

SPECIAL REPORT: The Complete Health Story, Where It Starts & What To Do

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Americans are in a chronic state of dehydration from all the soft drinks, alcohol, coffee and more that we consume. Yet water is the universal transport that feeds the approximately 75 trillion cells in our body, stimulating chemical reactions that produce and perpetuate life.

Cells, by definition, are the smallest unit of an organism (either plant or animal) capable of independent life, which is why they are often called the building blocks of life. Every second, whether we know it or not, millions of new cells are reborn in our body's tireless process of self-generation. A cell is the functional unit that forms healthy "tissues". Tissues work collectively to form healthy "organs". Organs work collectively to form healthy "systems". Systems work collectively to form organisms (or bodies). Our bodies are a set of very complex systems, from the immune system, to the respiratory system, the digestive system and so on. For our bodies to function properly, we need healthy, functioning cells. In fact, all disease originates at the cellular level. This is where water comes in as such an important factor.

Water is the universal transport of nutrients that feed every cell in the human body. These nutrients are vital to the process that allows our body's cells to be in a constant state of replenishment and regeneration. Water makes up approximately 60% of our body. Water is a vital component of lean muscle tissue, bones, skin and blood. Our blood is made up of approximately 55% plasma, which consists of 95% water. Why is all this important? The bloodstream is a constant, flowing source for nourishment and removal of acidic waste residues within our body's cells.

As the heart pumps blood to cells throughout the body, plasma brings nourishment to them and removes the waste products of metabolism. Metabolism is the set of chemical reactions that happen in living organisms to maintain life. These processes allow organisms to grow and reproduce, maintain their structures, and respond to their environment. Through the metabolic process, cells digest nutrients and convert them to waste or toxins that are created as by-products of cellular functions and regeneration. There really is no other natural way of getting rid of toxins except for hydration (lots of water) which stimulates your metabolism. ***You can look at water as the most important component to the feeding and cleansing of our cells.***

Did you know that 30% of the body's metabolism happens in the brain? Do you want to feel more alert and on top of your game? Do you want less headaches, skin problems, joint and muscle pain, more physical energy, and better digestion? It is now becoming obvious that the way we empower our body to function at the cellular level affects our health starting at the fundamental building blocks of life. And the way we prepare our body's cells to absorb the nutrients that they need is critically impacted by the quantity and quality of water we drink!

The human body functions best when the blood and tissue fluids are neither too alkaline nor too acidic. Abnormally high acidity of the blood and tissue fluids is called acidosis. It results in chemical reactions at the cellular level taking place less efficiently, leading to health complications. The rate of cellular metabolic activity is affected by the pH of the body fluids. Healthy human-arterial blood pH varies between a very narrow range of 7.35 and 7.45. Changes in the pH of arterial blood outside this range result in irreversible cell damage and a depleted ability to resist disease.

Now think again about our American diet, which is causing us to not only be more dehydrated, but acidic at the same time. The very same sodas and coffees that dehydrate us also introduce highly acidic pH levels into our bodies. The pH of regular and diet sodas range from 2.47-3.35 (battery acid is 1.0). Coffee is the second most traded commercial product in the world, and as we ingest gallons of it into our bodies, we also take on its pH of between 5.0 and 5.5. All of this creates a highly acidic (having a pH of less than 7.0) state in our bodies. Think of it, we guzzle coffee for breakfast (acidic), burgers for lunch (acidic), wash it down with king size sodas (acidic), and have a pizza (acidic) for dinner. It is no wonder that we are a dehydrated, highly acidic society.

IMPORTANT: Acidic build up in our bodies can be neutralized by drinking a higher pH (more alkaline) water in order to return us to the natural pH balance we need. If we let ourselves become too acidic, it impacts cell metabolism, the fundamentals of life and our overall health.

The bottom line is that pH balance in our bodies is the consequence of nutrition and hydration! The fact is that small changes can make big differences. So how do we change from a too acidic, dehydrated state to a more normal and

balanced pH state?

The Simple Ways To Improve Your Health

Cell metabolism and normal replenishment rely heavily on maintaining a more balanced and natural state of hydration and alkalinity. Thus we need to drink more water with higher pH levels to bring our bodies back into balance. Since the opposite of a state of acidity (pH lower than 7.0) is a state of alkalinity, then we need to drink more alkaline water. That's it! Something as simple as drinking more alkaline water seems to be almost too simple to make any profound difference, right? Wrong! Read below about what the effects of drinking more alkaline water can do for your health, starting at the cellular level.

