FRACTURA DE LA EXTREMIDAD DISTAL DEL RADIO EN PACIENTE OSTEOPOROTICO

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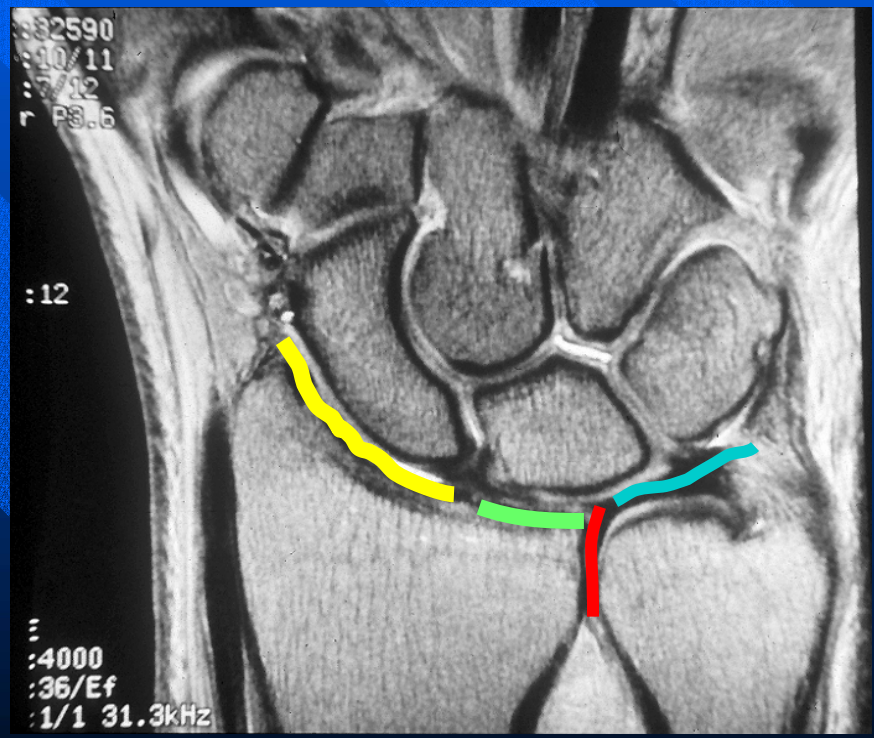
FEDRA

Fractura que afecta al tercio distal del radio, asociada o no a fx del cúbito que afecta a la articulación radio-cubito-carpiana y a la radio-cubital distal.
Compromete la movilidad de la muñeca y/o del antebrazo.
Puede asociarse a otras fx ó fx-luxación de los huesos del carpo y al tercio proximal del radio

Anatomía

- Fosas escafoidea y semilunar del EDRa
- Articulación sigmoidea Ra-cu distal
- Complejo triangular fibrocartilagínoso (TFCC)



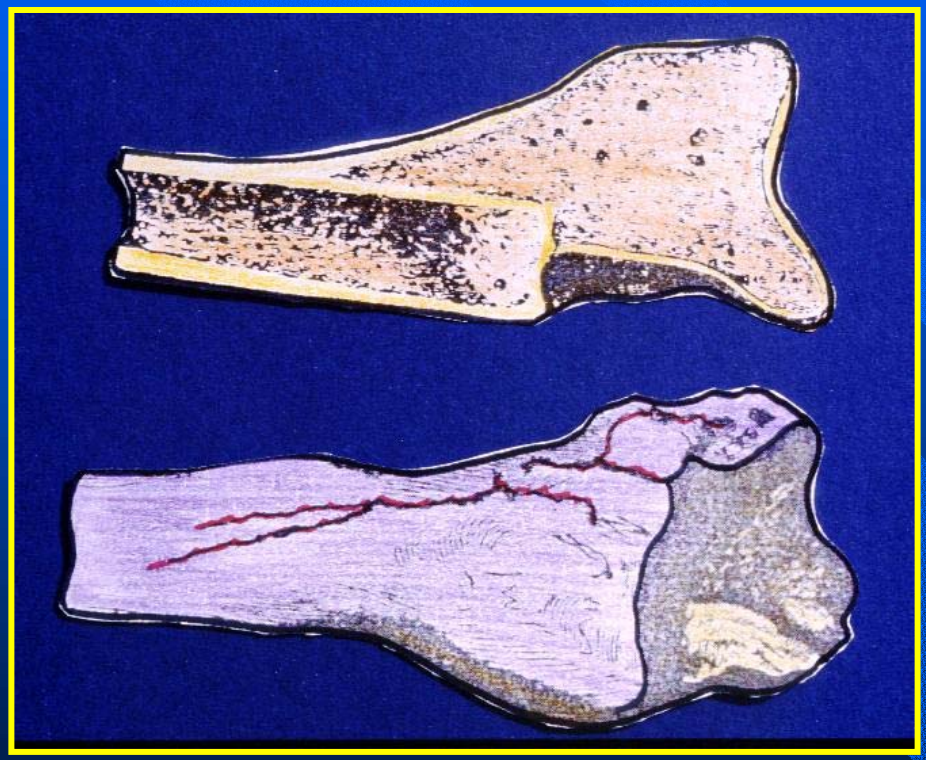
On the Fracture of the Carpal extremity of the Radius. By A. Colles, M. D. one of the Professors of Anatomy and Surgery in the Royal College of Surgeons in Ireland.

THE injury to which I wish to direct the attention of surgeons, has not, as far as I know, been described by any author; indeed the form of the carpal extremity of the radius would rather incline us to question its being liable to fracture. The absence of crepitus, and of the other common symptoms of fracture, together with the swelling which instantly arises in this, as in other injuries of the wrist, render the difficulty of ascertaining the real nature of the case very considerable.

Abraham COLLES "On the fracture of the carpal extremity of the radius".
Med Surg J 1814; 10: 182-186

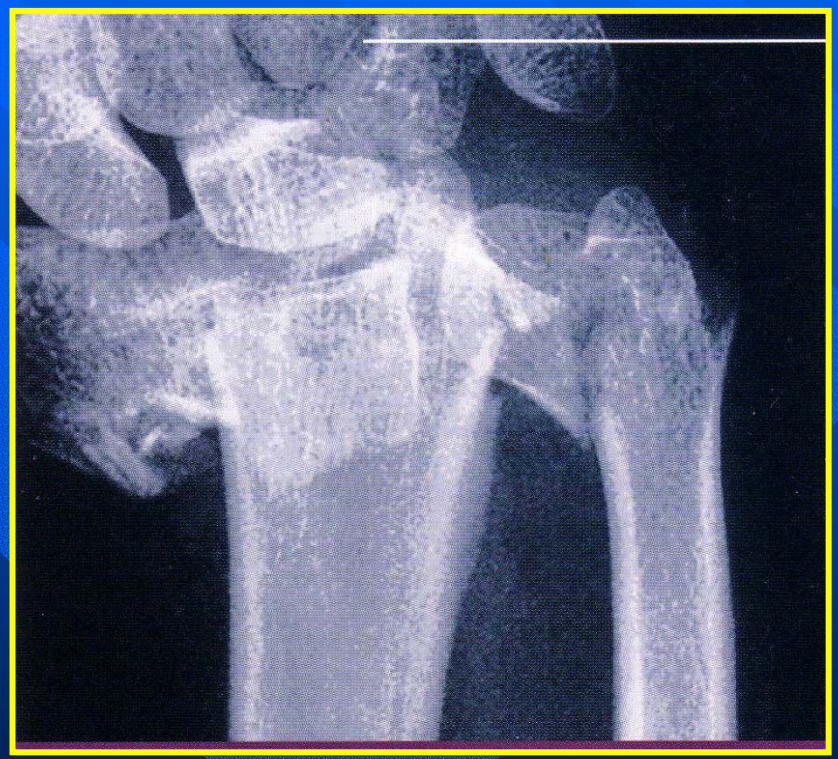
"…el consuelo descansa en que la extremidad disfrutará en algún remoto tiempo de libertad perfecta en todos sus movimientos y exenta de dolor, la deformidad como sea se mantendrá permanente a través de la vida".[2]

Descripciones previas sobre cadáver Paris (l´Hotel Dieu)

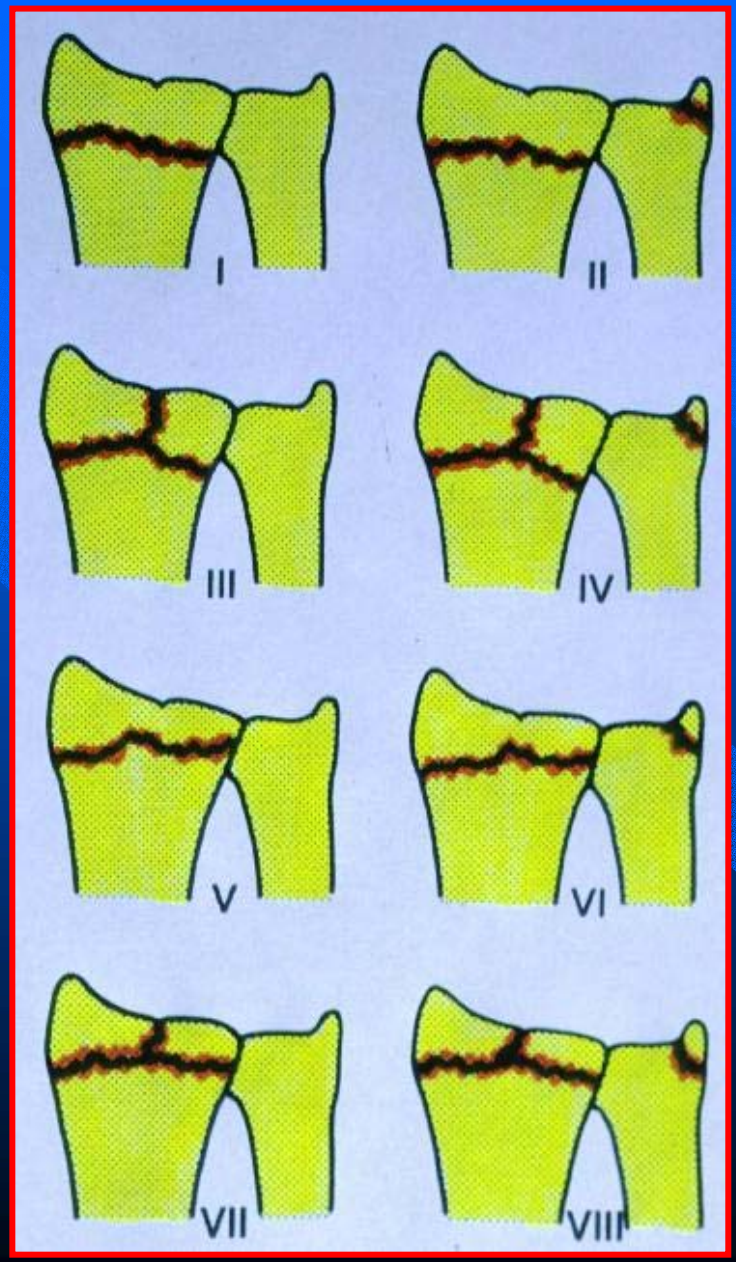


PETIT, POUTEAU , MALGAIGNE DUPUYTREN

ROENTGEN

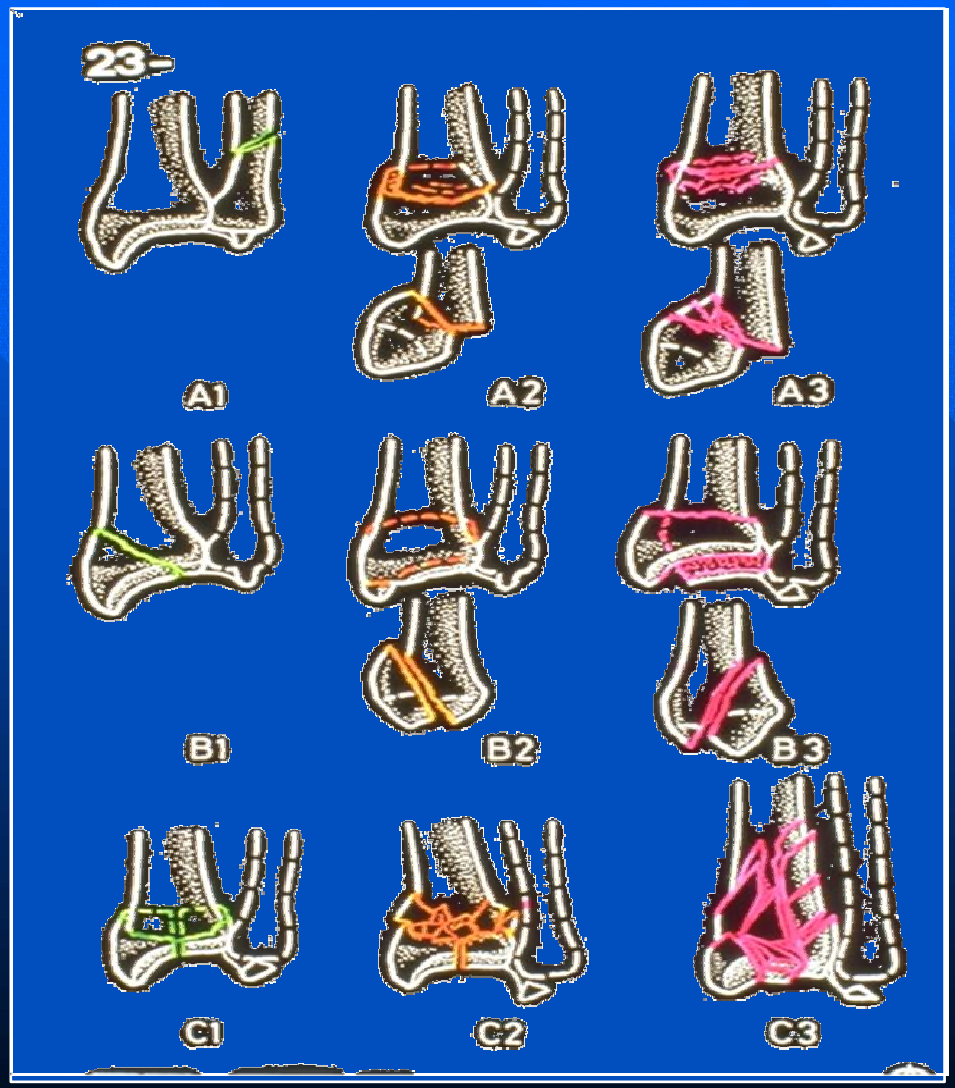


Clasificación de FRYKMAN (1967)

