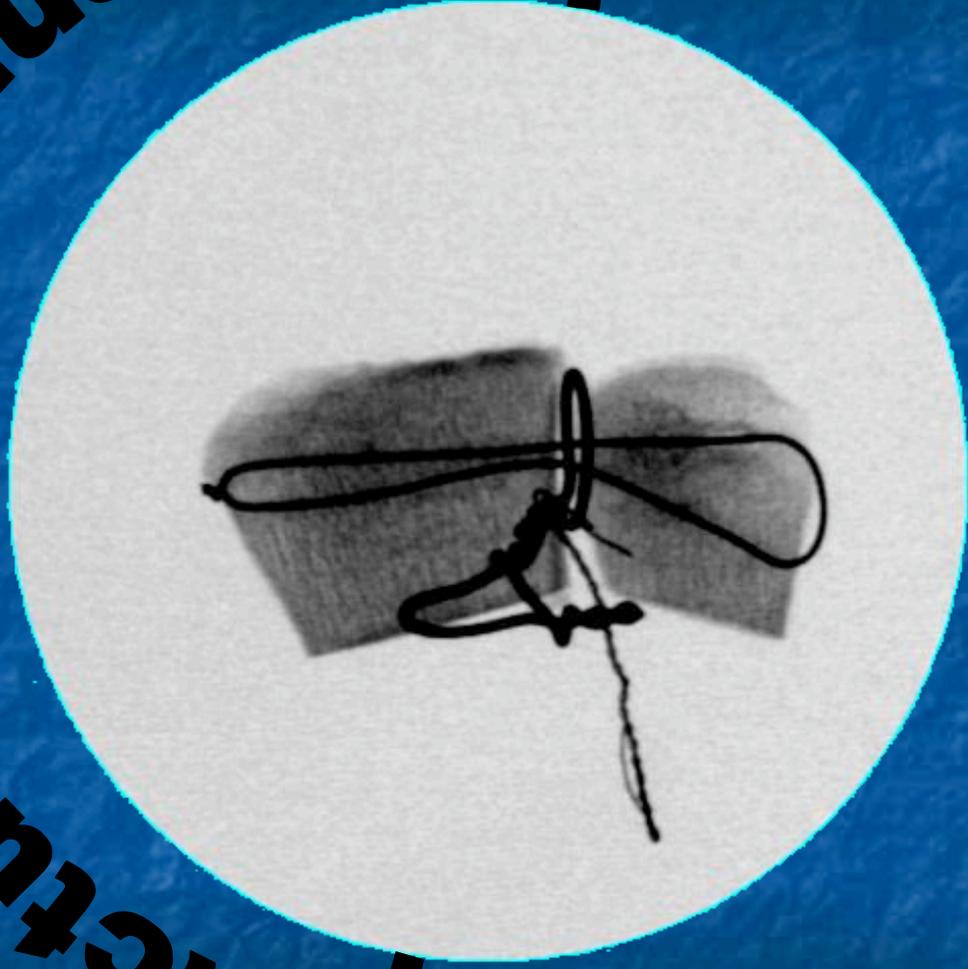


Fractures de la main

Fractures du radius distal





HISTORIQUE



Hippocrate
luxations



Pouteau
Mort en 1775



Colles
Né en 1773

Oeuvres posthumes de M Pouteau : mémoire, contenant quelques réflexions sur quelques fractures de l'avant-bras sur les luxations incomplètes du poignet et sur le diastasis. Paris: Ph-D Pierres, 1783.



EPIDEMIOLOGIE

Véritable pandémie

35 000 cas / an France

240 000 cas / an USA





MECANISMES

Femmes post ménopausées : Chute sur la main
Hommes jeunes : Haute vélocité

Hyperextension (déplac. dorsal)



Hyperflexion (déplac. palmaire)



Inclinaison radiale (cunéenne ext)





MECANISMES



■ ANATOMIE





MECANISMES



■ THEORIES

POUTEAU (1783)
theory

DESTOT (1923)
theory

LEWIS (1950)