Greater Consumption Of Alkaline Water Leads To Better Hydration

Aquaporins are proteins embedded in the cell membrane that regulate the flow of water. They are "the plumbing system for cells". Water molecules traverse through the cells plumbing system in single file bringing in the necessary nutrients and igniting the cell's metabolic processes. Aquaporins are literally the opening to the cell, and that opening is always the same size. Thus, for water to flow through, it must fit through this opening.

Water lives in various structures and clusters, thus sizes. Alkaline water produces smaller clusters of water which are much more able to flow through the aquaporins (openings) into the cell.

A water molecule, (the chemical symbol H_2O), consists of two hydrogen atoms and one oxygen atom. However, water molecules come in clusters rather than single molecules. Tap water has very large clusters (10 to 13 molecules per cluster). The more alkaline the water, the smaller the water clusters – reduced from their original size into micro clusters (perhaps 5 to 6 molecules per cluster). The smaller cluster size gives the water excellent hydrating properties, high solubility and high permeability into the body's cells.

Alkaline Water And Antioxidants

To further understand the benefits of alkaline water, we need to first understand the concepts around free radicals and antioxidants. Free radicals are unstable chemicals formed in the body during normal cellular metabolism or exposure to environmental toxins found in air, food and water pollution. Free radicals can help our bodies to generate energy and fight infections, but when we have too many free radicals they attack healthy cells causing them to age prematurely. The action (or oxidation) of rust is probably the best analogy of how excess free radicals work in our body.

If allowed to perpetuate unchecked, free radicals can cause damage to the body's cells. Free radical damage (or oxidation) has been linked to the formation of every degenerative disease known including cancer, cardiovascular disease, cataracts and the aging process itself.

Free radicals are highly reactive chemicals that attack molecules by capturing electrons and thus modifying chemical structures. The nucleus of an atom is surrounded by a cloud of electrons. These electrons surround the nucleus in pairs. When an atom loses an electron, leaving the atom with an "unpaired" electron, the atom becomes a "free radical".

So a free radical is just a molecule with an unpaired electron. The molecule is reactive and seeks another electron for pairing. This initiates an uncontrolled chain reaction that damages the natural functioning of the living cell, causing numerous diseases and disruption of the normal functioning of the body's systems (immune system, nervous system, etc.). To counteract the effects of free radicals (or oxidation), we need the help of antioxidants. The use of antioxidants is becoming much more common in our society and daily lives.

An antioxidant is simply a chemical compound or substance that inhibits oxidation. Vitamin E, vitamin C, and beta carotene, are all examples of antioxidants that help protect body cells from the damaging effects of oxidation.

How Does Alkaline Water Help Fight Free Radicals And Oxidation?

All acids release H^+ ions into our body's fluids. Alkaline water releases OH^- which neutralizes the effects of the acids that we ingest from our common American diets or are exposed to in our environments. The OH^- is a type of ion that works as an electron donor, counteracting the free radicals that create oxidation. Remember that free radicals are created by the loss of an electron. Acidic states help stimulate free radicals that destroy cells and damage DNA. Lower body pH levels (higher acidity) means that more of these independent H^+ , oxidizing ions are floating around our bodies. The "+" sign is the degree of oxidation of the hydrogen ion. The oxidation number is equal to the ionic charge; "the oxidation number of hydrogen is +1 and of oxygen is -2" Thus, H^+ would have an oxidation state of +1.

Alkalinity actually measures how many ions are in the water. If there is an overall, negative (i.e. OH^-) charge, these ions (and the water we drink) will counter balance the H^+ ions created by the acids. A water ionizing process can lead to not only more alkaline water, but water with significant Oxidation Reduction Potential (ORP). When done correctly,

the ORP of the resulting water has significantly more reduction potential than Vitamin C or any of the other common antioxidants. Why? You could never possibly consume enough of these other antioxidants to equal the levels of ORP that can be obtained through a healthy, water ionization process. The ionization process leads your body to a more natural and balanced state of pH, cell metabolism and wellness.

The negatively charged ions being introduced into the water within this process react with any acids (H^+), thus neutralizing them and maintaining a balanced pH which we need for healthy cell metabolism (remember, acidity is considered anything under 7.0 pH). ***Thus, ingesting ionized, alkaline water fights the effects of the American diet and the environmental exposures to toxins which leave us in such a dehydrated and acidic state.***

Drinking ***the right water***, not just any water, is critical for your health and prevention of disease. This is true, now more than ever, in our acidic 21st century society.