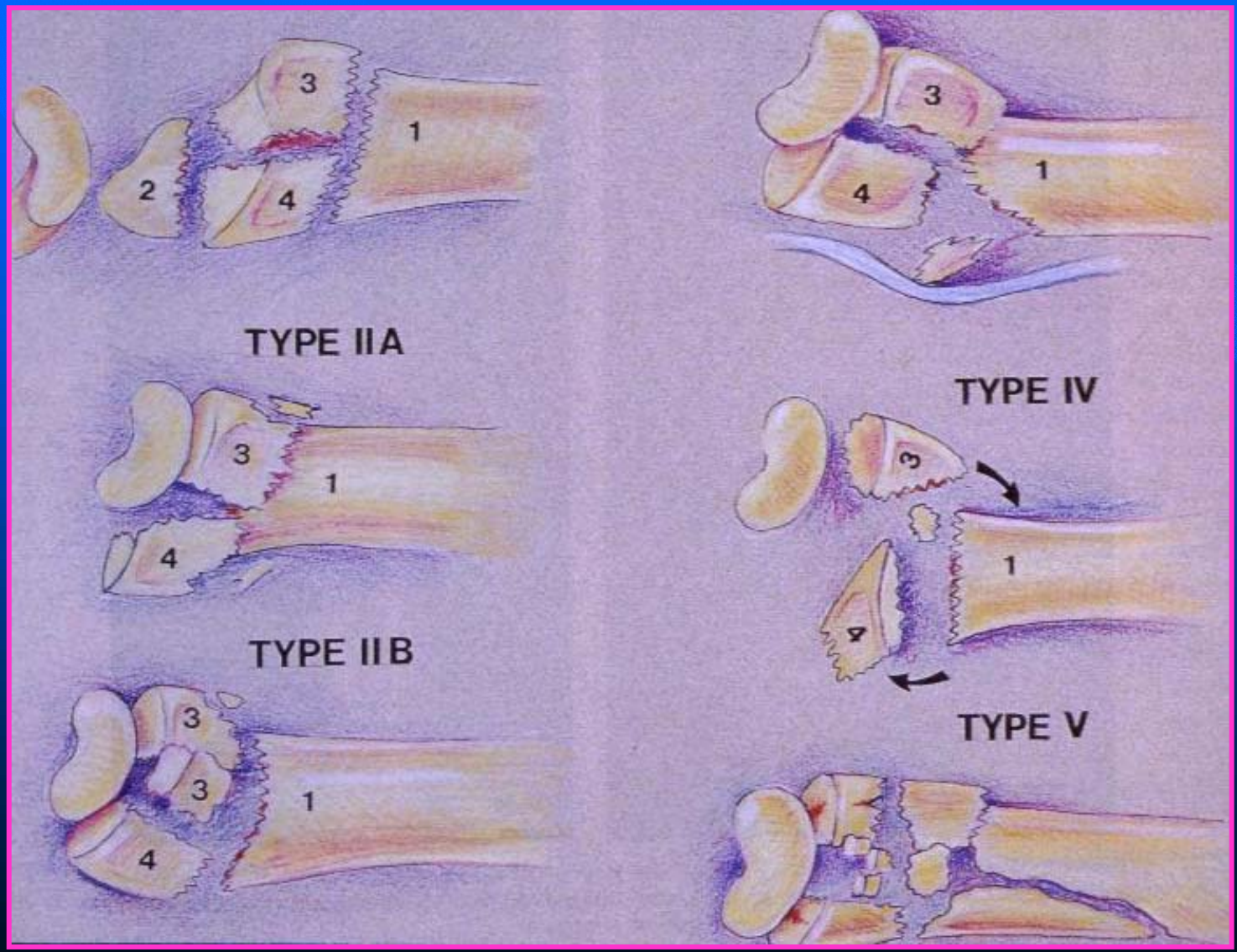


FEDRA
+ Fractura de la estiloides cubital en su base

Clasificación AO / ASIF (Dr. Diego Fernández)

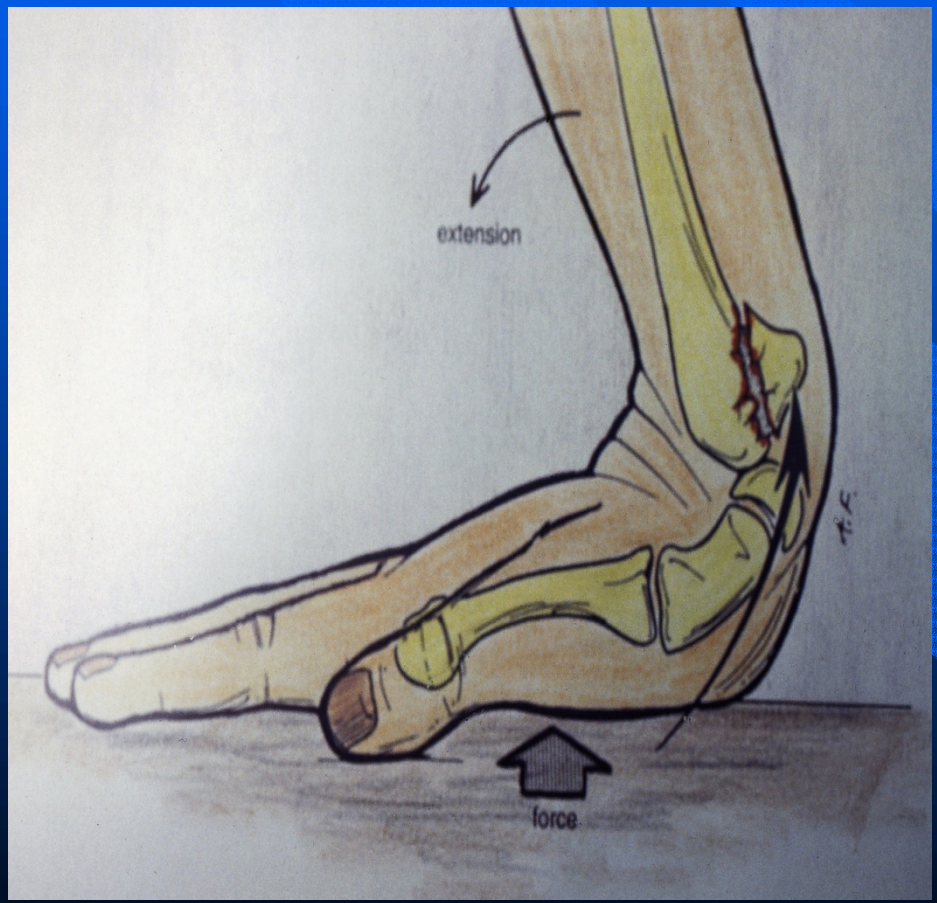


Clasificación de MELONE (1984)

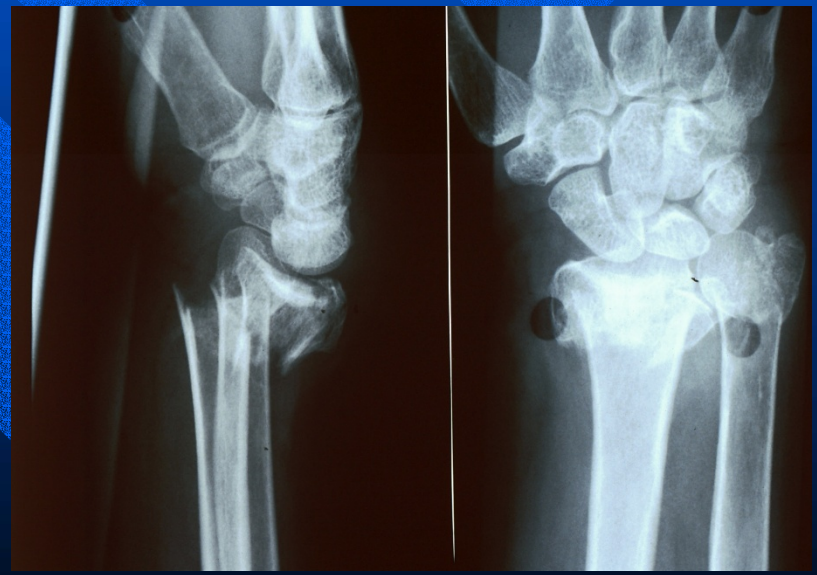


Fractura del E.D.R.

La Fx mas frecuente de la extremidad superior y en general de la ecomomía



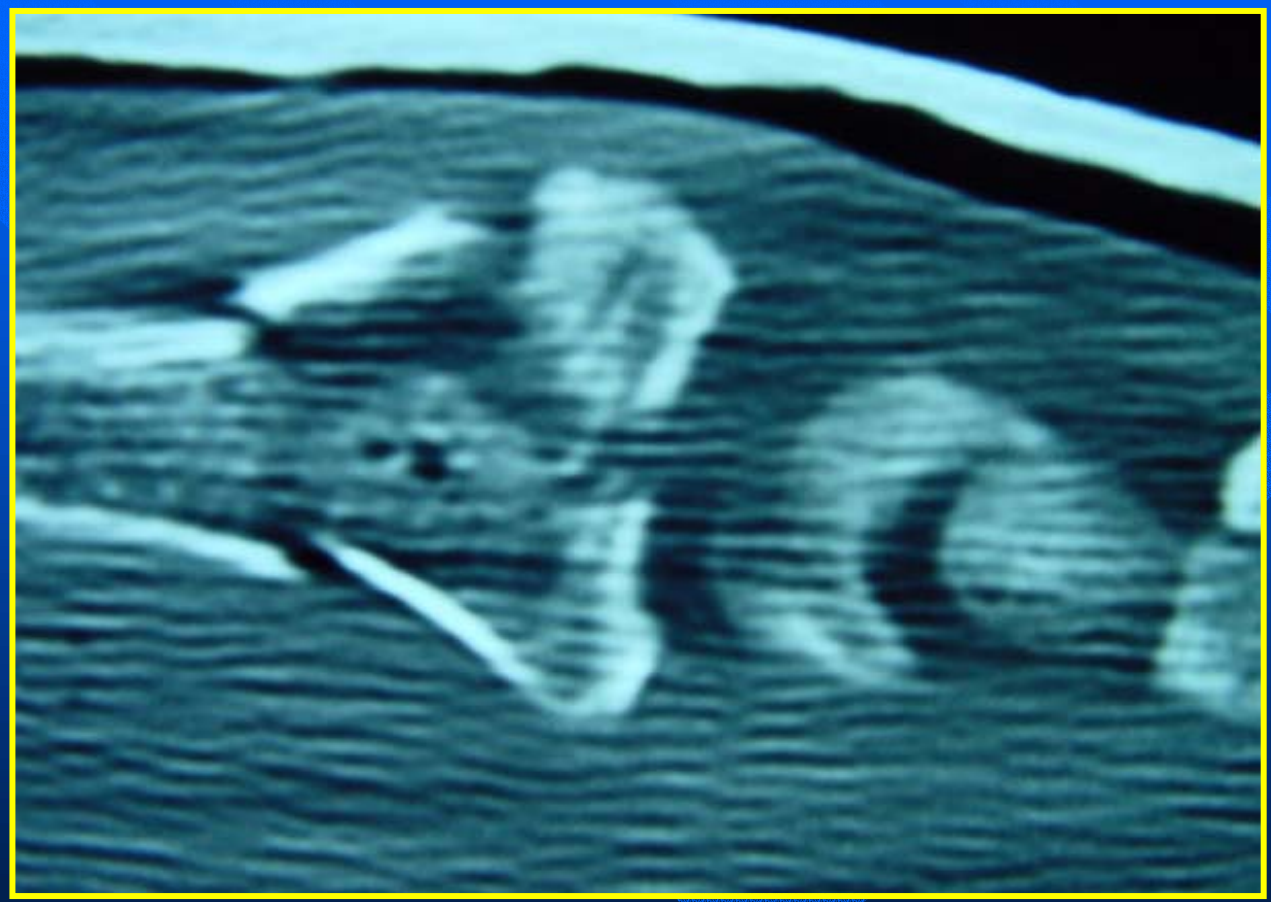
Fx de baja energía
Fx de alta energía



Deformidad “en dorso de tenedor”

ESTUDIO RADIOLÓGICO

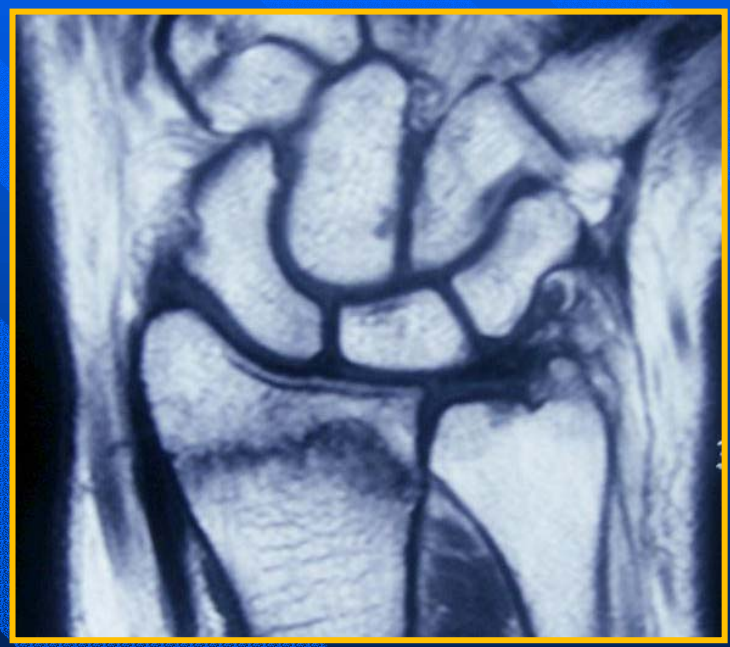
ESTUDIO mediante TAC



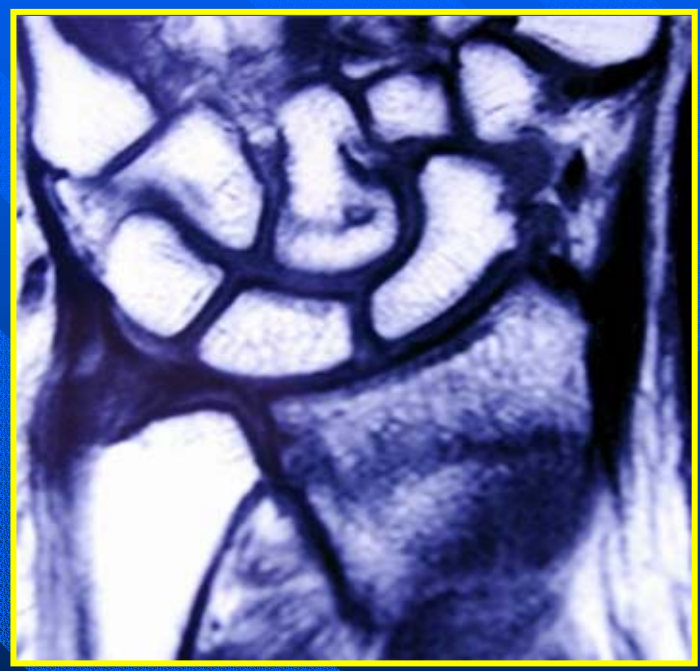
en las fracturas complejas

Estudio por Rx ….y TAC

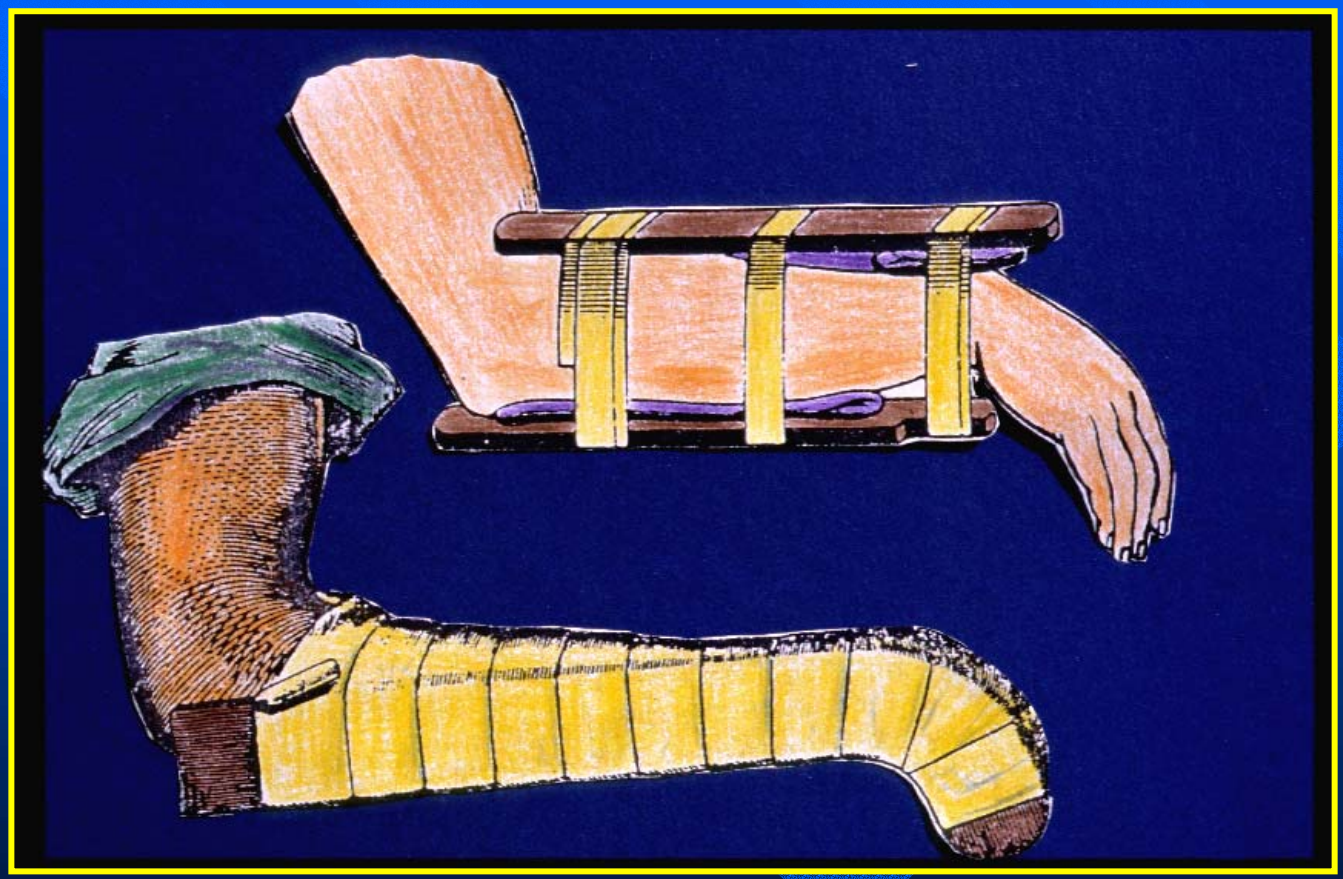
FEDRA “ocultas”



Fractura metafisaria aislada



TRATAMIENTO



Nélaton . A : Eléments de Pathologie Chirurgicale. Germer Balliere,1844

Tratamiento conservador con movilización precoz

TRAITEMENT DES FRACTURES

PAR

LE MASSAGE

ET LA

MOBILISATION

PAR

Le Dr JUST LUCAS-CHAMPIONNIÈRE

Chirurgien de l'Hôpital Beaujon,
Membre de l'Académie de Médecine,
Président de la Société de Chirurgie.

