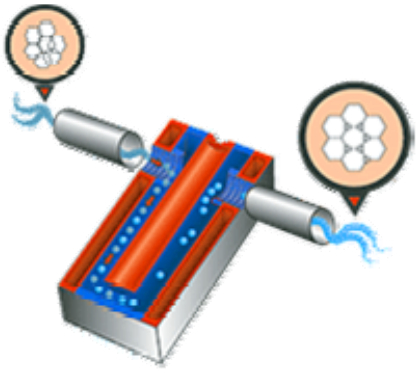
Water Technopath



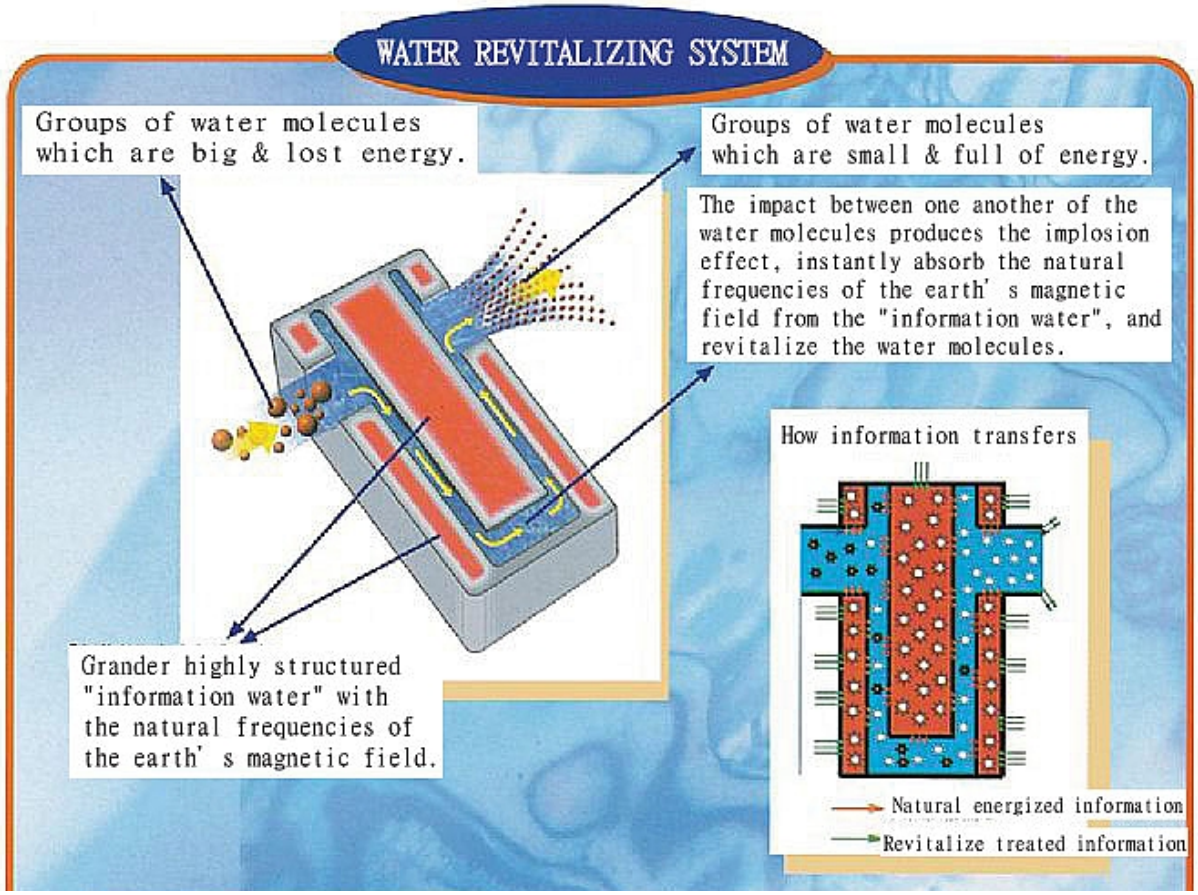
Grander Water

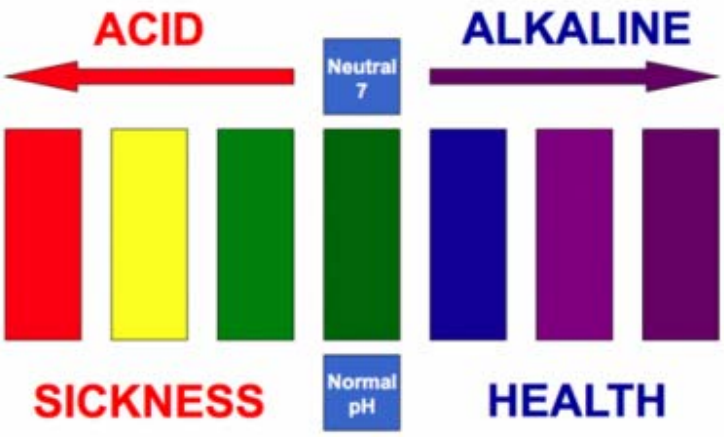
Water Revitalisation

Grander
Blue
Water

+ Kangen Water

PASCAS FOUNDATION (Aust) Ltd **Em: info@pascasworldcare.com**
ABN 23 133 271 593 **Em: info@pascashealth.com**
Pascas Foundation is a not for profit organisation
Queensland, Australia **www.pascasworldcare.com www.pascashealth.com**


WATER REVITALIZING SYSTEM
Groups of water molecules which are big & lost energy.
Groups of water molecules which are small & full of energy.
The impact between one another of the water molecules produces the implosion effect, instantly absorb the natural frequencies of the earth's magnetic field from the "information water", and revitalize the water molecules.
How information transfers
Grander highly structured "information water" with the natural frequencies of the earth's magnetic field.
Natural energized information
Revitalize treated information


ACID
ALKALINE
Neutral 7
SICKNESS
Normal pH
HEALTH

Understanding Water:

We do ourselves an injustice by not understanding the real value of water. We use the chemical symbol of H^2O to identify water and for most of us that is the extent of our interest in the substance. Many people do not even drink water believing they get sufficient in their drinks and food. Most do not drink anywhere near enough for our body to perform effectively its process of converting fuel to energy and then exhausting completely the toxins which result from this process.

Let's start by putting water into overall perspective. Without air we will die in about two to three minutes. Without water we will die in about seven days. Without food we will die in a month or so. Even going without food for 24 or 36 hours is beneficial for the body. Fasting permits the body to activate a range of enzymes which clean out the accumulation of waste by products in our intestinal tract. Because air and water are available in abundance, we tend to take them for granted and we concentrate on food. From the preceding we can see that water is more important than food, and air is of immediate importance. However, we are going to talk about water.

Why is water Important to us

Water is for us, as well as for the planet, the universal solvent. Our body uses water to:-

1. Transport fuel (nutrients) into the cells which form us.
2. It is used in these little factories to produce the energy we need to function.
3. Water is used to remove the waste from the cells fuel production into the bodies exhausting system.

The reason we die from thirst is that the body can no longer exhaust its cellular waste and the level of toxins builds up to the point where it rapidly overloads and kills the cells. The rate at which the cells die determines our longevity. Water is the essential and only substance which can keep our cells in good working order. Failure to understand this basic reason for water means that our cells, (the summation of which is us), will die earlier than they need die. Our DNA seems to have a limit to the number of times it can reproduce the cells, so we eventually run out of our regenerative capability. That is death.

To extend our cellular life by keeping them from being overwhelmed by waste therefore not only extends our life, but also reduces the onset of disease. This means that by correctly hydrating our bodies we will live longer and healthier.

But water is even much more than that. Water is the only substance on the planet which can appear in solid, liquid or gaseous form. Amazingly, water retains the energetic field of ever other substance it comes in contact with. If you have not been in the ocean before, you can walk into the water at Sydney and your energetic field is available in the water at the Panama Canal. You can dilute the water to one part to ten to the minus 60 and the signature is still there. In further diluting to ten to the minus 120, the signature seems to increase. This is the basis of Homeopathy which has now been demonstrated by quantum physics experiments. Homeopathic solutions can only be created in water.

Water is tolerant to a large range of conditions. Specifically water can be acid or alkaline, it can be oxidative or reductive, it can be macro-structured or micro-structured and it can contain both beneficial

or harmful chemicals and nutriments. The question we need to ask is; ”Which or what water is most beneficial for us?”

What is Beneficial Water

We know that before we are born we are swimming in a sea of alkaline embryonic fluid. When we are born we are alkaline. As we grow older we become acidic and we are all acidic by the time we die. Obviously reading between the lines the longer we keep the body alkaline the healthier we will be. Our ideal pH is 7.365. Our average water content should be about 70%. The very processes of the body are all acidifying. Many of us eat too much acidic food. So the first consideration for the water we consume should be that it is alkaline. (pH – potential hydrogen)

Because free radicals are the vehicles which cause the failure of the body, the next important consideration is that the water we consume should be reductive rather than oxidative. Reductive water has a host of free electrons in it. That is what gives it a negative charge. These free electrons attach themselves to the free radicals which are oxygen molecules with one electron missing from their outer orbit. By attaching and completing the outer orbit of the oxygen molecule, they restore the molecule to its neutral and stable condition. The free radical is neutralised. No further free radical damage.

The next choice we have is whether the water be micro-structured or macro-structured. Micro-structured water has three to five molecules of water to form a particle. Macrostructure water has fifteen to one hundred molecules to form the particle. The smaller the water particle the easier and more effectively it passes through the tissues of the body. Obviously our preference will be to have micro-structured water because it will do the cleansing task much more thoroughly and effectively. In colloquial terms ‘the water is wetter’.

Another important characteristic of water is that in its quiescent state it attracts a large range of essential minerals which are important for the effective functioning of our bodies. Our minerals are considered more important than vitamins. By preference then our preferred water should have a high concentration of these essential minerals. There was a thought some years ago that Reverse Osmosis (RO) water was the best water for human consumption. Unfortunately time quickly demonstrated that it was ‘dead water’ and the United Nation have now issued a warning on human consumption of RO water. If you have a fish tank and you refill with RO water the fish will quickly die.

