

Structured Water

As peculiar as it might initially sound, it is likely that water is not really just water as we have known it. Many investigators have begun to distinguish a distinct type of water, called **structured water**, as separate from what most of us know as water, which is often referred to as bulk water.

Structured water has many other names: It can also be called **coherent** water, **primary** water, **exclusion zone (EZ)** water, **magnetized** water, **crystalline** water, **hexagonal** water, etc. Despite the various names, this water has consistent basic characteristics which appear to be different from what most of us have previously known about water. To give some insight into the potential meaning of this water, it is also known as “**informed**” water, while bulk water is called “**uninformed**” water. Hmm, informed about what? From whom? How? When does this occur? Why have many of us not heard about this before?

The Phases of Water

Within the typical range of environmental temperatures and pressures, water is conventionally found in three physical states or phases. We are likely to be very familiar with these states of water (see below).

1) **Solid** (ice)



2) **Liquid** (fluid)



3) **Gaseous** (vapor)



However, there is also a **fourth** state or phase of water. This fourth phase is a plasma-like liquid crystalline gel state, this is the water called **structured**, **coherent**, **crystalline**, **hexagonal**, or **biological** water (Messori, Scientific Research, Vol. 6, No. 2, 2019).

4) **Structured Water** (hexagonal). This is the phase of water in our body tissues and various cells and is not like water in a glass - which is more like bulk water. Rather, structured cellular water is **ordered** and **energetically** enhanced, very much like a crystal, but it's in a fluid state.

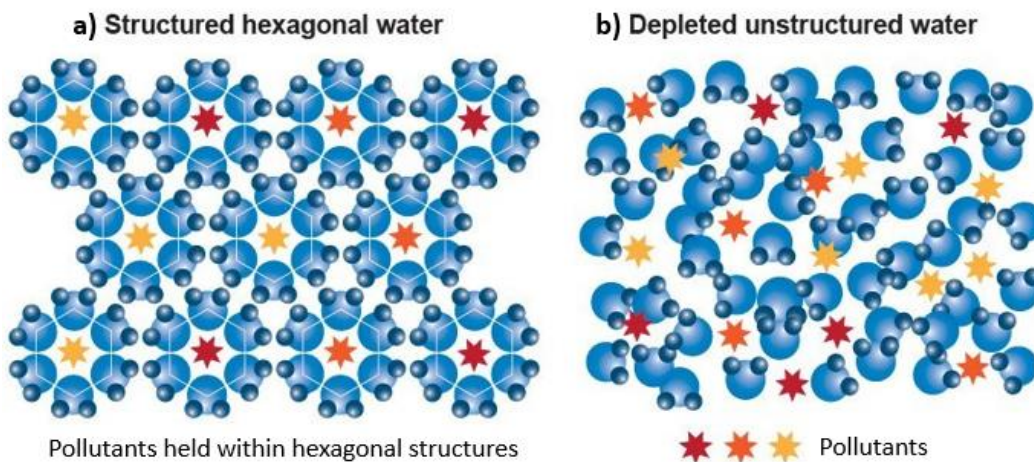
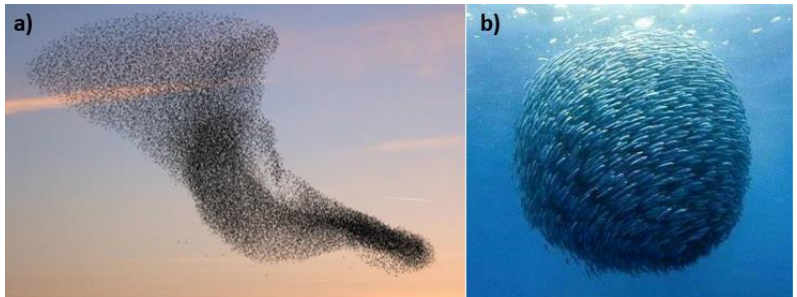


Figure 1. Shows a diagrammatic comparison of a) structured hexagonal water, which displays a significant hexagonal order when compared to b) depleted and unstructured water. An element of the potential benefits of structured water is the protective mechanism of how the water molecules interact with each other and with the other elements in its environment. Note the repeating hexagonal pattern in the organized structured water.