AVEC 66 GRAVURES DANS LE TEXTE

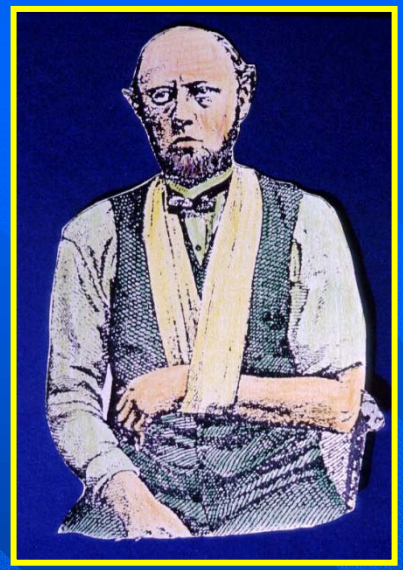
Le mouvement c'est la vie.

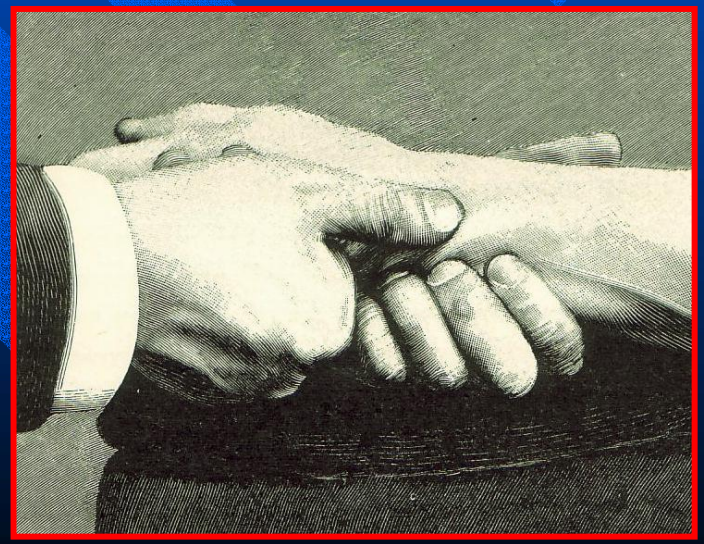
PARIS

RUEFF ET Cie, ÉDITEURS

106, BOULEVARD SAINT-GERMAIN, 106

1895





INDICACIONES DEL TRATAMIENTO ORTOPEDICO

- Fracturas de baja energía
- Pacientes con baja demanda funcional
- Patologías asociadas concomitantes
- Alineamiento aceptable

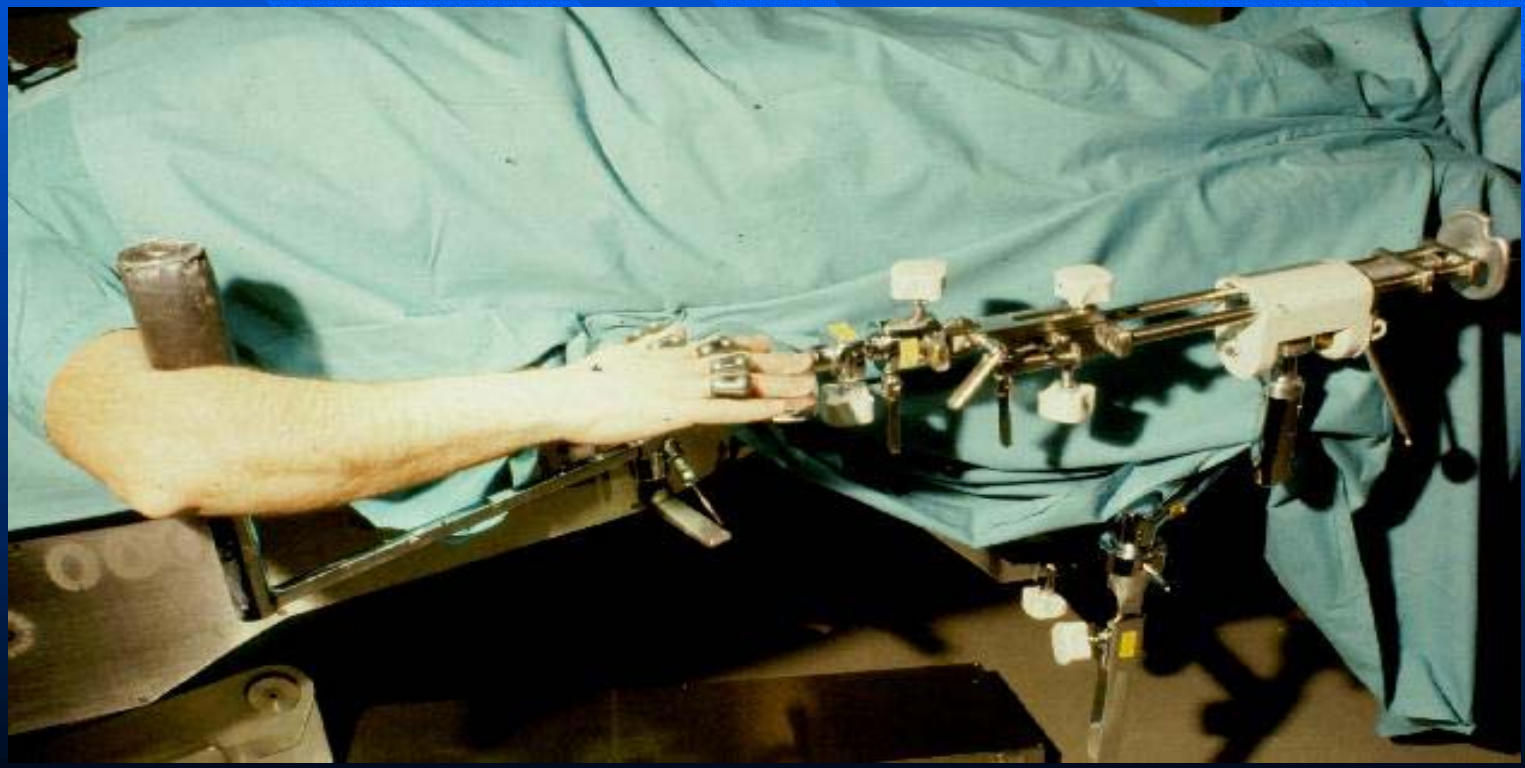
Adecuar el tratamiento a las condiciones generales del paciente

Reducción por manipulación , bajo anestesia plexo braquial

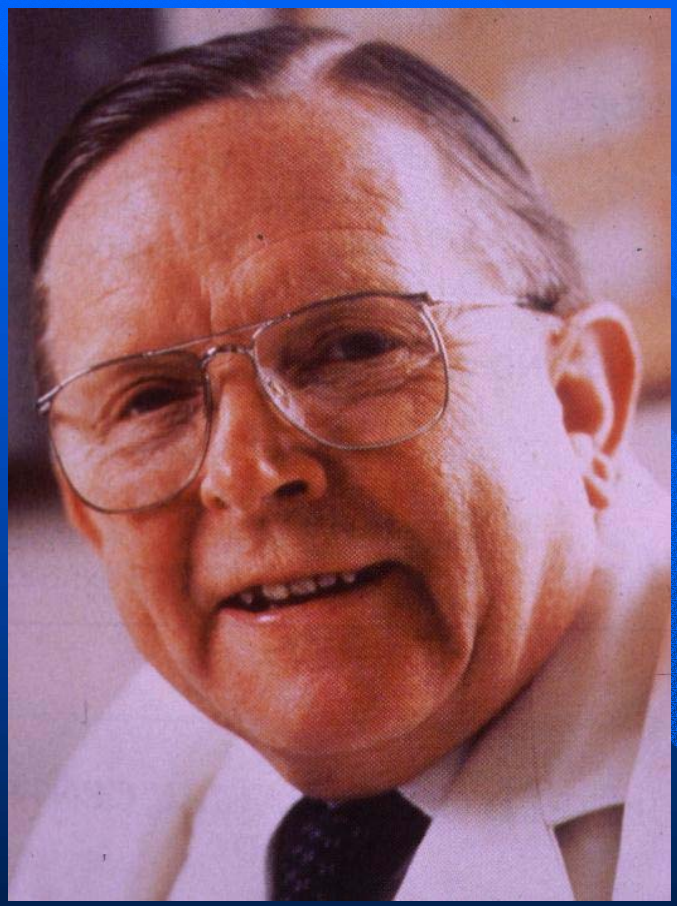
Tracción progresiva y mantenida, con remodelación digital y suave de los fragmentos del EDRadio

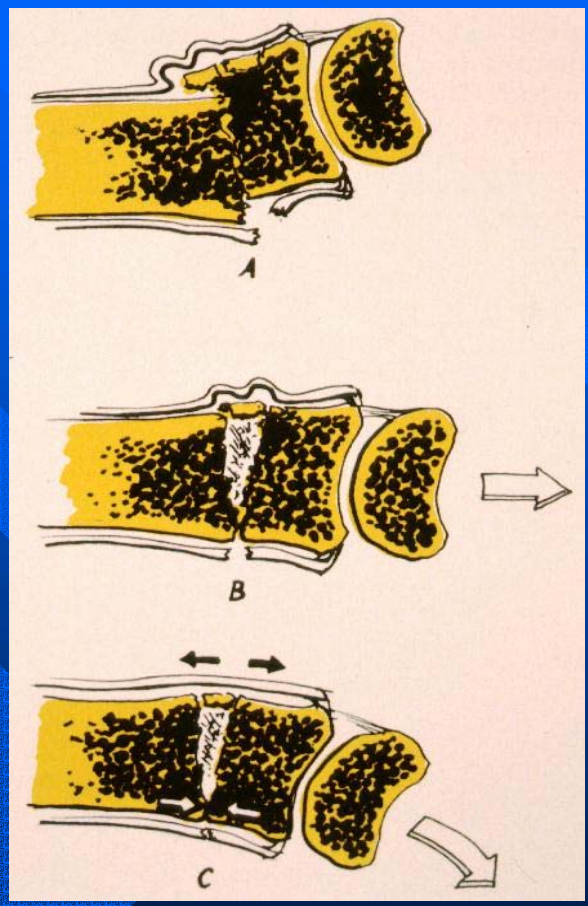
Fractura del E.D.R.

Tracción axial con entre 3 y 6 Kg.
Manipulación suave
Disipositvos de tracción en los dedos (chinesse finguer)



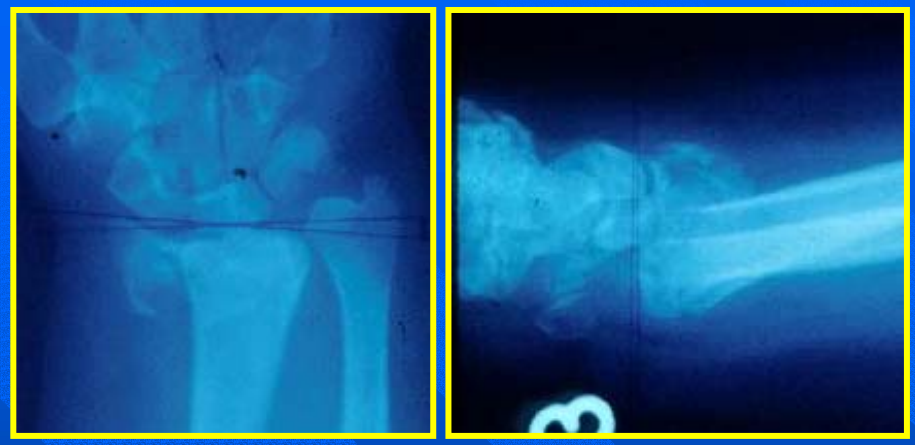
John CHARNLEY



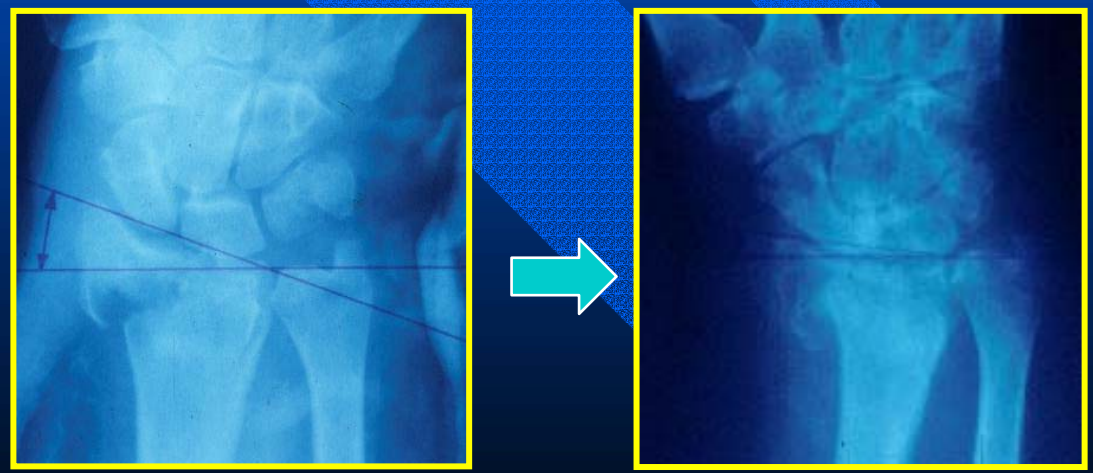


Concepto de fractura por “impactación” o “empotrada”, con pérdida de tejido óseo esponjoso, que provoca la pérdida de la reducción inicial

