



Esperer.H2O {vs} Nano Ionized High pH Alkaline Water {vs} Raw Alkaline Water

Defining the answer to, what is Functional Electrolyzed Water for Human consumption

This document is a training document for all Esperer.H2O model ES 2000 sales associates. To understand Esperer.H2O and what makes it different from Raw Water treated in anyway as well as Ionized Alkaline Hydrogen Waters. There is no marketing mumbo jumbo included, just the facts as boring as they are.

To Any Others

If you want to understand water from a completely different perspective this document will be interesting to you. Not too many people relate water to electricity, no one ever told them water is liquid energy powered by electricity.

They told them the opposite, don't get water and electricity together. Those people are the people who do not understand water.

Take a moment to be "SHOCKED" by Water

Esperer. H₂O

Functional Electrolyzed Water

Advanced High Amp Dual Polarity Electrochemistry Neutral
FEW Neutral Alkaline {vs} Nano Ionized High pH Alkaline {vs} Raw Alkaline Water
Defining the answer to, what is Functional Electrolyzed Water for Human consumption?

Introduction : Water as a subject is simple to discuss, treating water not so much, this is where most are lost and rely on professional advice. Unfortunately, this means one must trust the individual providing the consultation. How can the public know if they are getting good information, mis-information, or just someone who don't know what they are talking about? It is the responsibility of the individual to do their own research. Listen to what is said, go home and look it up online using several sites and on different days to shake up the search results. See if anyone else agrees with the information or is it just marketing mumbo jumbo. The information on advanced electrochemistry is a bit much to research as when discussing electrolyzed waters, the subject becomes complicated although it can be done. I continue to research the subject everyday as part of how I develop other system methods for other functional purposes. The more you learn, the better you understand one fact, you know less than the total amount of information available. Always keep in mind, you do not know, what you do not know, until you know it.

A lot of people will ask a person they assume is a professional, a question, they get an answer and assume its accurate and or true. Most of the time it is neither, it is salesman telling you what you want to hear to make a sale. When you know the right questions to ask, understand why you're asking the question, and most importantly understand the answer, that individual can no longer give you mis-information and they know it. Now you have a better chance of getting facts to help you decide on the right system for you.

I am going to walk through the process of understanding water better. There is nothing hard or complicated about water, its only confusing because companies marketing products created confusion on purpose to make money. Now you ask them a question, they give you an answer while handing you a product in one hand and taking your money with the other. I would assume most professionals are honest and legitimate, although you can not assume the individual whom you are talking to is a knowledgeable professional and not just a salesman with good marketing. Do your homework.



Most Importantly What you Hydrate with Matters

Summary : Humans are about 65% to 70% water if healthy; water quality is one of the most important subjects to human health not hydration, what you hydrate with matters. The same quality water which originally engineered our organics is no longer compatible to us, evolution has changed the requirements adapting to life as we know it today. Natural clean neutral low TDS balanced water for consumption is a thing of the past as well. The entire planets water supply is contaminated in one way or another. There is no water on earth ready to consume without proper preparation.

Raw well water from personal wells and municipal supplied water rely on filtration to make them consumable. Bottled water takes care of the filtration and sanitation process for us to insure safe consumable water.

As living organics, we require more from water than just consumable, we need to consume water to hydrate, digest, carry vital nutrients and exchange gases through out our body. Water itself is not just for “hydration”, hydration is responsible as the carrier to transport all products ingested and produced by the organic reactions to sustain cellular life. When your thirsty, you're not just thirsty, it's a warning signal from your body, your “engine light” just turned on!

Today water is commercialized, all sorts of false promises are made using misleading information for product sales. Learning how to categorize information on the subject is the first step, learn about water. Most products marketing information will make no attempt at communicating the information we share as if they did, they would disqualify what they are selling you.

Water is our business and not just for consumption. We educate people on what water is. How to use water for what you require effectively and efficiently. We engineer Functional Electrolyzed Water for the harshest industrial hydrothermal purposes, consumption in comparison is easy.

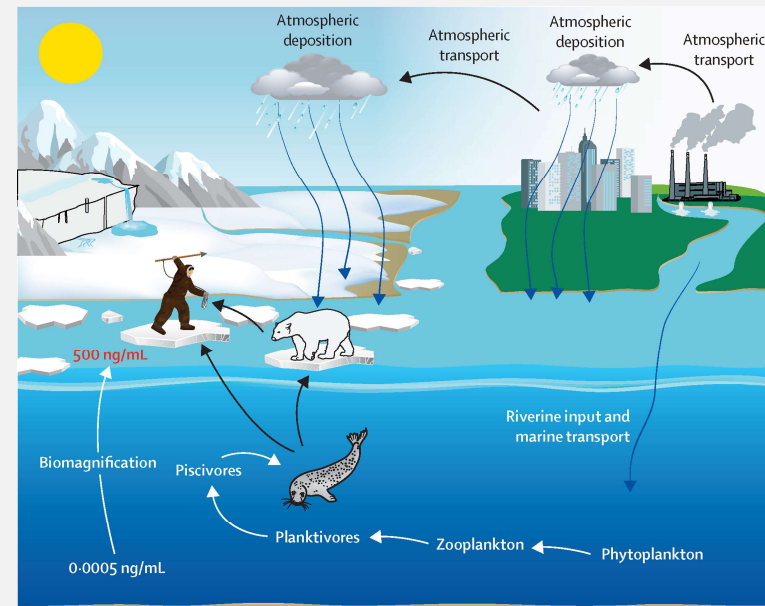
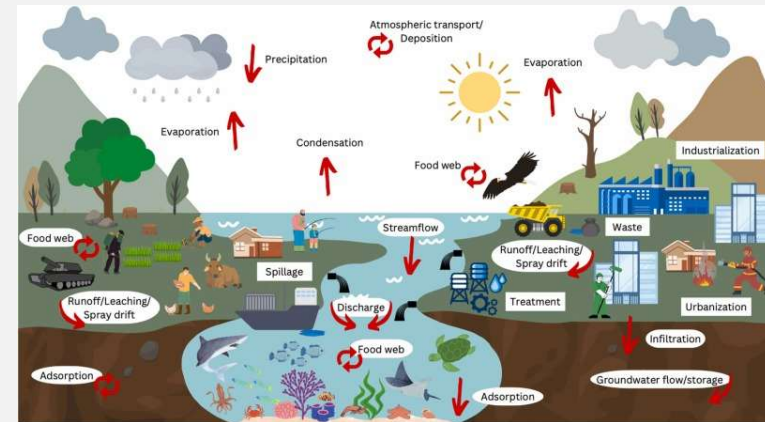
The Human body is a hydrothermal system also, just an organic one, that's why we are $\frac{3}{4}$ water, our water matters. Water and NaCl (sodium chloride) aka table salt are very important. This is what keeps our system balanced. Lack the proper balance of either and you suffer or even worse die. Good health starts with and is an indication of the quality of the water you consume. Water should be your 1st concern, for most it's the last if at all. I am shocked at how many people give water no importance, and worse yet the people who say they do not drink water at all because they don't like it. Its not a surprise the healthiest of people I interact with are those who take their water seriously, it truly matters.

