The PREVENTION of Early OA of the Knee Following Meniscal or ACL Surgery is Possible by The Achievement (+ Maintenance) of Joint Homeostasis

Restoration of Osseous Homeostasis 20 M P/O Partial MM Without the Development of OA

Scott F Dye MD
Davies Campus
CalPacificMedCenter
Ass.Clin.Prof. UCSF
The Development of Early Knee Arthritis Following Medial Meniscal Or ACL Injury and Surgery Is Extremely Common
The Human Knee is An Excellent Model for Post-Traumatic OA (PTOA)

E.G.: The Rate of Early OA Following ACL Reconstruction is 50% at 10 yrs P/O
P/O ACL Reconstruction

“Accelerated” Rehab

He was “Fixed”

OK to Return to Pivoting sports

Returned to Soccer at 4 m P/O

Age 23

Complaints of Recurrent soreness and Mild effusions with Soccer were Dismissed!

Age 32

Example

Advanced DJD

9 yrs P/O ACL
Early Reports of the More “Anatomically Placed, Double-Bundle” ACL Reconstructive Procedures Using Current Post-Op Rehab Protocols Show NO DIMINISHMENT In Rates of Early Osteoarthritis

The Problem: Belief in a PURE Structural/Biomechanical Paradigm of Joint Function
ASSUMPTION:

Restoration of Measurable Structural/Biomechanical Characteristics

= Restoration of Knee Function
There is a Different Emerging Orthopaedic & M/S Paradigm: That Views Joints as Living, Metabolically Active Systems of Billions of Cells Each Tissue (Volume of Cells) Has its’ own Normal Metabolic Characteristics

TISSUE HOMEOSTASIS
Tissue Homeostasis:
The complex biochemical/metabolic Processes that maintain the normal Physiological characteristics of VOLUMES of living cells

Osseous Homeostasis

Soft Tissue Homeostasis

Normal Bone Scan

Normal Synovium and Fat Pad Tissue
Loss of Tissue Homeostasis

Initial Phases of a Stress Fracture
Disuse Muscle Atrophy
Ligament Strain
Synovitis

Chronic ACL Deficient Knee
PET Scan Fl
Positive Bone Scan
Synovitis
Loss of Osseous Homeostasis
Loss of Soft Tissue Homeostasis
Fundamental Principle of Orthopaedic Treatment

Restore Tissue/Joint Homeostasis

Rather Than Restore Normal Structural/Biomechanical Characteristics
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