Just as snowflakes have exceptionally clean, ordered and intricate patterns, similarly, structured water excludes particles and solutes as it forms. By having this structure, it forms a physical space called an **exclusion zone** (EZ) in biological systems. The details of how important the **EZ water** is in living systems will follow below.

In the same way that a flock of birds at right **a)**, or a school of fish at far right **b)** are able to act as a single coherent responsive unit, we can begin to think of coherent water this way. Water in this state is more than just a random collection of water molecules. It is energized and super-charged with a crystalline structure that is in harmony with our biological systems and with natural energy sources like the sun, moon and other natural electromagnetic fields (EMFs). Hence, this coherent form of water carries greater energy and information within it, in the form of complex molecular bonds and arrangements that appear to be vital to health and well-being.

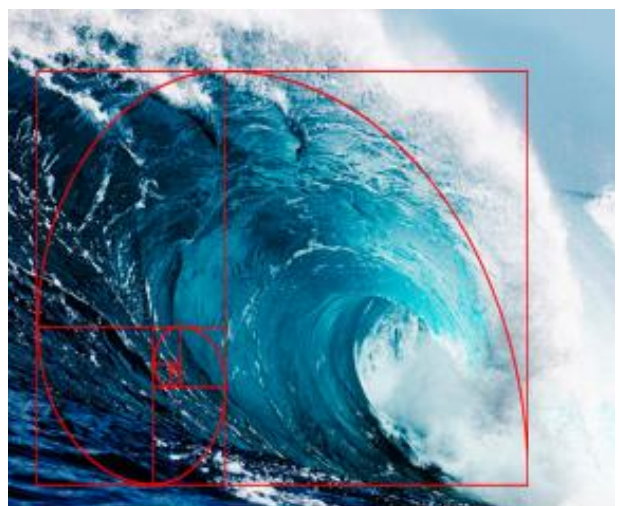


When we examine natural phenomena that can be seen with the naked eye, such as the behavior of those birds and fish above, it would seem that they are in tune with an **invisible conductor**, some element that exists and is able to immediately share information with all who can sense it. It would appear that water is also able to hear or sense this conductor and organize itself accordingly, differently, with more energy and complexity, upon receiving this information.

Water can become Structured and Unstructured

In this liquid crystalline structure form, water is more complex and dynamic. However, if water lacks coherence, or it is **disrupted** by some force, its structural organization can decay rapidly and it loses its energetic structure. The more structured the water, the greater the coherence of the water. This means it will have a greater ability to store and carry signals and other information.

Nature uses a combination of forces to establish and to sustain coherence. **Cyclical** and **spiral** movement and motions are of primary importance with regard to water. Water always prefers to move in a spiral or **vortex** pattern. Vortexting is a very powerful way of increasing the water's structure. Think of how the ocean creates waves that **spiral** as they break! These wave forms are complex vortices that follow the Fibonacci sequence or the '**Golden Spiral**' (see red spiral overlay on wave at right), with the creation and crashing of these waves upon the shore occurring cyclically and **continually**. Also examine the photo of the ocean wave below,



and notice how the oceans have massive sun exposure all day long, even if it's cloudy. **Sun exposure structures water!** So does exposure to the moon and moon light! How structured must the ocean waters be? Answer: Very structured. One reason why life thrives in a healthy ocean. There are people who may roll their eyes at the notion that the sun, or especially the moon can have any impact on other natural bodies, such as water, and therefore us. But

ask any nurse you might know if the emergency room is any different when it's a full moon... the answer is yes. The effects of a full moon, or any phases of the moon, on human behavior is substantial and documented. By conservative estimates the human body is at least **70% water**, thus it stands to reason that all the water in us plays a fundamental role in this interface with nature and natural forces.