Statement of the problem : The worlds water supply is contaminated. People boast about specific well waters coming from specific places or depths, all a false sense of security, someone sold you a bag of donuts.

No matter where pollution is coming from in the world, it makes it through out the entire planets water circulation system, it does not stay local. Today the planets total water supply is a toxic mess, fresh water, brackish water, and salt water. From our surface waters, well waters, even polar ice. The waters raining from the skies are not any better, a big misunderstanding by most is rainwater is clean pure water, WRONG! It may lack TDS but it makes up for it in chemicals, bacteria, rods and spores generally rainwater is a host of bad stuff its not good for human consumption.

TDS is the least of your worries. The really nasty stuff is much smaller and far more dangerous, such as chemicals, pesticides, pharmaceuticals and so on, these should be your 1st concern. These are the concentrations you will not see in parts per million (PPM) measurements; you must go to .02ppt (20 parts per quadrillion), if you want to know the truth. The new EPA standards are set to 4ppt although not required yet. It is still not telling you the truth, it still allows for hiding a lot of chemical.

If the standard is 4ppt MDL, then the test although reading zero only means nothing of greater than 4ppt, what is less is not recognized but it is still there, it can become confusing. When submitting an analysis for total PFAS, the lower the testing standard the more PFAS analytes you will find overall, adding to the total PFAS present. If you test to a higher standard such as 10ppt MDL, you will not see near as many, and it will give you a false sense of total. The higher the standard the less the total PFAS present. Today the EPA “recommendation” is 70ppt, an insane standard that hides most of all PFAS analytes in the analysis, which is the point. We have experience with PFAS testing by LC/MS-MS, 0.02ppt, 4ppt and 10ppt. We understand the difference in what these standards tell us, we understand why people pick a specific standard, its for a false total, if you want to claim you remove all PFAS, but don’t really do it.



Know how to read an analysis, know what the analysis is and means.

Table 1. Summary of the PFAS concentrations in water samples.

MDL: Method detection limit and values in bold are calculated concentrations extrapolated from calibration curve and should be considered estimated concentrations.

Total PFAS= sum of concentrations of each compound present in the sample (sum of 30 PFAS)

	Samples	PFBA	PFPcA	PFBS	4-2 FTS	PFHxA	GenX	PFPcS	FBSA	PFHpA	Adona	PFHxS	6-2FTS	PFOA	PFHpS	PFOS	PFNA	
1.	raw l	7.91	4.17	17.40	<MDL	2.49	<MDL	0.81	0.14	1.55	<MDL	4.64	<MDL	13.75	0.73	26.14	0.67	
d.	1st L	9.98	6.01	31.11	<MDL	6.33	<MDL	1.00	0.05	2.28	<MDL	5.86	<MDL	7.53	0.81	33.00	0.83	
a.	1st H	30.74	3.01	9.92	<MDL	2.36	<MDL	0.45	0.10	1.38	<MDL	3.46	<MDL	4.94	0.60	18.24	0.48	
e.	2nd L	45.78	8.54	<MDL	<MDL	23.44	<MDL	0.90	<MDL	2.92	<MDL	5.32	<MDL	7.40	0.80	15.25	2.40	
b.	2nd H	8.23	5.18	20.20	<MDL	3.86	<MDL	0.85	0.06	1.99	<MDL	4.42	<MDL	5.80	0.55	26.22	0.60	
[M-1] 2.	TRF	12.04	4.42	16.76	<MDL	3.57	<MDL	0.74	0.48	1.73	<MDL	4.55	<MDL	5.37	0.59	19.70	0.52	
f.	FINL	16.17	9.00	<MDL	<MDL	7.76	<MDL	1.22	<MDL	2.71	<MDL	6.30	<MDL	7.36	1.06	28.44	1.09	
c.	FINH	9.60	6.15	31.15	<MDL	5.09	<MDL	1.10	0.14	2.23	<MDL	5.46	<MDL	6.29	0.83	24.42	0.72	
[M-2] 3.	ALTF	7.62	4.10	17.40	<MDL	2.46	<MDL	0.82	0.19	1.59	<MDL	4.50	<MDL	5.23	0.68	23.66	0.57	
g.	ALTL	7.34	4.18	20.27	<MDL	2.65	<MDL	0.88	0.10	1.63	<MDL	4.69	<MDL	5.29	0.69	22.74	0.67	
[M-3] 4.	ALTH	6.32	3.49	15.01	<MDL	2.23	<MDL	0.72	0.57	1.42	<MDL	4.16	<MDL	5.06	0.61	19.91	0.52	
	MDL (mg/L)	0.05	0.13	0.01	0.03	0.01	0.02	0.02	0.05	0.05	0.02	0.04	0.35	0.04	0.04	0.04	0.03	

Using this single page in this context the only line number that counts is #1. *(My reading of S. Fl. C103 surface water)*

Looks what's above 70ppt NOTHING!

Look at what is above 4ppt and above 10ppt separately

Look at what is above .02ppt but below 4ppt, this will still be hidden from you at the new EPA 4ppt standard. It's a lot!

The 0.02ppt MDL standard is the true Total PFAS with no BS, 20 parts per quadrillion is the lowest reasonable MDL today.

Scary thought, the world is so contaminated its not reasonable to test to zero contamination. There is not an environment nor surface clean enough to do so.

This is how an analysis is manipulated to hide what they do not want to admit to. 70~10~4 or 0.02 just regulates how honest the test is.

No water provider tests to the 0.02ppt standard other than researchers who want the truth, like us. The suppliers can get away with 70ppt without showing it just by saying they meet the EPA recommendations for safe water. If they are not calling out the standard, there is a reason.

