

Knee OA Orthobiologic Treatment Algorithm: Our Experience



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**AMERICAN SOCIETY OF
INTERVENTIONAL PAIN PHYSICIANS**

THE VOICE OF INTERVENTIONAL PAIN MANAGEMENT



ORTHOHEALING
— CENTER —
LOS ANGELES

Disclosures

- No relevant disclosures for this presentation



Objectives:



MY STORY AND OUR
PRACTICE



TREATMENTS &
PROTOCOLS



KNEE OA CASE
STUDIES



“Pioneering Spirit”

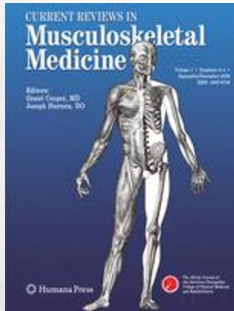
My Story

June 2007: USA Soccer
PRP for MCL Injury

Aug 2007: I tore my own MCL!



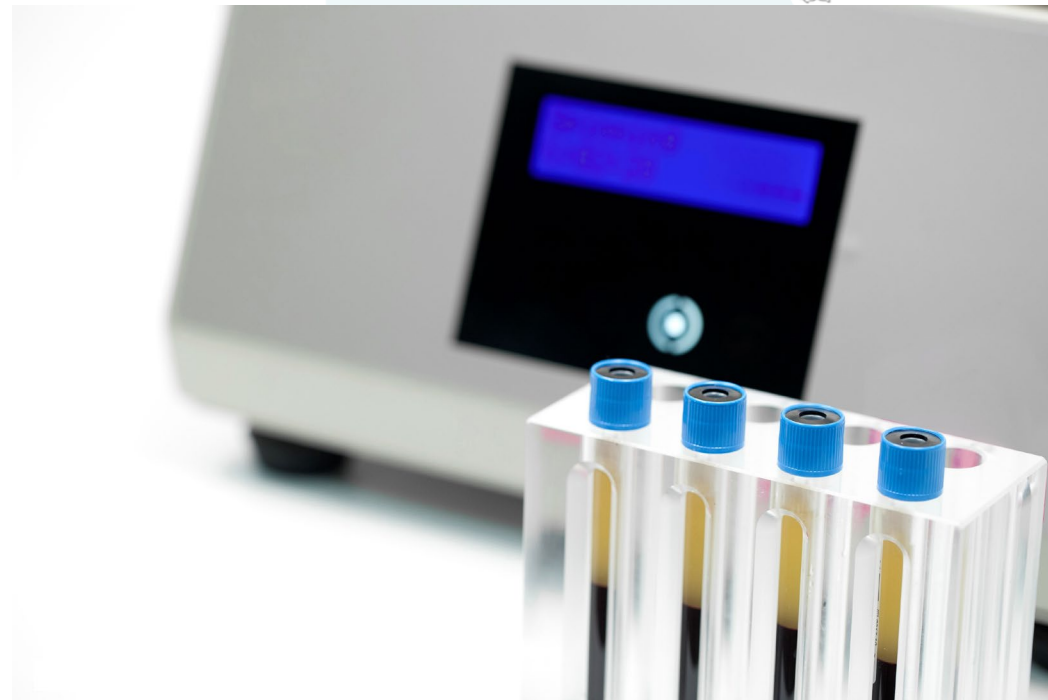
TOBI The Orthobiologic
Institute



Platelet Rich Plasma Injection Grafts for Musculoskeletal Injuries - a Review.

Current Reviews in Musculoskeletal Medicine.

July 16, 2008. 1935-973X (Print) Volume 1, Issue3 (2008), Page 165. 1935-9748 (Online).
Steven Sampson, Michael Gerhardt, Bert Mandelbaum



Original TOBI (The Orthobiologic Institute): Circa 2010



TOBI... From then till now



An exploding field over 13 years!