On reflection, the best water we can consume is water which is highly alkaline (pH 9.5-10.0), is filled with anti-oxidants (reductive), ideally above -700 Mv, is micro-structured and contains copious amounts of the beneficial earth minerals.

How does Tap and Bottled Water Compare?

Water in the distribution system, including most springs and streams, is macro-structured. This is a consequence of the thousands of years we have polluted the water. The entire water recirculating system is now polluted. Electrical storms were the vehicle for converting the water back to being micro-structured but we have overwhelmed natures system with our pollutants. The only way we can now create micro-structured water is to pass it through an ionising system.

Our polluting ways have also ensured that all the fresh water is now acidic. Regrettably even our rain water is acidic and tanks water when tested runs between pH 3.5 and 4.5. Most bottled water has a pH of around 3.5 to 5.0. The water supplied to each home by the water authorities is chemically corrected (by agreement, not law) and arrives at the tap close to pH 7 (neutral). Passing this through a chlorine filter removes the chlorine but does change the Ph to slightly below 7. However it is a better choice than bottled water. Not even taking into account the planetary polluting effects of discarded plastic water bottles and the grossly toxic effects on the body of the BPA contained in the plastic bottle the water is stored in. One should only ever drink from plastic containers clearly marked BPA FREE.

http://en.wikipedia.org/wiki/Bisphenol_A

Bisphenol A, commonly abbreviated as **BPA**, is an organic compound with two phenol functional groups. It is used to make polycarbonate plastic and epoxy resins, along with other applications.

From the above, filtered tap water is clearly more beneficial to our body than bottled water.

Both tap water and bottled water are oxidative. That is they carry a charge of between +250 Mv and +350 Mv. That is the contain molecules which have lost an electron in the outer orbit and have become positively charged. This is what a free radical is. These waters therefore, when consumed continue to promote free radical damage to the body. However their hydrating effect is still on balance more beneficial for the body.

What to Do. The only water system which can produce alkaline, reductive, micro-structured water with an abundance of beneficial earth minerals is a water ionizing system.

What is a water Ionizing system.

It consists of a filter which the water passes through to remove obvious contaminants and then the water passes into an ionising chamber. The water passes between two plates, one positively charged, the other negatively charged. Between the plates is a porus membrane. The water and its contents are free to move through the membrane to the plate which they are attracted to. Passing through this chamber breaks the water down and allows it to reform as micro-structured water. The water suitable for drinking, that is the alkaline water with a high negative charge flows out from the drinking pipe. The acidic positively charged water with the elements which we do not want, flow out the waste line. Many plants thrive on this water. The water is split approximately 65% good drinking water and 35% waste water. However, the good mineral that were contained in the volume of water being wasted are all attracted to the drinking water side of the chamber. This ensures we receive an increase in percentage of the essential minerals in the water we drink.

What is the Best Water Ionising System

The system which the many manufacturers aspire to equal and always compare their units to, is the Enagic system. This system was developed in Japan after World War II as a consequence of the pollution of Japan's water. The Japanese took the Russian research on water and developed it further to produce water which could be used for healing the body. The Enagic (Kangen) system is used in over 250 hospitals in Japan for medical treatment in lieu of pharmaceuticals and surgery and is the only

ionising water system in the world approved as a Medical Device. No other Ionising system has a medical approval. The reason for this approval is that the Enagic system is the only system which guarantees that the titanium used in the electrodes cannot leech into the water. Titanium is toxic to humans. In Europe they are not able to use surgical titanium for prostheses'. They now must be manufactured using inert material such as ceramic or zirconia. To achieve this guarantee to be toxic free requires the plates to be double dipped in platinum. Platinum is more expensive than gold. Also because the electrical power is more than twice that of the other units and the plate area more than twice that of other units, the Enagic system produces ionised water of higher negative charge (ORP) generally around -840 Mvs and much more stabile.

The Enagic system is built to a ISO standard which means the quality is ensured with every machine produced. This reflects in the life of the unit, in the case of the SD501 which has been in production for 16 years, the present life is 16 years.

When buying an ionising unit the total cost of ownership becomes an important consideration. They are purchased with the intention of supplying ionised water for the remainder of the purchaser's life. With this in mind Enagic have used the design philosophy that all parts should be replaceable. All other machines work on the American philosophy of major assembly replacement. This significantly increases the cost of ownership. At present the cost of ownership of an Enagic SD 501 is US$0.78 cents per day. The cost of ownership of the other machines is not able to be calculated.

Enagic SD501 Kangen Water Ionizer

What is Grander Water Technology?

http://www.ganeshtree.com/what-is-grander-water-technology/

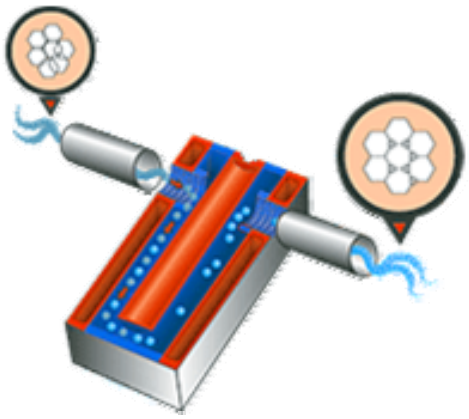
Grander® Water Technology www.grander.biz

All my products are applied in a solution utilizing Grander Water Technology. This European developed technology treats water passively using a molecular resonance effect. This improves the water's internal structure, which is the environment in which all living processes take place. Water's internal structure can be considered to carry a type of "information" that affects and enhances living systems. Grander Water has been shown to catalyse an increase in plant growth and strength, as well as provide benefits to the microbiological component (fungi and beneficial bacteria) that associates with the roots of treated plants.

It has been my own experience that Grander Water allows nutrients to be delivered to plants with increased ease. Water treated with Grander Technology assists in the restoration of balance and protection against negative influences in the environment. Water of this highest quality gives living systems extra support, so they can endure challenges and achieve their full potential.

Grander Water Technology has the ability to help living systems overcome stresses and challenges, and thrive, by providing high-grade energy and information from the natural world. Although water is but one piece of the puzzle, it is at the centre of living processes and is connected to all the other pieces.

Grander Water Technology enhances life!



Reflections on Water

By Hans Kronberger

Water is a cosmic matter," Johann Grander said to me when I made my first TV interview with him. Driven by an old reporter's reflex, I seized on this immediately and wanted to know in detail what he meant by this sentence. Today I consider this question to be the most nonsensical I have ever put to an interview partner. "Water is a cosmic matter!" There is no way to answer this question of the nature of water more clearly, unequivocally, and at the same time, more comprehensively and precisely.

It took me quite a long time to understand that, with his statement, Grander had perfectly described the dimension of how to approach the element of water in order to get one step closer to it. Whoever takes notice of water only in its momentary state – in a water glass, in a river, a lake or in the ocean – or sees it as an ice block or a cloud, will only realize a fraction of the whole. It is essential to scrutinise water in its function within the entire cosmos, which means nothing less than to open one's thoughts to infinity and reflect upon why water has strayed to planet Earth. How it has come into being and what is its function for the origin and preservation of life. From this point of view it is worthwhile to scrutinise the early mythologies and to investigate the history of water observation as a whole. In the first written reports we read of an infinite primeval water with no top or bottom, but a purely "endless depth". Along with the reflections on good and evil, the separation of heaven and hell developed. Little by little the single ancient cultures visualised their imaginations in the form of gods. It is remarkable that this was also the time that bipolar thinking emerged, i.e. it distinguished between man and woman. The Babylonians speak of the mother creature Tiamat and of the father Apsu. According to the Babylonian belief, the uniting of salt water and fresh water led to the procreation of the first race of gods, whose descendants created heaven and earth from the cosmic ocean.

Indian mythology also talks of a primeval water, from which the wonderful lotus burst into bloom. Out of the flower emerged Brahma, the creative god and great architect, who formed the universe in accordance with his memories of former worlds. When the work was completed, he went to sleep, not to awake for billions of years, when the worlds had vanished and there was a demand for the creation of new worlds.

The ancient Greeks made water the home of a superior, powerful god. According to Greek imagination,

Poseidon, the ruler over oceans and rivers, lived in a water palace and crossed over the waves in a golden wagon pulled by white horses. Surges and sea spray obeyed his command. Later on they created hosts of goddesses and gods, naiads, dryads and other nymphs, who – in their fantasy – had human attributes, among them gracefully beautiful as well as ugly, fearsome and destructive characteristics. The rivers and springs where these gods were considered to live were therefore places of power.

The Greek philosopher and mathematician Thales of Miletus (625-545 B.C.) was the first to introduce the "logos", i.e. reason, into the contemplation of water. He defines water as the "raw material" which is the "original source of all being". From this time on, people tried to approach the phenomenon of water with "reason": examples are both Empedocles (483-420 B.C.) and – in particular – Aristotle (384-322 B.C.), who for the first time divided the world into four fundamental elements. According to him, fire, earth, water and air are the basic components of the world These four elements determined the thinking of the medieval alchemists, who – among other things – were searching for an elixir to change raw materials into gold. In the following centuries, the striving for refinement of natural materials was perverted to the point that any "considered benefit" had absolute priority over the preservation of nature.

The great natural scientist, physician and philosopher Theophrastus Bombastus von Hohenheim, known as Paracelsus (1493-1541 A.D.), combined the traditional knowledge of the ancient myths with the empirical methods of the emerging rational natural sciences.

In his opinion the four elements were animated by the appropriate elementary spirits: "Those in the water are nymphs, in the air sylphs, in the earth pygmaei, and those in the fire salamanderae." This is how he described the forces (well acknowledged by himself), but however, not compatible with modern natural science.

The "sceptical chemist"(called so after his book The sceptical Chymnist), the Irishman Robert Boyle (1627-1691), broke with Aristotle's theory of the elements after he realised that all the alchemist's work had been based on this principle, and did not describe materials but rather properties.

Towards the end of the 18th century, Antoine Lavoisier (1743-1794) found out that the Aristotelian element of water was composed of hydrogen and oxygen. He created a new definition of water as an element which can in no way be decomposed into other materials. This view was maintained up to the middle of the 20th century. By reducing water to the chemical formula H^2O, water observation was reduced to a purely mechanistic approach. This absolute edifice of natural science remained unshaken until the cluster formation of water was discovered and the first attempts were made to prove the information transmission in water.