Just as we have seen what increases and maintains informed coherent water, the lack of these elements will lead to un-structuring of the water. Disruption of the various natural **electromagnetic fields (EMF's)** is a key factor in the de-structuring of water in living organisms. The strongest EMF that emanates from our body (by far) is the **electromagnetic field of our heart**. As blood courses through the heart it is **structured** by that field! If a person's heart is not happy and healthy, what kind of impact do you

think that will have on all the water in their body? An absence from nature and the natural world is actually very bad for us in many ways. For example, a lack of sun exposure, in steep contrast to modern medical myths, is very detrimental to human health. Worse yet is the routine exposure to **harmful EMF's** from Wi-Fi, cell phones, cell towers, etc. The natural world is very good for us, it is incredibly complex and rich, replete with patterns and EMF's that increase coherence in water, and therefore living organisms. Ps: Don't wear sunglasses! That is another story for another day, but we need the unfiltered full spectrum sunlight to hit our retina in order to stay in tune with nature.

When the water molecules cycle and move within natural electromagnetic fields, they are encumbered in it and allowed to **align and re-align within that field**. Each cycle refines the structure of the system. Eventually, water molecules "find their place" within a coherent domain and even though molecules exchange places, the system as a whole, is not disturbed. Again, this phenomena can be compared to the birds within a flock or the fish within a school. If predators, for example, get a few of the fish, it can temporarily disturb their organization, but it quickly re-organizes to re-establish itself. This is **coherence**. Water responds very similarly when it's within us in its living state.

The Water in and Around Us

In the human body, as well as other living organisms, there are relatively small but vital **electromagnetic fields** that help to keep water structured, as the flow of energy through our organized matrix supports its configuration. Other components within the human body, such as proteins, enzymes, DNA, cell membranes, etc., contribute to the maintenance of water's structure, because these elements are also often liquid crystal-like in structure. They are a part of the larger liquid crystalline whole.

As we begin to contemplate the sheer complexity of water (and there is more to learn), hopefully it has the effect of making us much more aware of the water in us and in our lives. How do we interact with it? How do we treat it? It turns out that our interactions, our **thoughts, intentions** and **actions** with water are extremely important. As strange as it may sound to some, water is paying attention to you. Another incredible aspect of water is that it contains information that can help you have a healthier and happier life. Again, it may sound like an eccentric notion, but many who examine water more closely have come to the conclusion that "informed" water holds information, or secrets about the nature of our reality, and if you become a morally dedicated pupil, they begin to unfold and reveal themselves.

By the way, water does not like sharp angles or being forced through dark and dirty pipes - see the image to the right. It is reminiscent of a clogged artery, isn't it? The water in such a pipe is filled with toxic waste, forced to flow in the dark and is surrounded by disruptive EMF's. Far from an ideal way to treat water. Be nice and kind and loving to all the water in and around you, because, as we will see, it picks up everything that is out there, even when it is in a degraded state.

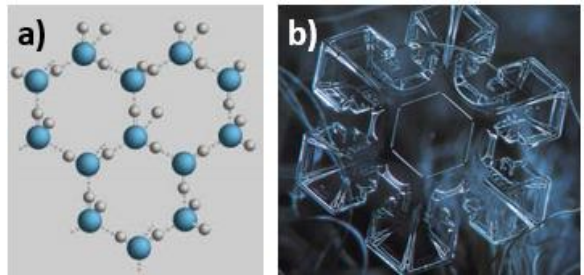


The Existence of Structured Water

Many people have never heard of this type of water and some are of the opinion that there is no proof of its existence, or are skeptical of this concept. However, there is an incredible world of scientific evidence that has been collected for over 100 years, showing that, in various modalities, this water exists and is very special. The history of this will not be presented here, but a selection of compelling studies, images and concepts are shared. If they stimulate your interest in this topic, look into these ideas further.