The Orthohealing Center: Minimally Invasive Orthobiologics Los Angeles, CA

**Professional Athletes: Basketball,
Football, Tennis, Baseball, etc.**

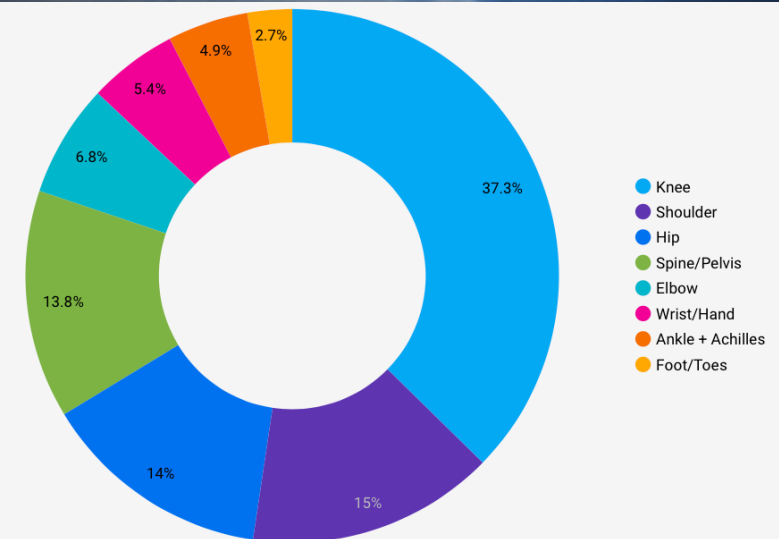
Weekend Warriors

**Everyday patients with joint or
tendon pain**

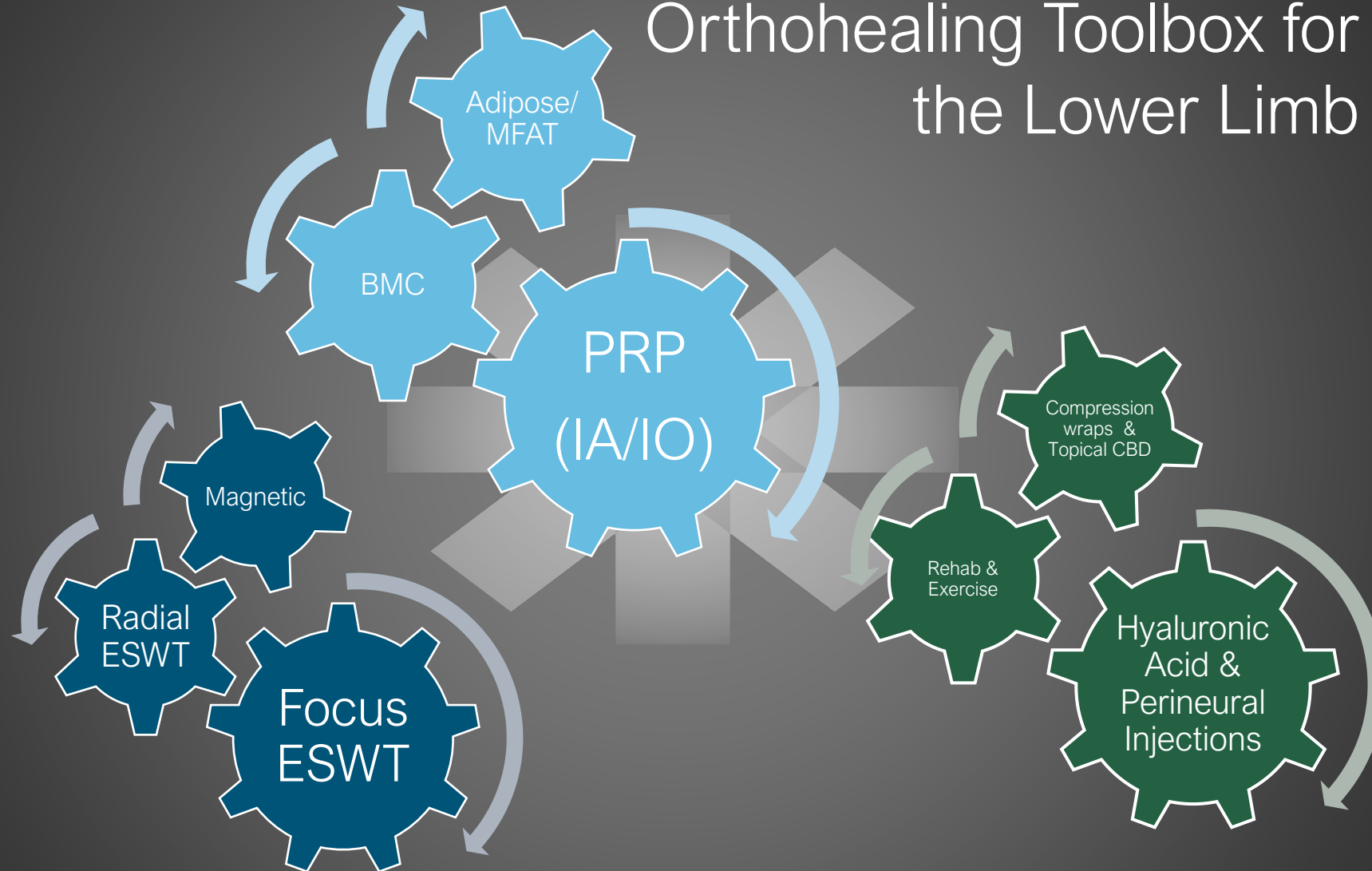
The Arthritis Epidemic!