We keep up with the latest advancements a total analyte detections for the most complete analysis and elimination tracking available when doing PFAS Analysis. We do not want to match the standard, we want to exceed it, for this we must test below the standard to know.

We can get an analysis done for anyone by FIU (0.02ppt) or ALS (4.0ppt) as the certified labs.

Current analyte total is 40, again scary thought that we can only detect 40 out of 1000's of chemicals analytes present. The 40 are an indication of the others, but if you do not test to a standard that can see all 40, your being misled. Most of the chemical variations present are below 4ppt, that is the point of the 4ppt standard, it's just another lie for a false sense of safe water. Originally the EPA was going to require 0.004ppt, the problem is no one can provide an analysis at 0.004ppt, the best at todays standards are 0.02ppt, but they settled on 4.0ppt, WHY? Its all a misleading lie, know the truth.⁵

4ppt = 4 gallons of chemical in 4,000,000,000 (trillion) gallons of water, or 4 single drops of chemical in 13,200,000 (Million) gallons of water, PFAS is some dangerous stuff! And today the “recommended” not regulated EPA guideline is 70ppt!

Unfortunately, as the past is an indication of the current, we can not trust the government standards, today they admit this is has been all hidden from the public, now that it is exposed, they are forced to regulate the problem, today and prior, there was no regulation and no responsibility to inform the public of PFAS concentrations in public water supplies.

Know testing standards so you know what they mean. Companies use a lessor standard to use it in a misleading ways all the time, I know the difference, do you? If they claim to remove PFAS, ask at what standard. The higher the standard the more PFAS is hidden in the analysis.

This is simple to understand, if they do not want to publish a report about anything in specific, they just do not do an analysis in that range, now it can not be public information because it was never analyzed. If they do not publish it, you can assume it is because they do not want to be responsible for the number. You must know your own water, just as you must know your food, your nutrients, and your medications. Your water could be what is making you sick in the first place.

I know I am one of the infamous Camp Lejeune Veterans with chemical poisoning from the contaminated base water supply. How do you know? You can not see it, you can not taste it, today you can you reasonably test for it as a private citizen. There are adds for water analysis, but most are only trying to sell you equipment.

I can only communicate to you, neither my fellow Marines nor I knew we were consuming chemically contaminated water for years. Unfortunately, the “Shit Bird” (an official term used by US Marines for a “Bad Marine” who was in charge did know the entire time and did not care. The saying goes “*If you can’t trust a Marine, who can you trust?*”. Well so much for that. You can not trust just anyone; you must do your own homework; I learned the hard lesson on trust, shit birds hide everywhere. This took place from 1953~1984, not yesterday, its nothing new and fought over for decades, today it is responsible for bringing attention to this dangerous health risk. Unfortunately, PFAS Poisoning made CLNC Infamous and fortunately vise-ver-sa on PFAS.

THE FOUR MAIN CONTAMINANTS AT CAMP LEJEUNE

TETRACHLOROETHYLENE (PCE OR PERC)	Used as a dry cleaning solvent and industrial chemical
TRICHLOROETHYLENE (TCE)	Used as a dry cleaning solvent, metal degreaser and in cleaning supplies
VINYL CHLORIDE	Used to produce PVC pipes and countless other plastic items
BENZENE	Used in production of plastics, rubbers and many other everyday items

Health issues and symptoms linked to Camp Lejeune water contamination include:

<ul style="list-style-type: none">• Bladder Cancer• Breast Cancer• Cervical Cancer• Esophageal Cancer• Kidney Cancer• Liver Cancer• Non-Hodgkin's Lymphoma• Adult Leukemia• Aplastic Anemia and other myelodysplastic syndromes• Multiple Myeloma• Multiple Myeloma	<ul style="list-style-type: none">• Renal Toxicity• Scleroderma• Hepatic Steatosis• Infertility In Women (and other birth effects)• Lung Cancer• Neurobehavioral Effects (like ALS & Parkinson's Disease)• Ovarian Cancer• Stomach Cancer• Birth defects and birth injury• Miscarriage
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Preparing Raw Water for Human Consumption

The First Step Preparation :

Raw water is a raw ingredient like any other raw ingredient. It must be prepared for the intended purpose. We are going to prepare raw water for human consumption and hydration. First let us get rid of some marketing mis information a lot of people do not understand.

Water as we call it is H₂O with dissolved solids (TDS) categorized as a weak acid and measured by pH.

H₂O is a single molecule of pure “water”, it does not exist in volume on earth, this is not “ZERO Water” that is a marketing term/gimmick. Although this is the most zero of water you can get, pure H₂O absolutely no content, a human could not consume it in volume although our bodies also produce it. It is the bonding of hydrogen and oxygen, and it is only H₂O at the time it is created, instantly it will self ionize for balance and gain content becoming a weak acid or what we commonly call fresh water.

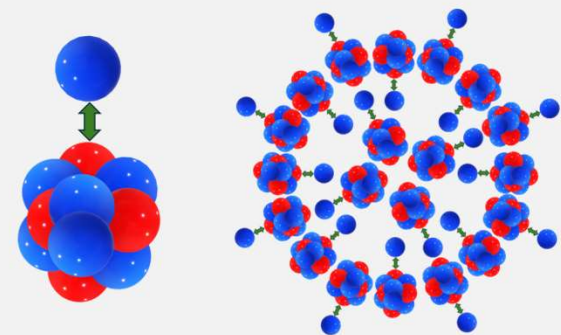
TDS is not bad for you; it is vital for life. The saline in our bodies is minimum 15,000 ppm TDS, any lower you're in trouble. You are not supposed to consume “zero water” of less than 50 ppm TDS to include NaCl sodium chloride (table salt). Consumable water is from 50ppm to 300 ppm TDS, you can consume higher although most do not care for it as the water becomes too salty, most people do not like the lack of taste of the lower TDS, they like the taste of the 300 TDS the best. Our bodies recognize the taste of NaCl and desire it for balance, this is why we put salt on are food. How can it be bad in water? Its not, its all-marketing mis information to sell you more products.

Water and NaCl are what balance the pH in our bodies along with other vital functions. Lack one or the other you will die, so TDS is not bad for you no matter what you hear on TV. The truth involves knowing what makes up the TDS and the total concentration ppm of TDS.

