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The Role of Structured Water in Acupuncture (Pt. 1)

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WHAT YOU NEED TO KNOW

- Structured water (H_3O_2) can be considered a fourth state of water between liquid and solid.
- A stainless-steel needle is by its nature hydrophilic. When inserted in the body, it comes in contact with extracellular fluid, which is mostly water.
- Structured water can also drive fluid flow, so it may even be at least partly responsible for the flow in the meridians; just like it can drive blood flow in the capillaries.

Editor's Note: This two-part article is based on the author's new book, *Scientific Acupuncture*.

Structured water (H_3O_2) can be considered a fourth state of water between liquid and solid. It has the hexagonal structure of ice; however, missing a critical bond, it behaves more like a gel than a solid, but retains some of its crystalline structure.

Thus, it also has some properties of a crystal lattice, so it is thought of as a liquid crystal. But it is more viscous than bulk water, so it also behaves like a gel.

Structured Water and The "Exclusion Zone" (EZ)

H_3O_2 grows spontaneously next to hydrophilic (water loving) surfaces. It grows layer upon layer, making what can be considered a very fine mesh that pushes out all impurities.

In the process, it also separates charge, with the lattice being negative and the remaining hydrogen going into the surrounding bulk water (H_2O), where it then combines with a water

molecule to form H₃O, which carries a positive charge due to the extra proton.

Thus, a battery is formed between the lattice (called the exclusion zone or EZ) and the surrounding water. This process is then responsible for many effects, as we shall see.

And I am sure that as I learn more, additional links will be discovered. Gerald Pollack claims it is responsible for driving most cellular functions. As he talks about in his book *Cells, Gels and the Engines of Life*, the EZ participates in many of the phase transitions that are involved in many of the processes in cells.

Inserting a Needle

A stainless-steel needle is by its very nature hydrophilic. So, when inserted in the body, it comes in contact with extracellular fluid, which is mostly water. An EZ then begins to form around the needle. This process is driven by radiant energy (mostly infrared energy or heat). Since the body has plenty of heat, this reaction occurs spontaneously.

Because the concentration of protons grows in the surrounding water, it also becomes lower in pH. The negative charge of the EZ draws water molecules to it to continue the buildup of the EZ region, but also contributes to the drawing of water to the site of needle insertion, adding to the effect of electro-osmosis and the anti-inflammatory effect.

Applying moxa to the site will add more radiant energy to the reaction, speeding it up, creating a larger EZ zone and increasing the negative charge.

Structured water and Inflammation

In his book *The 4th Phase of Water: Beyond Solid, Liquid and Vapor*, Pollack describes how inflammation in the body is driven by the structured water reaction. Apparently, the cells are filled with structured water and not bulk water. The process is inhibited by the strength of the cellular matrix.

I developed an anti-inflammatory electroacupuncture treatment based on my view that electronegativity is involved through electro-osmosis. Breaking down the EZ layers converts the H₃O₂ back into 2H₂O.

Usually this process is driven by H₃O ions infiltrating the EZ where there are breaks in the structure, and returning it back into bulk water. Then you get the reaction $H_3O + H_3O_2 = 3H_2O$.

Using polarized waveforms or DC can strip electrons from the structure and break it down. Injuries cause the H₃O ions to penetrate the EZ structure and start the inflammatory process. Usually, the extracellular matrix holds everything firmly in place. Since bulk water is less dense than EZ, the process of converting EZ into bulk water puts pressure on the bonds of the matrix, making it unzip like a zipper. Thus, you get rapid swelling.

Structured water can also drive fluid flow, so it may even be at least partly responsible for the flow in the meridians; just like it can drive blood flow in the capillaries.

Basically, what happens is that the production of EZ layers on the inside of meridians (and pretty much all structures in the body) means the body's water is filled with H₃O ions and will be attracted to any negative charge. This is yet another reason why water is attracted to negative charge.

Editor's Note; Part 2 of this article (May issue) discusses structured water and the meridians, among other topics.

APRIL 2023

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