- Post traumatic ACL, Meniscus
- Many (1.5 million) with TKR in 50s & 60s, prone to revision and complications.

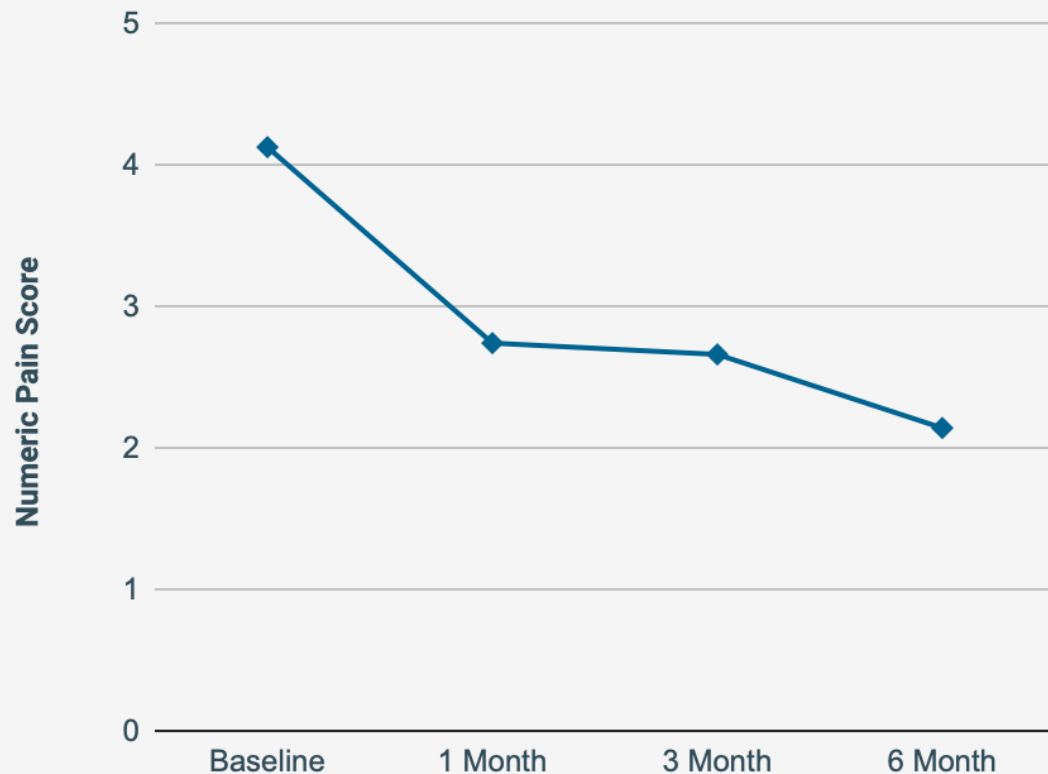
Source: Meeting current musculoskeletal health demand through deeper insights into tissue homeostasis and regeneration. Isabel Andia & Nicola Maffulli. Expert Opin. Biol. Ther. [Early Online].