muscular

compression

cantilever beam theory

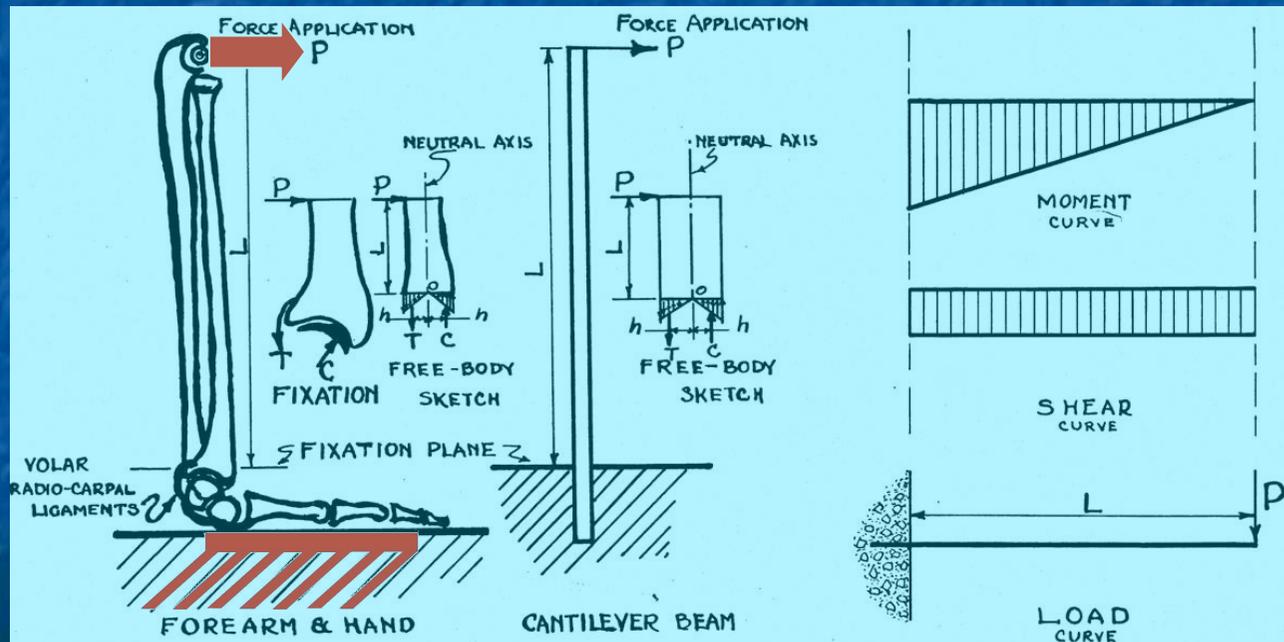




MECANISMES



■ LEWIS (1950)





MECANISMES



- CASTAING (1964)





MECANISMES



■ DEPLACEMENTS



PROBLEME DE L'OSTEOPOROSE

■ HISTORY

1829-1896

anatomical

LOBSTEIN (1829)

1896-1980

radiological

P & M CURIE (1903)

1980-200?

osteodensitométric

DEXA

200?-????

biomechanical

?



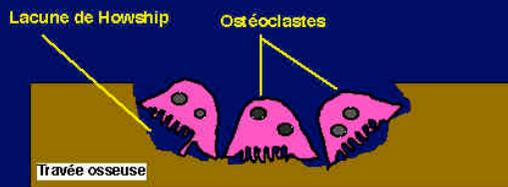
PROBLEME DE L'OSTEOPOROSE

■ PROBLEM OF BONE REMODELING ?

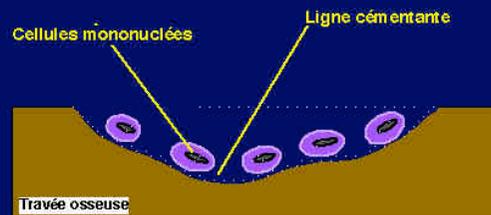
Séquences du remodelage osseux:1



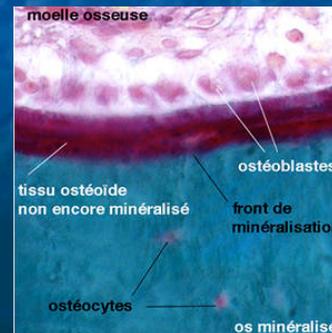
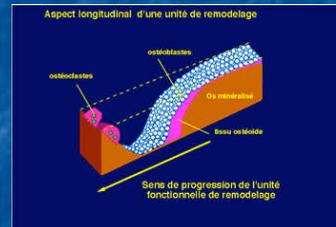
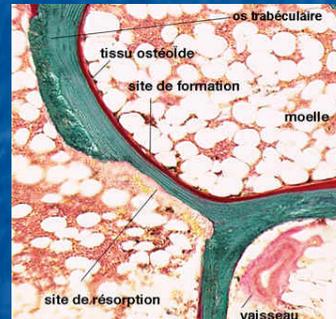
-1- quiescence -2- Activation



