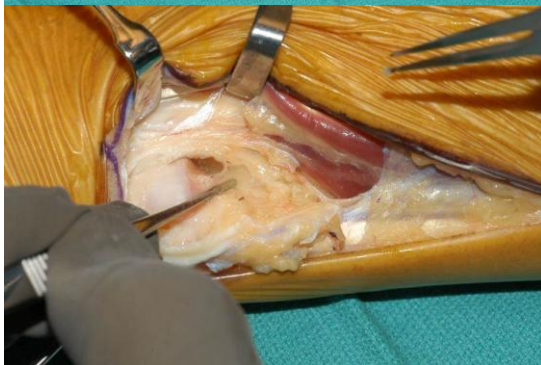


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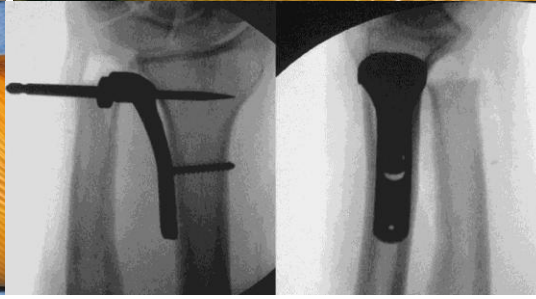
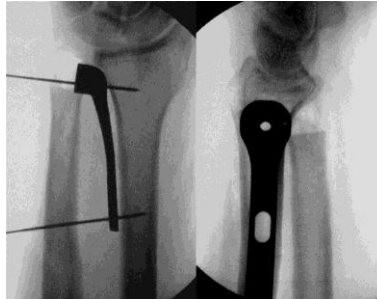
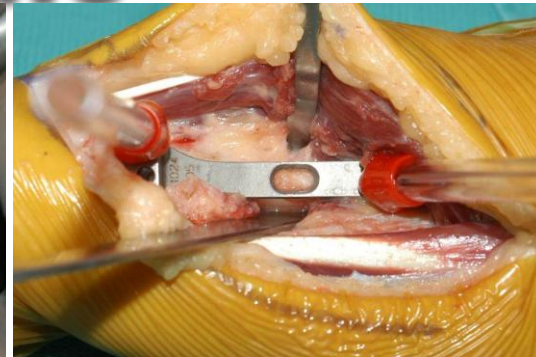
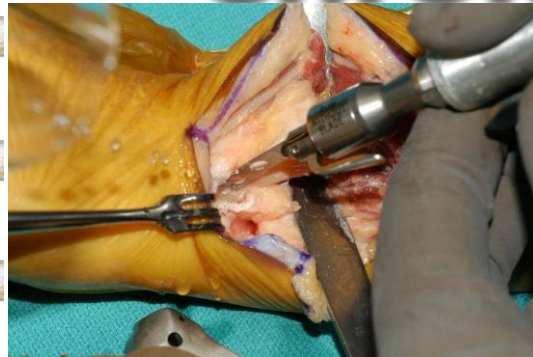
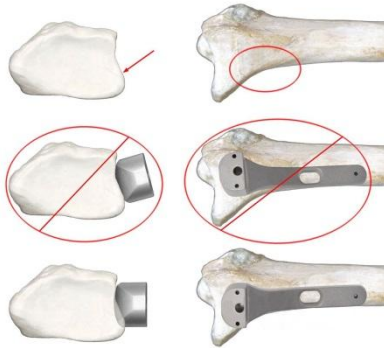


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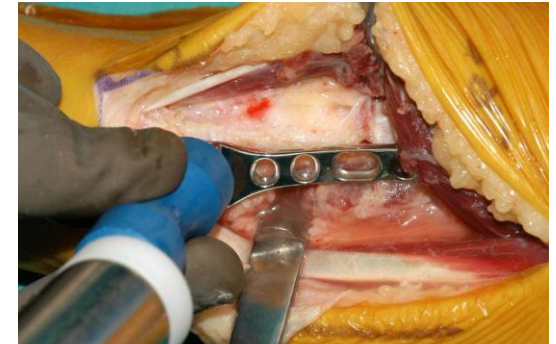
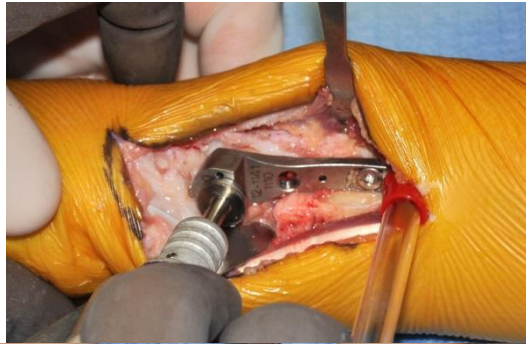