Pérdida ósea en FEDRA



Rx iniciales



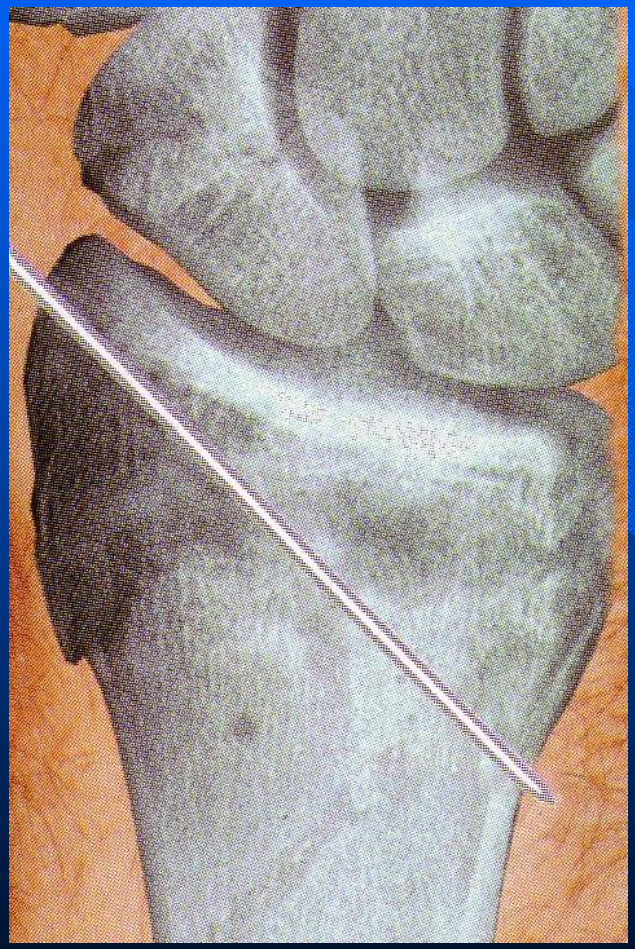
Reducción

colapso final

INDICACIONES PARA EL TRATAMIENTO QUIRURGICO

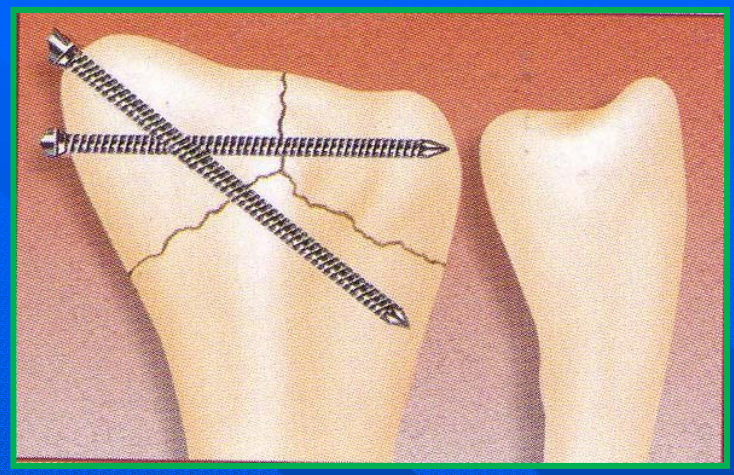
- Lesiones de alta energía
- Fracturas abiertas
- Perdida secundaria de reducción
- Conminución articular, escalón o gap
- Conminución metafisaria
- Incongruencia de la radio-cubital distal

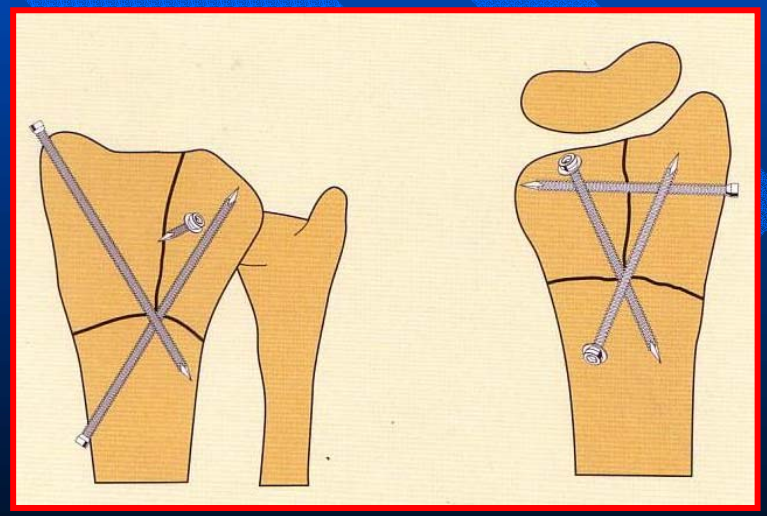
Osteosíntesis con Agujas



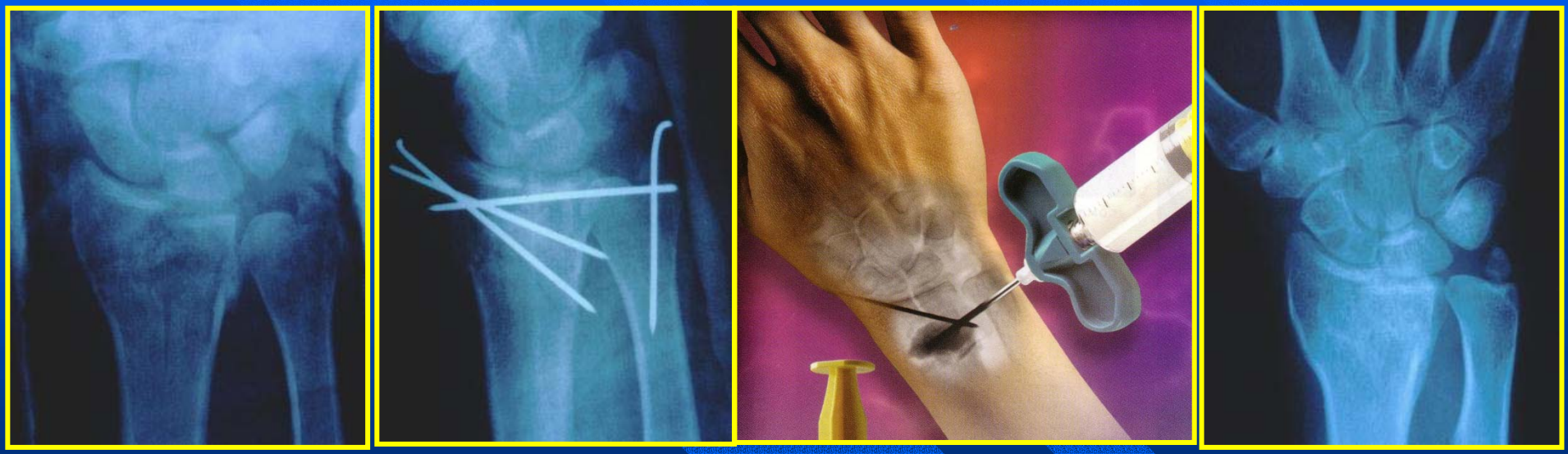
Albin LAMBOTTE
,1908

Osteosíntesis con Agujas

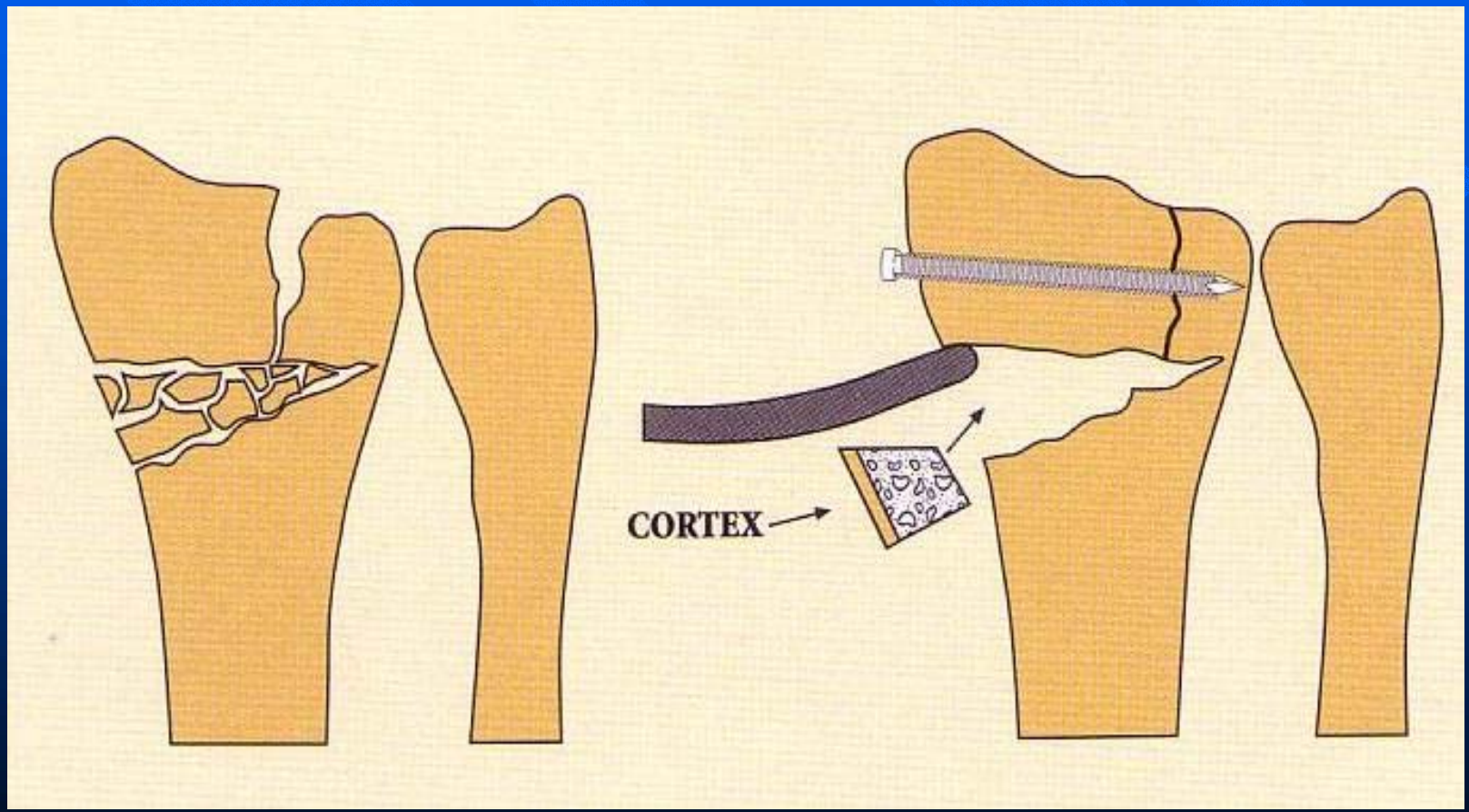




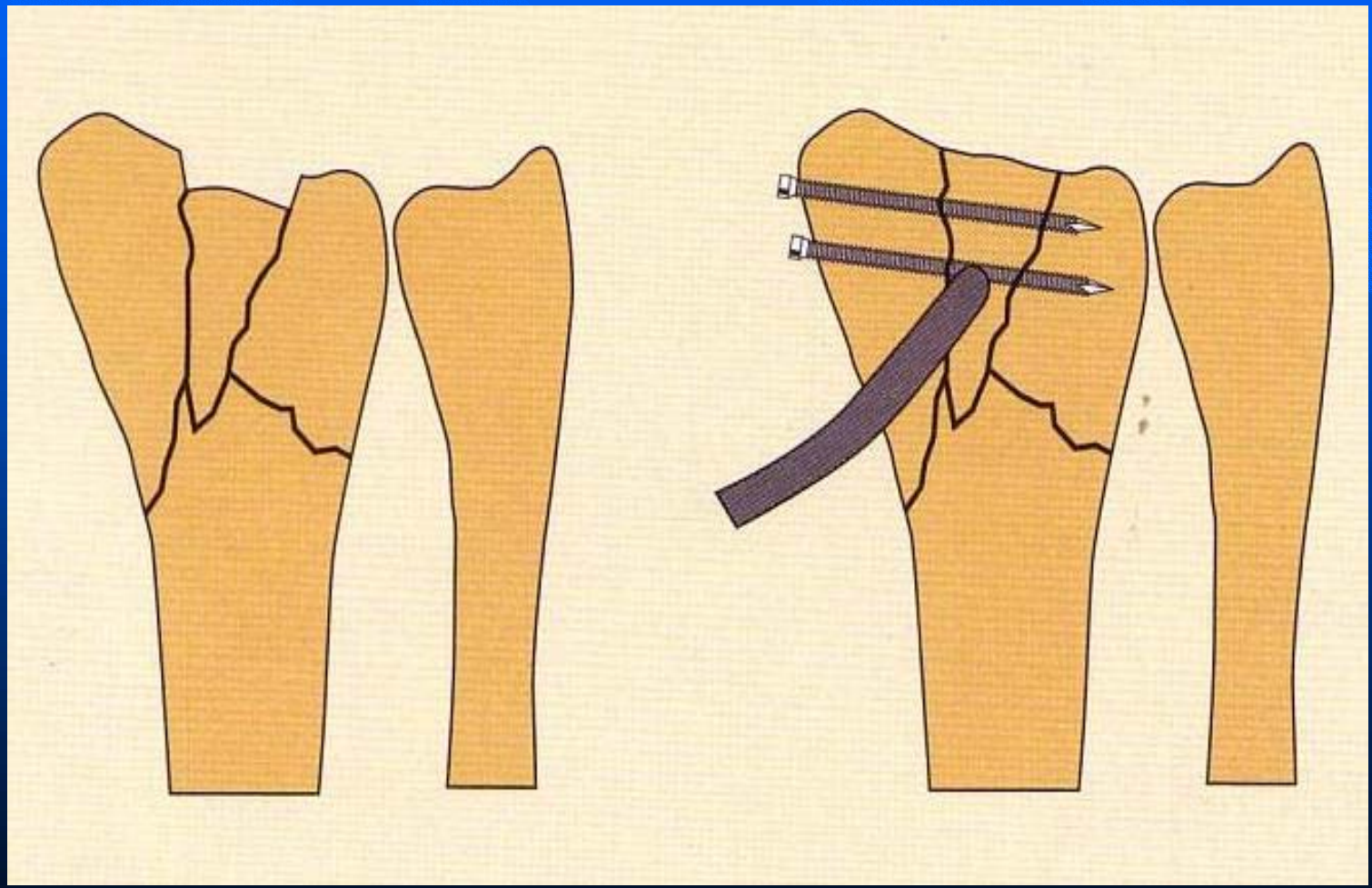
OS K-W + Sustitutivo óseo



Colocación de injerto óseo, para solucionar la pérdida ósea

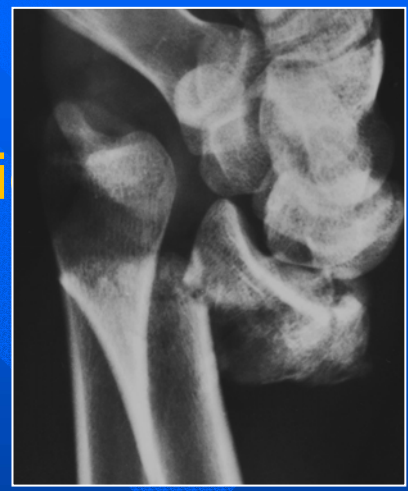


Reducción de fragmento impactado, seguida de osteosíntesis con agujas

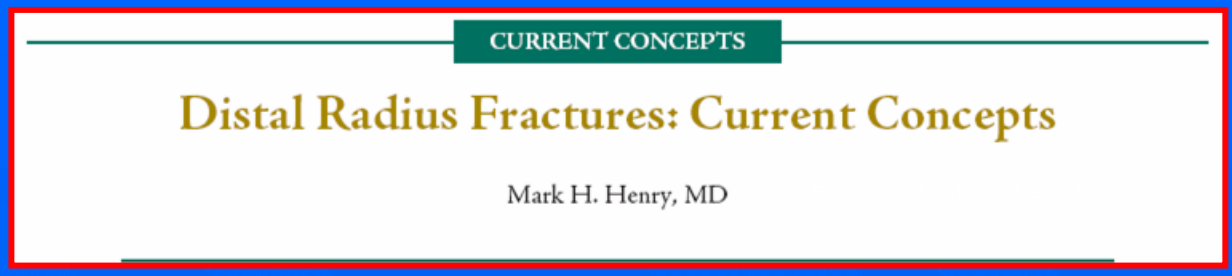


FRACTURAS DE RADIO DISTAL
CRITERIOS RADIOLOGICOS DE INESTABILIDAD

1. **> 20° de angulación dorsal (o palmar)**
2. **Desplazamiento > 2/3 del ancho diafisari**
3. **Conminución metafisaria**
4. **> 5mm acortamiento**
5. **Fragmentación intrarticular**
6. **Fx cúbito distal asociada**
7. **Osteoporosis**