Raw water is just raw water. If it is filtered great, its filtered raw water. At best this is the water you're getting. Raw water is not the water quality your body is looking for filtered or not.

In some cases, such as reverse osmosis, the water is worse for consumption not better. The RO beyond filtration destroyed the balance of the water. A good RO system will re-mineralize the water after the membrane, this is called pH neutralization, this allows the proper level of minerals for hydration although they have not been naturally processed and dissolved, as RO does not remove all chemicals a coconut carbon block is best for finishing, now it is again consumable.

Typical Raw Water - Unbalanced cluster of mixed Ions pH7
Weak Energy Less the 1 IP at Ambient Temperature

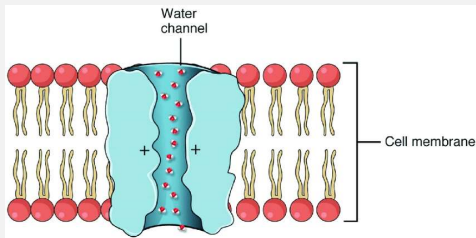


Hydration and Absorption – THE TRUTH

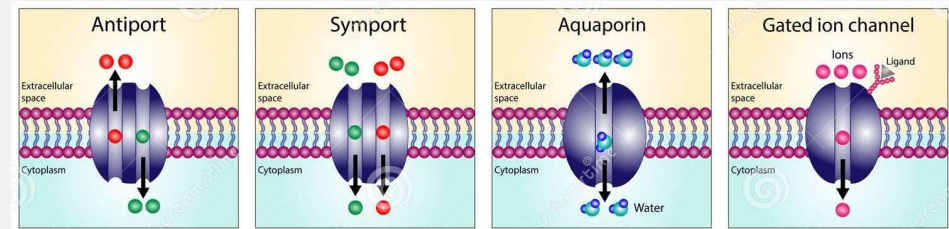
Properly pretreated raw water is a great place to start for electrolyzing. This water still lacks what the body needs other than the minimal amount of TDS for safe consumption. This is a heavy structured water with 13-15 clustered molecules at ambient temperature, no good for hydration.

The body absorbs water 1 molecule at a time, if the water is clustered, we can not absorb it. Clusters means the electrolytes have very weak power, here is where the marketing guys come in and “add electrolytes” to the sports drinks for “energy”. This is a marketing gimmick playing on miss leading the facts. The refreshing feeling felt is short lived, the added salt just makes you thirstier, the thirstier you get the more you guzzle down, the more you buy, the more you drink, and they make more money, it is great for them. It's a page from the old days when a Bar would put out a salty snack for free, it was to make you thirsty and drink more beer not to be generous.

I like the sports drinks also, but I understand this simple fact, they are a flavored beverage, not hydrating you, only clean water non contaminated with flavors and sugars hydrates, although raw is not great for hydration either as it is very weak in energy. We solve this by increasing the potential of water, potential just means energy, but with electricity not salt mineral additives. We increase the energy of the ions already present in the water by 10,000 times, talk about electrolyte power! We release the molecules as -1/1 for 100% absorption by aquaporin transportation.



Requirements for aquaporin transport
aka absorbing water are:
Dissociated -1 Negative Basic charge
Dissociated 1 Positive Acidic charge
-1/1 Perfect Neutral Availability
(-1/1 = Bonded Neutral Esperer.H2O)



Absorption: This is what most think its all about. This is a complicated subject, but the bottom line is only 1 molecule at a time can pass an aquaporin. The channels are selective they are looking for something in specific. H2O is the carrier for what ever the individual content is. The water is important for hydrating, but the cargo is just as important, it is the vital ingredients for life and balance, one reason why zero water is useless for hydration, its not recognized as its empty of content and will not dissociate into 1 molecule easily it has no power to do so. This is why you are not to consume zero-water or distilled water; zero water will take the calcium from your teeth and bones; the empty H2O will look for content anywhere it can get it. The signal for transport through an aquaporin is initiated by the power of the content not the molecule of H2O.

The facts are simple, to increase absorption, you must increase the power of the content's dissociation (electrochemistry), not remove the contents (zero water). The power comes from dissolved ions (salts from NaCl minerals) not sugars and flavors (sports drinks), they are an inhibitor to hydration.

Esperer.H2O Patented Advanced Electrochemistry for Consumable Water

Aquaporin transportation compatibility is the base of advanced electrochemistry. It is all about how to pass the membrane of a cell without damage to the membrane. This is commonly understood as Bio Selective. When it is available for your body to naturally select what you are providing without negative side effects. This becomes important in all areas of water treatment especially bio selective neutralization of organics; absorption is all absorption not just H2O for human intercellular hydration and why it is a specialty of this technology. What we are discussing is the total control of water for specific functional uses, Functional Electrolyzed Water, not just Functional Water.

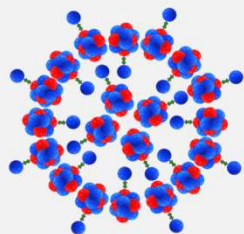
Briefly we will cover Single Polarity Electrochemistry ionizing alkaline waters. Although popular, their popularity is more of great marketing than facts.

Are single polarity alkaline ionizes better than raw water? Depends on the context of the question. For daily hydration NO.

Are they safe to drink? There are limitations on consuming a very high pH and low reduced water which is far out of balance for humans.

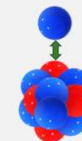
Everything needs balance, Single Polarity Ionizers are not balanced. The pH is too high, the Hydrogen is infused and at a very high concentration, this does not make it better! If you get too much hydrogen your body will produce ROS, that is exactly the opposite of the intention.

Esperer.H2O shares non of these limitations



Raw Source Water

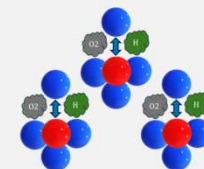
Typical water at ambient temperature
15 molecule Unbalanced clusters controlled by self ionization
1 molecule dissociation self ionizing



Raw vs 1.37 Nano Cluster

Low Amp Single Polarity Reduced 1.37 IP Alkaline Nano Cluster

Typical water at ambient temperature
5 molecule unbalanced reduced Nano cluster 1.37 Ionic Product
Increase to 3 molecules ionizing with increased Ionic Product
Unbalanced Hydrogen Gases infused in water suspended in clusters
Byproduct of hydrogen reduction is Oxygen



Nano Cluster vs 6.45 Cluster FREE

High Amp Dual Polarity Reduced 6.45 IP Neutral Negative Dominant

Cluster Free - Single Molecule - Single Bonded Dual Ion 6.45 Ionic Product
100% compatible with all aquaporin transport (*100% absorbable*)
Dissolved balanced dual ion
Dissolved Balanced Single Bubble Gas $H \sim H_2O_2 \sim Cl_2 \text{ \& } O_3$
Neutral Polarity - Neither an acid or a basic (*alkaline*)
Esperer.H2O RO Purified including Double Coconut Carbon Block



WINNER!