And here the idea of the naturalist Johann Grander joins with one of the most important water scientists of the 20th century, namely Viktor Gutmann. To my question whether water had already been entirely researched, the sixfold doctor and candidate for the Nobel Prize in Chemistry answered: "Today scientists proceed from the assumption that water is abnormal because its highest density is at plus four degrees Celsius (4°) and not – as science wants to prescribe – at zero. It is not water that is abnormal, but our formulae, which are insufficient to describe the phenomenon of water."

At this very moment I again remembered.

Johann Grander

Water – do we know all there is to know?

By Dipl.-Ing. Johannes Larch

The 21st century will finally put paid to the notion that water is no more than the chemical formula H^2O. The past century was the century in which chemistry led the investigation of water, but it is this century that will give physics the chance to understand the secret of water.

Memory of Water

Does water have a memory? Can it store information and is it also able to reproduce this stored information and to pass it on? Can the memory of water be compared to the human memory in any way?

The human memory stores and deletes information in a more emotional way, depending on its importance or on the impression (in the truest sense of the word) the information made on the person in question.

The memory of water, in contrast, works in a more rational manner. It stores all the information it can obtain in an emotion-free and precise manner, good or bad, similar perhaps to a tape recorder which can record physical vibrations and can reproduce them as often as is wanted without the originally stored information being changed, reduced or lost.

The storage location and the exact procedure of the storage process in water are only just being understood by science and are only known in theory.

Empirical, that is systematic, checks of known effects go much further. For instance, we know today that the complex inner structure of the water has an effect on its properties. These different properties, for example, determine the length of time water remains fresh, the development conditions for micro-organisms in the water and, ultimately, how agreeable and compatible water is for all life forms (not least for humans) with which water enters into a symbiosis.

These important properties, which occur naturally in all water, are largely lost today, due to external influences.

The Structure

The structure of the water has an effect on all living organisms that need water. Its structure is part of what's necessary for important control procedures in the organism, such as its 'proper' growth.

There are a number of influences on water. The sun, the moon and the whole universe, for example, are part of a natural vibration process with the earth and also communicate with the element of water.

Artificially induced vibrations, however, which are also picked up by water are more of a problem. The inner structure of water can be disturbed by technical emissions from different sources, including cell phone transmitters, radio transmitters, satellite transmissions, power transmission lines and many others.

The basic idea behind Grander Technology is to return the inner structure of water to an optimum state and to give it a permanent stability, and the soothing effect of this enhanced water, which is enjoyed by hundreds of thousands of users every day, speaks for itself.

The Structure of Water

The structure of water is still not taken into sufficient consideration in the official rating of drinking water. The quality of drinking water in Central Europe is basically fixed by the different drinking water regulations, which are intended to ensure that our main beverage does not contain any pathogenic bacteria or any heavy materials or chemical substances (above the official thresholds).

While this satisfies all the standards and regulations, the authorities still do not take into account the important fact that the structure of water represents an essential feature of quality, mainly due to the fact that at present it cannot be measured satisfactorily. It has always been known that certain sources of water seem to have healing qualities, that can lower fevers, promote the digestion, calm the skin, heal wounds or stop pain – but these effects are not yet calibrated or quantified to meet official standards.

The different composition of similar structures also plays a role in so-called solid elements. For example, diamond and graphite are both carbons, but they have different densities. The diamond is the hardest of all materials while graphite is soft.

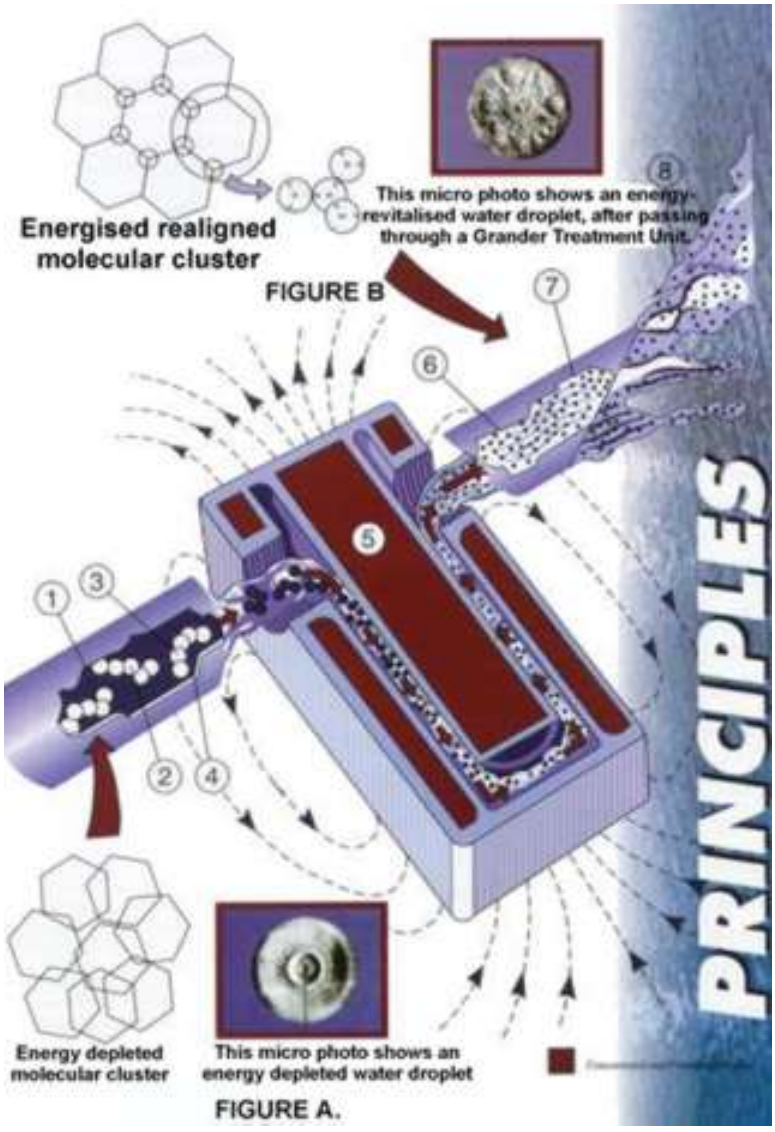
The Properties

If we continue this idea with respect to the element of water, we find that water also has an inner structure. Admittedly, different structures do not change the hardness, or even the density, as with diamonds or graphite. In water it is, for instance, the freshness that is affected and above all the microbiological properties that are very dependent on the inner structure.

Two chemically identical waters can have different biological properties. This means that one can have a different effect on a living organism to the other, even though they both have exactly the same chemical make-up.

It is therefore not sufficient to rate water purely by its chemistry and microbiology. We have to find a way to evaluate its structure. This is difficult since reproducible measuring methods are only just becoming known, and since the memory storing capability of water is currently not recognised or dealt with in any recognised science text book.

However, there is a ray of hope, as the physics of water is becoming more and more the centre of worldwide interest. An expert committee of the WHO (World Health Organization) has been looking into the subject of water structure for some time. Efforts are also being made to at least have the term "water structure" included in the international WHO guidelines for drinking water.



Grander Water Technologies (Aust) Pty Ltd
Shop 1, 1863 Gold Coast Highway,
Burleigh Heads 4220
Gold Coast. Queensland, Australia

Bs +61 7 5568 7522
Freecall 1800 675 771

Personal

Penergizer $245.00

Use the portable Penergizer to treat your coffee, tea, fruit juice, wine & water. The Penergizer can treat ***up to 1 Litre*** *of water in 15 minutes, or a glass in only 1-2 minutes.*

Revitalising Board $259.00

The Revitalising Board uses Grander Technology to revitalise ***up to 3 Litres*** *of liquid placed on the board.*

Pendant $ 98.00

Available in 1 style the Pendant is used as a supplementary product to drinking Grander Water.

Blue Water $ 69.00

Blue Water is sourced 500m deep in the Austrian Alps. It is extraordinarily pure water. It may be used for detoxifying purposes.

Yellow Water 1 Litre $69.00
not to be taken internally

These products may be more effective when drinking Grander Water

DVD & Videos

A variety of media is available including a free testimonial DVD with no scripts just real customers telling you what they think of their Grander products.

Home

Flexible Unit $1293.00
Portable, easily & quickly mounted to taps, showers, dishwashers, washing machines & garden hoses

Kitchen Flexi-Filter $1525.00
Attached without fuss to most kitchen taps. Suitable for water high in chlorine.

10mm Square Unit $1495.00
Suitable for plumbing in-line to individual taps & showers.

15mm Grander Unit $2461.00
Suitable for a granny flat or small home.

20mm Grander Unit $3495.00
Suitable for larger home (with 3/4" inlet pipe

25mm Grander Unit $3880.00
Suitable for a very large house with pool or commercial needs.

Tiny Rod $976.00
Suitable for small tanks or water up to 1000 litres.

Commercial Units & Energy Rods
Available for boilers, cooling towers, farms, factories, hotels, horticulture, golf courses, manufacturing, reservoirs septic tanks, effluent ponds, wastewater systems.

Packages

Grander Filter Solutions
Suitable for water high in chlorine and or sediment.

Kitchen Flexi-Filter Package
Attached without fuss to most kitchen taps. Suitable for homes with bench space. $1525.00

Kitchen Underbench Filter Package
Attached to water line under the bench. Suitable for homes with little bench space. $1605.00

Home System Filter Package
Attached to water mains. Suitable for larger homes with a 3/4" inlet pipe. $3605.00

Grander Fluoride Solutions
Suitable for water with a fluoride content.

Benchtop Fluro Soultion
Attached without fuss to most kitchen taps. Suitable for homes with bench space. $1588.00

Kitchen Underbench Fluro Package
Attached to water line under the bench. Suitable for homes with little bench space. $1750.00

Home System Fluro Package
Attached to water mains. Suitable for larger homes with a 3/4" inlet pipe. $3750.00

www.grander.com.au *1800 675 771* *grander@grander.com.au*

GRANDER water treatment units

revitalized water from small buildings to large facilities

A wide range of devices exist which can be plumbed in to water mains to revitalize the water in entire buildings. For buildings with water tanks there are also a special range of devices for immersion.

