

# Understanding Soft Tissue Management: Choosing the right tool

Jeff A. Cubos BPHE MSc DC FRCCSS(C) CSCS



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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

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## Who Am I?



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## The Importance of Soft Tissue Management



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## 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

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## 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)

$$I \approx \frac{NF}{AR}$$

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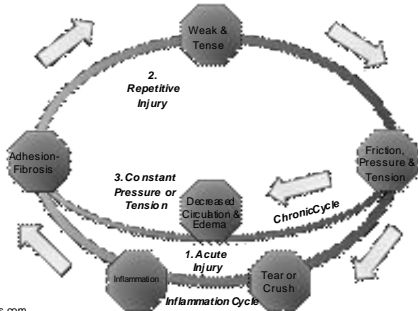
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## Cumulative Injury Cycle



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## Cumulative Trauma / Injury Cycle



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## 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



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## 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



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## Active Release Techniques

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



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## Myofascial Release

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

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## 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



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## 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



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## Types of IASTM



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## FAKTR – PM

Functional and Kinetic Treatment with Rehabilitation,  
Provocation and Motion



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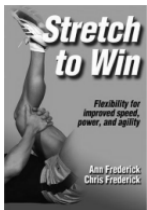
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## Stretch Therapy

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



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## Self Myofascial Release



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## Thoracic Erectors



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## Pectorals



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## Proximal (Lower/Mid) Latissimus



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## Distal (Upper) Latissimus



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## Posterior Rotator Cuff, Triceps, Latissimus



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