Available Surgical Material: From Stiches to Metal to Absorbable

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6th Advanced Course on Knee surgery
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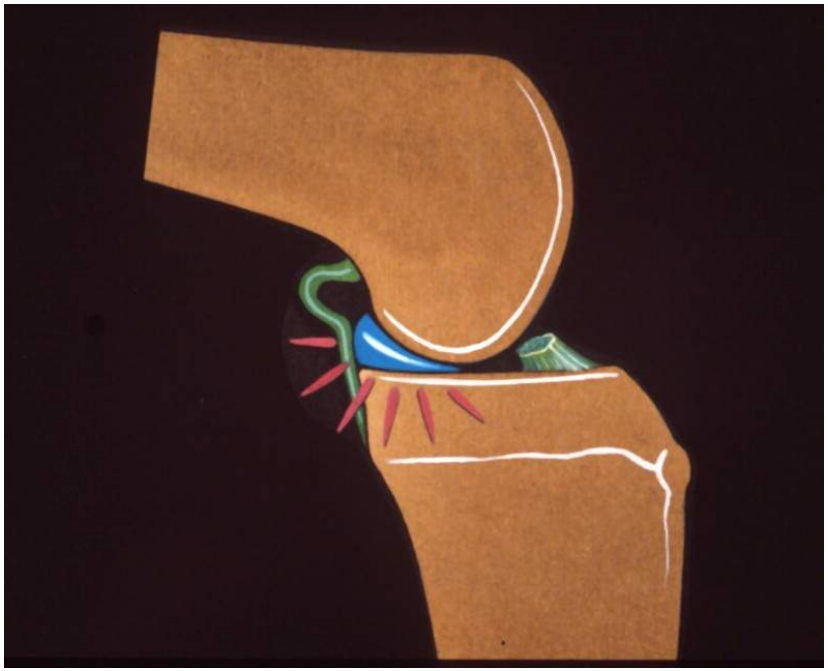
CENTRE OSTÉO-ARTICULAIRE DES CÈDRES

