

The Book of **WATER**



AQUATru[®]

Introduction

Water is the foundation for all life on earth. This is why we are so enthusiastic about water and we would like to share this enthusiasm with you. That is why we have written this whitepaper. It is a summary of all sorts of fun facts about water from numerous scientific articles, published in renowned scientific journals. We elaborate on things like, how water affects your health, which water is best to drink (for you and the environment) and water hacks (small, easy things you can use to make water work even better for you).

Many interesting topics are discussed, such as what water can do for your body. And how water can remedy many ailments, but also what things actually happen in your body when you drink water. In this book we discuss information regarding water from many different angles. Each article can be read independently.

We hope you will enjoy reading this whitepaper!

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Drink more water!

But why?

Why would you drink more water? When we are not feeling well, it is one of the first pieces of advice we often get. It does not matter if it is a cold, the flu or if you have had a few too many drinks last night: drinking water helps.

We all know that it is good for us and that we would be better off drinking some more water. Despite that knowledge, we often do not act on it, which is understandable. Water just seems a bit boring. Especially when you look at the alternatives. We enjoy telling our friends about a great cup of coffee, a fine glass of wine or a good pint of beer.

But what can water offer you?

Water is the vehicle for all the nutrients and oxygen in our body. It is not hard to imagine, when we think of the fact that we are almost entirely made of water molecules (99%) (1). Now you might think: “that all sounds great, but what does that do for me?”

Water plays a major role in literally every process in our body. We need water to get everything to the right place, to make everything function well and to get rid of the things that get in the way?

It is very important to drink water that is pure and clean. This means that there should be the least amount of harmful contaminants in your water that you can manage. Even in European countries, there are a lot of substances in our water that are harmful to our health, even in small amounts (see our research section for more info). You do not want to invite those in.

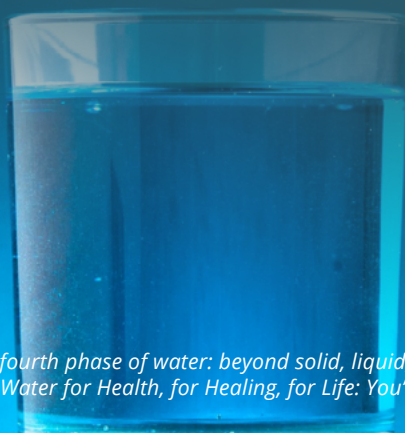
It does not matter what you are looking for: a beautiful skin, a strong body or a sharp mind; the right amount of water can help you get there (2). The better the quality, the better your results. That might sound like a lot to claim, but just think of these facts:

- 💧 60% of our body is made out of water
- 💧 Our skin even consists out of 64% water
- 💧 Our brain and heart consists out of 73% water
- 💧 Our muscles are made out of 79% water
- 💧 Our blood consists out of 90% water
- 💧 And we are almost entirely made out of water molecules (99%)

This does not mean that water is the silver bullet that will solve all your problems. What it does mean, is that drinking enough water is the catalyst for all your other health practices. When you are properly hydrated, you will be able to:

- 💧 Absorb more nutrients
- 💧 Get rid of toxins more effectively
- 💧 Perform better during work-outs
- 💧 Recover better after work-outs
- 💧 Think more clearly

Hydration is one of the cornerstones of your health. Just like you would need a solid foundation for a good house, you need proper hydration for a beautiful body and a sharp mind.



References:

1. Pollack, G. H. (2013). *The fourth phase of water: beyond solid, liquid, and vapor*. Seattle.
2. Batmanghelidj, F. (2008). *Water for Health, for Healing, for Life: You're Not Sick, You're thirsty!*. Grand Central Publishing..

Dr. Batmanghelidj: the water pioneer

In this document, you will find a lot of references to this book: “You’re Not Sick, You’re Thirsty” by Dr. Batmanghelidj. But who is Dr. Batmanghelidj, exactly?

After spending his youth in Iran, he graduated from the St. Mary’s Hospital Medical School of London University, under Alexander Fleming, who won the Nobel Prize for discovering penicillin.

After finishing his studies, he went back to Iran, where he played a major role in the development of hospitals and health care centers.

In 1979, the Iranian Revolution started and Dr. Batmanghelidj was taken prisoner. As he was one of the few doctors in that prison, he was assigned to treat those with health problems.