Orthohealing Toolbox for the Lower Limb



Orthobiologics 2.0: data collection and cell analysis!



Understanding OA: The Knee is an Organ !

Comprehensive approach

Extraarticular

Intraarticular

Subchondral Bone

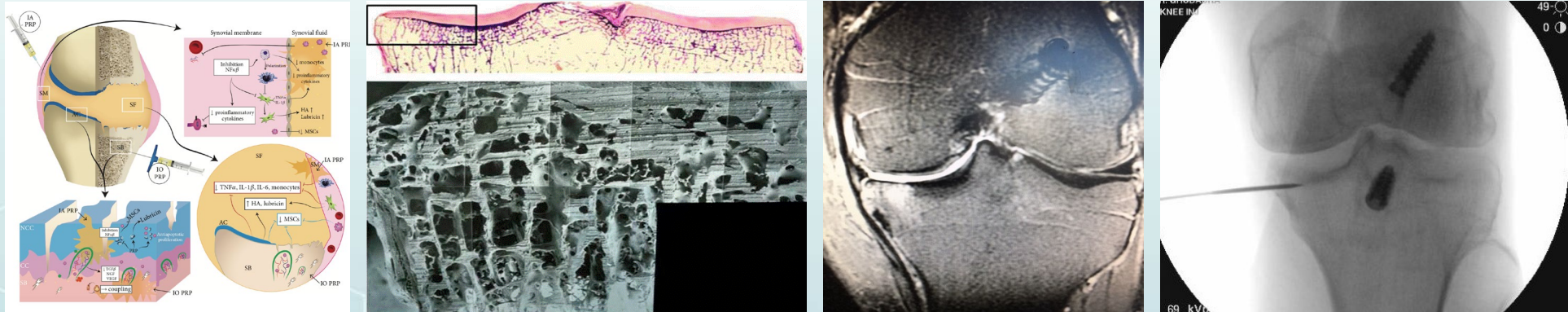


Image courtesy of Henning Madry, Homburg Germany

Basic Protocols: OA

Mild/Moderate: IA PRP x3
(1x/wk)

- (Leukocyte & RBC free,
activated w/ CaCl)

Moderate/Severe: IA
BMC + HA + Plasma
Conc vs MFAT + PRP

Basic Protocols: OA

Severe +/- Bone Edema Lesion:

- IO BMC/ PRP w/ IA BMC +HA
- IA MFAT /PRP+ IO PRGF

BMC VS MFAT? >60 y/o, obese

All patients receive: ESWT/EMTT,
CBD Topical, Compression sleeves



Case Study #1: Knee Degenerative Meniscus Tear

66 y/o F College Professor w/ gradual onset post/medial knee pain for 3 mo.

MRI shows post horn med meniscus horizontal degen tearing w/ abnormal tracking/alignment of the PF joint

DX Med men degen tearing w/ underlying PF syndrome.

Plan:

- PRP x 3 at 1-2 wk intervals.
- ESWT/EMTT 1x/wk for 5 wks
- Home exer program
- **Outcome: Pain free no limitations**



Case Study #2: Severe Knee OA w/ Bone Edema Lesions

39 y/o M Businessman s/p lateral meniscectomy w/ Grade IV lat OA & Bone Edema & Bakers cyst & effusion.

Previously had HA w/ some improvement then plateaued.

Plan:

- **IA MFAT + PRGF, IO PRGF (US guided)**
- **ESWT/EMTT 1x/wk**
- **Home Exer**

Appx 1.5 yr f/u



Outcome: Improved daily activities, amb pain free w/o with trainer

Case Study #3:
Professional NBA
Athlete w/ Knee
OA & Chronic
BML

31 y/o M 7'0" Professional Basketball
Center w/ chronic L knee pain/bone
edema.

Previously had MCL sprains x2 in college
& recent L ankle arthroscopy w/
debridement.

Developed ant knee pain going up for a
shot worsened w/ rehab stepping off a
box. Had been limited/unable to play for
appx 1yr.

MRI: full thickness chondromalacia central/medial trochlea w/ shallow groove and moderate bone edema. Focal chondromalacia patella.



Treatment Plan

Received L knee PRP + HA, A2M inj elsewhere w/ partial relief.