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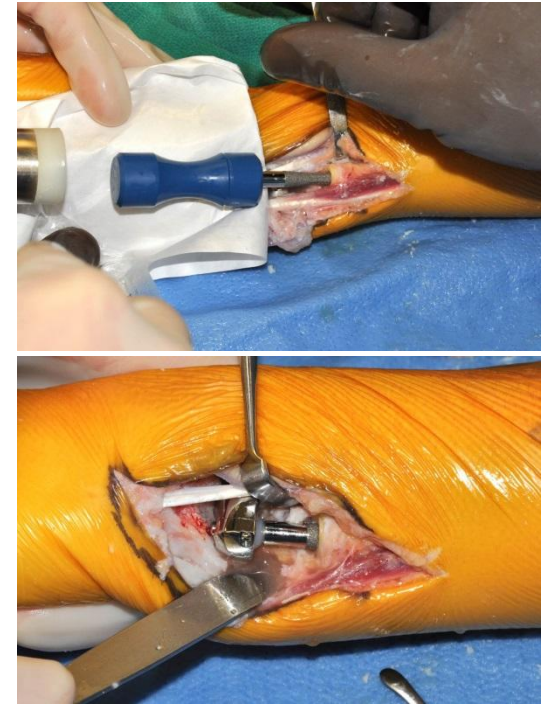
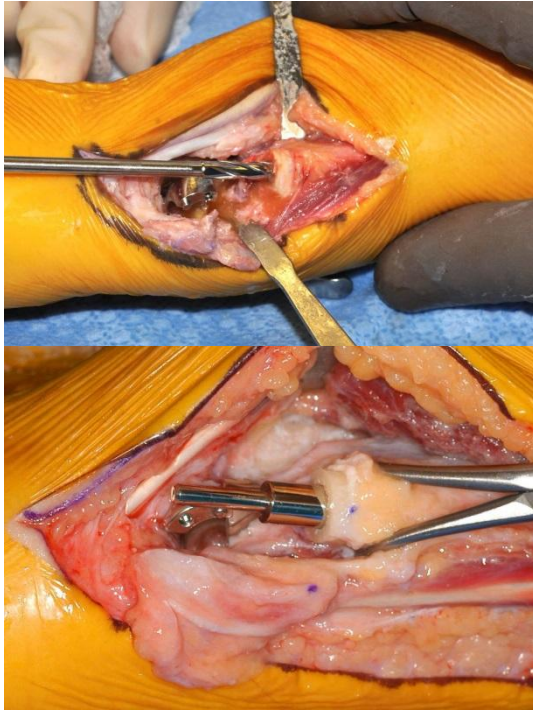


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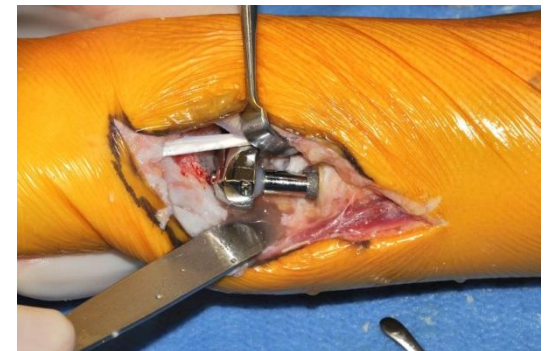
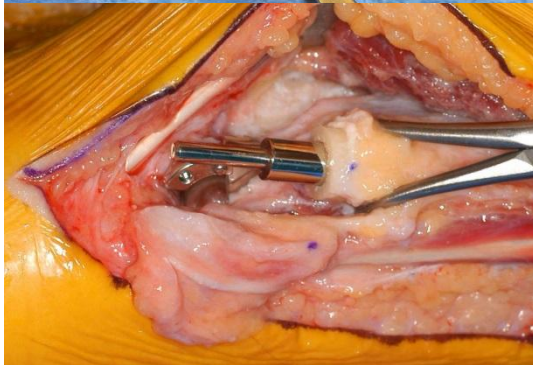