There was just one problem: he did not have any equipment or medicine. He decided to use the one thing he did have access to: water.

There were over 3000 inmates who had severe ulcer problems. Most of them were healed by very simple advice: ‘drink more water’.

Dr. B worked hard on his findings and his work was published in June 1983 in the “Journal of Clinical Gastroenterology”, which the New York Times wrote an article about.

After he was released from prison, he moved to the United States and continued his research on water and hydration. He published papers, books and gave lectures. More than one million copies of his book “You’re Not Sick, You’re Thirsty” were sold and translated into 15 different languages. The book has been recommended by Dr. Gerard Pollack, who has been awarded the “Scientific Award of Excellence” by the World Academy of Neural Science for his book: “The Fourth Phase of Water” (1).

To conclude Dr. Batmanghelidj’s work: making sure that we are properly hydrated is one of the most important things that we can do for ourselves and our health. In this book, we will give a couple of fun and interesting examples.

Water and hydration



Why is drinking the right amount of water so vital to our health? When we are well hydrated, our movements become more supple, we can think faster and we are more effective at getting toxins out of our bodies.

Drinking the right amount of water is the first step on the way to being well hydrated. But drinking a decent amount of water does not guarantee a well hydrated body. The water that we drink gets into our bloodstream. If we want to be well hydrated, it is essential that the water in our blood makes it to our cells. That last important step does not always go according to plan.

How can we make sure that our body will make that step?

Cellular hydration

Dr. Zach Bush has a hydration protocol to get you started (1). He recommends to drink a glass of water every 30 minutes between 7am and 7pm. During this time, you will be switching between two different glasses of water: a glass with filtered RO (reverse osmosis) water and a glass of mineralized water.

RO Water

Reverse osmosis is a very precise filtration method, which removes up to 99% of all the contaminants in your water. During this filtration process, it will also remove some of the minerals from your water.

That might sound worse than it actually is. Minerals are very important to our health, that is a fact. But we get almost all of our minerals from our diet, not from our water.

In other words: you only miss out on a small amount of minerals when you drink RO filtered water. You can also mineralise your water very easily, which we will get to in a moment.

The smaller amount of minerals in RO water can actually help you with getting properly hydrated. It is very effective at cleaning up your cells. Because the RO water does not have a lot of minerals, it has more potential to absorb other compounds. When the RO water passes through the various cells in your body, this potential triggers an osmotic process. Through that process, RO water can remove harmful substances from your cells (1).

Once the RO water has purified your cells, it is time for a different type of water. You can also get that from your RO device (such as the AquaTru). You only have to add a single ingredient.

Mineralized water

How do you mineralize water? It is very simple: you just add a little bit of salt. The extra minerals make it easier for your cells to absorb that water, since the water in your cells also contains salt (1).

There are water filters that mineralize your water immediately after it has been filtered. However, this ensures that you always get the same minerals in the same proportion, which can cause an imbalance. We recommend using different high-quality salts. In that way, you will get a diverse set of minerals.

You could start with Himalayan salt. This salt is known for being incredibly rich in minerals. It is best to take a variant that is extracted by hand instead of explosives, because the chemicals used in the explosions end up in the salt.

In addition to drinking the right water in the right amount, there are a few other things you can do to improve your hydration.

Diet

Fruits and vegetables consist largely of water. Water that your body can absorb very easily thanks to the fibers, minerals and other nutrients found in fruits and vegetables (1). In addition to eating more vegetables with your meals, you could, for example,

snack on pieces of cucumber to improve your hydration.

The sea, float tanks and taking a bath Your body doesn't only absorb minerals through what you eat and drink, but also through your skin. Swimming in a salty sea can provide a substantial boost to your mineral balance. But we do not always have the opportunity to go to the beach. Fortunately, there are other options for your skin to absorb minerals. For example, by taking a salt bath.

If you really want to take it to the next level, you can see if there are float tanks in your area. An incredible amount of salt is dissolved into the water of these tanks. It is so salty that you "float" on the water, through which your skin can absorb a lot of minerals.

Alcohol and caffeine

Alcohol and caffeine are substances that have a dehydrating effect. That does not mean that you are not allowed to drink a couple of cups of coffee, or enjoy a good wine. But make sure you drink enough extra water when you drink alcohol or caffeine. This way you can counteract the dehydrating effect of these substances.

