

Understanding Soft Tissue Management: Choosing the right tool

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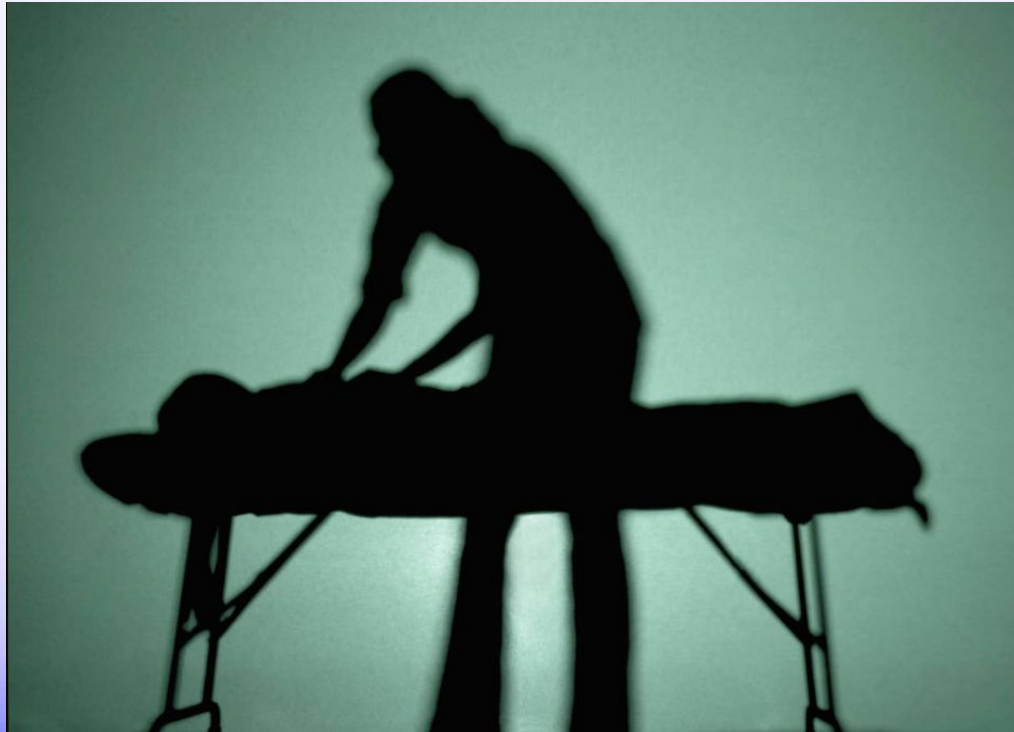
Outline

- The Importance of Soft Tissue Management
- Phases of Muscle Injury and Healing
- Tendinopathies
- Types of Manual Soft Tissue Release
- Instrument Assisted Soft Tissue Mobilization
- Stretch Therapies
- Self Myofascial Release

Who Am I?



The Importance of Soft Tissue Management



Cumulative Trauma Disorder

- Based on the Law of Repetitive Motion and the Cumulative Injury Cycle
- Results from acute injury, repetitive injury, or a constant pressure / tension injury

Law of Repetitive Motion

I = Insult to the tissues

N = Number of repetitions

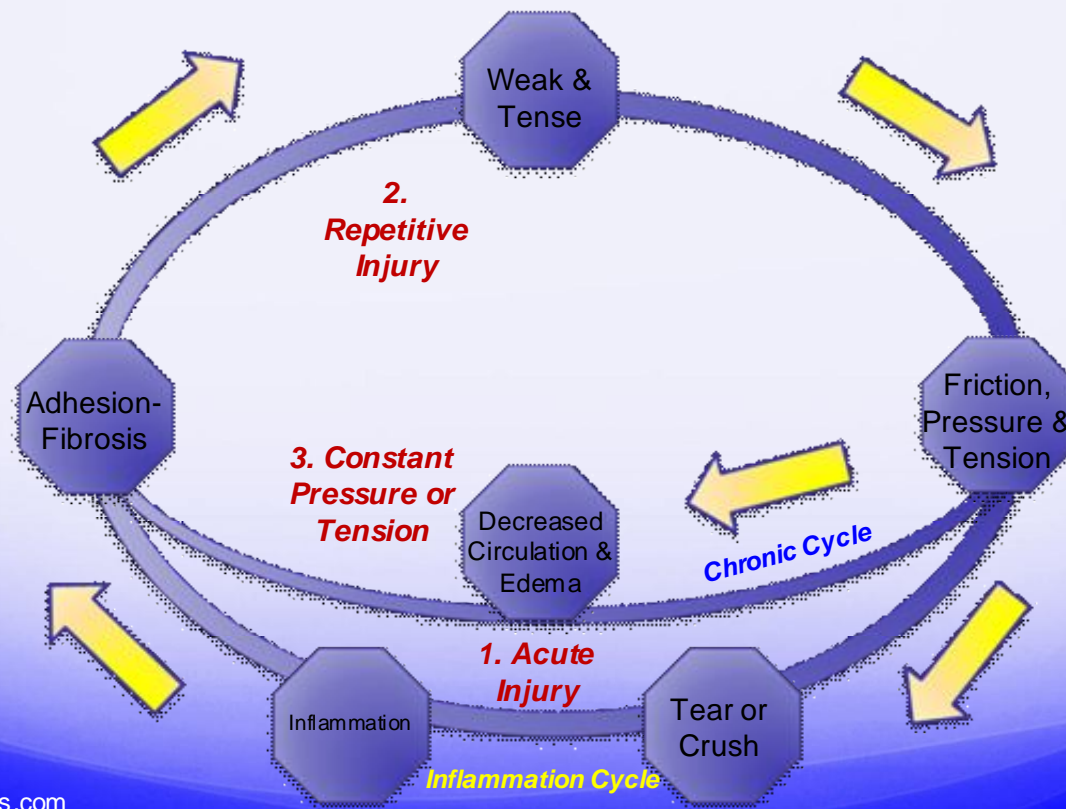
F = Force or tension of each repetition as a percentage of maximum muscle strength