Water is not just for hydration; ultimately water is a carrier of dissolved Ions and Gases vital for life.

Electrochemistry is a general term as Nano technologies are used in a wide range of materials and applications, it just describes reduced clusters.

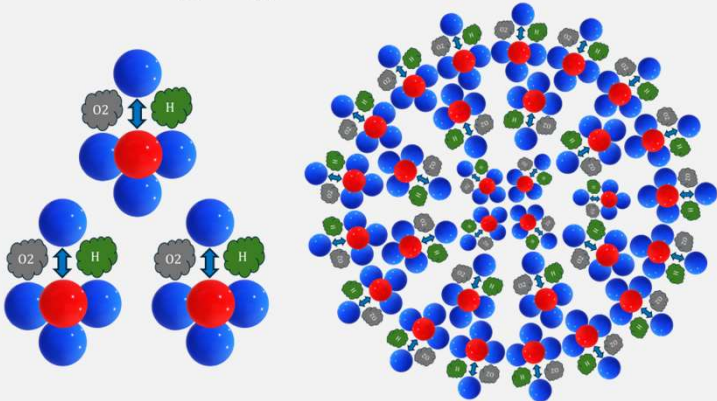
In Electrochemistry for water 1.32 Nano describes a “reduced cluster” (Structure) from average 15 molecules to 5 molecules at ambient temperature. This is an unbalanced mix of ions and remains categorized as a weak acid, just “reduced”.

	pH	ORP (mv)	DO (ppm)	DH (ppm)	IP	IP/IP(Tap)
Raw	7.31	305	7.16	0	$10^{-13.981}$	1
Nano Ionized	10.0	-137	8.13	0.176	$10^{-13.88}$	1.32
Esperer.H2O	7.62	-295	12.5	0.288	$10^{-13.19}$	6.45

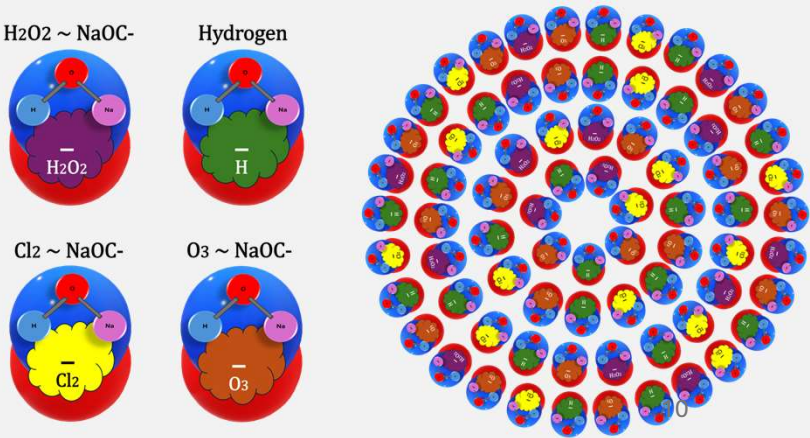


Advanced Dual Polarity Electrochemistry is specific as 6.45 Ionic, structure free, all clustering eliminated; all content is balanced and dissolved. The molecules are single with a dual bonded to single ions and single bubble gases. The separation of pKa and pKb is eliminated and the medium is no longer a weak acid, it is categorized as a Synthetic Neutral Functional Electrolyzed Water, its own stand-alone category.

Typical Single Polarity Nano Alkaline Ionized Water
1.32 IP Infused Hydrogen Gas Clusters
Oxygen Byproduct from reduction



Esperer.H2O NaOC- @ 7.62 Polarity Offset (pH)
Electronically Splitting H2O producing Green Gases
Balanced Dissolved Bonded Ions & Single Bubble Gas
Hydrogen ~ Ozone ~ Hydrogen Peroxide ~ Chlorine



Esperer.H2O as Neutral Functional Electrolyzed Water Dissolved Hydrogen

This subject seems complicated although its not, it has been made complicated on purpose by marketing companies trying to out do each other. There are a lot of ways to produce hydrogen gas, how it is produced matters. This subject is very simple, the human body gets its outside sourced hydrogen mostly from 2 main sources, water and air, air is nothing more than a low concentration of water we call humidity.

The only way to produce synthetic (made by man) green hydrogen gas for human inhalation or consumption is by splitting H₂O and using the hydrogen from the water molecule.

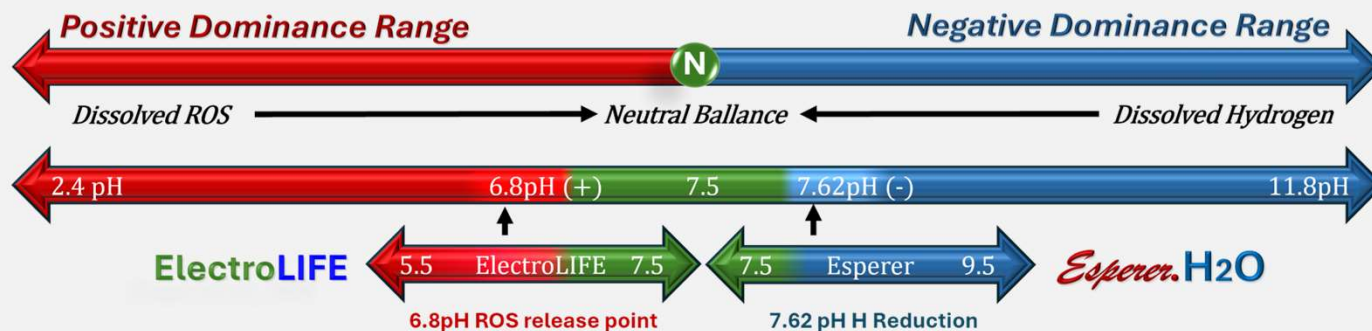
We are not going to discuss any alternate reactionary ways to produce concentrated or infused hydrogen gas, we will include single polarity alkaline ionizers as they are electronically splitting H₂O as the source material, although it is not the same like, kind, or quality (LKQ a term used in true comparisons) as dual polarity.