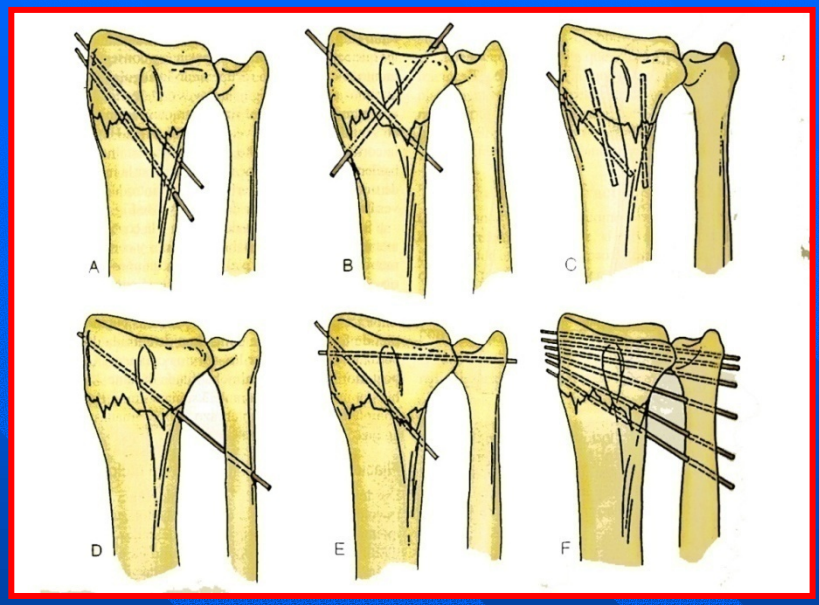
Vaughan. JBJS-Am, 1985

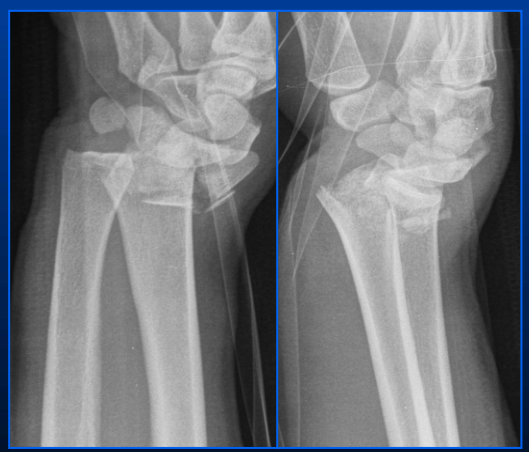


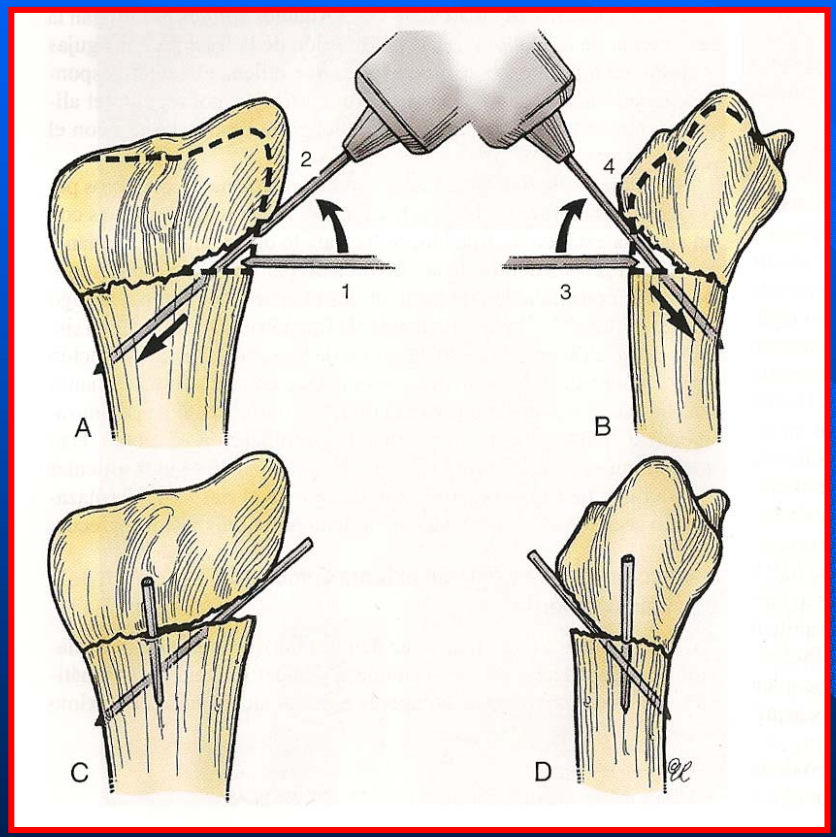
	INESTABILIDAD ARTICULAR=NO	INESTABILIDAD ARTICULAR=SI
Incompetencia metafisaria= No	**Yeso/fijación percutánea con agujas**	**Fijación fragmentos específicos**
Incompetencia metafisaria=Si	**FE +/- AK**	**RAFI con placas**

- Inestabilidad articular: Restaurar las relaciones articulares interfragmentarias
- Incompetencia metafisaria para transmitir carga: estabilidad axial y soporte subcondral hasta consolidación metafisaria

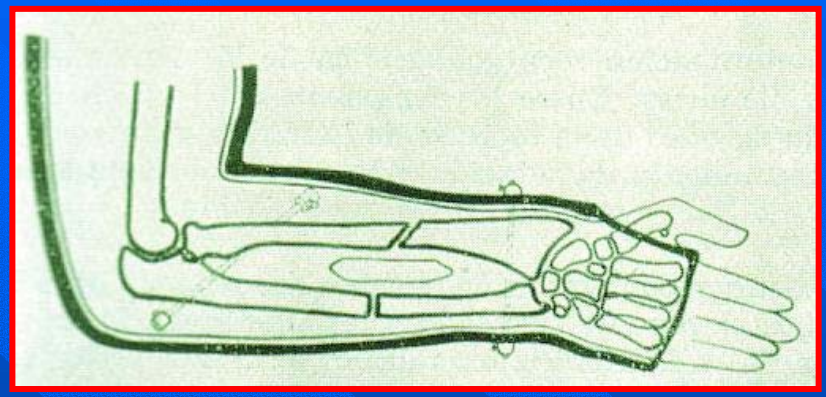
Enclavado percutáneo

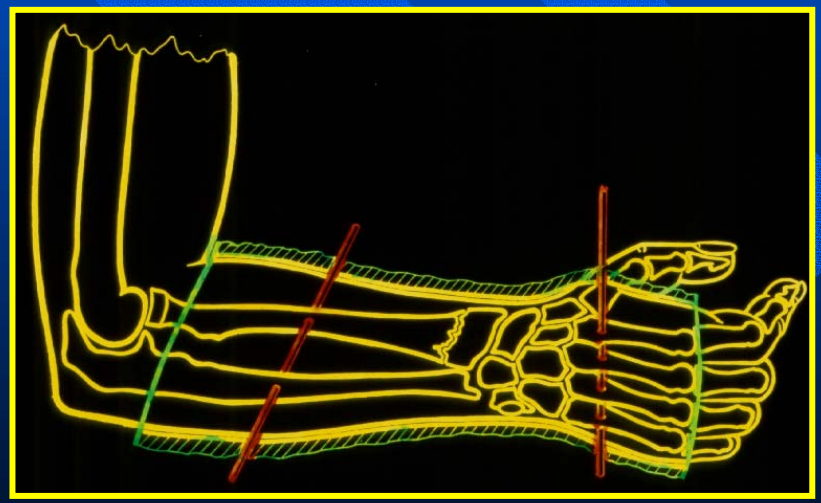





2
4
1
3
A
B
C
D

Prof. L. BÖHLER
TBK

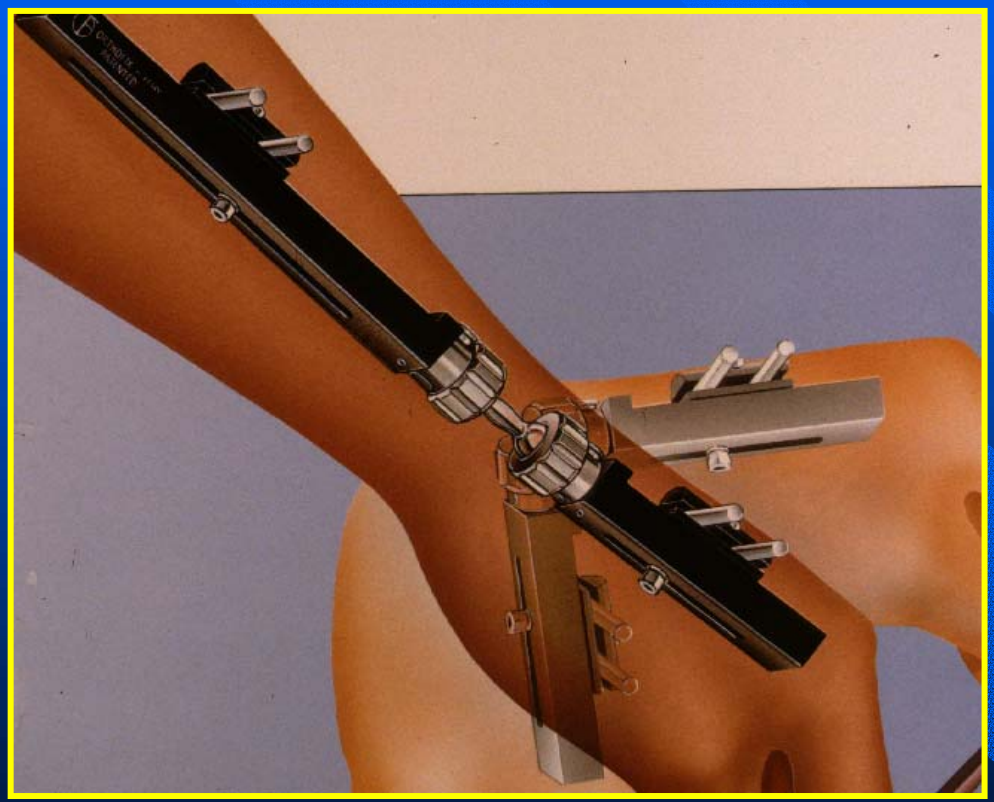


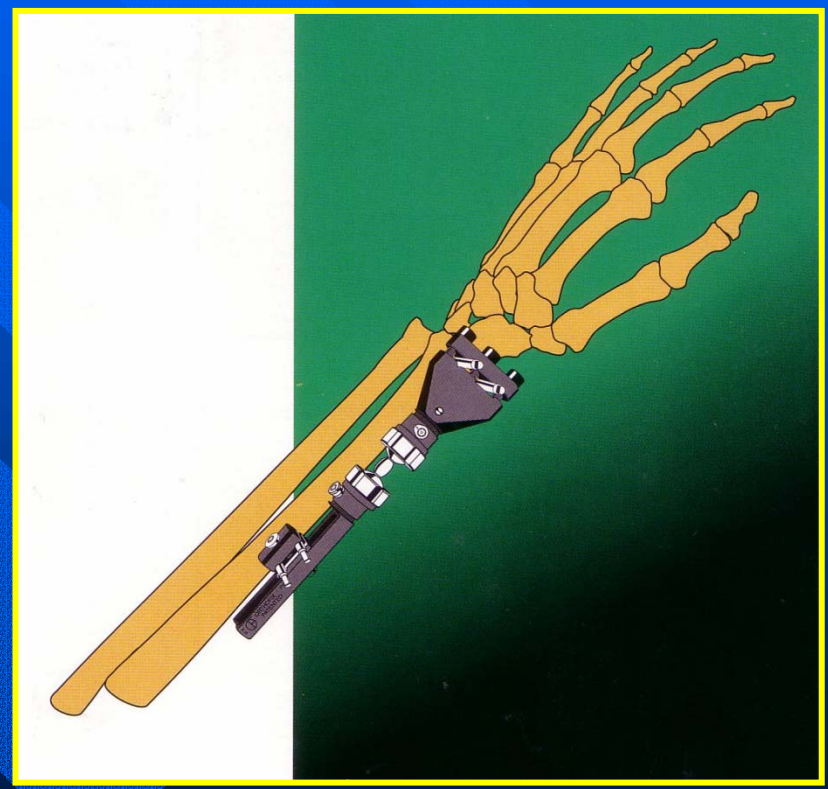


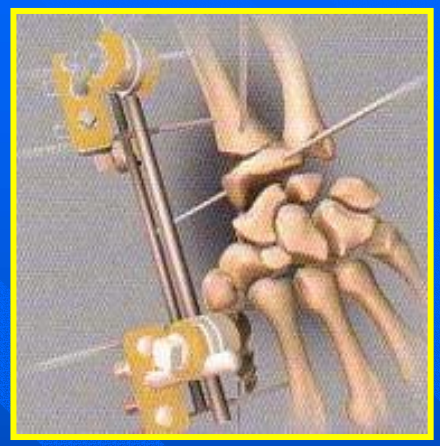
TBK

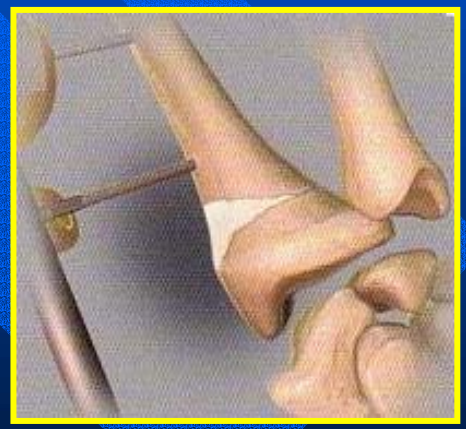
Rx final (al año de la lesión)