A = Amplitude of each repetition

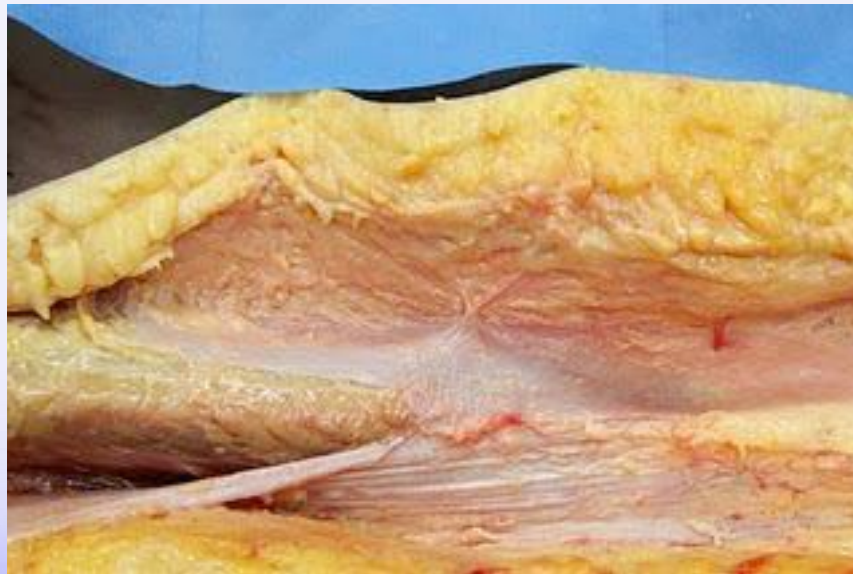
R = Relaxation time between repetition (lack of pressure or tension on the tissue involved)

$$I \approx \frac{N F}{A R}$$

Cumulative Injury Cycle



Cumulative Trauma / Injury Cycle



Phases of Muscle Injury and Healing

- Destruction Phase
 - Initial rupture & necrosis
 - Hematoma formation
 - Release of inflammatory cells
- Repair Phase
 - Phagocytosis
 - Regeneration
 - Production of scar
 - Capillary in-growth
- Remodeling Phase
 - Maturation of myofibers
 - Contraction & reorganization of scar tissue
 - Recovery of functional capacity



Tendinopathies

- Not all tendinopathies are the same!
- Continuum of Pathology
 - Reactive Tendinopathy
 - Tendon Dysrepair
 - Degenerative Tendinopathy
- Rehabilitation principles
 - Unloading (biomechanical efficiency)
 - Hypertrophy
 - Static/slow to progressive speed
 - Volume progression
 - Elasticity
 - Load management



Active Release Techniques

- Developed by Michael Leahy (USA)
- Muscles
- Fascia
- Nerves
- Tendons
- Ligaments
- Connective Tissue



Myofascial Release

- Level 1 – Tissue positioned without tension, patient passive
- Level 2 – Tissue positioned with tension, passive passive
- **Level 3 – Tissue lengthened under contact, patient passive**
- **Level 4 – Tissue lengthened under contact, patient active**

Others

- Fascial Manipulation
 - Developed by Luigi Stecco (Italy)
 - Myofascial Units
 - Myofascial Sequences
 - Myofascial Spirals
 - Kinetic and myofascial chain dysfunctions
- Functional Range Release
 - Developed by Andreo Spina (Canada)
 - Inter/Intra Layer Release
 - Functional Range Synergists
 - Progressive Angular Isometric Loading



Instrument Assisted Soft Tissue Mobilization

- The use of instruments to achieve effects and benefits of soft tissue mobilization
- Can use a number of different material types
- Types / Systems based on:
 - Instrument design
 - Instrument weight
 - Instrument material
 - Delivery method
 - Technique process
 - Treatment angles



Types of IASTM



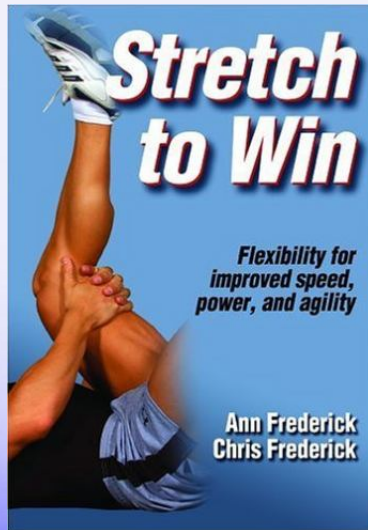
FAKTR – PM

Functional and Kinetic Treatment with Rehabilitation,
Provocation and Motion



Stretch Therapy

- Fascial Stretch Therapy
 - Developed by Chris & Ann Frederick
- Active Isolated Stretching
 - Developed by Aaron Mattes



Self Myofascial Release



Thoracic Erectors



Pectorals



Proximal (Lower/Mid) Latissimus



Distal (Upper) Latissimus



Posterior Rotator Cuff, Triceps, Latissimus





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