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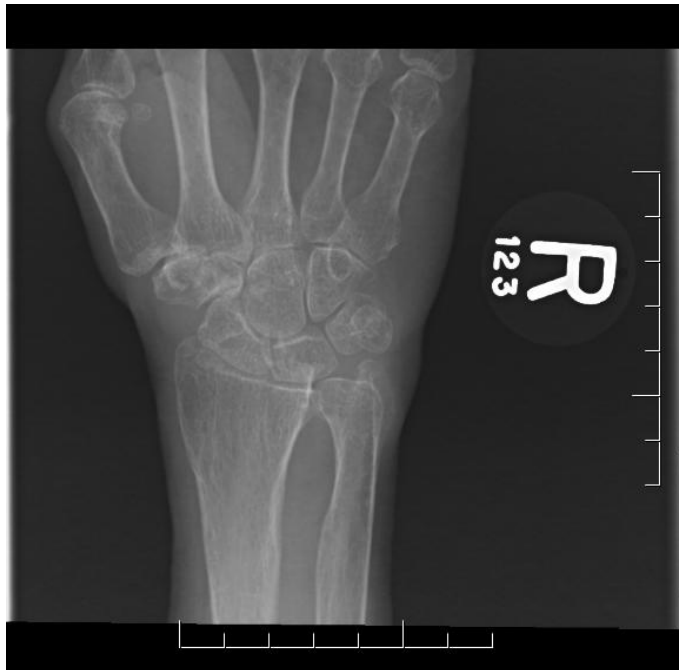


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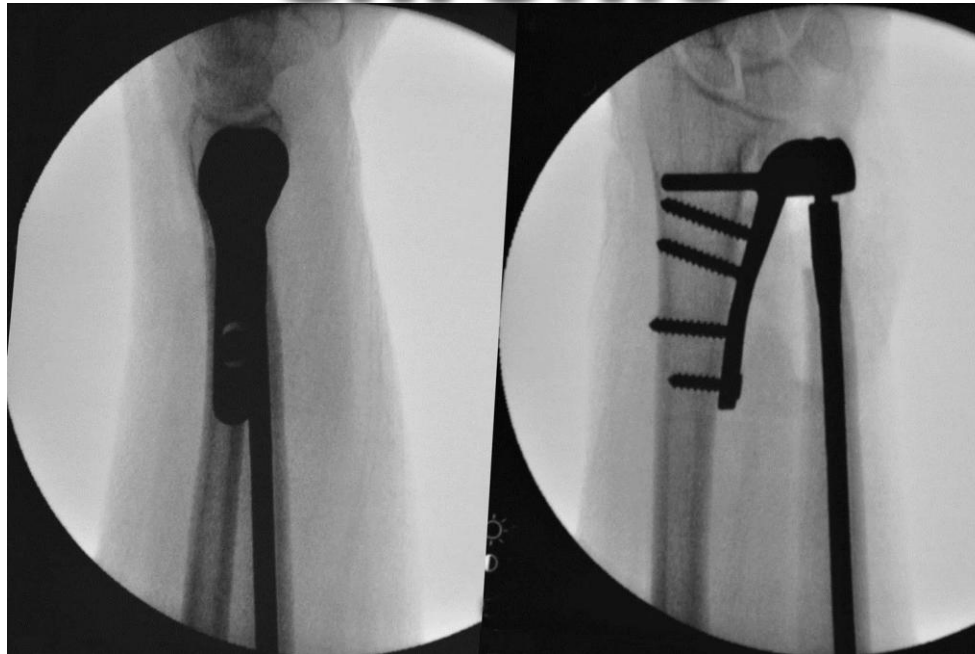


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Results

5 prosthesis in 5 years

Mean FU 12 months (2-25)

Phone contact Dash Score

VAS score

Satisfaction score





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Results

No patients had further surgery

Mean DASH 1.3

Mean VAS 0

Mean Satisfaction score 10





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Conclusion

The Scheker prosthesis has shown satisfactory results with 100% survival rate in all reports.





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Conclusion

The constrained design of this prosthesis gives enough stability to prevent painful subluxation.





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Done