In 1986 **Dr. Mu Shik Jhon** published his theory of '*Molecular Water Environment*'. The images below show,

a) a structural representation of hexagonal water, and **b)** a photograph of a microscopic image of frozen hexagonal water. Notice the hexagonal structure in all microscopic images of structured water. Dr. Jhon found that the reinstatement of **hexagonal water** in our body can improve vitality, slow aging and prevent disease, as these processes are thought to occur due to the body's loss of hexagonal water from its cells. He also wrote '*The Water*



Puzzle and the Hexagonal Key', wherein he used **water crystal hexamer photography** to demonstrate that many of his theories on the dynamic nature of structured water were accurate, as displayed by the beautiful imagery of the crystalline water clusters. Although the photographs closely resemble snowflake crystals (see **b** above), they are thousands of times smaller. This technique allowed for a greater expansion in the understanding of hexagonally-structured water. He also collected scientific evidence that the hexagonal structure of water is preferred by all biological organisms, and has a positive impact on DNA, enzyme reactions, and numerous metabolic functions.

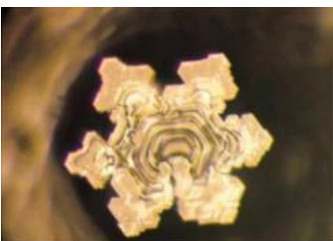
Another prodigious water researched was **Dr. Masaru Emoto**. He wrote the book '*The Hidden Messages*



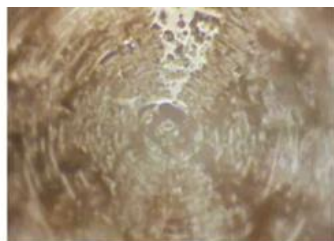
Love and Gratitude



You Disgust Me



Mozart's Symphony No. 40



Heavy Metal Music

in Water' after he conducted scientific studies gathering evidence of how the molecular structure of water is transformed when exposed to human **words, thoughts, sounds and intentions**. After applying a variety of conditions on water samples, they were frozen and high-speed microscopic photographs were taken of the water. To the left are examples of water crystal photographs from Dr. Emoto's work. Each ice crystal shown was exposed to the word or the music written under it prior to being frozen and photographed. His work demonstrates the responsiveness of water to the intentions and frequencies around it. When water was exposed to loving, benevolent, and compassionate human intention, this resulted in

extremely complex, aesthetically pleasing physical molecular formations in the water. In contrast, if water were exposed to fearful and discordant human intentions, such as disgust and hate, the water showed distorted, disorganized and disfigured physical molecular formations.

In the 1988 study by French immunologist **Jacques Benveniste**, it was discovered that essentially **water has memory**. In serial dilutions of human antibodies in water, the dilutions were so numerous that effectively they could not detect any discernable substances in this water solution. However, after mixing that water with white blood cells, the cells responded as though they had encountered the antibodies, that is, it appeared as though from the water's initial exposure, this water remembered the antibodies. Almost as if a signature frequency of the substance were imparted on the water.



This study was published in the famed science journal

Nature amidst much nervousness and controversy, primarily due to fear that if this idea were accurate, all of our views about science would need to change. Awe, what a shame that would be!

An extremely interesting more recent water researcher is the New Zealander **Veda Austin**. She has published a book called *'The Secret Intelligence of Water: Macroscopic Evidence of Water Responding to Human Consciousness'*. This is another area of fascinating exploration that pivots on the work Dr. Emoto and others from using a **microscopic photography** with ice crystals, and moving to simply photographing water that has been frozen in a petri dish at home. Through **macroscopic photography** and other innovative yet simple techniques, Veda Austin has compellingly shown the dynamic and perceptive nature of water. She has shared her techniques and experiences with many others on how to view water as an intelligent force that has the capacity and power to respond to human consciousness in ways that have not really been thought possible before.

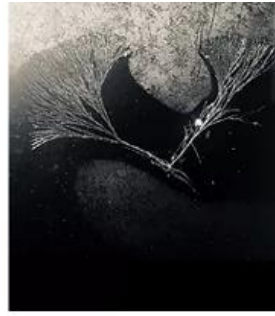
Veda's Methodology: Get some good water, preferably from a natural source or treated with a 'structuring device' (see below). Place a small amount in a glass petri dish. Sit the water filled petri dish on top of a photograph for 30 seconds. Or simply make your intentions known to the water in the dish. Place it in the freezer. Water freezes in layers and it is the 'informed' water that crystallizes first. Often it is this first frozen layer that provides the most astute and defined representation of the images or intentions presented.



