

# Towards a fuller understanding of the interaction between myofascial tone and water

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The tone of myofascial tissues is the degree of tension these tissues present in the relaxed state. It is regulated by the autonomous nervous system. Myofascial tone designates the tissues' readiness to respond to stimuli, it helps maintain balanced postures, and is an essential element of habit patterns in movement and behavior.

### Myofascial tissues with a balanced tone

- present a range of contractibility and responsiveness that allows for precision, strength, and resistance in the execution of the activities they are involved in
- are capable of efficiently dissipating stress concentrations by transferring or absorbing them [4]
- generate movement that shows ease, fluidity and grace
- Observations in clinical practice with DFA Somatic Pattern Recognition suggest that myofascial tissues with a balanced tone are well hydrated.
- Intuitively, it seems likely that energy generated through protein-water interaction may be available to contribute to the energy required for muscle contraction, making the activity thus fueled appear easier and more fluid and graceful than activity carried out with dehydrated myofascial tissues.
- A high degree of order in the hydration water of myofascial tissues with a balanced tone would provide an explanation for the promptness of effects encompassing the whole body, observed in clinical DFA practice, when hypertonic tissues are brought to a more balanced tone and sensory information, that had been held underneath the threshold of consciousness by hypertonic tension, rises to awareness, because the speed and overall extension of these effects goes beyond the speed of transmission through complex nervous circuits, but has been found to be possible through the network of protein associated water [5].

### Charge and (de)hydration

Gerald Pollack's team found that in water next to hydrophilic surfaces (exclusion zone), including those of biomolecules like proteins in muscle and connective tissue, charges separate. [6, 7] Clinical practice suggests that there may be a difference between the charge gradients in hypertonic tissues and in those with a balanced tone, based on observation of the effects of a specific wave-like hands-on intervention that brings hypertonic myofascial tissues to a more balanced tone.

The buzzing, electric or acid sensations reported by a number of clients suggest that hypertonic myofascial tissues present a higher proton count (more acidity) at the edge of the exclusion zone. Does this mean that the overall charge is more positive or that the charge gradient is more pronounced? In any case, this charge is not available to do work but seems caught in an electromagnetic field. Being able to perceive the charge and the acidity of hypertonic tissues is a first step towards reaching a more balanced tone.

In their article on water respiration, Voeikov and Del Giudice write about oxygen reduction in coherence domains as combustion of water. [8] Could it be that the sticky, dry, acid and rigid quality of hypertonic myofascial

### Hypertonic myofascial tissues

- present a reduced range of contractibility and responsiveness
- are chronically shortened or hyperextended
- The quality of movement is rigid and joint mobility and flexibility is limited
- Precision, strength and resistance require a much greater amount of energy and are prone to fail earlier
- Hypertonic myofascial tissues less effectively absorb or distribute forces, thereby transmitting greater stresses to tendons or ligaments and to bony attachment sites [1, 3, 4]
- Chronically enhanced stress concentrations predispose to greater tissue injury and lead to mal-adaptive repair processes. [1, 3, 4]
- In clinical practice with the physical DFA intervention hypertonic myofascial tissues appear dehydrated.
- It seems reasonable to suppose that the mechanical pressure generated by their high degree of tension must expel water from the tissues and makes it difficult for them to rehydrate.
- Clients sometimes describe a sense of dryness in the tissue; but mostly, according to the degree of hypertonicity, they tend to be rather insensitive and unable to describe any sensation at all.
- When hypertonic tension begins to subside following the physical DFA intervention, clients often become aware of the hypertonic state of their tissues through a buzzing, electric or acid sensation.

tissues may at least partly be due to their elevated electromagnetic charge literally burning up hydration water? And that, on the other hand, a balanced tone facilitates rehydration by means of the oscillations between order and loss of order in the hydration water during movement?