Inline Units

GRANDER water revitalization devices can be easily installed trouble-free into the main water supply line. The decisive factors for choosing the appropriate device are pipe size, maximum consumption, the charge of the water and the local installation situation.

They are available for pipe sizes of 3/4", 1", 5/4", 6/4", 2", 2 1/2", 3", 4".

For this reason, a definitive decision on the optimal device size can only be reached on site, which is why we also highly value a personal consultation and inspection by our trained consultants.

Installation should take place:

- after the water pipe
- after purifying filters and
- before any other technical equipment (pressure reducing valves, ionic exchanger, dosing systems, magnetic devices etc.)

Effective operational sphere:
Effective operation remains constant even for irregular consumption, long times of non-use, pipe systems that branch out far, circulation etc...

Duration of effectiveness:
The effectiveness of our product has existed for 20 years. Since this time, the revitalization effect has remained at a maximum level and to the complete satisfaction of our customers. The revitalization effect in GRANDER water revitalization equipment does not wear down even after several years of use.

Professional opinion:
The hygenic and technical harmlessness of the use of original Grander water revitalization equipment in drinking water has been confirmed by professional opinion (University of Graz, Technical Monitoring Association of Vienna and the Swiss Gas and Water Industry Association).

Type of material:
All water revitalization equipment is manufactured with V2A stainless steel. Steel grade numbers: water-bearing internal parts 1.4301, external casing 1.4016 (3" and 4" 1.4462).

As a special model, devices in acid-resistant V4A stainless steel (1.4571 internal and external) are also available.

In order to avoid corrosive contact with zinc-coated lines, we deliver all equipment with red brass double nipples.

Immersion Rods

+ extremely straight forward to use
+ simply place in sitting water
+ easily moved if desired

personal swimming pool installation
Place immersion unit in skimmer basket.

spa installation
Place immersion unit in skimmer basket.

well installation
Ideally in areas where wells are popular, it is recommended to mount the GRANDER immersion under the submersible pump. Although this means removing the existing pump, pipe, electrical, etc. The end results are worth it!

holding tank installation
Suspend GRANDER immersion unit into to middle of tank attached by a rope.

lakes and ponds
Place GRANDER immersion unit where most movement of water occurs. Unit can be hung by a rope or attached by apparatus.

Unit sizes and Uses

petite single	spa skimmer basket, small pond

large single	large tank, large well
medium double	large swimming pool, pond, lake
large double	large lakes, holding tanks

Specs

petite single	treatment volume = 5 cubic meters
small single	treatment volume = 10 cubic meters
large single	treatment volume = 100 cubic meters
medium double	treatment volume = 50 cubic meters
large double	treatment volume = 100 cubic meters

Flex Unit

In pocket size: small and flexible mounted quickly and easily:

+ to water spigots
+ to the shower
+ outside of wash machines
+ outside of dish washers
+ onto gardening hoses
+ in your motorhome
+ on trips
+ ...etc.

Circulating Units

For Heating and Cooling Circuits

Sizes:

3/8", 1/2", 3/4", 1", 5/4", 6/4", 2", 2 1/2", 3", 4"

Type of material:
All water revitalization equipment is manufactured with V2A stainless steel. Steel grade numbers: water-

bearing internal parts 1.4301, external casing 1.4016 (3" and 4" 1.4462).

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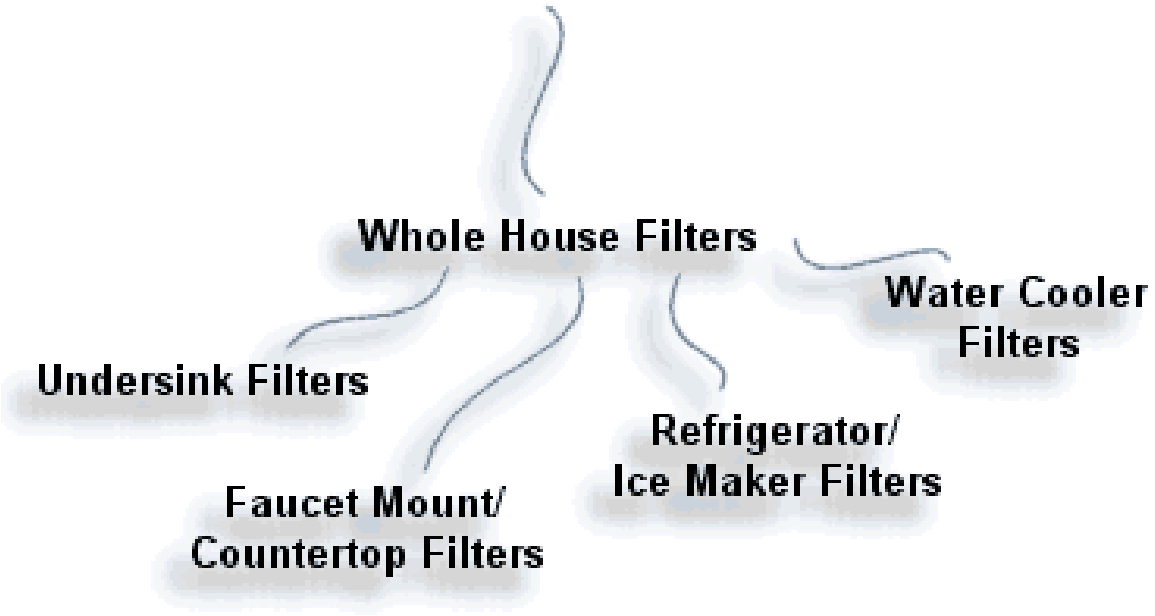
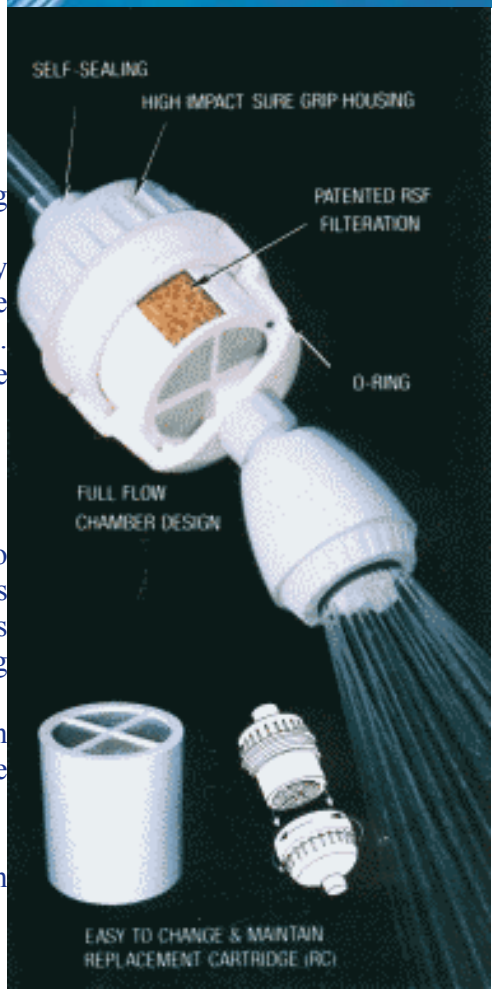


Sprite Chlorine Shower Filter - Solid Brass
http://www.alkaway.com.au/products-sprite.html



The world's most popular shower filter, New chrome covered solid brass design with lifetime warranty**.**

Chlorine is universally used to disinfect water, killing bacteria and other micro organisms.

But once it arrives in your home, chlorine can negatively affect your family's long term health, comfort, and even personal appearance. Sprite Shower Filters with patented Chlorgon non-carbon media- outperforms other filters for chlorine removal in hot shower conditions. The world leader in shower filtration technology for 15 years, Sprite has earned more than 18 U.S. and international patents.

For Softer Hair and Smoother Skin.

Millions own water filters to remove chlorine from drinking water. But 50% of chlorine exposures occurs in the shower. Unfiltered shower water can double their exposure to chlorine by absorption through the skin and by inhalation of chlorine vapours. Sprite filters chlorine for softer hair and smoother skin. Now you can fight brittle hair, dry skin and dandruff - where health and beauty begin - right in your shower.

Breathe easier with Sprite.

Chlorine vaporizes in hot shower water and, when inhaled into the lungs, is transferred into the blood stream. Scientific studies have linked chlorinated water to potentially harmful by-products that can, over time, contribute to such health-threatening conditions as cancer of the bladder, liver, stomach and colon. Heart disease, high blood pressure and allergies have also been linked with chlorine. Sprite Shower Filtration helps reduce these risks- so you can breathe easier.

Only Sprite's Shower Filters combines patented high strength construction with an exclusive patented filtration media...

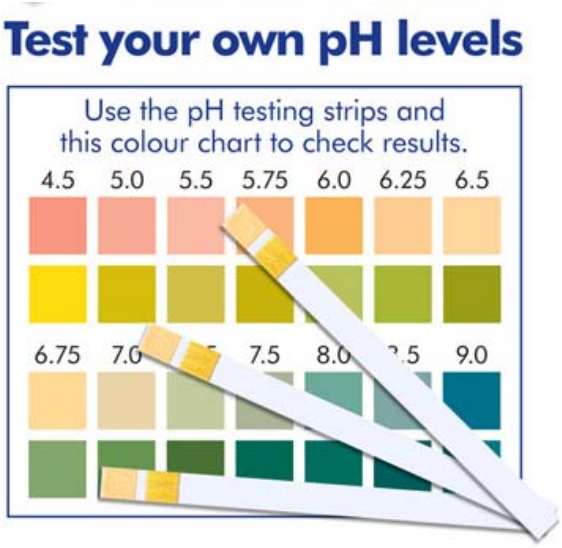
Chlorgon™ - the only non-carbon filtering media to remove:

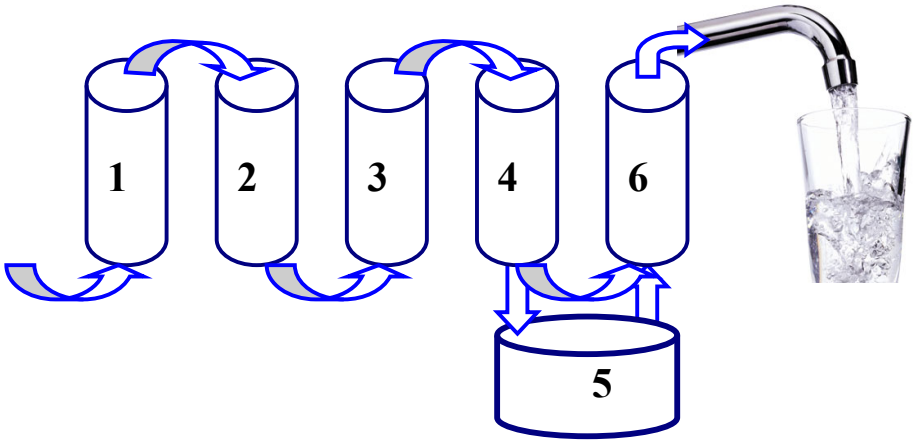
- **Free Chlorine (Cl-)**
- **Combined Chlorine (Sodium Hpochlorite)**
- **Lead (Trace amounts)**
- **Hydrogen Sulfide (rotten egg smell)**
- **Iron oxide (rust water)**
- **Diret, sediment**
- **Odours**
- **Plus, its pH balanced.**

The High Output Shower Filter Cartridge

removes chlorine for one year or 15,000 gallons (60,000 litres). (After which time, just purchase the replacement cartridge and be set for another year or 15,000 gallons). Helps dry and brittle hair become softer and more manageable. Low flow shower head design saves money. Lasts ten times longer than other filters.