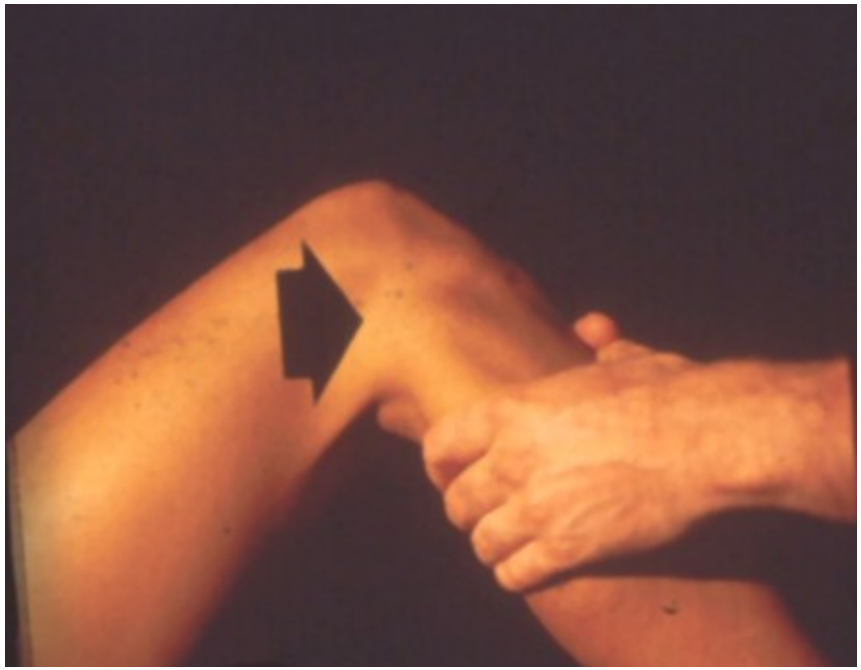

NORWAY

History: What I’ve learn from him

1974

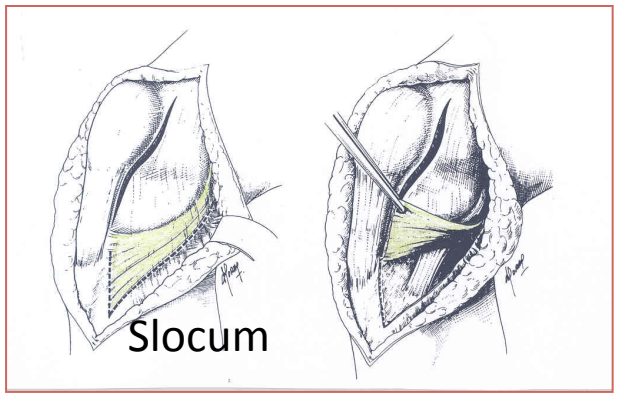
At that time the test to diagnose an ACL insufficiency was: the anterior drawer at 90° of flexion.

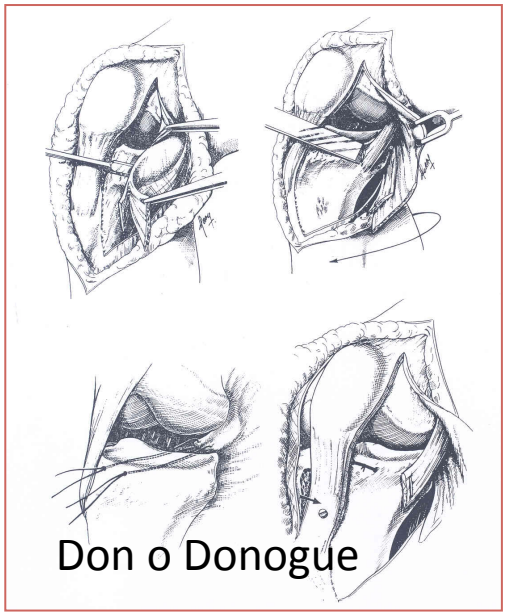


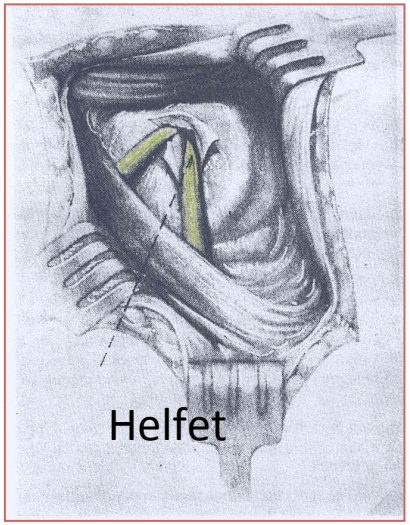


1974

“We operated patients with positive anterior drawer test and the surgery was done to try to treat it (postero medial, medial reconstruction) »