This is not a preference; this is the mathematics of applying and storing energy in water. The technologies although both electrochemical, are different and un-related. This can be confusing as the marketing companies will place theirs as competition in the same category, this is due to misleading marketing by lessor technologies. This is where you must know your stuff, its all in the details, if its not included then its for a reason.

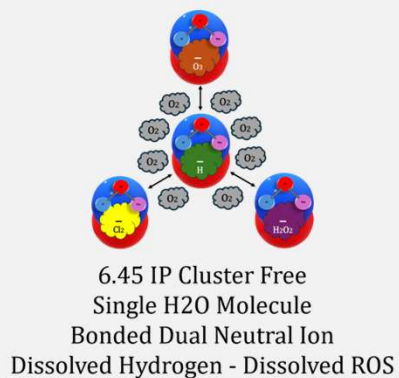
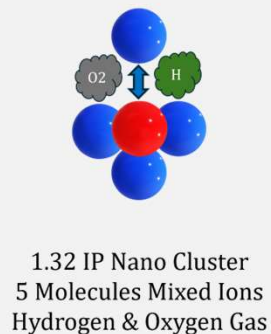
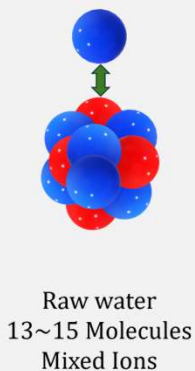
The popularity does not set the standard although most believe it does. When speaking on this subject, Esperer.H₂O sets the standard of comparison. This is where the misleading information comes from. The lessor technologies over the years have adapted this information to their marketing sepals.

There is a grey area on what they can get away with, the reason is they are not selling a finished product, and they have disclaimers about water requirements for performance, static explosion warnings, and so on. Its all in the details most pay no attention to. They look at the price, if it is the most expensive, they buy it, it must be the best, nope, they are all the same there isn't a dimes difference between them but their marketing strategies.

Single polarity lacks the ability to balance the offset, therefore it is limited, it has a maximum of energy that can be applied safely to produce products. Everyone understands hydrogen is powerful, to control its production requires an ROS offset, just as the hydrogen is the off set to the free radicals (ROS in humans) in our bodies. This is why not only producing hydrogen this way is limited, to consume this hydrogen medium is also limited for the same reason, its not balanced.

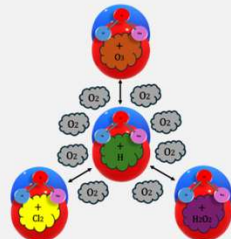
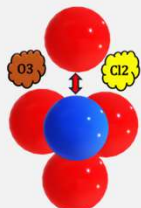
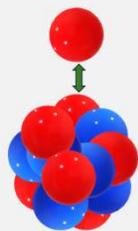


Polarity dominance sets the action from Killing to Healing. Dual Polarity provides the offset balance of power between the ROS and Hydrogen



Esperer.H₂O
Functional Electrolyzed Water

Esperer.H₂O is Negative Dominant and tasked with enhancing life. It includes all the proper filtration necessary for safe and proper human consumption.



ElectroLIFE
Industrial Watertreatment

ElectroLIFE is Positive Dominant and tasked with controlling water borne pathogens. It is not in a consumable pH and lacks the filtration necessary for consumption.

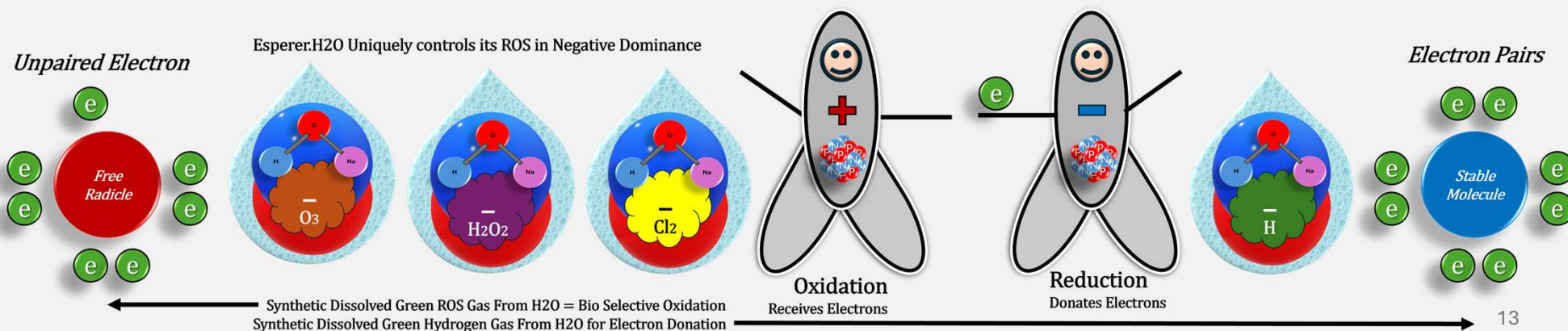
Dual polarity applies power to the anode (for ROS) and cathode (for Hydrogen). Producing the ROS from the oxygen split off the water molecule, the over balance naturally turns back to H₂O through Hydrogen balance eliminating static explosive risks. This is also relative to balanced human consumption hydrogen electron donation elimination of Free Radicles.

The ROS gases created in this process are vital to life although these gases must be in the correct range, human pH 7.62 (+-) and dissolved.