Fijador externo Orthofix

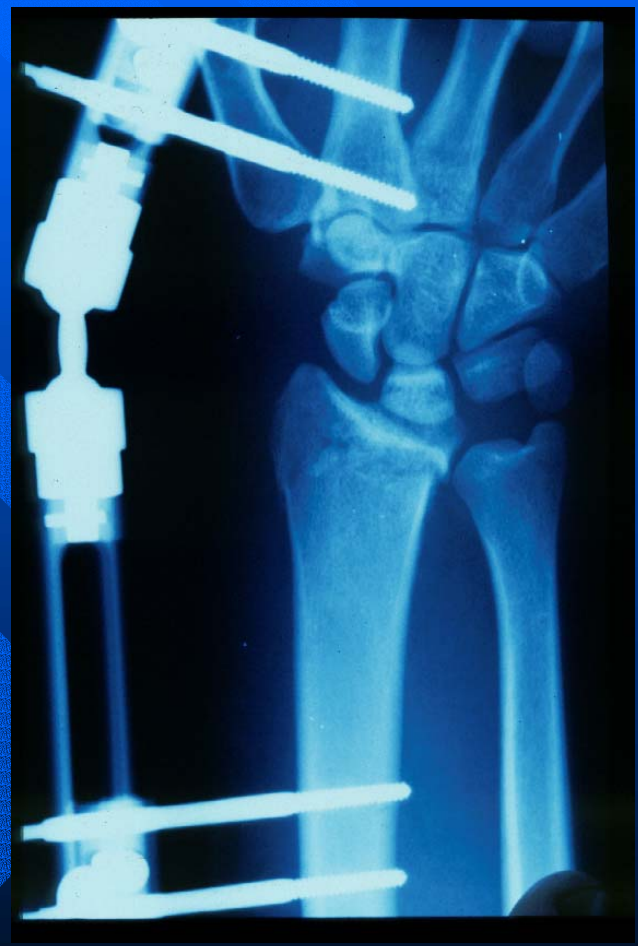




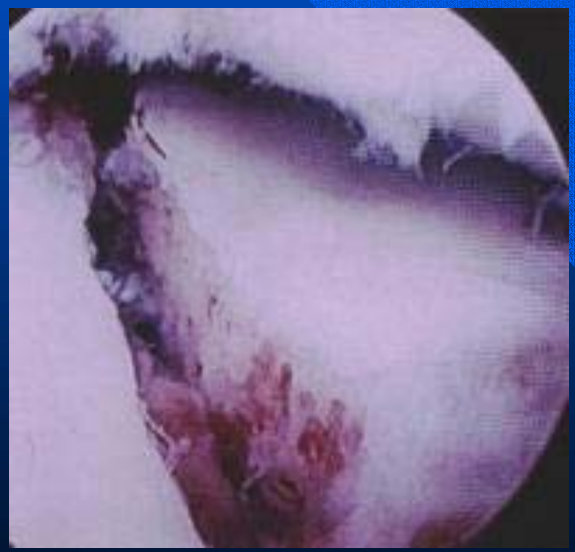


Fijador externo, tipo Pennig

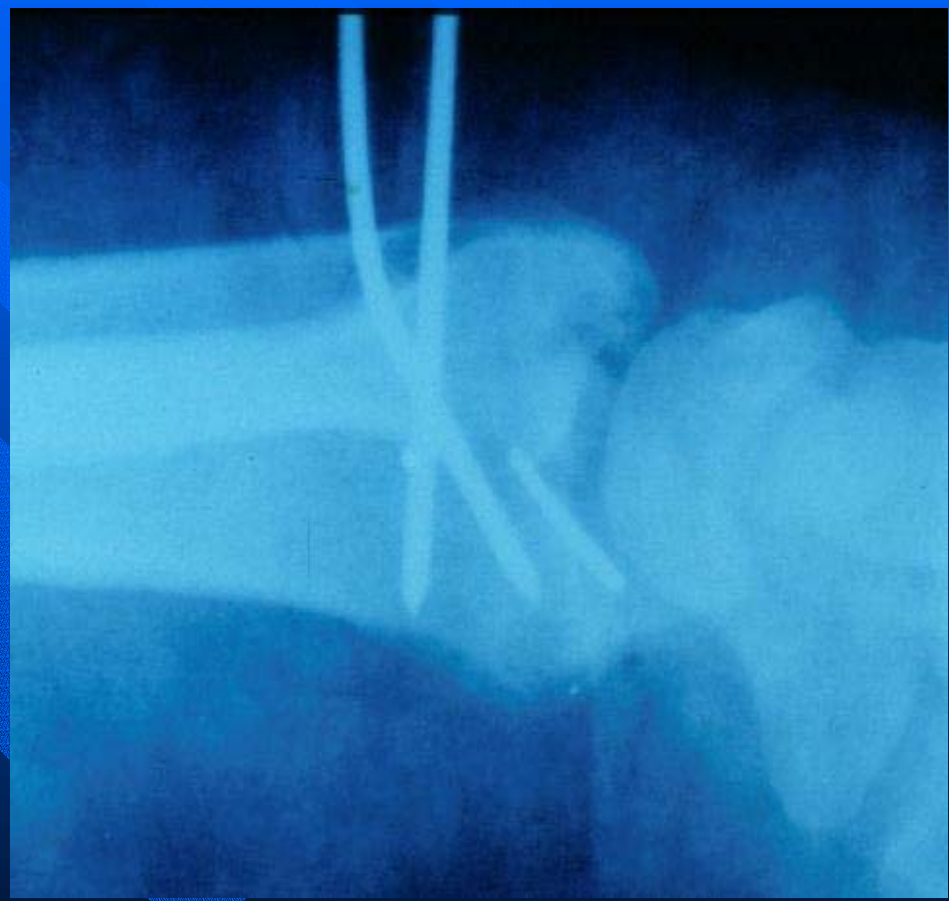


K-W + fijador externo


ARTROSCOPIA
DE
MUÑECA



FEDR - ARTROSCOPIA

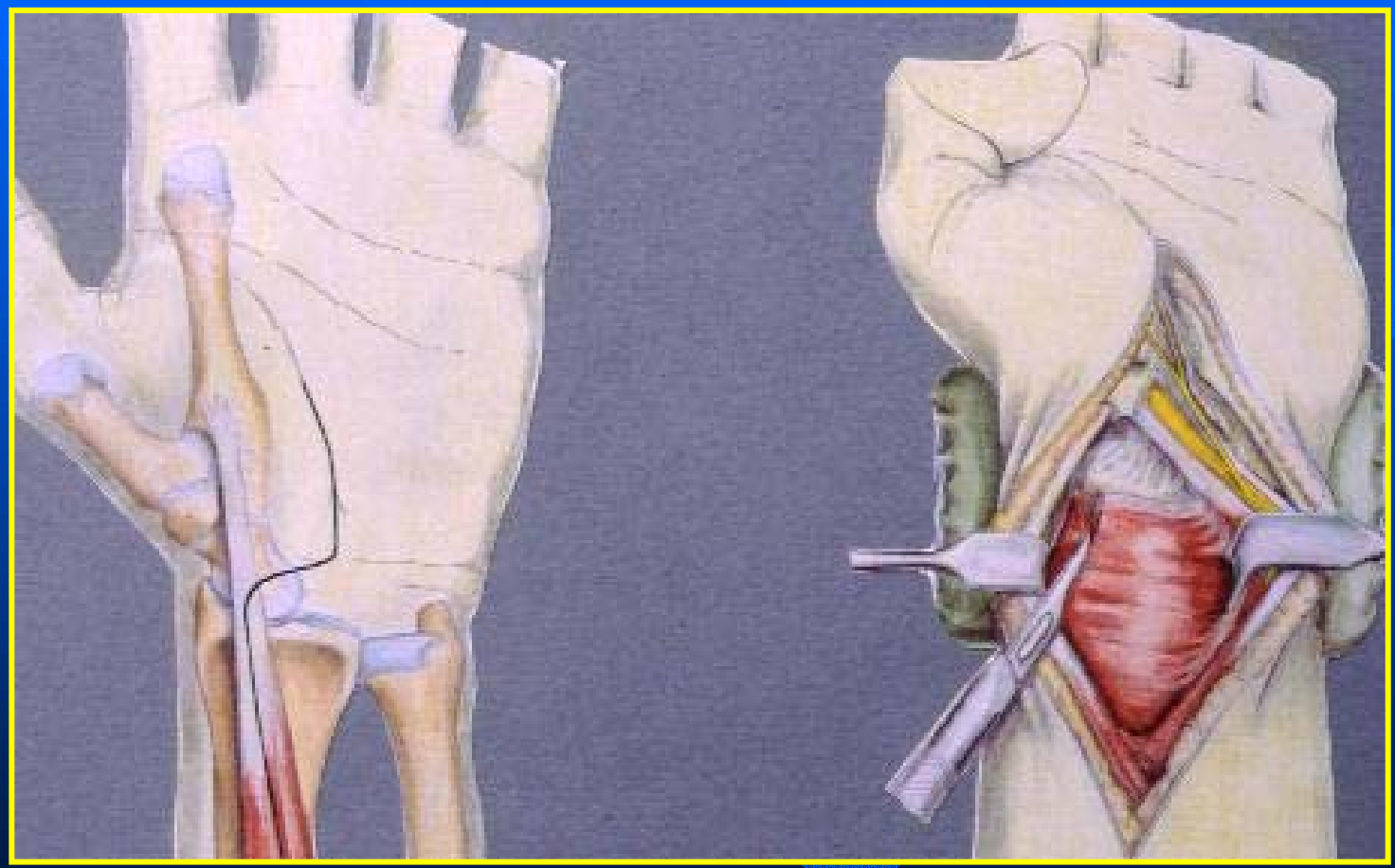


Reducción con agujas percutáneas,
bajo control de Rx y artroscópico

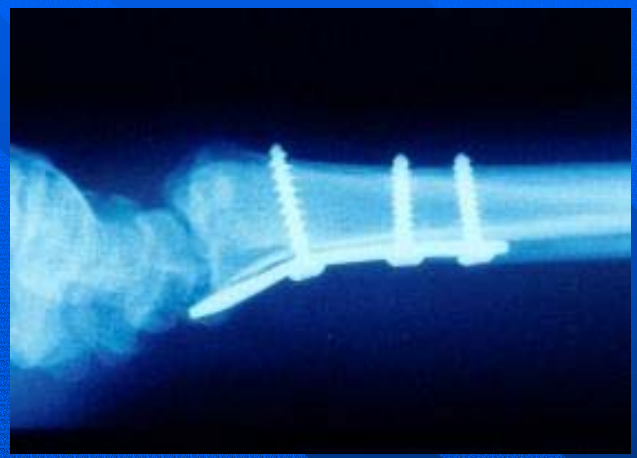
FEDR - ARTROSCOPIA

Control de Rx tras retirar las agujas de Kirschner

OSTEOSÍNTESIS con PLACAS

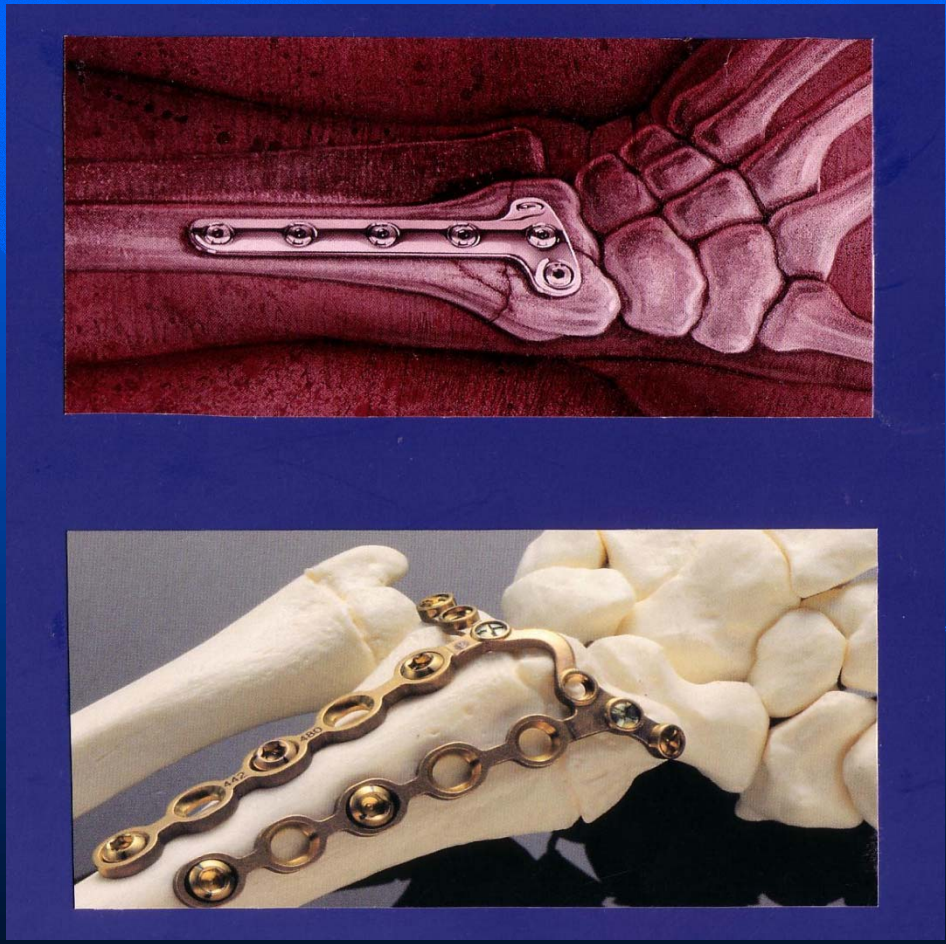


Placa “buttress” o de “soporte”