Supplements

Mineral supplements, both capsules and skin oils, can give your hydration an extra boost, magnesium in particular. Your skin generally absorbs magnesium better and faster than when you take it in capsule form, but both can be of great benefit to you. With the right water, a balanced diet and an occasional salt bath, you can further optimize your hydration.

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1. Dr. Mercola Interviews Zach Bush about Hydration: <https://www.youtube.com/watch?v=FBZfdmvmn2aA>
3. <https://www.ad.nl/binnenland/de-strijd-om-schoon-drinkwater-het-wordt-steeds-moeilijker-aa9f4535>

What's the best drinking water?

There are a lot of options when it comes to water, as crazy as that might sound. Just think of all the brands of bottled water that you see in the supermarket.

Ofcourse, you can also drink tap water. If you want to improve the quality of your tap water, you can filter it. There are a lot of different ways in which you can do this. Some people want their water to be alkaline, others want to vitalise it (as well). There are a lot of different opinions when it comes to filtration methods and water quality, but we can agree on one simple thing: we want the least amount of harmful substances in our water. How can we make sure of that?

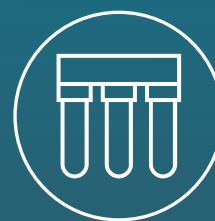
There are a couple of questions that we will have to answer. How clean is bottled water? Is there any difference between the brands? What about tap water? And even if you filter it, how can you be sure that it improves your water quality? In this chapter we provide you step by step answers to these questions.



Bottled Water



Tap Water



Filtered Water

Bottled water

Let us start with bottled water. There is plenty to choose from, with big differences in quality. That is because the guidelines for testing bottled water are not that strict. It is only tested for 15 substances, whereas tapwater is tested for 60 in some countries, like the Netherlands.

Despite these loose guidelines, there are plenty of brands that deliver high quality. But it can be difficult to differentiate. In addition, a lot of brands use plastic bottles. These aren't just harmful to the environment, but to your health as well. A lot of the bottles contain Bisphenol-A (BPA). BPA is a compound that has been linked to weight gain, cardiovascular diseases, diabetes and sexual dysfunction (1, 2).

References:

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2. Song, Y., Hauser, R., Hu, F. B., Franke, A. A., Liu, S., & Sun, Q. (2014). Urinary concentrations of bisphenol A and phthalate metabolites and weight change: a prospective investigation in US women. *International journal of obesity*, 38(12), 1532-1537

Glass bottles are a better alternative when it comes to your health. The downside is: the cleaning process is really harmful to the environment.

In short: there are a lot of differences in quality, it can be hard to differentiate, and many suppliers use packaging that is harmful to you and/or the environment. On to the next option: tap water.

Tap water

Depending on where you live, the quality of your tap water might differ. It is safe to say that in most of the European countries (including the Netherlands and Germany), there is room for improvement. Even in some of the most developed countries, harmful compounds are found in the tap water (3). How come?

A lot of harmful substances are dumped in our surface water (lakes, rivers, etc.). We do not exactly know what these substances are, and if they can be filtered out. Sadly, we can not really do much about this.

Among the compounds that are being monitored, the norms for 'safe' drinking water are not very reassuring. Harmful compounds like arsenic, cadmium, lead and mercury are linked to brain disorders, cardiovascular diseases and cancer. Even though the amounts are small, you don't want to have those inside of you.

Even after the water has been treated at a water filtration centre, all kinds of compounds can enter our water during the trip to our homes. One example is bad or old plumbing, which can leak substances like lead into our water supply.

How can we make sure that we don't ingest these substances?

Waterfilters

You might be thinking:

" I will ingest those harmful substances anyway, why should I drink clean water? "

Our drinking water is not the only source of harmful contaminants. But it is one of the few sources that we can control, unlike air pollution.

It is important to focus on prevention. It is the most effective way to reduce the amount of harmful substances in our body. Prevention works on two sides (5):

- 👉 You ingest less harmful substances, which reduces the amount of toxins in your body. When you ingest less of these harmful substances, your body is more effective at getting rid of them.
- 👉 The smaller the amount of harmful substances we ingest, the sooner our body will begin to get rid of them. You will feel better, physically and mentally.

You want to drink pure and clean water, without harmful substances and without damaging the environment. A good waterfilter will make that pretty easy for you. But what makes a good water filter? And how do you choose one?