Many shower filters do not have a replacement cartridge and must be thrown away usually within a year!





http://www.gundrilltrading.com.au/index.html

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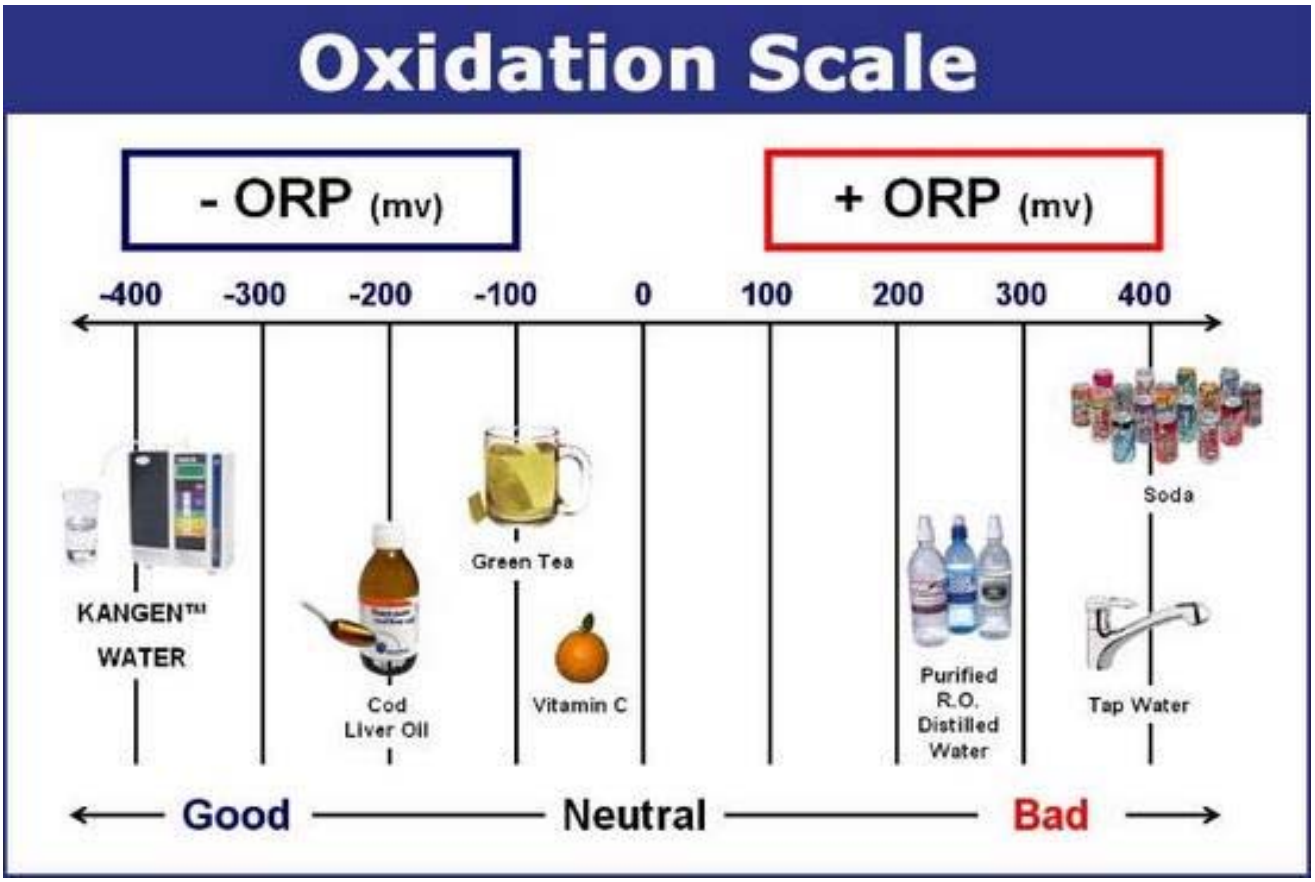
ORP – OXIDATION REDUCTION POTENTIAL: http://www.rhtubs.com/ORP.htm



ORP stands for Oxidation-Reduction Potential. In practical terms, it is a measurement to oxidize contaminants. It's as simple as that.

Well, then, you might ask, if ORP is so simple that it can be reduced to an 11-word definition, why are you devoting an entire article to it, and why should it be important to me at all?

The answer to that is that right now, ORP is the only practical method we have to electronically monitor sanitizer effectiveness. Every true system of automatic chemical control depends on ORP to work.

If you've been in the pool and spa service industry for any length of time, you already know the routine involved in maintaining proper water chemistry. First you test the water, then you adjust it to recommended chemical levels.

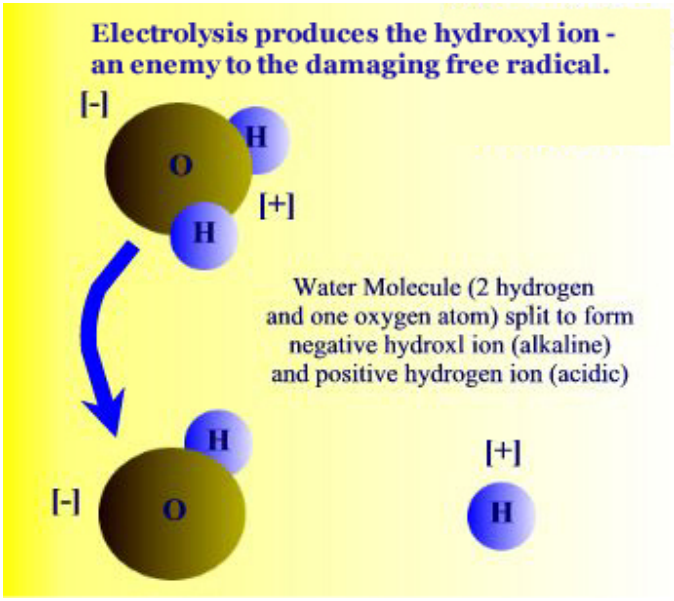
That sounds simple, too. Of course, you could make automobile maintenance sound just as simple: Simply measure the car's performance; then adjust everything necessary to make it perform the way it should.

In the real world, we all know that chemical maintenance of pool and spa water is a fairly complicated balancing act. You must maintain sanitizer residual at a level sufficient to protect swimmers and bathers from the invasion of unwanted - and possibly harmful - plant and animal life. You must maintain the pH of the water at a level that assures the sanitizer works effectively and at the same time protects the pool shell and equipment from corrosion or scaling and the bathers from discomfort or irritation.

Along the way, you must make sure that all the other ingredients in this chemical mix - total alkalinity, water hardness, temperature, and total dissolved solids (TDS), to name four big ones - are also in balance or not out of the recommended range.

But of all the factors involved in chemical maintenance, the "frontline" troops are two: sanitizer residual and pH. By far, these are the chemical tests performed most often. By far, these are things that we are most concerned with.

ORP and pH sensors allow us to electronically monitor and control sanitizer residual and pH automatically. In a light usage residential pool, this might not be a primary concern. But in a public or semi-public pool or spa - one that is under constant observation by local health authorities - some form of dependable, accurate, automatic chemical control may well be a necessity.



"But," you might say, "I'm already in control. I've got an erosion feeder hooked up to the suction line, or a floater in the pool, or I've left chemicals behind with the owner to add between service calls. There should be plenty of sanitizer in the water by the time I return for my next call."

The key words are "dependable" and "accurate." The methods described above may get some sanitizer in the water, but will it be enough? Will it be too much? Will it get done at all?

An erosion feeder, hooked in-line with the circulation system, will dispense some chemicals whenever the system is running - whether they are needed or not. A floater will dispense some chemicals constantly - whether they are needed or not. Depending on a pool owner to take care of things between calls is - well - chancy at best and downright dangerous at worst.

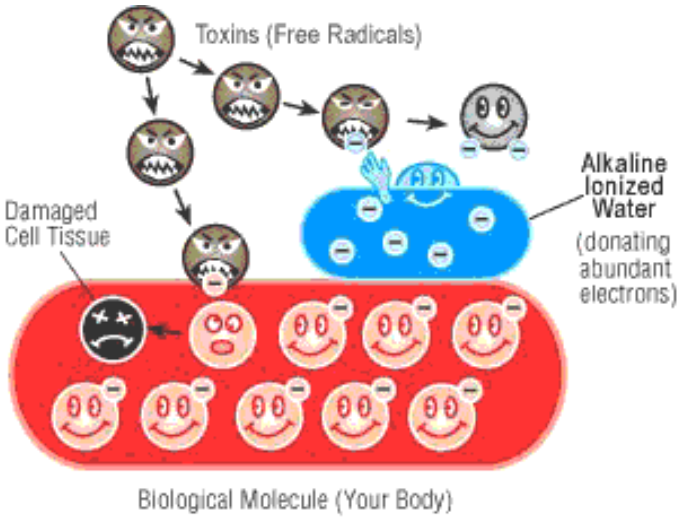
Besides, erosion feeders and floaters only deal with sanitizer residual. There's still nothing there to control pH. pH, as we all know, is the thing that makes sanitizer work. **pH stands for "the power or potential of hydrogen".**

If you want true chemical control, you've got to have some method of monitoring both the sanitizer residual and the pH and using that information to chemically treat the water. That's where ORP enters the picture.

