



Joint Pressure, Volume and Alignment in Development of AOA: Indications for Orthobiologics and Surgeons

Craig J Hubbard

Founder- R&D, KiSS Ankle System Inventor/Designer - Biomechanics - KiSS Ankle Co, Australia

Abstract:

To fix and prevent, not ‘manage’ Osteoarthritis OA in the lower limb, should be the collective ‘Holy Grail’ with or without Orthobiologics OB. Lateral Ankle Sprain LAS, Chronic Ankle Instability CAI and Ankle Osteoarthritis AOA create asymmetry which alters the biomechanics of the entire lower limb, so by better addressing AOA, we can probably do more than just impact the multi-billion dollar annual costs of AOA.

It would seem we have advanced, if not futuristic Surgical techniques and Orthobiologic technology, so what is missing? The short answer is Medical Intent MI. Devices and methods used in rehabilitation need MI intent to enable and stimulate repair. The world is changing and Morals Ethics and the human costs, are being counted. CTE concussion is just the tip of the iceberg for cumulative trauma injuries, in cost and prevalence, and class actions seek to defend and enforce people’s rights to safety, either in the workplace, as in professional sport, or in medical outcomes.

The significant yet hidden role of the subtalar joint as a ‘Safety Valve’ was first noted by Albert Ferguson in 1972, yet today the contradictions in rehabilitation and injury prevention devices that restrict the STJ, remain commonplace. It is also necessary to consider what has changed inside the synovial capsule before and after lateral ligament injury, such as pressure, joint alignment and space, so we can better understand and design for restoration of homeostasis.

This paper will examine factors, causes and interventions that may be inadvertently restricting or preventing Orthobiologics effectiveness in the human ankle from a Translational Medicine perspective and an engineering bias.



Biography:

Craig J Hubbard is the inventor, manufacturer and distributor of KiSSTM Ankle Systems under the brand KiSS Ankle Co. Biomechanics of Ankle Pain, Point Loading Pain PLP, Ligament Stretch Pain LSP, Medical Intent MI and KiSSTM are inventions of the Author.

Publication of speakers:

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