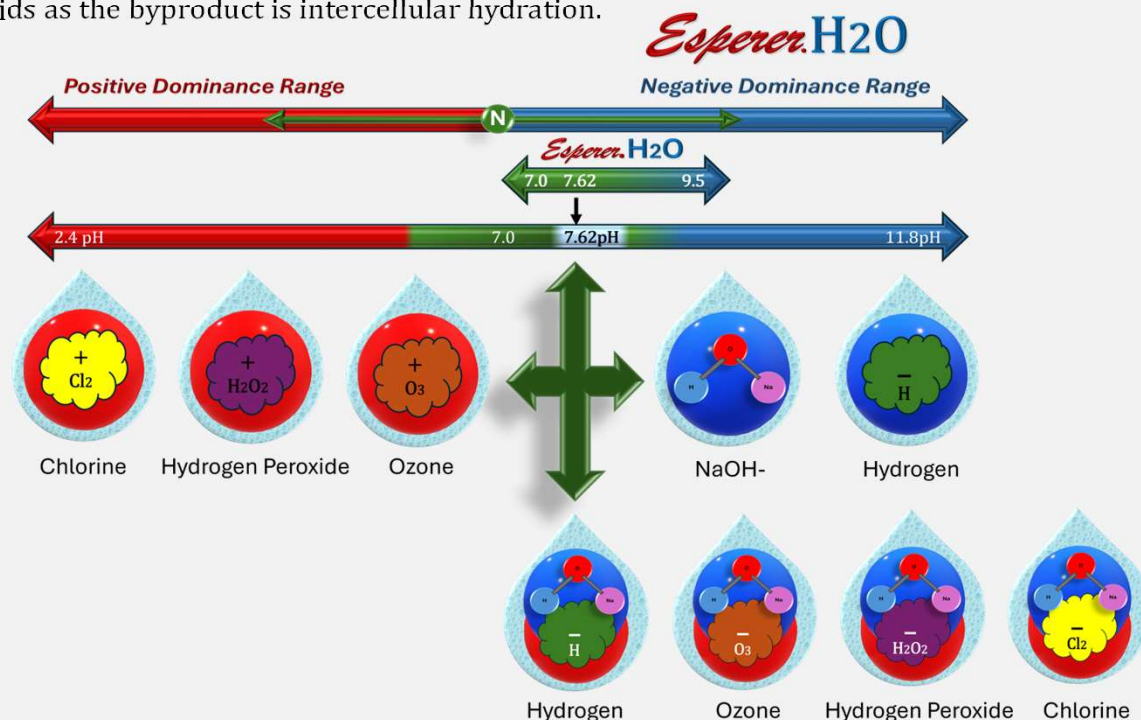
These ROS gases are not the same as uncontrolled Free Radicle Scavengers produced by human body functions and environmental oxidizers, they are purposefully manufactured as balanced bio selective reactive oxygen scavengers. They are not random like free radicals.

Synthetically manufactured, dissolved in their own individual package of H₂O, held by the power of the OH⁻, delivered to their destination uninhibited, and without being an inhibitor (Free Radicle). This is the advantage of balanced dissolved gases over infused gases. These dissolved gases are controlled by polarity dominance stabilized for bio-selective delivery transported through aquaporins without damaging the cellular membrane. Free Radicles as ROS can not transport through an aquaporin, they oxidize the membrane wall in the same way a pesticide ROS oxidizes a membrane wall. Free Radicles are organic naturally produced pesticides.

The free radical (*bad ROS that causes oxidative stress to good cells*) is an incomplete or reactive oxygen molecule species (ROS) looking for electron to steel, it burns a hole in the membrane to look inside the cell for a stable molecule to steel an electron from, in turn this causes the once stable molecule to become the free radicle damaging the cell down to the DNA level, causing cellular aging, or even cellular death. Free radicals fall under the responsibility of Esperer.H₂O reduction through dissolved green hydrogen gas electron donation, the strongest and most efficient electron donation for human defense. Providing the electron for neutralizing the free radicle before it gets a change to cause irreputable damage to a cell opening the door for cancer and other terminal diseases.

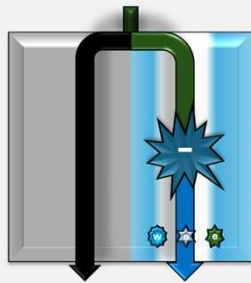


Unlike “bad” ROS, these synthetic ROS gases are purposefully created as single bubble reactive oxygen gas species made from the oxygen in H₂O, dissolved in the molecules of the same H₂O for delivery. Powered by the 6.45 IP charged OH⁻ creating stability, and compatibility for aquaporin transport as a (patented) bonded single -1(blue ion)/1(red + ion) Ion in H₂O. This is required for passing the membranes of cells without damage to the cellular membranes. This is a bio selective “scavenging hunt”, if the ROS finds a dead end as the ion is balanced neutral the ROS simply destabilizes back to H₂O hydrating the intercellular space/fluids as the byproduct is intercellular hydration.



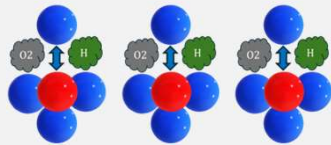
Splitting H₂O and having control over the applied polarity allows for an electronic pH balancing control. pH is the measurement offset of Alkaline to Acidic. Typically, people use minerals to adjust. This is not a stable method, applying dual polarity, setting the power offset to the “pH” range required, balances and stabilizes the pH utilizing energy applied as direct controlled ionization not a reaction of uncontrolled minerals self ionizing. The polarity offset sets the strength of ROS to Hydrogen, the desired range for consumption is 7.62 pH for human consumption offset balance. The pH readings meaning is slightly different from raw water, it is a measurement of the concentration of applied power offset stored in the minerals.¹⁴

Antiquated Single Polarity Ionizer {vs} Advanced Dual Polarity Electrolyzer

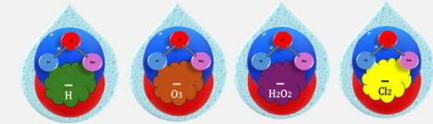
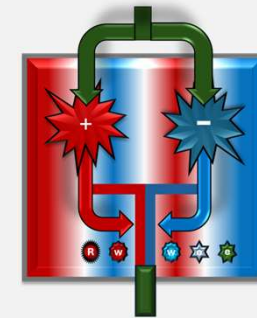


Alkaline Ionizers

1.32 IP
Alkaline 10.5 pH
Nano Clusters



6.45 IP
Neutral 7.62 pH
No Clusters



Single Polarity Nano Technologies are very different. The Hydrogen gas present is infused as concentrated clusters of nano gas bubble clusters not dissolved. There is no ROS offset for balance.

Nano technologies infused hydrogen presence is well known as short lived; the oxygen present is key, by hydrogen reduction to the medium, the byproduct is oxygen. This is one of the inhibitors to hydrogen stability when produced in Nano technologies as the Hydrogen is reducing the unbalanced medium to H2O by eliminating the Hydrogen reducing to Oxygen during continued self ionization. Esperer.H2O reductions are stabilized in the chamber when bonded -1/1, the Oxygen produced is stabilized as well as there is no self ionization taking place.