So What Exactly Is ORP?

As we stated earlier, ORP stands for Oxidation-Reduction Potential. In some parts of the world, it is also known as Redox Potential. Sometimes, you'll see the words "oxidation" and "reduction" spelled without the hyphen connecting them. We chose the hyphen because the two chemical reactions are really "joined at the hip" - one cannot occur without the other also occurring.

When chemists first used the term in the late 18th Century, the word "oxidation" meant, "to combine with oxygen." Back then, it was a pretty radical concept. Until about 200 years ago, folks were really confused about the nature of matter. It took some pretty brave chemists to prove, for example, that fire did not involve the release of some unknown, mysterious substance, but rather occurred when oxygen combined rapidly with the stuff being burned.



We can see examples of oxidation all the time in our daily lives. They occur at different speeds. When we see a piece of iron rusting, or a slice of apple turning brown, we are looking at examples of relatively slow oxidation. When we look at a fire, we are witnessing an example of rapid oxidation. We now know that oxidation involves an exchange of electrons between two atoms. The atom that loses an electron in the process is said to be "oxidized." The one that gains an electron is said to be "reduced." In picking up that extra electron, it loses the electrical energy that makes it "hungry" for more electrons.

We also know that matter can be changed, but not destroyed. You can alter its structure, and can increase or decrease the amount of energy it contains - but you can't eliminate the basis building blocks that make things what they are.

Chemicals like chlorine, bromine, and ozone are all oxidizers. It is their ability to oxidize - to "steal" electrons from other substances - that makes them good water sanitizers, because in altering the chemical makeup of unwanted plants and animals, they kill them. Then they "burn up" the remains, leaving a few harmless chemicals as the by-product.

Of course, in the process of oxidizing, all of these oxidizers are reduced - so they lose their ability to further oxidize things. They may combine with other substances in the water, or their electrical charge may simply be "used up." To make sure that the chemical process continues to the very end, you must have a high enough concentration of oxidizer in the water to do the whole job.

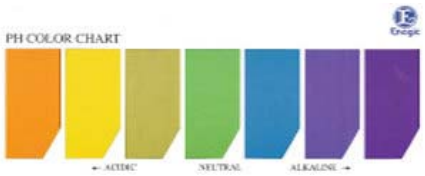
But how much is "enough?" That's where the term potential comes into play.

"Potential" is a word that refers to ability rather than action. We hear it all the time in sports. ("That rookie has a lot of potential - he hasn't done anything yet, but we know that he has the ability to produce.)

Potential energy is energy that is stored and ready to be put to work. It's not actually working, but we know that the energy is there if and when we need it. Another word for potential might be pressure. Blow up a balloon, and there is air pressure inside. As long as we keep the end tightly closed, the pressure remains as potential energy. Release the end, and the air inside rushes out, changing from potential (possible) energy to kinetic (in motion) energy.

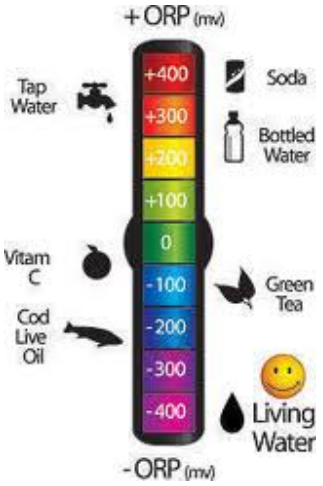
In electrical terms, potential energy is measured in volts. Actual energy (current flow) is measured in amps. When you put a voltmeter across the leads of a battery, the reading you get is the difference in electrical pressure - the potential - between the two poles. This pressure represents the excess electrons present at one pole of the battery (caused, incidentally, by a chemical reaction within the battery) ready to flow to the opposite pole.

When we use the term potential in describing ORP, we are actually talking about electrical potential or voltage. We are reading the very tiny voltage generated when a metal is placed in water in the presence of oxidizing and reducing agents. These voltages give us an indication of the ability of the oxidizers in the water to keep it free from contaminants.



How Do You Measure ORP?

An ORP probe is really a millivolt meter, measuring the voltage across a circuit formed by a reference electrode constructed of silver wire (in effect, the negative pole of the circuit), and a measuring electrode constructed of a platinum band (the positive pole), with the pool water in between.



The reference electrode, usually made of silver, is surrounded by salt (electrolyte) solution that produces another tiny voltage. But the voltage produced by the reference electrode is constant and stable, so it forms a reference against which the voltage generated by the platinum measuring electrode and the oxidizers in the water may be compared.

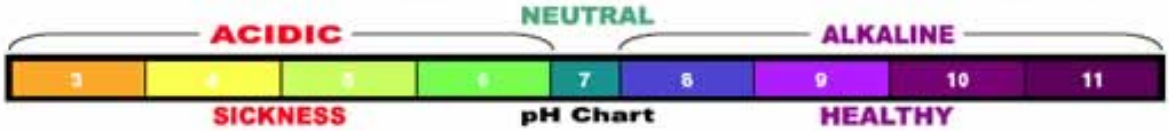
The difference in voltage between the two electrodes is what is actually measured by the meter. Modern ORP electrodes are almost always combination electrodes, that is both electrodes are housed in one body - so it appears that it is just one "probe."

Incidentally, the meter circuitry itself must have very high impedance (resistance) in order to measure the very tiny voltages generated by the circuit.

Beverages pH & ORP Test Results (Page 1)

A test of the following beverages was conducted July 2008 in California using a calibrated PinPoint Combo pH / ORP Meter.

Brand	Label	Packaging	pH	pH Chart	ORP	ORP Chart
Aquafina			5.35		+381	
Arrowhead Spring Water			7.42		+275	
Evian			7.64		+295	
Fiji			7.6		+357	
Smart Water			5.9		+305	
Real Alkalized Water			7.9		- 25	
Evamor			9.18		+174	
Penta			5.27		+390	
Essentia			9.26		+179	
Alive Wellness Water			3.24		+415	
Vitamin Water			3.34		+438	
Dasani Plus			3.04		+290	
Vital Lifestyle Water			3.72		+426	
Crystal Geyser Sparkling Water			5.72		+324	
Perrier			5.53		+392	
Kangen Water™			9.5		-745	



Beverages pH & ORP Test Results (Page 2)

A test of the following beverages was conducted July 2008 in California using a calibrated PinPoint Combo pH / ORP Meter.

ANTI-OXIDANT — OXIDATION

-400 | -300 | -200 | -100 | 0 | +100 | +200 | +300 | +400

OPTIMAL CELLULAR HEALTH — **ORP Chart** — CELLULAR DEGENERATION & AGING

Brand	Label	Packaging	pH	pH Chart	ORP	ORP Chart
Arrowhead Sparkling Water			4.89		+268	
Snapple Red Tea			3.67		+360	
Propel Fitness Water			3.6		+280	
Gatorade G2			3.5		+325	
Sprite			3.5		+550	
Pepsi			3.2		+450	
Coke			2.8		+410	
Red Bull			3.2		+462	
Starbucks Coffee			5.5		+175	
Odwalla Orange Juice			4.2		+246	
MonaVie			6.18		+240	
Shiraz Red Wine			4.05		+232	
Heineken Beer			4.76		+315	
Patron Tequila			4.55		+315	
Smirnoff Vodka			6.2		+220	
Kangen Water™			9.5		-745	

ACIDIC — NEUTRAL — ALKALINE

3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11

SICKNESS — **pH Chart** — HEALTHY

What Does an ORP Meter Tell US?

Now that you know the basis of how and ORP meter works, let's take a look at how changes in oxidating level in the water will effect the measurement.

For practical purposes, oxidating agents in the water (pollutants) are the "bad guys" because they are oxygen molecules with one electron missing from the outer orbit. They are therefore positively charged and are in fact, free radicals, the destroyer of body tissues.

Anti-oxidating water by contrast are the "good guys' because it has a surplus of free electrons. These, when they come across an oxidating molecule (free radical), are attracted to the oxidating molecule because of its opposite charge, join the outer orbit and complete the outer orbit, therefore neutralising the molecule, so making it no longer destructive to the body's tissues.

In oxidating water the ORP meter will read a positive charge (+ x millivolts) because of the surplus number of positively charged oxygen molecules. As you add anti-oxidating water, you are adding many free electrons to the water which neutralises the positively charge oxygen molecules bringing the average charge in the water to neutral. As you add more anti-oxidating water, you are adding more electrons and moving the charge of the water now into a negative state (- x millivolts).

How pH Affects ORP

Service professionals are already well aware that sanitizer effectiveness can vary rather significantly with changes in pH - particularly in regards to chlorine, which is by far the most commonly used chemical for water sanitation.

You will recall from previous articles about chlorine that the killing form of chlorine is hypochlorous acid (chemical formula HOCI), which, not coincidentally, is a powerful oxidizer. You will also remember that the percentage of hypochlorous acid is present in pool and spa water depends directly on the pH.

For example, at a pH of 6.0, 96.5 percent of the Free Available Chlorine in the water is in the form of HOCI, while at a pH of 8.5, only 10 percent is in this active killing form.

Testing the water with OTO can tell you the concentration of chlorine, but it cannot tell you how much of the chlorine is combined into organic compounds or how much is in the form of hypochlorous acid. Changing the pH of the water will not affect the result of an OTO test.

A DPD test can tell you how much of the chlorine is combined and how much is free and available, but it cannot tell you what percentage is in the form of hypochlorous acid. To determine this, you must take a pH test and calculate the results. Altering the pH will not effect the results of a DPD test.

Although ORP does not specifically tell you the chlorine concentration in parts per million, it does indicate the effectiveness of the chlorine as an oxidizer. An ORP reading will vary as pH fluctuates. As the pH goes up, the millivolt reading on an ORP meter will go down, indicating that the sanitizer is not as effective. Bringing the pH down or adding more sanitizer will raise the millivolt reading.