The flow of information and sensory awareness appears impaired in clients with mostly hypertonic myofascial tissues. This lack of sensory perception seems, at least partly, to be attributable to myofascial tissues being suspended in a state incapable of relaxation. If dehydration and an electromagnetic field generated by their charge contribute to this high-strung state, do they bring about a low degree of order in the remaining hydration water? Or would it rather be "too much" order or a "rigid" order due to the lack of sufficient hydration that reduces the tissues' responsiveness?

Hypertonic tissues maintain experience and behavior within the narrow range of habitual patterns. It becomes possible to introduce new options into the pattern only when myofascial tone is lowered to a level where posture and movement can be (re)oriented within gravity, paving a path towards a sensory and cognitive understanding of the pattern.

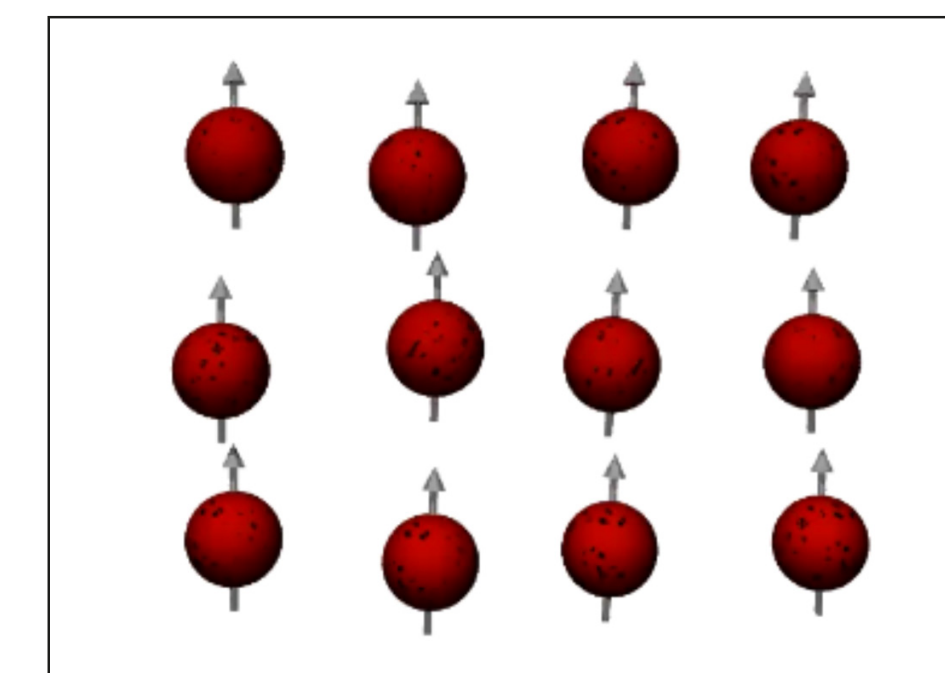


### Order allows ease and uplift

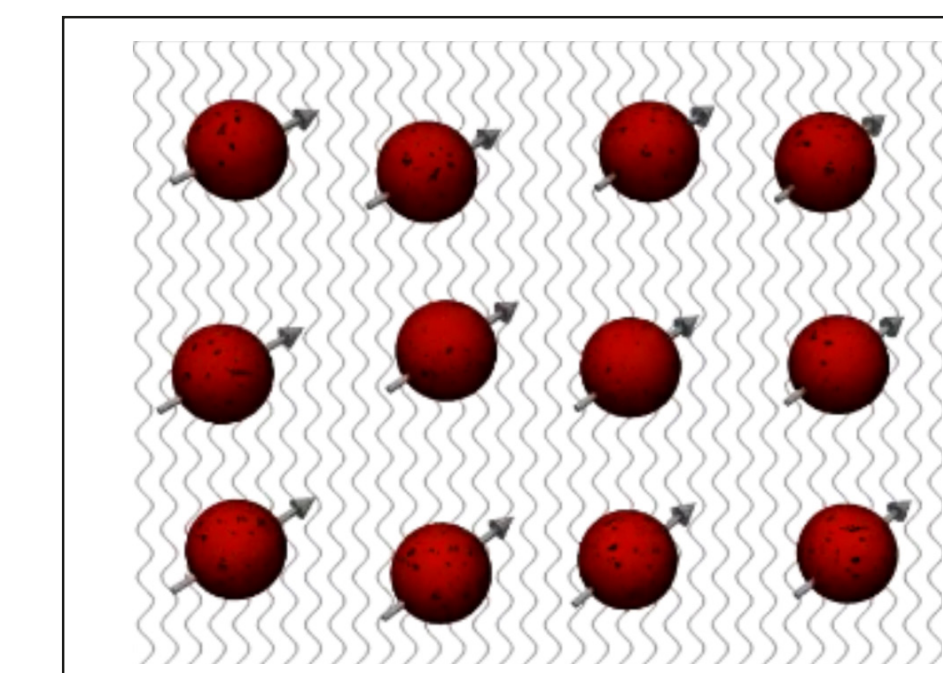