Her work originally focused on the stage of water between liquid and ice, and as described above, the technique was to photograph water in a state of 'creation'. All pictures were taken with her phone camera, so no special expensive equipment is required. She uses influences such as **words, thoughts, photographic images** placed under the petri dish of water, or **music** prior to freezing the water. In a relatively short time, a matter of minutes, she is able to capture water's liquid crystal response to the impression made on it.



Original image.



Water's rendering.



Original image.



Water's rendering.

Repeatedly in her experiments, water appears to render images much like an artist makes their own representation of an image or idea. Accurate, detailed but distinct and unique. For example, after the thought of a hand was sent to the water, a compelling image of a hand appeared in the ice. Even apparently simple words have manifested into complex forms.

Finally, to round out some of the leading structured water researchers we will include a discussion of some moderately high level physiology with **Dr. Gerald Pollack's** work, who is a professor of Bioengineering at the University of Washington in Seattle, and the author of *'The Fourth Phase of Water'*.

His research has shown that there are many observable aspects of water that cannot be fully understood or explained using only the '3 phases' theory of water. Dr. Pollack has found that when energy is introduced to water, the molecules undergo significant changes, representative of the **4th phase of water**. This water acquires charge, becomes more viscous with an increase in density of about 10%, becomes more alkaline, and its optical properties change. It also becomes incredibly ordered. Especially important is the **hexagonal** configuration of this state. Look at a **snowflake** (at right) as it displays a supremely ordered hexagonal form. This repetition of consistent forms appears **fractal**, that is, the structures are similar when magnified or reduced in size.



Here is where it gets a little technical in the biochemistry aspect. Bear with it. A working theory is that this water is not in a 'free state' like the water in a glass that we are more familiar with, but as already mentioned, is structured in a **hexagonal lattice** with the surrounding water. Individual water molecules (**H₂O**) form loose ionic bonds creating an **H₃O₂** lattice. This imparts more viscosity and it is postulated that it is the basis for creating cellular life. The "added" hydrogen (H) and oxygen (O) allows for an **ionic bonding** of the water, which just may be that essential element required for life's mysterious abilities to manipulate and generate proteins, enzymes and all the other biochemistry of life.

Structured water, theorized to be **H₃O₂**, is distilled **by the body**, in other words, we make it! It is found intracellularly (within cells). This water is **essential for healthy cell function**, and is also intricately involved in **healing other deficiencies**. For example, one of the reasons **juicing** is so effective for body rejuvenation is due to this infusion of structuralized water, leading to rejuvenation of cellular tissue and the body. More recently, Dr. Pollack's research data demonstrates that interfacial water adjacent to **hydrophilic** surfaces exhibits peculiar anomalous properties; that is, it is electrically charged, and the sign of its charge is the same as the charge of the contiguous hydrophilic surface (see **Fig. 2** below). This is known as "**Exclusion Zone water**" (EZ water) because it acts like a **physical barrier** and excludes solutes (other substances in the water). The properties of this interfacial water can be derived from the properties of coherent water.