The the mirror image problem with oxygen to ozone (O3) generation NBOT in relevance to gas usage in water treatment. The O3 is looking for electron donation, it receives it from the Hydrogen in the water, reducing becoming O2 Oxygen.

The environment of the water is in a constant state of self ionization due to the unbalanced clusters, this and organics is what eats the Hydrogen from single polarity infused nano clusters, the electron donation is diminished before the contaminated water body gets a chance to use it, there fore they jack up the concentration ppm to maximum levels for the best they can do, like alkaline ionizers with hydrogen.

Stability comes from control of power offsets

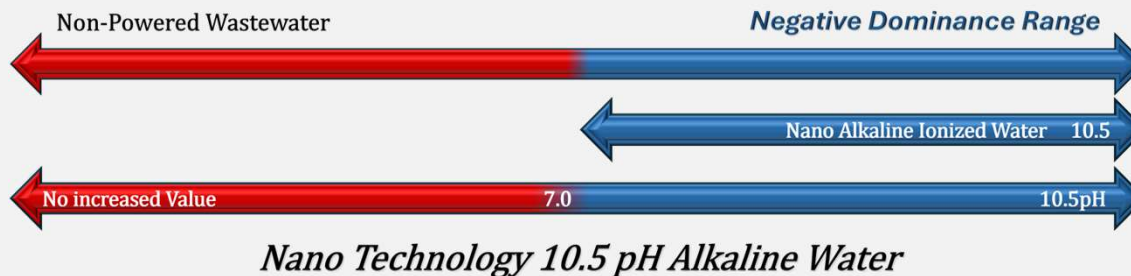
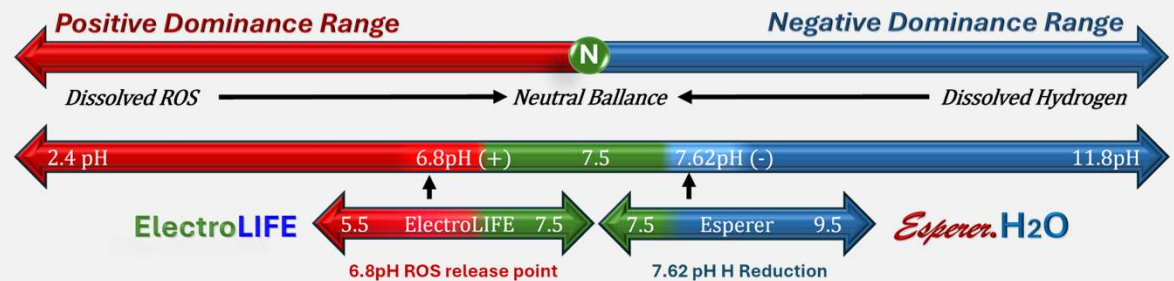
Advanced High Amp Dual Polarity Neutral Technologies allows for total control in power and or power offsets. The total range in Neutral is 5.5 pH to 10.5 pH. The range for Esperer.H2O is specific to 7.62 pH.

Although most will agree “fresh water” as a weak acid perfect neutral is -7/7 pKw 0-14 pH range. Functional Electrolyzed Neutral Technologies (FEW) pKw is -1/1 are more accurate with other water types as 0-15 pH range.

The human body is Neutral although our pH is 7.4-7.6 when healthy making 7.5 pH the actual neutral to other water types not considered “fresh water”. The Esperer.H2O polarity offset is set slightly more negative than actual neutral to give the Negative Polarity Hydrogen Reduction Dominance over the ROS at 7.62 (pH). In comparison, ElectroLIFE has a Positive ROS Dominance at 6.8 (pH) offset.

As shown with ElectroLIFE as an example, the neutral range offset can be set to the desired dominance. ElectroLIFE controls microbial loading as a preventative control to pathogens in positive dominance.

Esperer.H2O enhances life with hydrogen electron donation in negative dominance.



Single polarity Nano alkaline ionizers have no offset. You get what you get.

Conclusion : Fresh water for human consumption does not exist in nature anymore. We can not trust any water is safe to drink just because a Government, a Professional, or a product, claims it is. The first question is, what is that individual's knowledge on the water they are providing.

What is Reverse Osmosis best for – Reducing TDS to the absolute minimum and eliminate organics.

What is Coconut Carbon Block filtration best for - Absorbing chemicals and other toxins RO can not.

What is pH Neutralization for – Making water consumable again after RO

What is Dual Polarity Neutral Electrochemistry for – Re Structuring the water back its maximum potential.

What else do you need? Nothing.

Esperer.H2O Functional Electrolyzed Water is the most advanced water that can be synthetically (made by man) re-structured for Human consumption.

6.45 Ionic Product the maximum achievable in consumable water.

100% Absorbable with Patented -1/1 Dual Polarity Bonded Single Ions

Dissolved Single Bubble ROS gases at the proper power offset for Human use.

Dissolved Single Bubble Hydrogen gas balanced by the ROS creating the byproduct Oxygen combining all 3 in perfect balance.

With a complete system by PBSWC Inc. The base water prefiltered by coconut carbon block, then stripped by CSM RO Membrane. The stripped water is re-mineralized for pH neutralization. The neutralized water is processed by Esperer.H2O dissolving and balancing the contents while producing the specialized gases. The restructured Functional Electrolyzed Neutral Water is then finished with coconut carbon block.

Esperer.H2O is the best you can get for a reason, no one puts this much effort into a personal residential on demand water system.

For individuals suffering from dehydration due to any reason, Esperer.H2O will bring them instant relief. Medical dehydration is the worst as your body does not have the proper delivery system maintained for your medications and nutrients, so you get worse. What is the first thing they check for and adjust before you get a surgery? Your hydration level. You can not recover if you're not properly hydrated as your body's defenses are all carried by your hydration movement.

Hydration and what you hydrate with should be your first concern as it sets the pace for everything else.

The human body tells you what it wants and needs, and it isn't in some product marketing. Clean water (pre-treated), Proper TDS range (50-300), Energy (power of the electrolytes), Hydrogen and Oxygen (anti oxidizing actions), ROS gases at the right pH (We need these but not at pesticide ranges), Neutral pH balance (Not High pH Alkaline), and lastly to understand why water should be the most important subject to you.