That is why most ORP instruments also incorporate an electronic pH meter - which measures the difference in electrical potential between the pool water and a sample of known pH that is contained in the probe in a small glass bulb.

Setting the Standard

Once the instruments and methods for measuring ORP were developed in the 1960's, researchers began working toward setting standards under which ORP measurements could be used as an accurate gauge of water quality.

In 1972, the World Health Organization adopted an ORP standard for drinking water disinfection of 650 millivolts. That is, the WHO stated that when the oxidation-reduction potential in a body of water measures 650/1000 (about 2/3) of a volt, the sanitizer in the water is active enough to destroy harmful organisms almost instantaneously.

In Germany, which has about the strictest water quality standards in the world, an ORP level of 750 millivolts has been established as the minimum standard for public pools (1982) and spas (1984).

In its 1988 standards for commercial pools and spas, the National Spa & Pool Institute stated that ORP can be used as a "supplemental measurement of proper sanitizer activity" when chlorine or bromine are used as primary disinfectants. The recommended minimum reading under the NSPI standards is 650 millivolts, with no ideal and no maximum.

The NSPI also stated that "the use of ORP testing does not eliminate or supersede the need for testing the sanitizer level with standard kits."

The above statement is not necessarily a matter of the NSPI being cautious about setting chemical standards. The fact is that most health codes still specify that a measurable free available chlorine (FAC) residual - usually 1.0 ppm present in the water of public pools and spas, as measured with a DPD test kit.

Chemical Automation

ORP technology has received widespread application in this country as the basis of automated chemical control equipment. The reasoning is clear: Only an ORP sensor can deliver the kind of feedback needed to control feeders for sanitizer and pH adjusting chemicals.

Unlike constant feed or timer controlled devices, ORP based chemical controllers can dispense pool chemicals as they are needed. Combined with a pH sensor, these controllers can be used to activate liquid feed pumps, gas chlorinators, and erosion type feeders for dry chemicals. They also can monitor pool water chemistry and record the reading on a chart.

Clearly, this type of chemical automation can result in significant savings for operators of large, commercial pool and spa installations, because chemicals are only dispensed when they are needed.

Further, electronic control assures that sanitizer and pH adjusting chemicals will be dispensed precisely as they are needed, eliminating the peaks and valleys in sanitizer residual and pH that often occur in pools and spas as bather load fluctuates.

Control equipment is generally installed with the ORP and pH probes placed in the pressure line, or water from the pressure line may be diverted to the probes. Probes are always installed prior to the point of chemical injection. This way, water passing over the sensors is representative of water in the pool, and the sensors are always ready to produce an accurate voltage.

When used with liquid chemical feed pumps, the signals from the pH and ORP probes determine when the controller activates chemical pumps. The pumps are turned on and off to achieve the set points (desired control levels).

When using a gas chlorinator, the controller activates a solenoid valve, which permits gas to be injected through a bypass line and into the recirculation line. A booster pump in the bypass line is often used to assure adequate dispersion of gas.

Erosion feeders (dispensing trichlor or calcium hypochlorite tablets or bromine sticks or tablets) can also be controlled by an ORP controller. The feeder is placed in a bypass line, which is opened or closed through the use of a solenoid valve.

In addition, ORP devices can be used to measure sanitizer effectiveness and to control ozone generators, chlorine generators, and ionizers (in combination with chlorine).

Importance of pH and ORP http://kangen.net/kangen-water/beverage-tests-ph-and-orp/

When considering the relationship of drinking water to health, two important issues are: pH and ORP. These factors make it possible for us to gauge the effects of water on living tissue.

pH was an idea developed in 1909 and it stands for "the power or potential of hydrogen". It is a way of measuring of the activity of the hydrogen ions concentrated in any solution. The activity of these ions can produce an acidic or an alkaline solution measured on a scale of 0-14 with 7-14 being alkaline while 0-7 being acidic.

In the human body we have many pH levels in distinct areas. As an example our stomach can be 1.0-3.5 while our blood is 7.3-7.45 and our lymphatic fluid is 6.3-7.5. We have built-in buffering systems within our body to help maintain these pH levels, but if these systems are compromised or overloaded, then we are at the mercy of the pH inherent in what we are taking in. The greater part of this damage can occur because of the **oxidizing** consequence of the foods and beverages that we take in.

ORP stands for Oxidation – Reduction Potential which is the potential of a substance to reduce oxidation. Oxidation is similar to rust, it is the breakdown of any material when exposed to oxygen. A certain amount of oxidation is essential to life, but an excessive amount and the living structure being oxidized loses its integrity and its ability to properly function. This is what we imply by saying that free radicals are the ions that cause oxidation.

Consequently, if we are regularly eating and drinking substances which have a high ORP (increased oxidation) we are damaging our living tissues with every bite. The higher the ORP, the more oxidative damage that will take place. Food, particularly can have a very acidic effect as well as increase oxidation. One way to help strengthen our buffering systems and to prevent oxidation is by increasing our antioxidants and reducing our consumption of acidic substances.

The pH and the ORP of some of the most popular beverages:

•**Coke** has a pH of 2.8 making it one of the most acidic of beverages, just slightly less acidic than sulphuric acid. Its ORP is also +410 making it very damaging to cells.

•**Pepsi** is just a little better for pH at 3.2, but its ORP is worse at +450.

•**Sprite** has a pH of 3.5 with an even worse ORP of +550.

•**Propel Fitness Water** is a step up from that at 3.6, but is still very acidic, and when it is marketed to athletic individuals it can wreak havoc with tissues, since muscle strengthening and conditioning alone create large amounts of metabolic acids such as lactic and pyruvic acid. Its ORP is better at +280 which explains why it tends to make people feel more energetic.

•**Aquafina water** may have a pH of 5.2 making it better than some, but its ORP is an astounding +542.

•**Reverse Osmosis water** may have a much more acceptable pH of 6.5 (making it still on the acidic side of the scale), but its ORP is the highest of almost any beverage at +586.

•**Red Bull** is also very acidic at 3.2 pH, but it's the ORP that kills at +462.

•**Gatorade** is a 3.5 pH and its ORP is +325 which is due to the high level of sodium it contains.

•**Wine** has quite an acidic pH of 4.05, but its ORP is lower at +232 which is explained in many clinical studies of the antioxidant effect of grapes and red wine.

•**Starbucks coffee** actually appears to be one of the best choices at a pH of 5.5 and an ORP of +175, but don't forget the effects of the caffeine. Decaffeinated coffee will have a much lower pH, making it not the healthy choice you may have thought.

•**Tap water** comes in at a pH of 7.2 and has an average ORP of +370, but both of those amounts tend to be chemically produced by additives and purification processes that municipalities utilize.

<u>BRINGING the BEST TOGETHER</u>:

Consider:

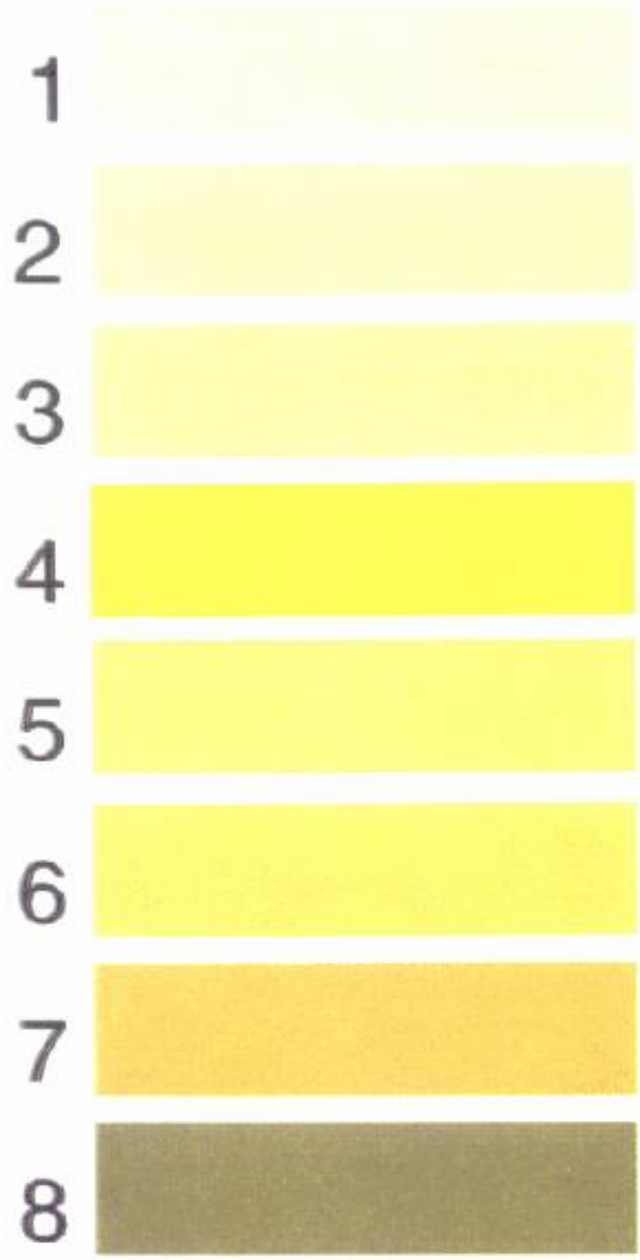
Grander whole of house inline water treatment:

Grander immersion rods for:
personal swimming pool installation
Place immersion unit in skimmer basket.
spa installation
Place immersion unit in skimmer basket.

Sprite chlorine shower filter.

Kangen Water Ionizer for your alkalized drinking water and kitchen use water.