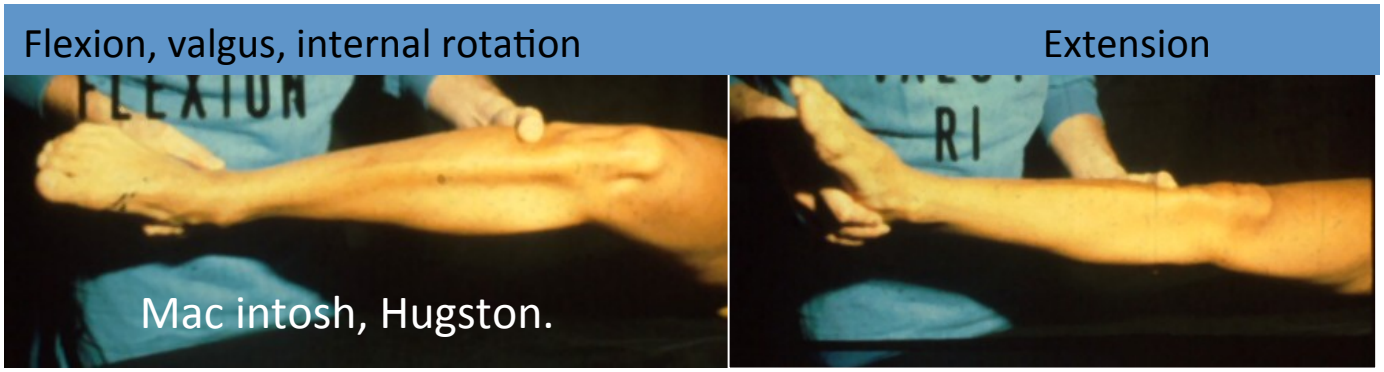




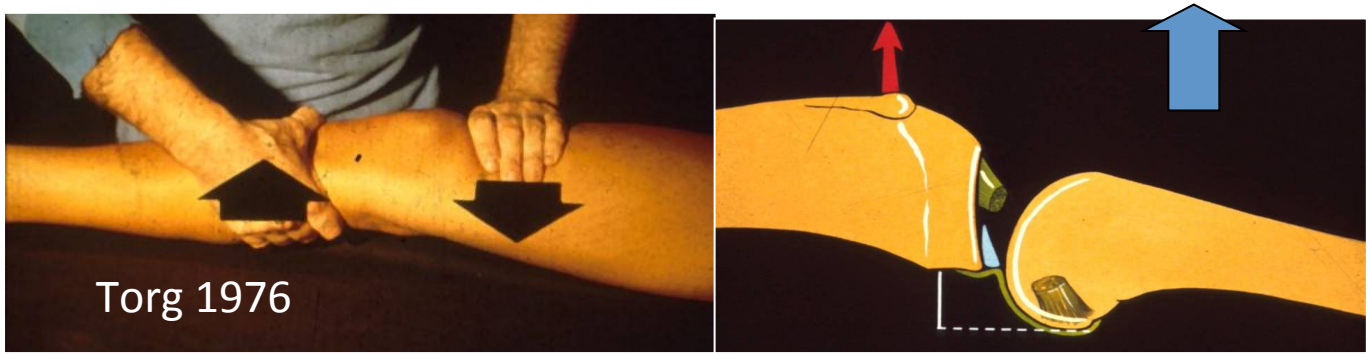
1976

“In 1976 I visited doctor Jack Hughston in colombus (GA) I discovered an « other world » with, to diagnose an ACL Insufficiency, 2 clinical tests:”

The Jerk Test, the pivot shift.



The Lachmann Test



1979

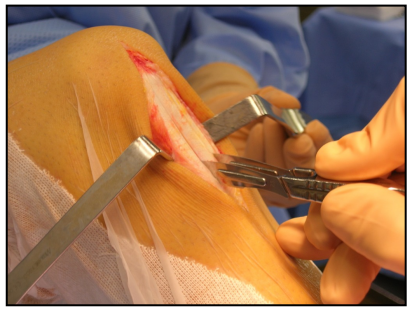
“ we started with a new procedure:
- ACL reconstruction + antero lateral tenodesis.
Mac Injohnes (Lerat) »

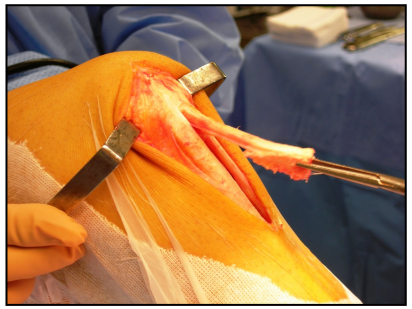
Free graft

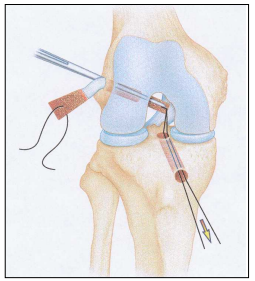
- Tibial bone: tibial tunnel.
- Patellar tendon: neo ACL.
- Patellar bone: femoral tunnel.
- Quadricipital tendon: antero lateral tenodesis.