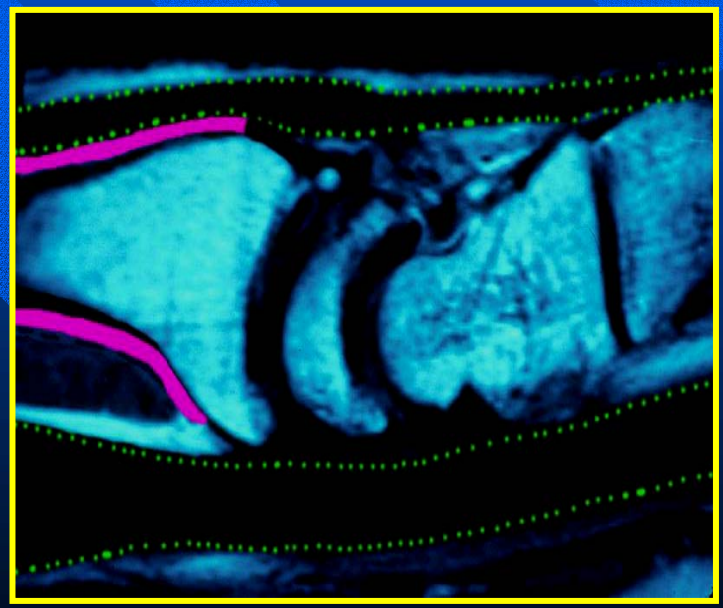


Placa volar + K-w

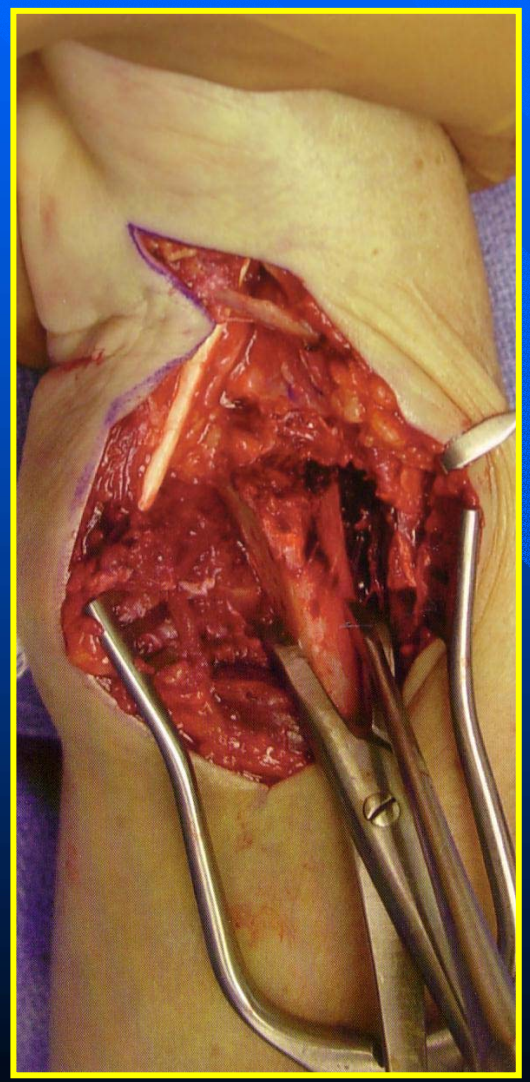
Placas Dorsales

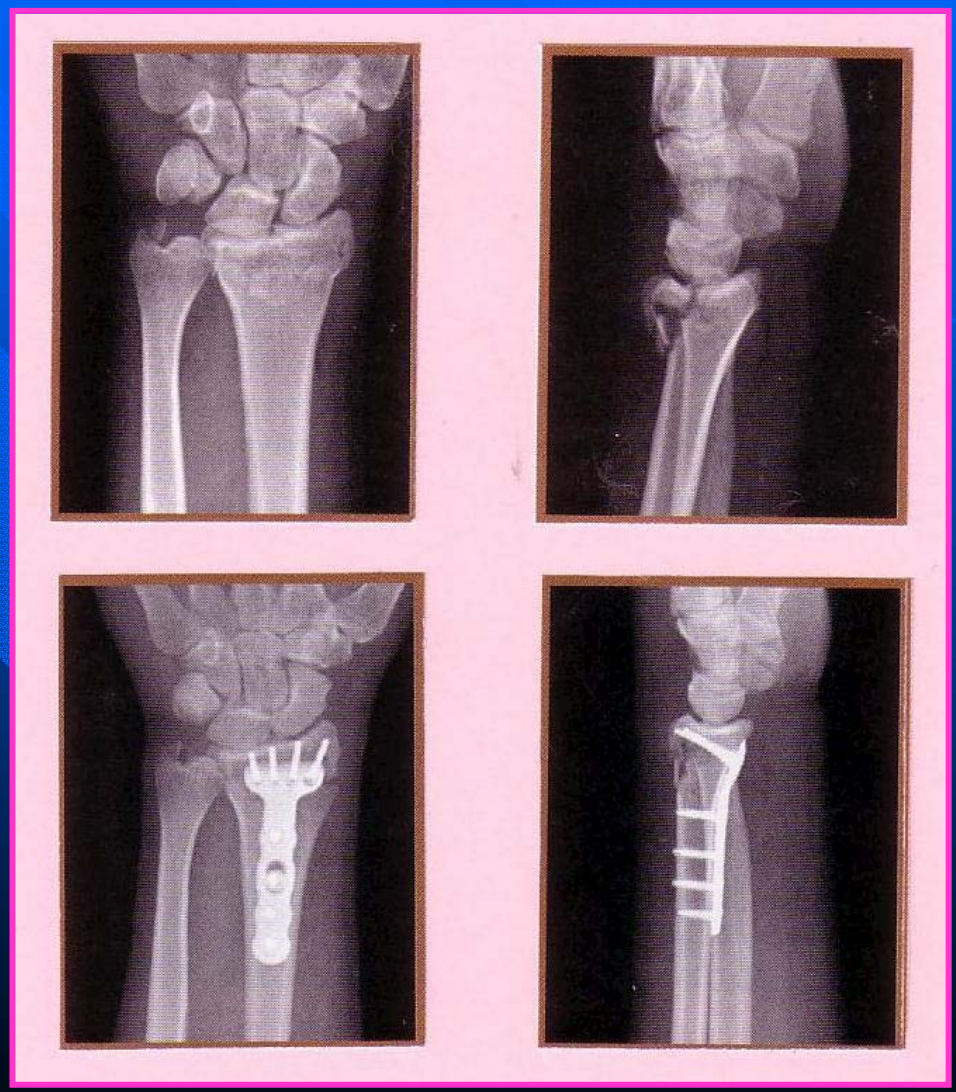


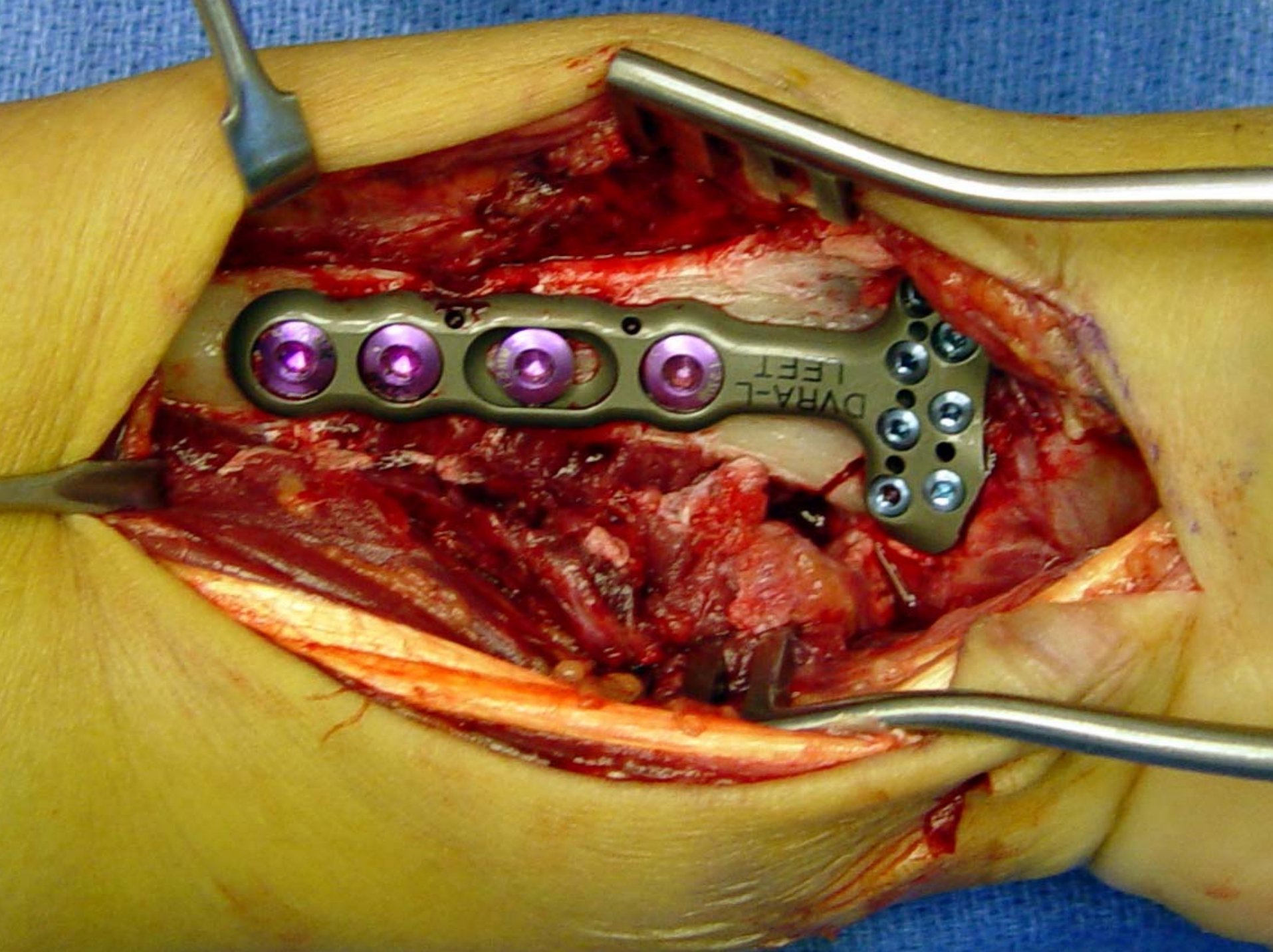
Placa Volar



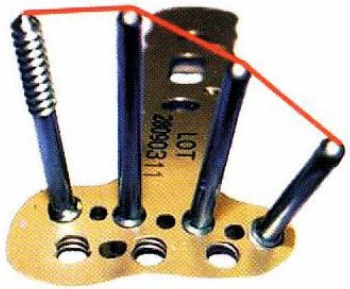
Placa volar (Dr. Jorge Orbay)





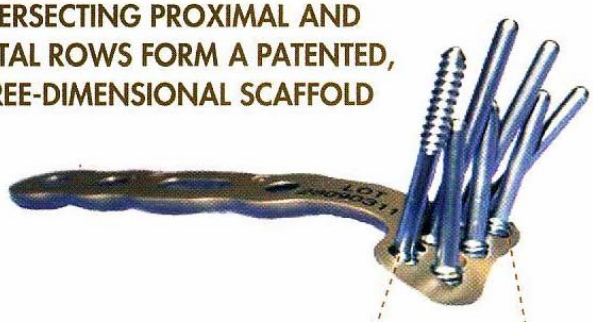

DVR A-L
LEFT

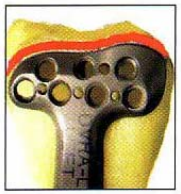
Placa de ORBAY



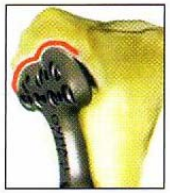
PRECISE PRE-DEFINED ANGLES
Optimally supports subchondral bone

INTERSECTING PROXIMAL AND DISTAL ROWS FORM A PATENTED, THREE-DIMENSIONAL SCAFFOLD

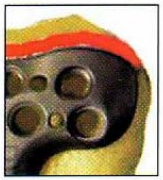




WATERSHED LINE
Natural landmark for the most distal plate positioning in order to prevent flexor tendon contact

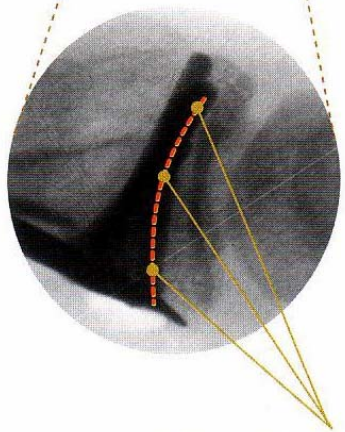


ANATOMIC UNDER-SURFACE
Contoured to match distal volar radius topography



ULNAR ASPECT
Maximum buttress for volar marginal fragment

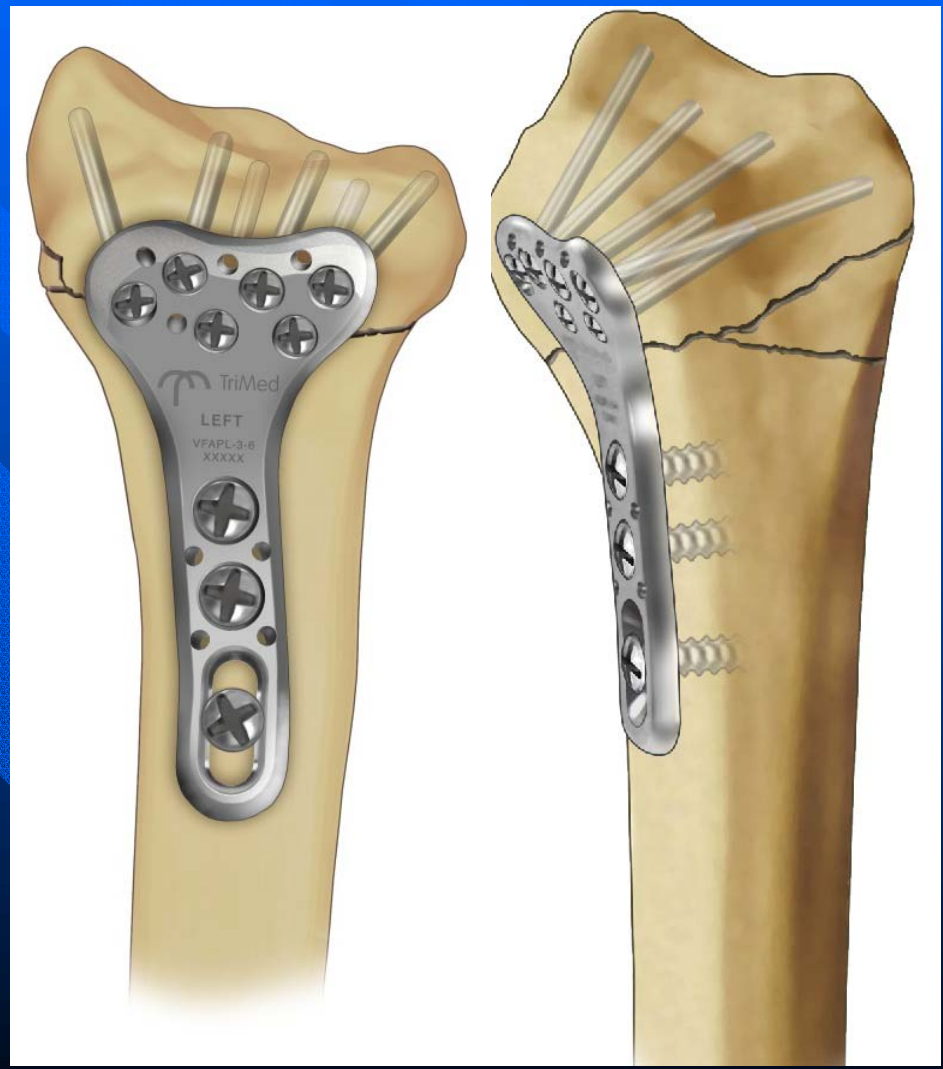
FIXED ANGLE PROVISIONAL FIXATION
Maintains reduction during plate application



THREE-DIMENSIONAL, TANGENTIAL, SUBCHONDRAL SUPPORT

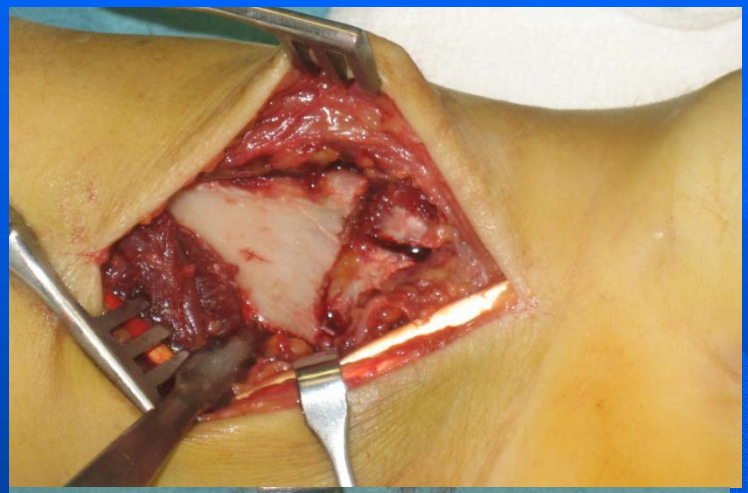
Tornillos bloqueados
de ángulo fijo

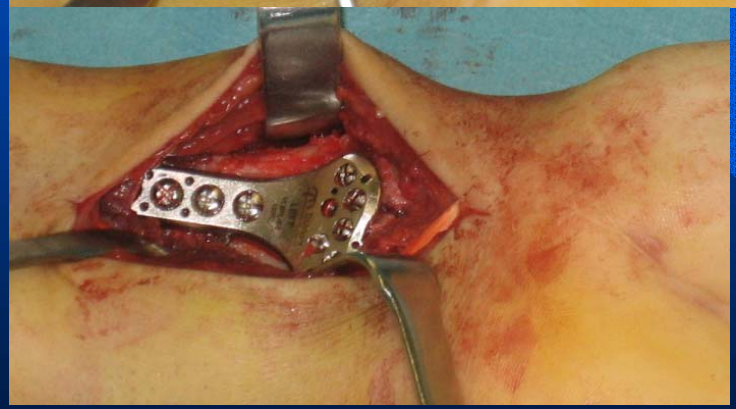
Placas de ángulo fijo

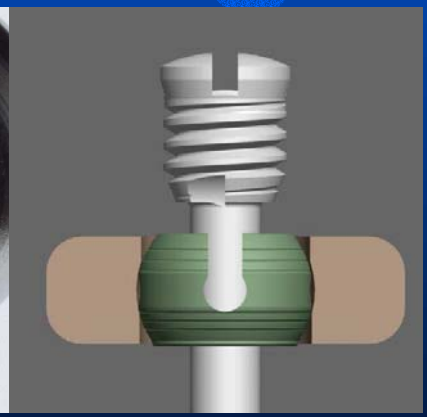


La estabilidad se logra permitiendo el puenteo mecánico del hueso y el soporte de carga a través de la estructura tornillo-placa bloqueada .