If you want answers to these questions, we can recommend our whitepaper “Choosing the right water filter”, in which we cover the following topics:

- 👉 The different filtration techniques
- 👉 The different water filter systems and their pros and cons
- 👉 How you can determine if a water filter really improves your water quality
- 👉 And much more!



References:

4. Batmanghelidj, F. (2008). *Water for Health, for Healing, for Life: You're Not Sick, You're Thirsty!*. Grand Central Publishing.
5. Pizzorno, J. (2017) *The Toxin Solution*. New York, NY: Harpercollins.

How much water is healthy?

We know that water plays an important role in every process in our body (1) and that it is important to drink the right amount. But how much is this, exactly?

A basic rule is to multiply your weight in kilograms by 0,03 (2). For example, if you weigh about 80 kg, you should drink about $80 \times 0,03 = 2,4\text{L}$ of water every day. This is a very easy way to determine the right amount of water for you. But we can do better.

According to the Mayo Clinic, there is a couple of circumstances to keep in mind when it comes to drinking the right amount of water (3).

- 💧 Exercise: when you sweat, you lose fluids. It is important to drink enough water before and after your work-out, for performance as well as recovery.
- 💧 Temperature: when you spend time in a warmer and/or more humid climate, this can cause you to lose more fluids than you normally would.
- 💧 Health: if you have a fever, it is good to drink some extra water to compensate for your higher body temperature.
- 💧 Pregnancy: there is another person there and he or she needs water too.

Other things you can take into account are your caffeine, alcohol and salt intake.

It can be time-consuming to measure exactly how much you are drinking. Fortunately, our bodies do a pretty good job when it comes to expressing their needs.

You can pay attention to:

- 💧 The color of your urine (aim for colour-less or light yellow).
- 💧 Seemingly random, light aches.
- 💧 The feeling of thirst and hunger. It can be pretty hard to distinguish between the two, so make sure you have a glass of water first before you head to the fridge.

Forgot how much water you have been drinking? Do not sweat it, your body will tell you how much it needs. It does not matter that much to get the amount exactly right, as long as you are near it.

References:

1. Stookey, J. D., Brass, B., Holliday, A., & Arieff, A. (2012). What is the cell hydration status of healthy children in the USA? Preliminary data on urine osmolality and water intake. *Public health nutrition*, 15(11), 2148-2156.
2. Batmanghelidj, F. (2008). *Water for Health, for Healing, for Life: You're Not Sick, You're Thirsty!*. Grand Central Publishing.
3. <https://www.mayoclinic.org/about-mayo-clinic/quality/top-ranked>
4. <https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/water/art-20044256?pg=2>

The benefits of a day at the sauna



Visiting the sauna is not just a great way to relax. It is incredibly beneficial to your health as well.

A team of Finnish researchers studied 102 sauna visitors (1, 2). They were measured on all kinds of health parameters before and after their visit. The main focus was on blood circulation.

Sauna, stress and blood circulation

When it comes to stress, we are prone to think about it in a negative way. Stress is bad and we should avoid it at all costs. But it is not that simple.

Stress is not all bad. Chronic stress that is experienced as stress (as opposed to experienced as a challenge) is bad for our health. But it is very beneficial to our health to have short bursts of stress that we perceive as a challenge.

Short bursts of stress make us healthier by getting rid of our weaker cells, because our dysfunctional (weaker) cells will not survive a stress response. This will make room for new, younger and better functioning cells. That is how we stay fit and healthy.

References:

1. Laukkanen, T., Kunutsor, S. K., Zaccardi, F., Lee, E., Willeit, P., Khan, H., & Laukkanen, J. A. (2018). Acute effects of sauna bathing on cardiovascular function. *Journal of human hypertension*, 32(2), 129.

2. Lee, E., Laukkanen, T., Kunutsor, S. K., Khan, H., Willeit, P., Zaccardi, F., & Laukkanen, J. A. (2018). Sauna exposure leads to improved arterial compliance: Findings from a non-randomised experimental study. *European journal of preventive cardiology*, 25(2), 130-138.

Visiting the sauna gives you one of these short bursts of stress. While you are sitting there, your blood pressure will go up, similar to a light work-out. But afterwards, your blood pressure will be lower and more stable (3).

The heat exposure will also make your blood vessels more flexible, which means that they will be more responsive to changes in your blood pressure (1, 2).