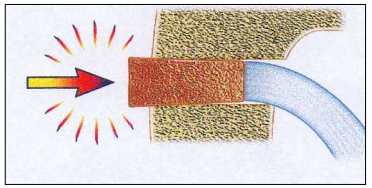
1985

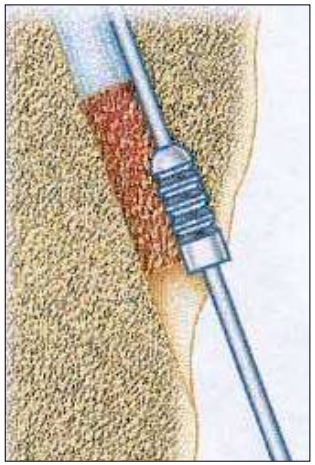
Press Fit Isolated Technique
De Monsieur Pierre Chambat









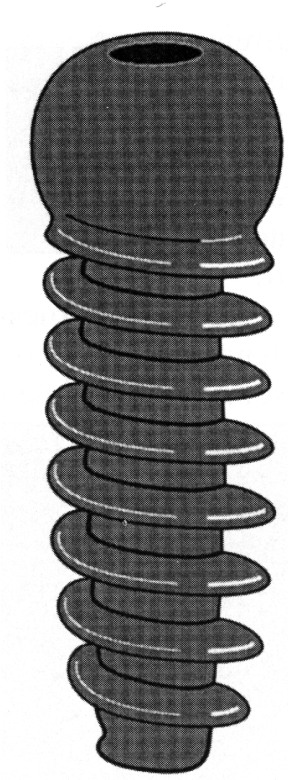


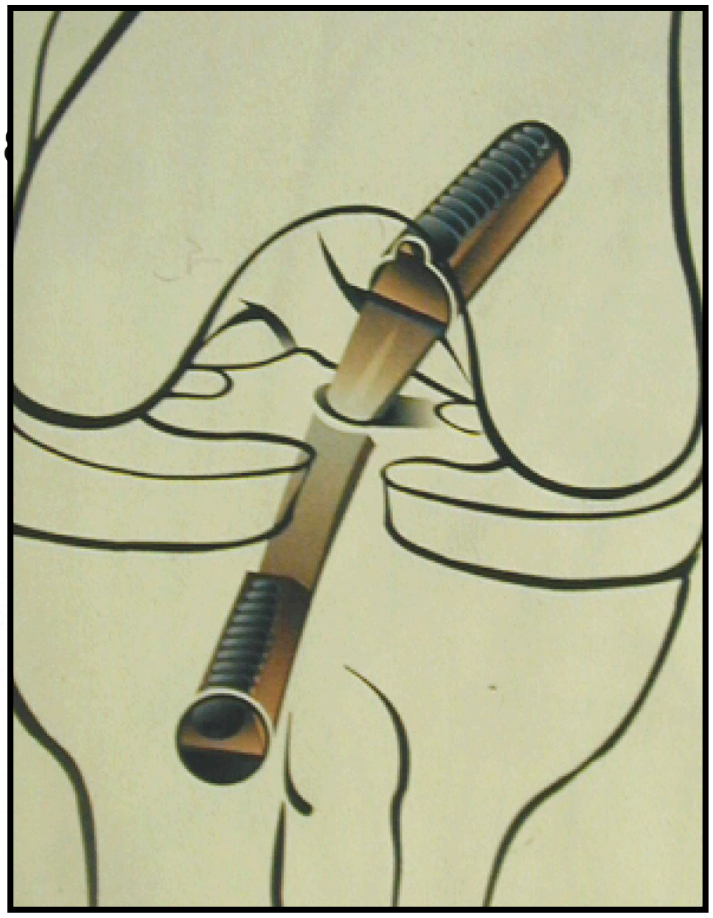
1987
Kurosaka Screw: The Revolution!