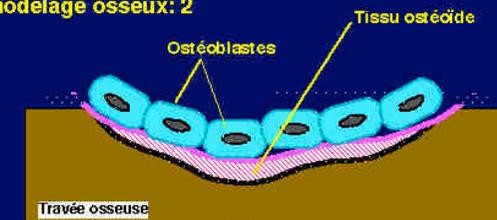
-3- Résorption



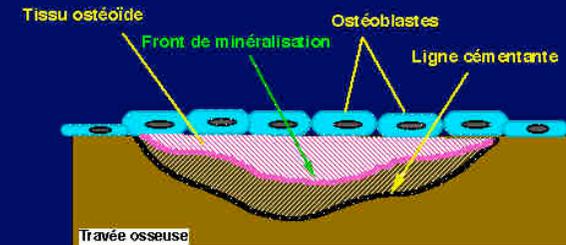
-4- Réversion



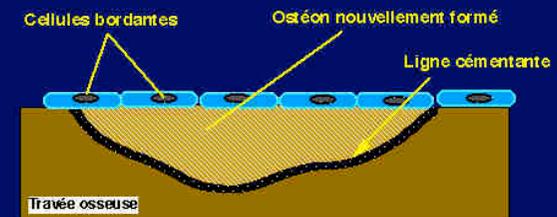
Remodelage osseux: 2



-5- Formation: première étape: phase de synthèse de la matrice ostéode



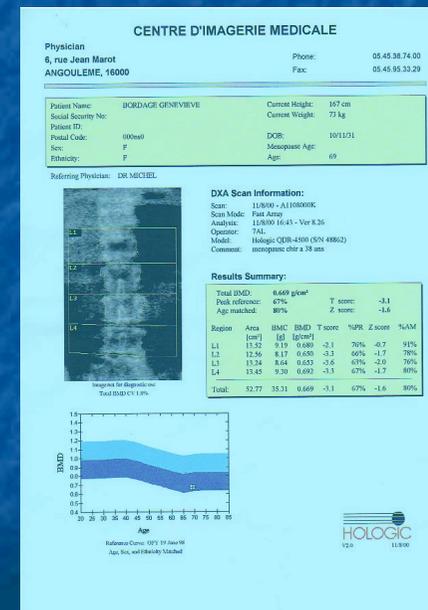
-6- Formation: deuxième étape: phase de minéralisation de la matrice



-7- Quiescence

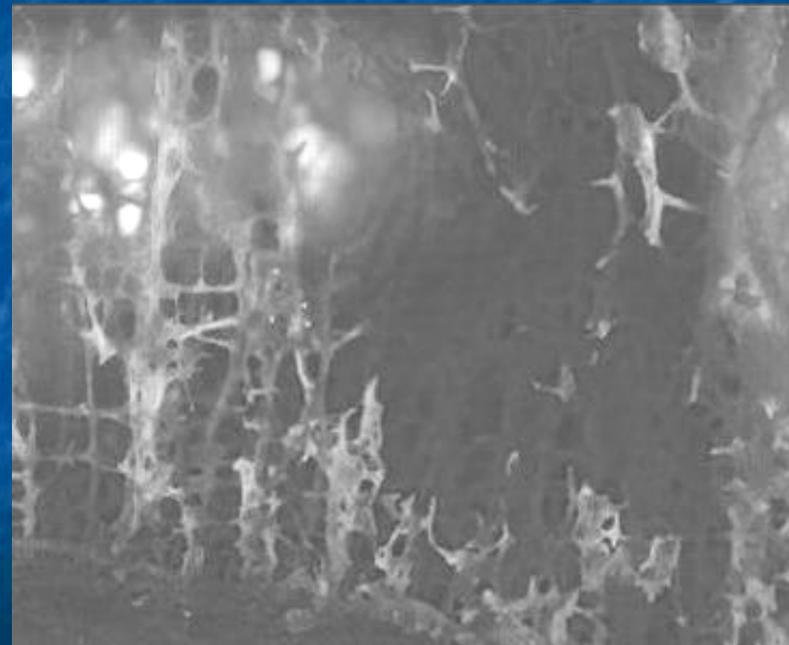
PROBLEME DE L'OSTEOPOROSE

- PROBLEM OF BONE DENSITY ?
- DEXA RUSSO et al (2003)
- only Mg/cm^2
- only Bone Density
- No cortical Bone Density
- No trabecular Bone Density
- No mechanical properties



PROBLEME DE L'OSTEOPOROSE

- PROBLEM OF ARCHITECTURE ?
- RIGGS & MELTON (1992)



PROBLEME DE L'OSTEOPOROSE

- PROBLEM OF BIOMECHANICS ?



MERCI