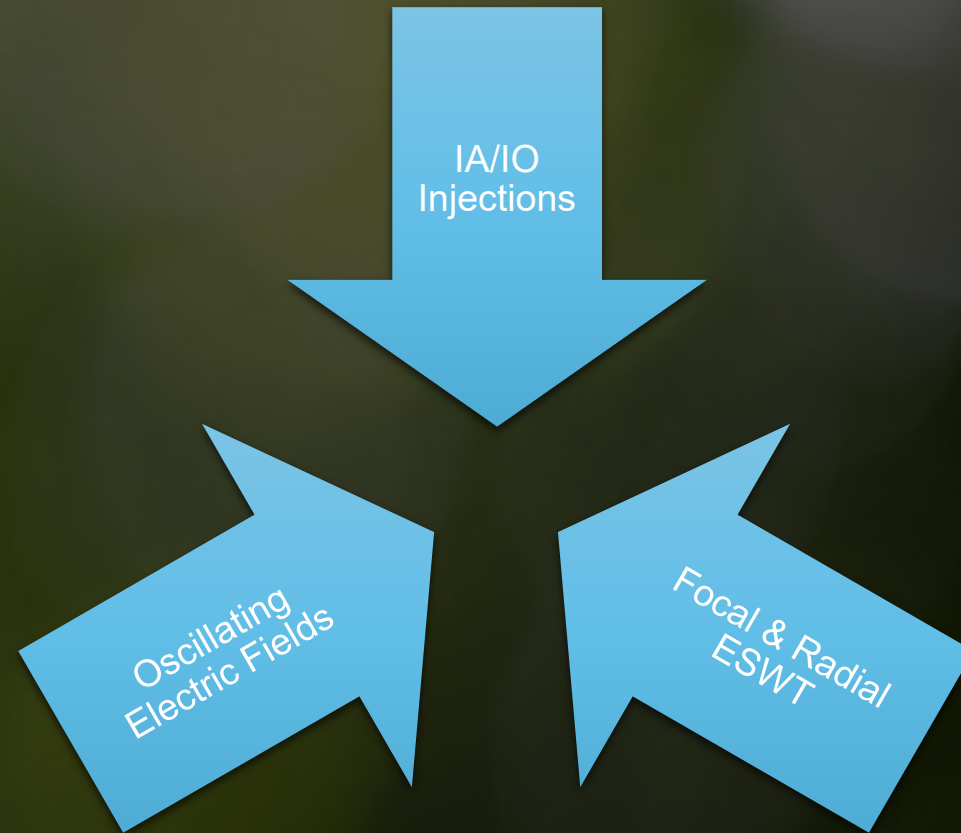
Goal: To sign with a team same season NBA playoffs.

Plan:

- IA BMC + Plasma Conc + HA
- ESWT high energy 2-3x/wk for multiple sessions w/ oral NO2
- Outcome: tx 12.17.20 signs with team 4.8.20 participates in NBA playoffs same season

New Trend:

Cells +
Machine
Energy



SAVE THE DATE FOR BIOLOGICS AT THE BEACH

13TH ANNUAL



ORTHOBIOLOGICS SYMPOSIUM

DIPLOMAT HOTEL

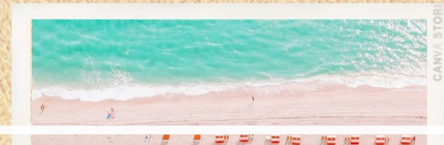
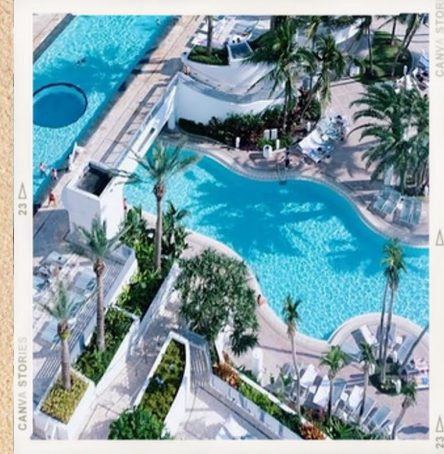
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Questions?