Strong

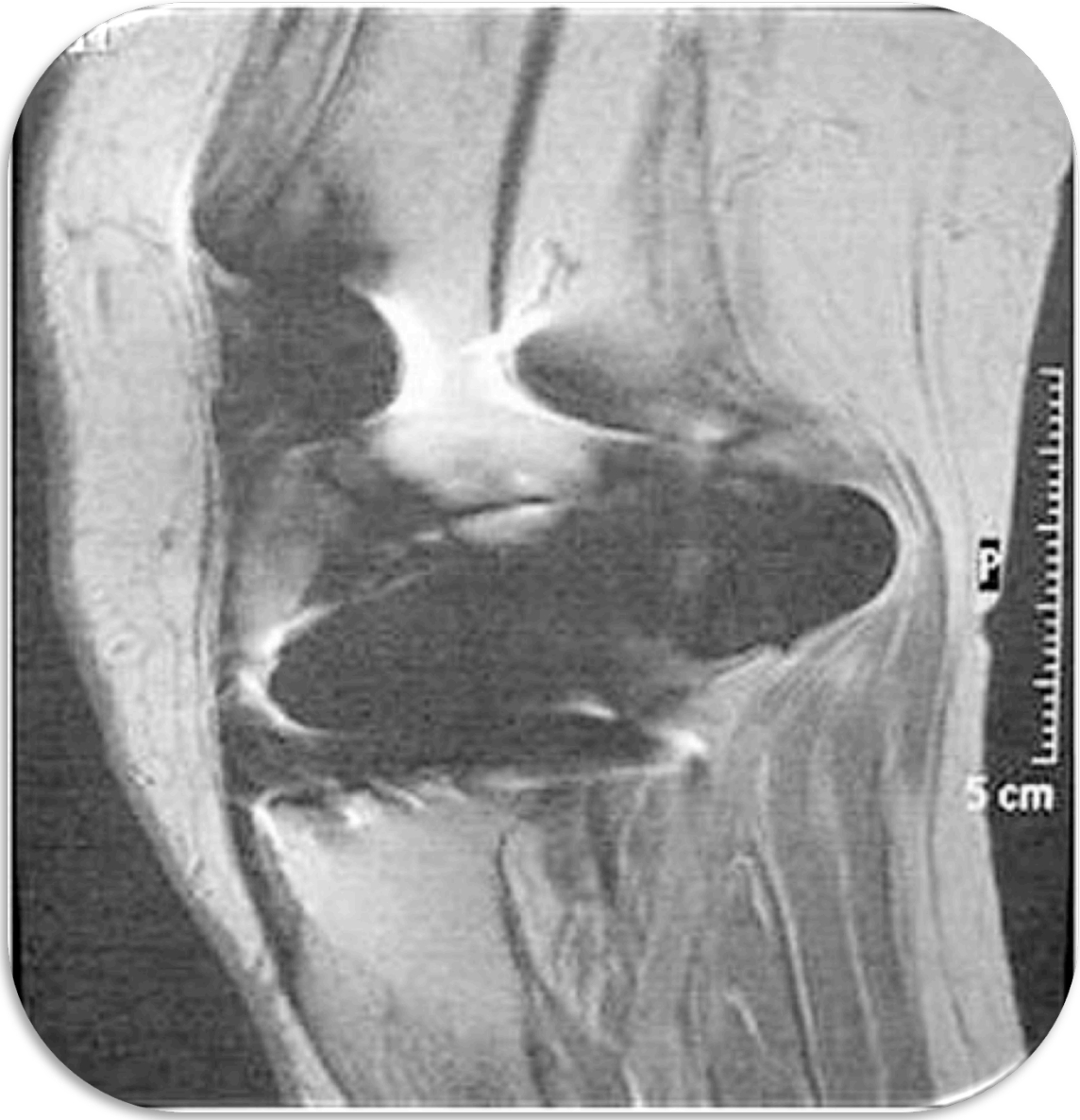
Anatomic

Easy

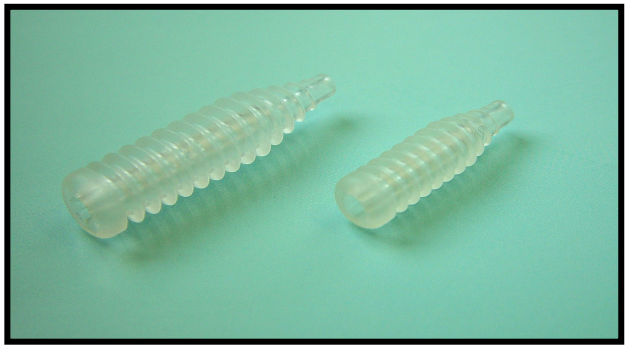


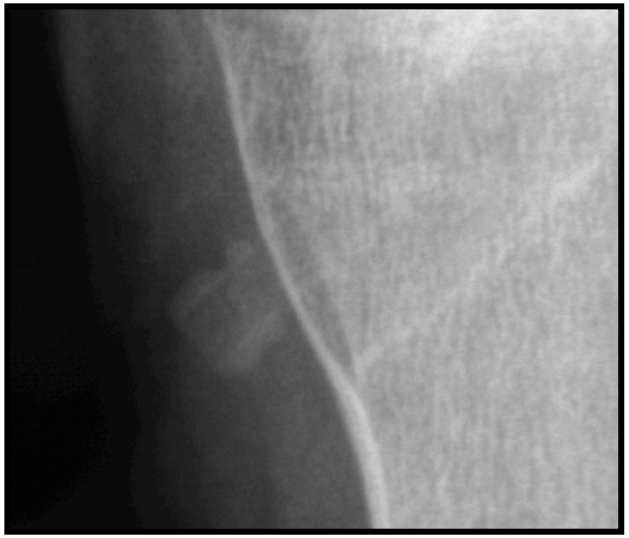


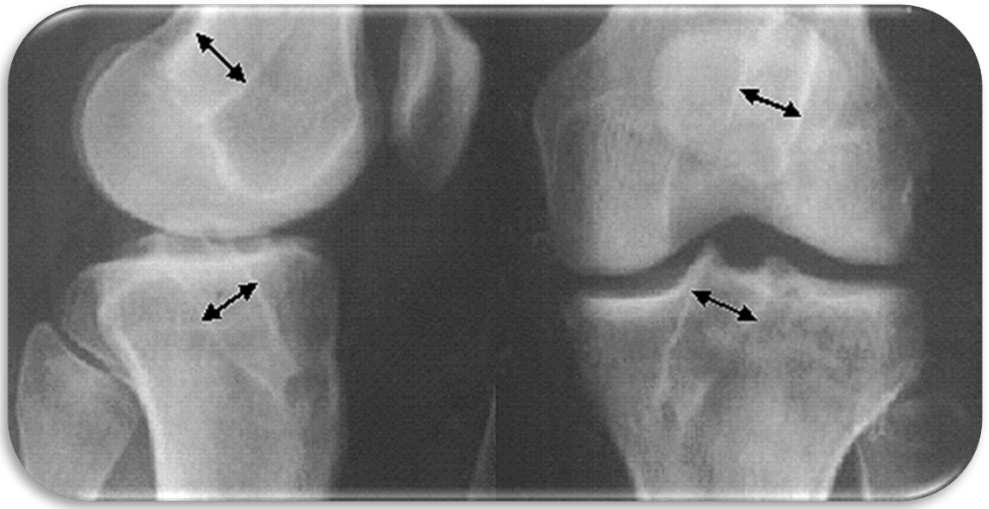
But…



1991