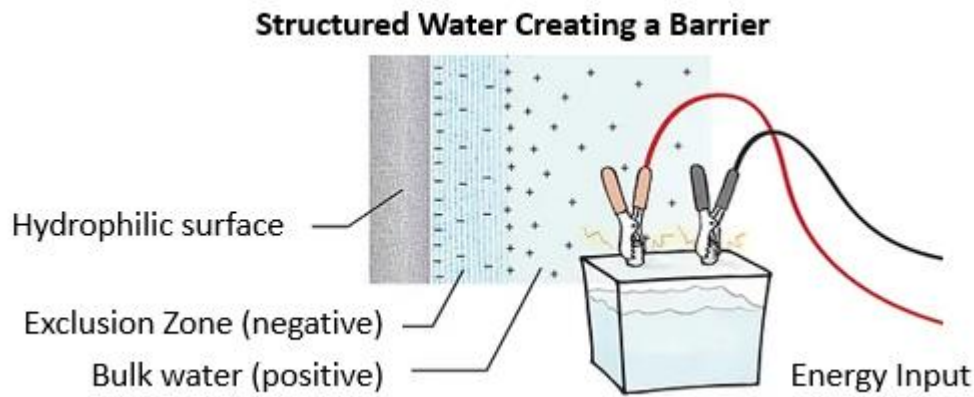


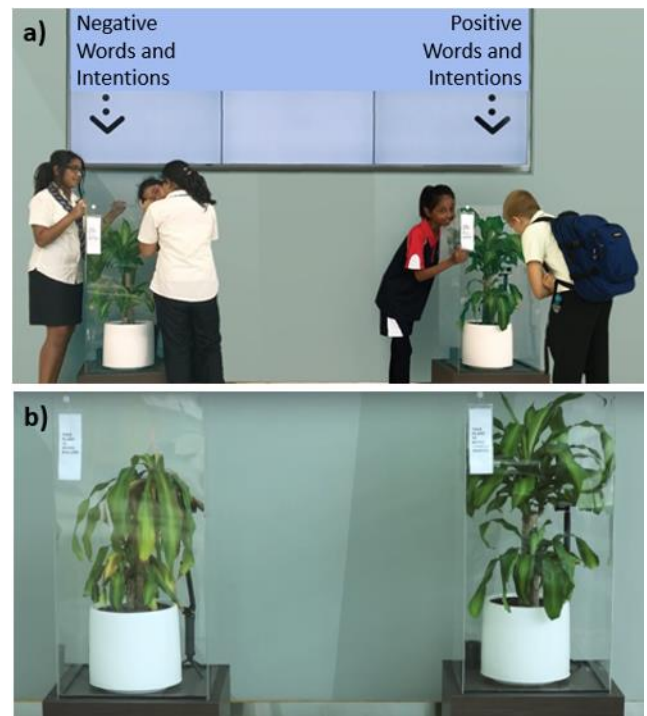
Figure 2. The results of an experimental set up for creating structured water in the lab. Energy is supplied to the water and at the interface of water and a hydrophilic (water loving) surface, an exclusion zone (EZ) of coherent water is created. The significance of this is that the negative charge of the EZ water acts as a physical barrier to the passage of solutes (substances) in the water. If this is accurate, it would require a re-writing of all physiology textbook descriptions of cell membranes.

In regard to this research, the findings that solutes were 'excluded' from the exclusion zone and became negatively charged, while the zone beyond it became oppositely positively charged was very significant. This separation of charged particles constitutes a **battery**. Batteries store energy, from which a current can be drawn. The battery is re-charged by incident radiant energy. Hence, the process resembles the first step of **photosynthesis** wherein incident **light** yields charge separation and useful energy. It is effectively a **photoelectric** effect, except that the medium is **structured water**. These findings would support the importance of healthy sun exposure in our lives. This is potentially astounding information that again, if accurate, would require a re-writing of science texts. It is definitely worth looking into further.

A Lesson from Plants – the Water Connection

There are many high level experiments regarding the complex aspects of plant communication. The book *'The Secret Life of Plants'* includes the 1960's work of Cleve Backster who made polygraph measurements of plant responsiveness in a fascinating and noteworthy way. However, a much more recent study carried out in 2018 by the furniture store IKEA can very simply illustrate the sensitivity of plants along the same lines as the experiments above that demonstrated **the effect of words on water**. Ikea took two of its own *Dracaena* succulent plants and installed them at a school (see **Fig. 3 a**). Both plants were played looped voice recordings provided by the school children, containing **negative hateful words** or **positive compliments**.

Figure 3. In the IKEA plant experiment, initially two *Dracaena* plants shown in **a**) were treated with either negative or positive words that were recorded by school children and played back to the plants on a recurring loop. After 30 days, the two plants **b**) showed dramatic differences in appearance. The plant treated with negative and hateful words wilted and yellowed, while the other plant treated with positive and complementary words flourished and grew.



All other possible conditions for the plants were controlled for; both experienced the same temperature, received the same amount of water, sunlight and fertilizer. The only difference in treatment were the words they received. After 30 days there were noticeable differences in the appearance of the two plants (see **Fig. 3 b**). The plant that was exposed to negative words looked demoralized and wilted, whereas the plant that was complimented flourished, was greener and grew larger.

