Yoga, Fascia, and Meridians

Moving beyond range of motion
When we stress fascia what are we stressing?

- Cells
- Fibres
- Gels
Colloid chemistry is the twilight between chemistry and physics—but that is where God has chosen to reveal himself.

Foreward to “Colloid Phenomena” 1930
- MARTIN H. FISCHER
1930
Life is water, dancing to the tune of macro molecules.

(Albert Szent-Gyorgyi)
Muscles & Molecules
Uncovering the Principles of Biological Motion

Gerald H. Pollack

Dr. Gerald Pollock
1990
Figure 6.2. Polyacrylamide gel in solvents of progressively varying composition (top to bottom). As the acetone/water ratio is brought beyond a critical level (between third and fourth panels) the gel undergoes a discrete transition. From Tanaka (1981).
Figure 6.1. Actomyosin gel, before (above) and after (below) addition of ATP. ATP causes marked shrinkage. Based on original experiments of H. H. Weber. From Szent-Györgyi (1951).
FIGURE 8.5 Loose connective tissue between the superficial fascia and the deep fascia over the proximal portion of the sacrum. In appearance, it is similar to a subcutaneous bursa (sacral bursa).
1. “Loose CT (or areolar tissue) is the most widespread CT of the body. It is characterized by an abundance of ground substance (Gel), plus thin, relatively few fibres and cells.”

- Dr. Carla Stecco, Functional Atlas of the Human Fascial System
2. “The loose CT has a viscous, gel-like consistency and its consistency may fluctuate in different parts of the body due to variations in temperature or pH…p.8

- Dr. Carla Stecco, Functional Atlas of the Human Fascial System
“… particularly hyaluronan in loose CT, forms the water of the ECM into a hydrated gel; this gel is responsible for the turgidity and viscoelasticity of the CT.”

“Its viscoelasticity allows the tissue to return to its original form after stress, and enables the collagen fibres to move without friction against each other, to absorb forces that affect the tissue and to protect the collagen network from excessive stress.”

- Dr. Carla Stecco, Functional Atlas of the Human Fascial System
“When the HA(Gel) becomes adhesive rather than lubricating, the distribution of lines of force within the fascia become altered.

By changes in viscosity, the receptors within the fascia can send a pain message from a degree of stretching that is even within the physiological range.

An important component of pain therapy is to reverse these changes in HA(Gel). … This is accomplished with massage, manipulation, or physical therapies…”

- Dr. Anthony Stecco, Fascia Congress 2015
Biomechanical or Energetic

Mechanical **stress creates phase change** in the gel.
Increased Range of Motion

This is **subjectively experienced** as a flow of chi.
Heat/pressure Dispersal
Pleasant Inhibition of Movement
Emotional Calmness
Mental Calmness

**These are experienced when not moving**
Dr. Keown makes the case for acupuncture meridians being fascial channels.
“The physical location of the meridians is in the water-rich phase of the connective tissue.”

- Dr. Hiroshi Motoyama
The AMI works by monitoring the electrical conductivity and capacity at specific acupoints at the tip of fingers and toes (called Sei point, or Jing/Well points). After years of research, Dr. Motoyama was able to show that there is a close correlation between the electrical conductivity of meridians and the flow of Ki (or Chi) in the meridians. The basic research Dr. Motoyama did to support his claim about the AMI can be found in his book "Measurement of Ki Energy Diagnoses & Treatment: Treatment Principle of Oriental Medicine from an Electrophysiological Viewpoints" published by Human Science Press in 1977. Please see below (Dr. Motoyama's Findings using the AMI) for the pages from this book.
Peter Deadman

Sinew Channels
Biomechanical Fascia or Energetic Meridians