Absorbables Interference Screws







PLDLA SCREW RESORPTION PRINCIPLES (2.5 years)

Water absorption phase

Swelling phase

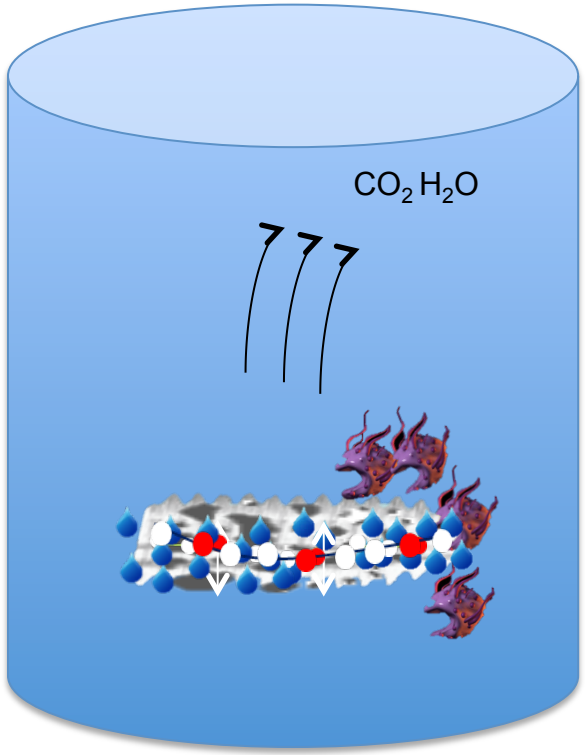
Lactic acid chain hydrolysis

(Acid pH)