Am I Hydrated?
Urine Color Chart



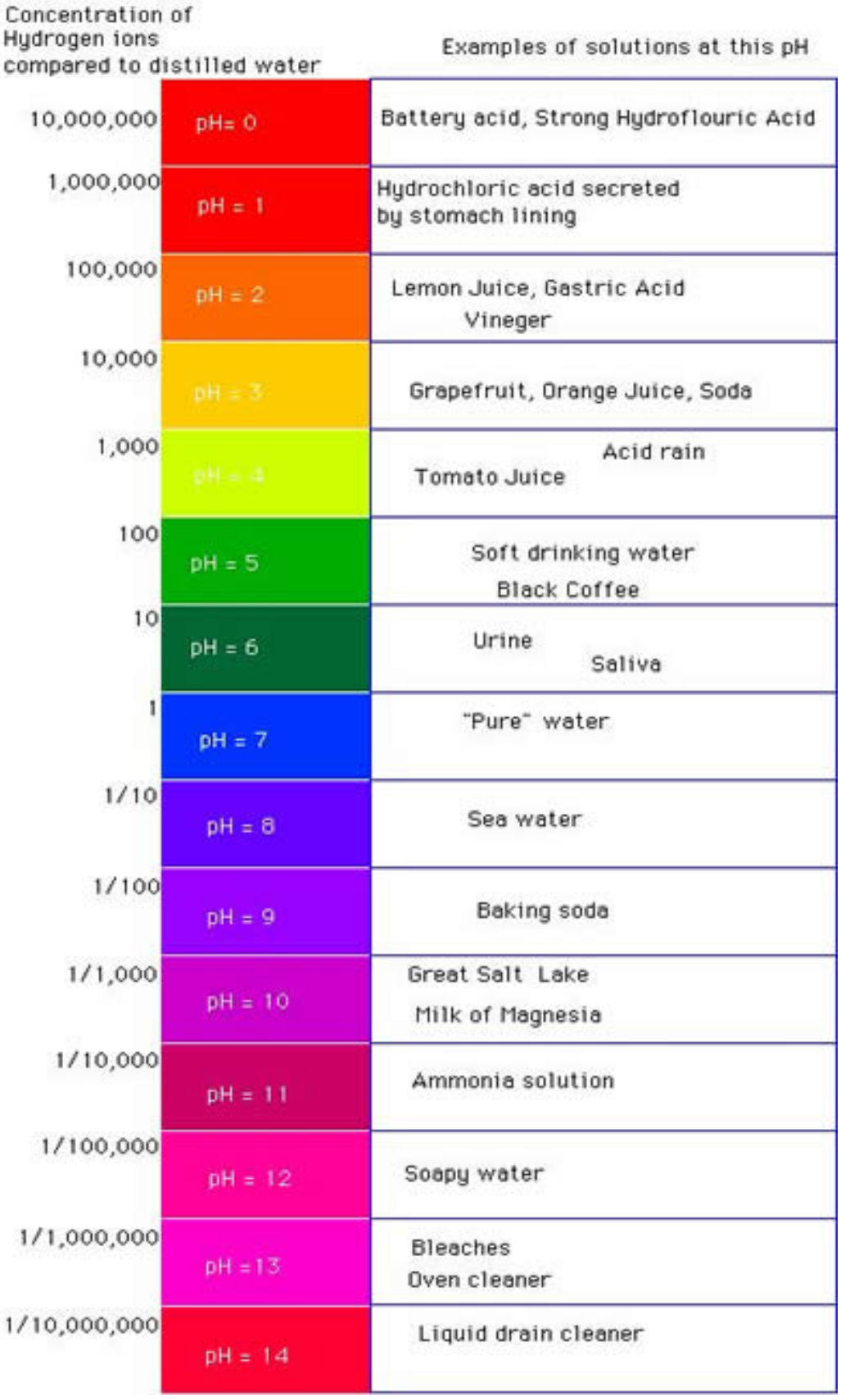
This urine color chart is a simple tool your can use to assess if you are drinking enough fluids throughout day to stay hydrated.

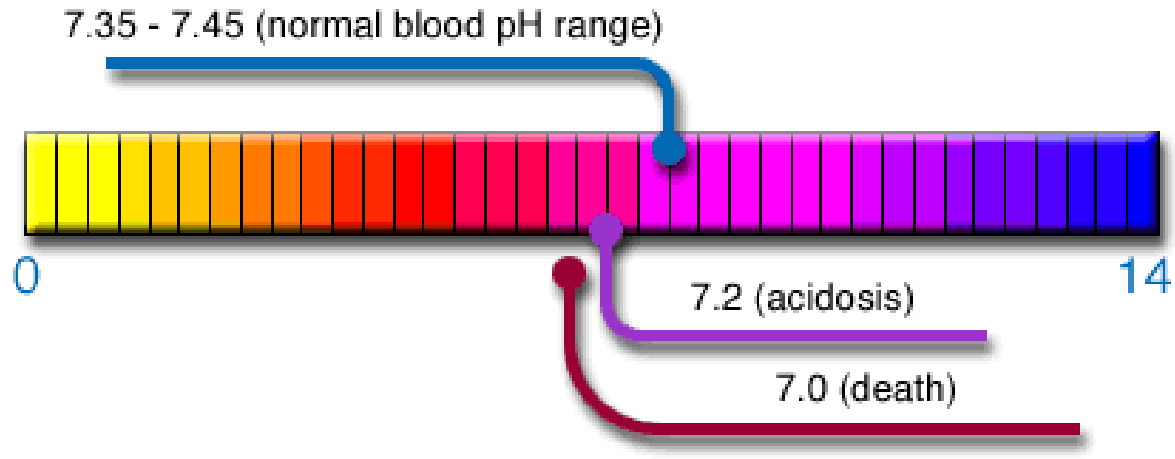
If your urine matches the colors numbered **1, 2, or 3 you are hydrated**.

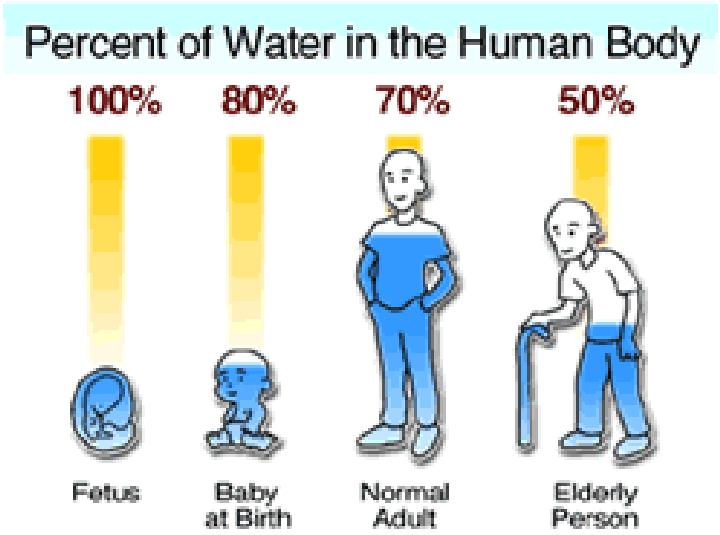
If your urine matches the colors numbered **4 through 8 you are dehydrated** and need to drink for more fluid.

Be Aware! If you are taking single vitamin supplements or a multivitamin supplement, some of the vitamins in the supplements can change the color of your urine for a few hours, making it bright yellow or discolored.

If you are taking a vitamin supplement, you may need to check your hydration status using another tool like Handout #15: Hydration Check: Body Weight Log.


Concentration of Hydrogen ions compared to distilled water
Examples of solutions at this pH
10,000,000
pH= 0
Battery acid, Strong Hydroflouric Acid
1,000,000
pH = 1
Hydrochloric acid secreted by stomach lining
100,000
pH = 2
Lemon Juice, Gastric Acid
Vineger
10,000
pH = 3
Grapefruit, Orange Juice, Soda
1,000
pH = 4
Acid rain
Tomato Juice
100
pH = 5
Soft drinking water
Black Coffee
10
pH = 6
Urine
Saliva
1
pH = 7
"Pure" water
1/10
pH = 8
Sea water
1/100
pH = 9
Baking soda
1/1,000
pH = 10
Great Salt Lake
Milk of Magnesia
1/10,000
pH = 11
Ammonia solution
1/100,000
pH = 12
Soapy water
1/1,000,000
pH = 13
Bleaches
Oven cleaner
1/10,000,000
pH = 14
Liquid drain cleaner


7.35 - 7.45 (normal blood pH range)
0
14
7.2 (acidosis)
7.0 (death)


Percent of Water in the Human Body
100%
80%
70%
50%
Fetus
Baby at Birth
Normal Adult
Elderly Person

Cellular pH (Voltage) and Disease

	Values are Approximate					
Nakatani	Cell Voltage	Cell pH	Salivary pH	Cell pH	Symptoms	
210	-105	8.84	8.04			
200	-100	8.75	7.95	Viruses Bacteria Cancer Cells Die 7.8-8.8	Symptoms of Healing	
190	-95	8.66	7.86			
180	-90	8.58	7.78			
170	-85	8.49	7.69			
160	-80	8.40	7.60			
150	-75	8.31	7.51			
140	-70	8.23	7.43			
130	-65	8.14	7.34			
120	-60	8.05	7.25			
110	-55	7.96	7.16		Dull Headache	
100	-50	7.88	7.08			
90	-45	7.79	6.99			
80	-40	7.70	6.90			
70	-35	7.61	6.81			
60	-30	7.53	6.73			
50	-25	7.44	6.64		Vigorous Healthy	
40	-20	7.35	6.55	Normal Cell		
30	-15	7.26	6.46		Tired Illness Fatigue	
20	-10	7.18	6.38			
10	-5	7.09	6.29			
0	0	7.00	6.20			
	5	6.91	6.11			
	10	6.83	6.03	Cell Mitosis 6.5-7.4		
	15	6.74	5.94			
	20	6.65	5.85		Cancer Develops 6.3-7.0	Pain
Can't	25	6.56	5.76			
Read	30	6.48	5.68			
Reversed	35	6.39	5.59			
Polarity	40	6.30	5.50			
	45	6.21	5.41			
	50	6.13	5.33			
	55	6.04	5.24			
	60	5.95	5.15			
	65	5.86	5.06			

The following chart help us understand the difference between electron donors & stealers in the human body

• Voltage	Cell pH	Status
• -800	9.50	Kangen water
• -50	7.88	Makes New cells
• -45	7.61	Normal for kids
• -25	7.44	Normal for adults
• -20	7.35	
• -15	7.25	Tired
• -10	7.18	Sick
• 0	7.0	Change polarity
• + 5	6.91	
• +10	6.83	Obesity
• +20	6.65	
• +30	6.48	Cancer occurs
• +500	4.00	Reverse Osmosis
• +700	2.50	Soda

Further reference:

Cellular Voltage in The Body

Molecular Hydration Specialist Michael Kinnett

http://www.futurefoundationwater.com/dvdsale.html