The sensory experience of alignment in the gravitational field literally is like being held by a greater force, like being able to rest within the living being one is and the material world one is a part of. Here the myofascial resting tone is optimal. While at first glance this sensation seems to arise out of the correlation between the body's mass and gravity, upon closer observation, the ordered structure of water may contribute a sense of ease and uplift. The image of the fountain as the central axis may thus be more than merely metaphorical.

### Myofascial tone and spin axis of hydrogen nuclei

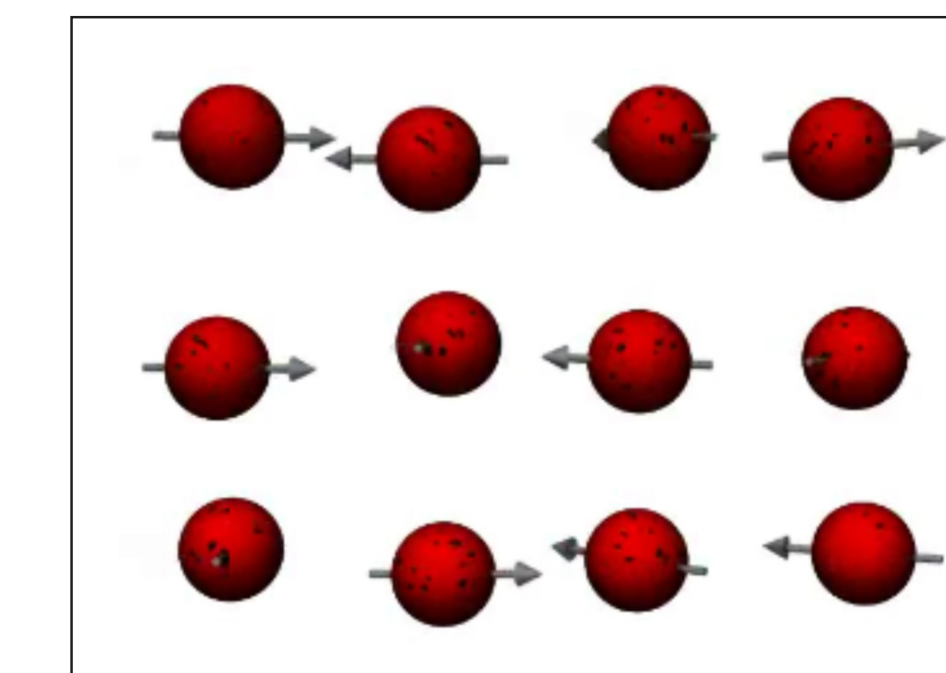
Although it is not fully understood how exactly, it seems clear that myofascial hypertonicity has an adverse effect on water's ability to maintain myofascial tissues well hydrated, to keep its order and to lose and recover it. Beyond water's molecular order, there may yet be another area, where myofascial hypertonicity has an adverse effect on water, namely the spin axis of hydrogen nuclei.