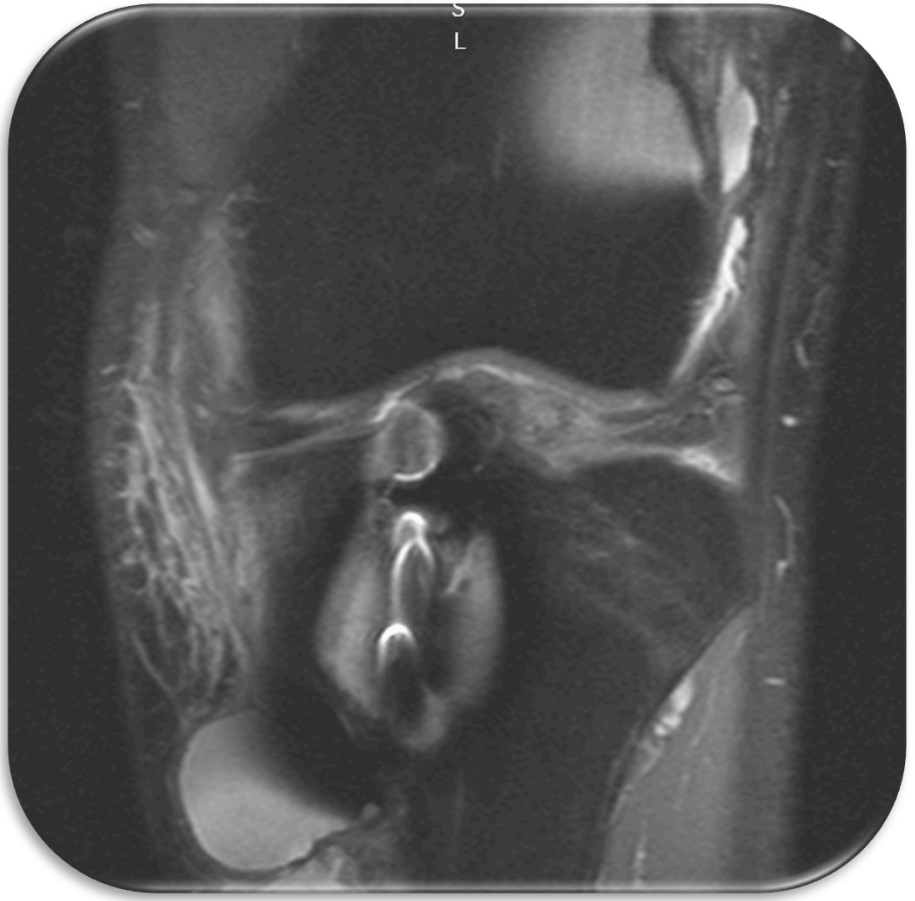
Catabolism

Fragmentation phase

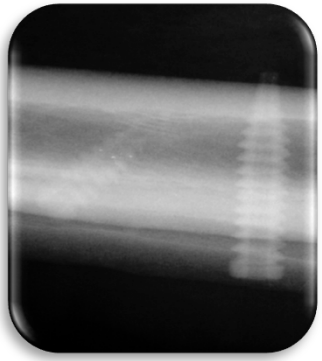
Phagocytosis



Cyst Formation

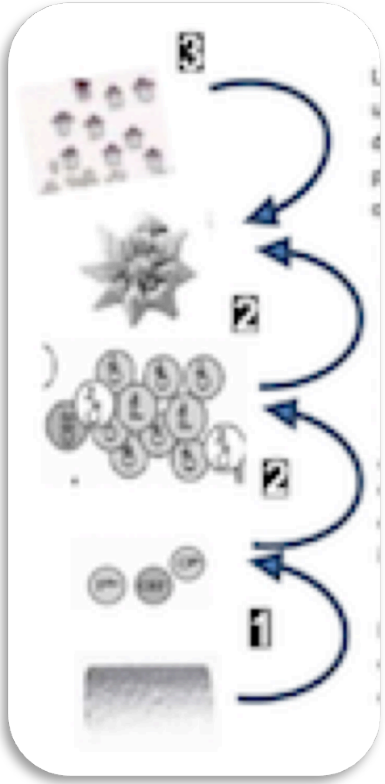


Biocomposite screws (HA and TCP)