Placas de ángulo fijo

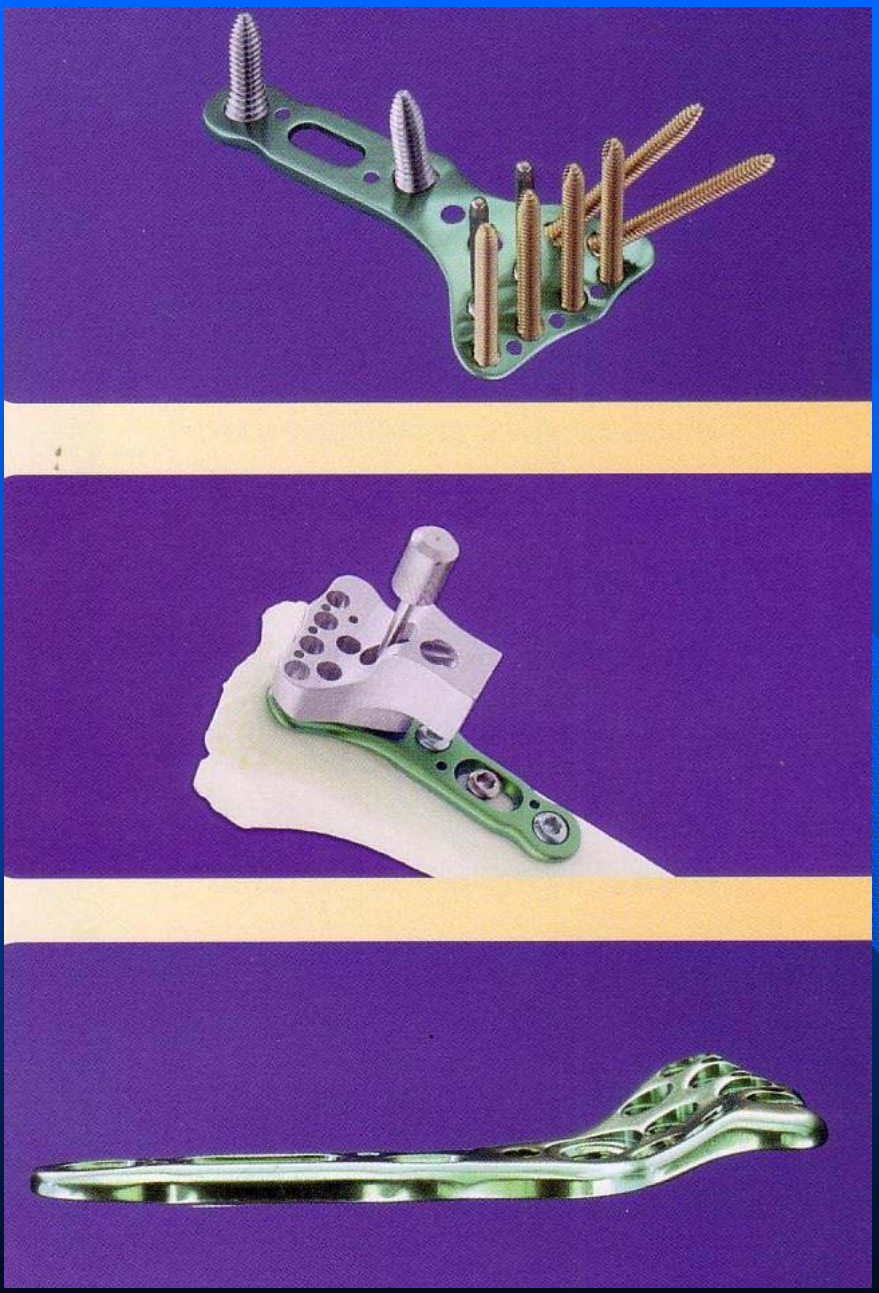


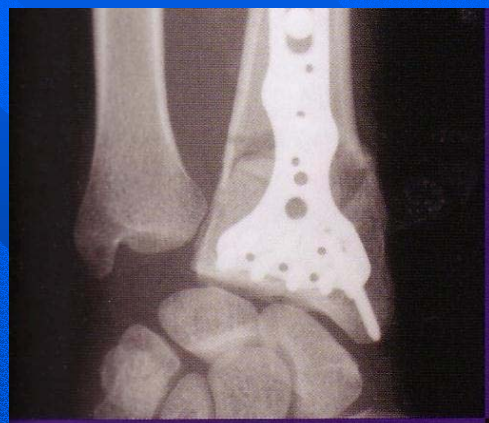


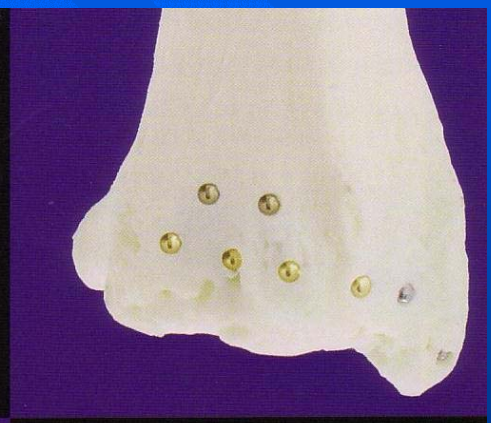


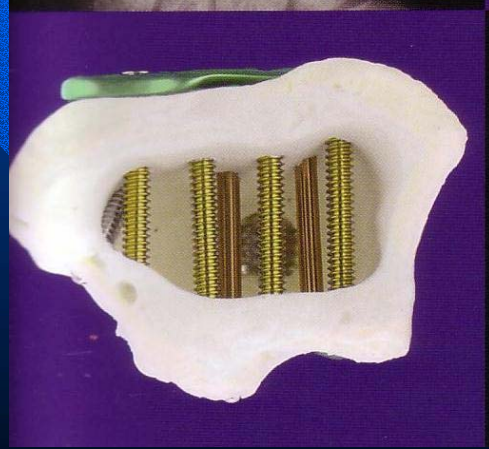
Los tornillos con cabeza bloqueante no dependen de la rosca en el hueso para el agarre.
Los tornillos que se bloquean en la placa impiden el aflojamiento dentro del implante.

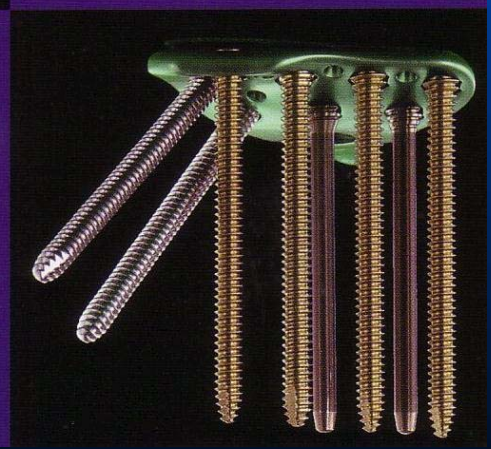
Placa ACUMED



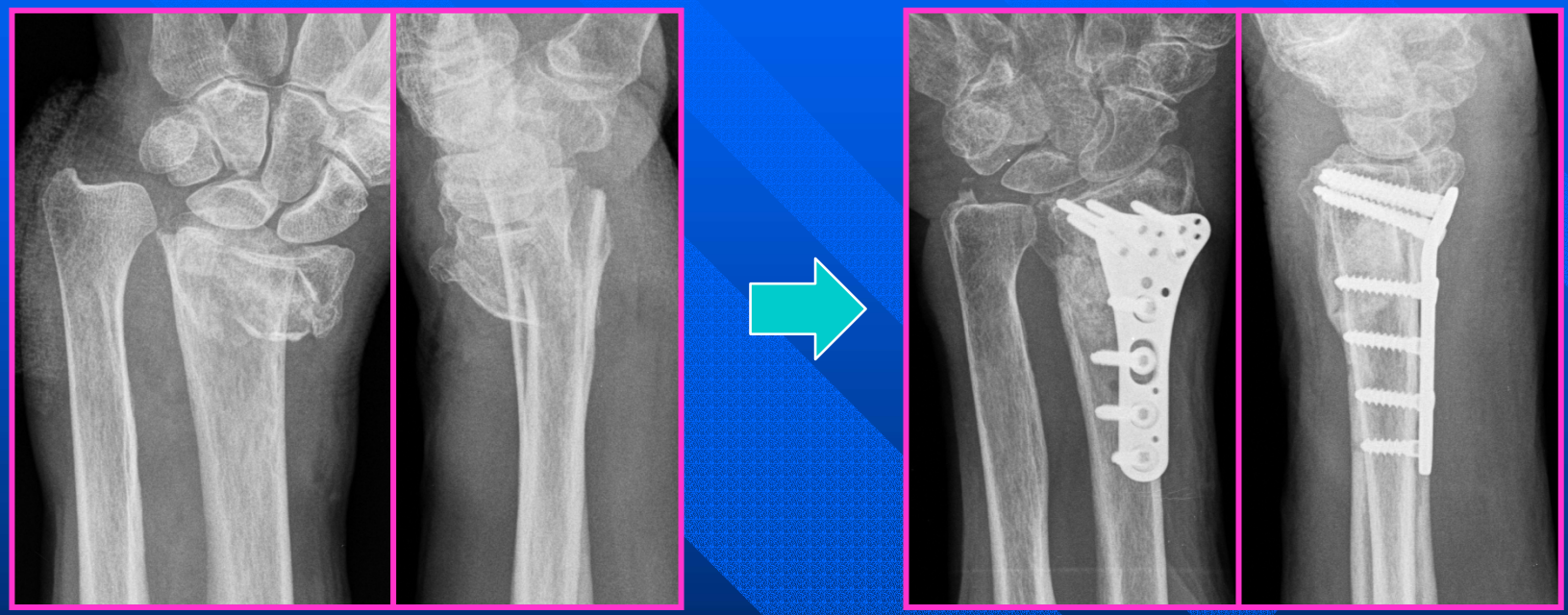




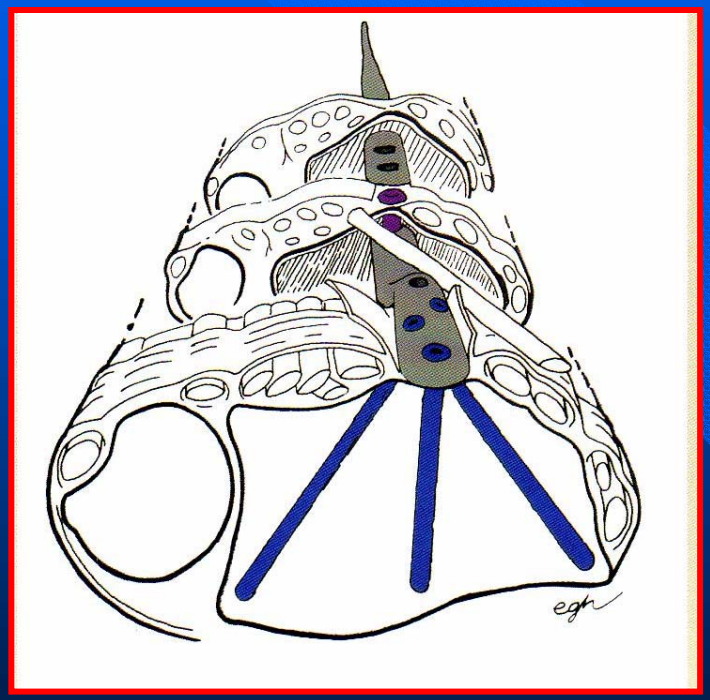


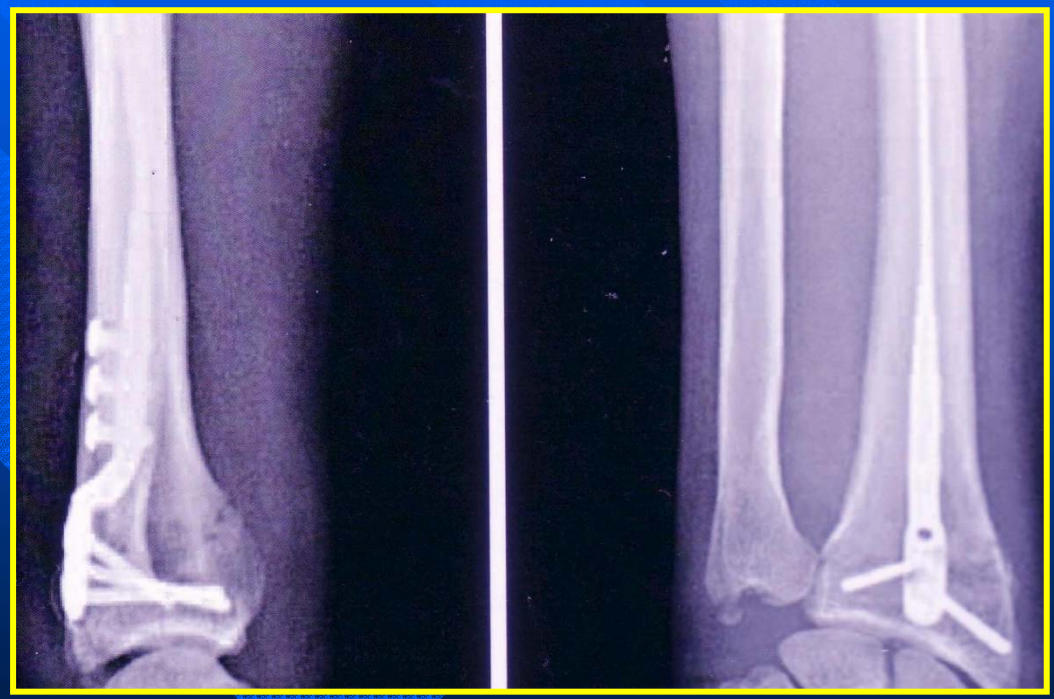


ORIF en paciente de edad avanzada

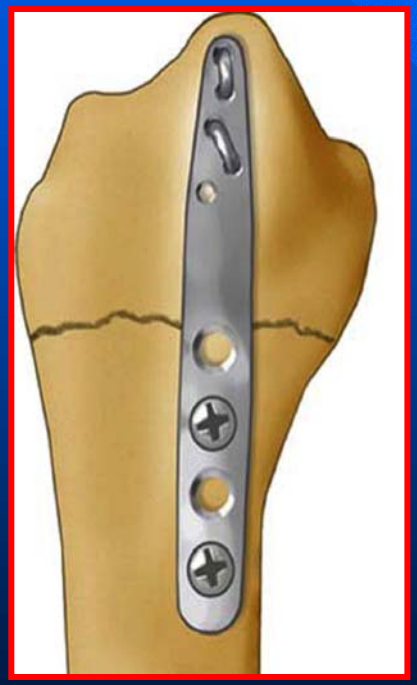


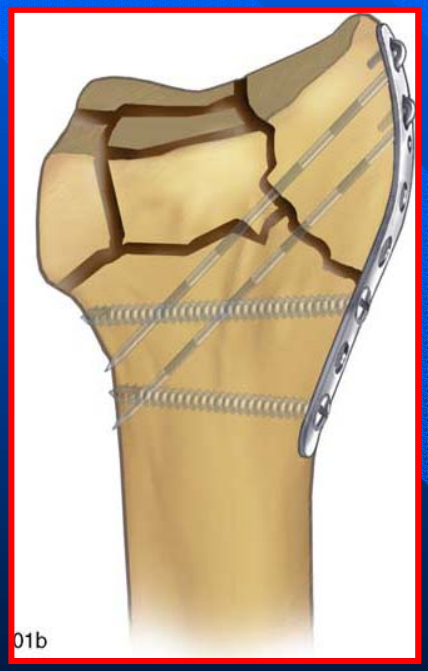
Placa tipo “lagartija” (Miami Hand Center)

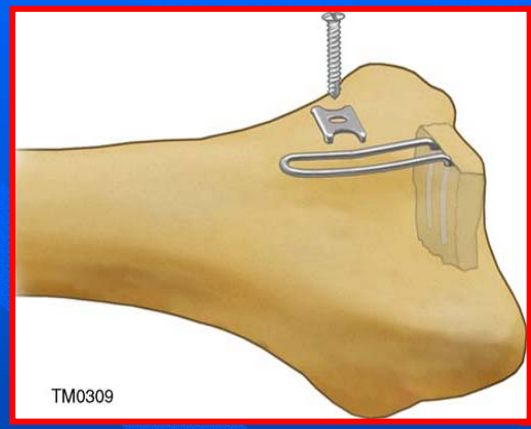


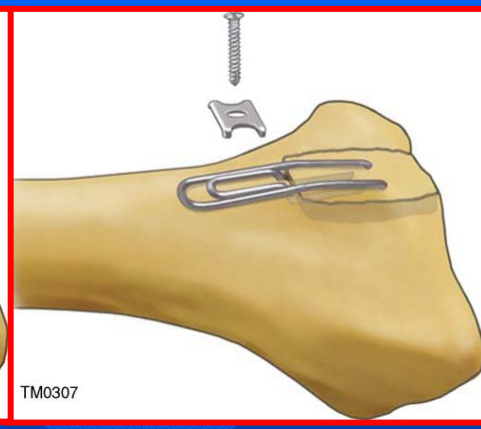


SISTEMAS DE FIJACIÓN DE FRAGMENTOS ESPECIFICOS









FEDRA & STC

- En 12 de 60 casos, de baja energía y tratadas de forma conservadora
- No relación con el tipo de fractura
- Probable relación con la posición de inmovilización (Cotton-Lader)
- Probable relación con la inyección de anestésico local

Bienek et al, “Peripheral nerve compression neuropathy after fractures of the distal radius” J. Hand Surg. 2006, 31 B, 256-260

FEDRA + RIZARTROSIS

No inmovilizar el pulgar

CONCLUSIONES

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