It puts one in mind of that ‘loop’ we humans have in our mind at times that can get us trapped in a negative trajectory. Effectively we are telling ourselves the same kind of things that made that poor plant wilt and look very sad. If you notice that occurring, change the loop. Make the comments to yourself constructive and gracious. Also genuinely praise and esteem others, it is often the best medicine.

How Can Water be Structured?

Succinctly, it is postulated that water can be returned to its structured form using several different methods, including:

1. Magnetizing it through a process called vortexing.
2. Exposing the water to natural heat and energy like sunlight.
3. Exposing the water to ultraviolet or infrared light.
4. Storing the water in a gemstone water bottle, or place gems within it.

Where can we get a Source of Structured Water?

Here is a list of the various known sources of Structured Water.

- Spring water: This water is under enormous pressure deep in the ground, and saturated with minerals and natural EMF’s that make it extremely structured.
- Glacial melt: Ice in nature turns into structured or EZ water when melting, this is the phase between liquid and solid, which is the exact phase of structured water.
- Vortexing: Vortex motions occur naturally in nature, as in streams, rivers, waterfalls, waves in the ocean, etc. A vortex is a kind of mechanical perturbation or agitation of the water. Vortexing is a very powerful way of increasing structure. There are devices on the market which vortex water.
- Juicing: This fluid represents water that comes from the plant cells. It is structured juice water!
- Sunlight: This is critical to our health. Healthy sun light exposure builds structured water within us.
- Grounding: Being barefoot outside on the earth, especially when it’s damp, facilitates the absorption of earth's energy, which creates more ordered body fluids and other health benefits.
- Circulation: Another shocking revelation (for another time) is that forces other than pressure from the heart drive blood flow in the body. As red blood cells move through capillaries, light and electrical charges help to drive the flow. Add light and flow increases. Thus, get more good light.
- Infrared light: Stimulates energy generation and helps drive many vital processes in the body.

Explore Important Issues for Yourself

Far from being ‘settled’, authentic science, that which is focused on **searching for the truth**, is currently in its infancy. Let’s help it grow! The concept that things we have been taught to believe may actually not be true is a precious one. Explore issues for yourself, no lab coat or degree required. If we as descent people can allow ourselves to entertain a **shift in perspective** with regard to how we view the world - a perspective that is more closely aligned with the **truth** - that would be an extremely valuable way of thinking and behaving for all of us.

Water Structuring Devices

This is not an endorsement of any product or technique for creating structured water, but provides a very brief summary of the more common water structuring devices that are currently available. Some of the basic options are seen to the right.

Recall that structured water is found in nature and if access to that is available, it is the best source of structured water.

It is also worth noting that anyone can make their own water structuring device very inexpensively! A stick with coiled **copper wire** going around it will do the trick. Use this to vortex (stir) your water for about 30 seconds. There are even copper spoons available to vortex water. Copper is an excellent conductor of electricity. It may be surprising to know that copper is surpassed in this ability only by silver. This information may make it clear why the silverware we used in the past to prepare and eat food with was actually made out of **silver**, the most conductive metal known. Other options for structuring water easily are by using specific crystals (like **quartz**) set in a glass water bottle, **magnets** placed in a funnel that make water spiral through it, or sitting a glass of water in the direct **sunlight** for a period of time... All of these are simple yet effective techniques for structuring your water.

One way or another, it is possible to create more structured water. Whether it is by purchasing a water funnel, an analemma wand, a coherent EMF generator, or by making an instrument yourself. These various devices create specific flow and often contain other materials with precise geometry and conductivity that help energize the water, and establish a balanced vortex motion within the water (or in the atmosphere) which can enhance the coherence and structure of water.

As we have seen, the humble act of saying nice things to water before you drink it will increase its coherence. This may encourage us to recognize how meaningful it is to pray or give thanks before a meal or before drinking. It would appear to be a beneficial practice in many ways.

Dr. Marie McMahon, Ph.D.

Professor of Anatomy and Physiology

Water Funnel



Analemma Wand



Coherent EMF Generator