Slower resorption in 3 steps:

Absorption → precipitation → osteo-induction



Pros:

- Better osteoconductivity
- Better bone in-growth
- Lower implant resistance to breakage

BIOABSORBABLE VS METALLIC SCREWS

Bioabsorbable Screws

Prolonged knee effusion

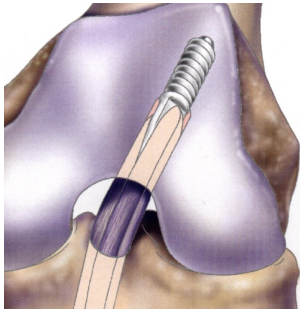
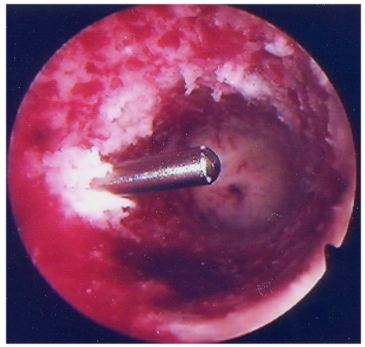
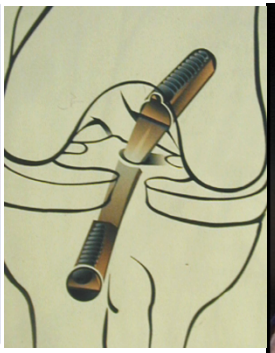
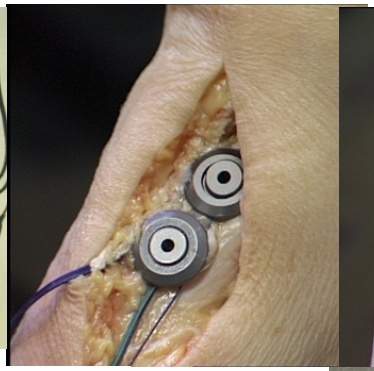
Femoral tunnel widening

Screw breakage

Mainly the risk PLLA (RR 3.78)

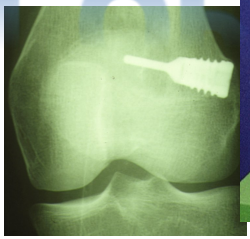
Mascarenhas *et al.* , Arthroscopy 2015

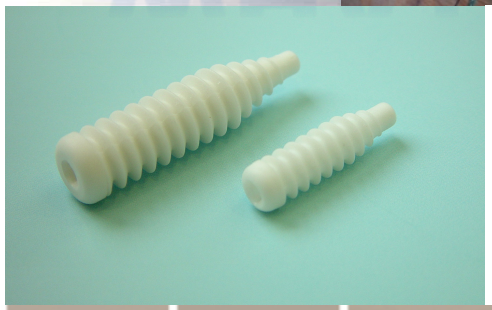
Not A Hamstring Fan !

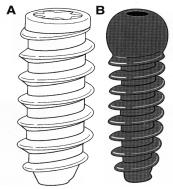
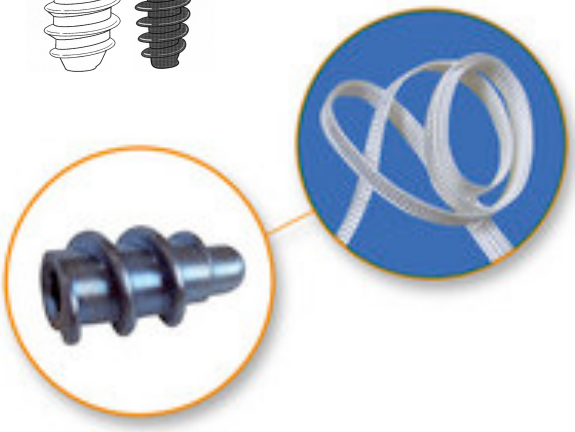











WHAT IS THE BEST OPTION ?

Thank You !