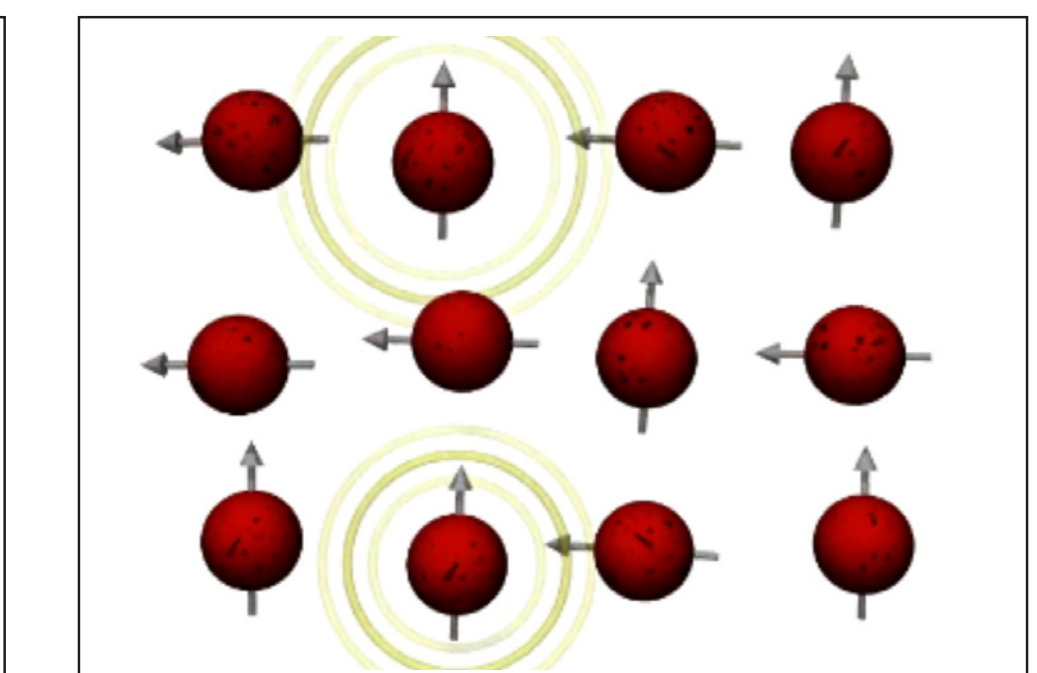
It seems reasonable to surmise that with the myofascial resting tone possible in upright stance in alignment with the gravitational field of Earth, the spin axis of the hydrogen nuclei is aligned with the magnetic field of Earth.



If it is true that hypertonicity of myofascial tissues generates a field, it could be compared to the secondary resonant field in MRI. This field would force the nuclei's spin axis away from its preferred alignment within the magnetic field of Earth...



...and with time spin may become and remain desynchronized.



As tissues acquire a more balanced tone through the combined DFA interventions, and the field generated by their hypertonicity subsides, information held underneath the threshold of consciousness arises to awareness; just like the signal emitted by the hydrogen nuclei after the resonant field is turned off and the nuclei recover their preferred spin axis within the primary field, which would here be the magnetic field of Earth.

### Responsiveness instead of reactivity

When the flow of sensory information is recovered, it becomes possible to examine it and to discern to what extent experience belongs to a 'remembered present' or actually reflects the present moment, because it becomes clear like a reflection on the surface of ordered water. From underneath the threshold of consciousness, on the other hand, highly charged contents are usually projected onto others and one remains caught in repetitive cycles of reactivity. A fuller understanding of the interaction

between myofascial tone and water would help to prevent injury and promote healing after injury as well as recovery from trauma, both physical and psychological. Just beginning to understand this correlation has already proven to be helpful in restoring the flow of sensations that allows recognition of the somatic patterns that interfere with sensory awareness, and in introducing new information into the system. Responsiveness instead of reactivity, conscious choice instead of blind habit, and the possibility of more freedom, complexity and diversity in behavior can thus be enhanced.

[1]

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Illustrations:

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