Taking out the trash

All of the sweat that leaves your body when you are in the sauna is not just salt and water. It is one of the most effective ways in which your body gets rid of toxins, including heavy metals (like lead and mercury) and BPA (4, 5, 6).

Good for your brain

Exposing yourself to heat can stimulate BDNF, a growth factor for your brain which stimulates the growth of new neurons. As we get older, we get less neurons and our brain does not function as well. Going to the sauna on a regular basis is one of the best ways to counter this, along with a healthy diet and exercise (7).

How long should you stay?

According to one of the researches, Jari Laukkanen, you will get the most benefits out of a sauna session when you stay for at least 20 minutes, with a temperature of 80 degrees celsius. This will change depending on the temperature. If you are in a 100 degree sauna, you will not have to be in it as long to get the most benefits and when the temperature is 65 degrees, you can stay a little longer.

References:

3. Dr. Jari Laukkanen on Sauna Use for the Prevention of Cardiovascular & Alzheimer's Disease: https://www.youtube.com/watch?v=jL7vVG_CFWA&t=1293s&frags=pl%2Cwn
4. Sears, M. E., Kerr, K. J., & Bray, R. I. (2012). Arsenic, cadmium, lead, and mercury in sweat: a systematic review. *Journal of environmental and public health*, 2012.
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3. Dr. Jari Laukkanen on Sauna Use for the Prevention of Cardiovascular & Alzheimer's Disease: https://www.youtube.com/watch?v=jL7vVG_CFWA&t=1293s&frags=pl%2Cwn
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7. <https://articles.mercola.com/sites/articles/archive/2016/05/01/health-benefits-extreme-hot-cold-temperatures.aspx>.

These are just common guidelines. It will be a little bit different for everyone. It is best to just listen to your body and not force yourself to stay longer once you start getting uncomfortable. You might have to start with 10 or even 5 minutes in a 65 degrees Celsius sauna. Do not sweat it (pun intended), your body will get used to it when you do it more often and you will be able to stay longer.

Make sure you drink enough clean water

While you are sweating away in the sauna, you are losing a lot of salt and water. To make sure you will keep feeling well, it is essential to drink enough clean water: water with the least amount of toxins. After all, we do not want to fill it up with harmful compounds again, right after our bodies have worked so hard to get them out.

We recommend to drink filtered water from a filter that has been thoroughly tested by an independent organisation, like the AquaTru. Our filtration method has been tested by the NSF and has been proven to remove up to 99% of all the contaminants from your water.

The only downside to filters that filter this accurately, is that they filter out the minerals as well. But there is a very easy solution to that. You can add a bit of Himalayan salt or a high quality mineral solution (like AquaTru Perfect Minerals) to your water to make it rich in minerals, without any contaminants.

When you are choosing salt to mineralise your water, it is best to go for high-quality salt that is harvested by hand. Some brands use explosives to extract the salt, which has a big impact on the quality. The harmful chemicals from the explosives will contaminate your salt.



Cryotherapy and cold exposure



What is it?

Cryotherapy is a collective term for different kinds of cold exposure that can improve your physical and cognitive performance.

You can go as extreme with this as you would like. For example, there are these chambers that are filled with liquid nitrogen. This makes your body respond as if it is in extreme cold. We know, it sounds terrible. But jumping into cold water actually feels a lot colder than spending time in a cryochamber.

But there are more everyday options when it comes to cryotherapy. One would be taking a cold shower in the morning.

Why would you do it?

A warm shower tends to be a more pleasant experience than the ice cold variant. Why would you put yourself through that?

It lowers inflammation and strengthens your immune system

One of the benefits of cryotherapy is that it lowers inflammation while stressing your body. This stress triggers an adaptive response, causing you to produce more white blood cells and immune cells (1, 2, 3). You are strengthening your immune system, which can defend itself against all kinds of diseases and infections.

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1. Leppäluoto, J., Westerlund, T., Huttunen, P., Oksa, J., Smolander, J., Dugué, B., & Mikkelsen, M. (2008). Effects of long-term whole-body cold exposures on plasma concentrations of ACTH, beta-endorphin, cortisol, catecholamines and cytokines in healthy females. *Scandinavian journal of clinical and laboratory investigation*, 68(2), 145-153.
2. Metzger, D., Zwingmann, C., Protz, W., & Jäckel, W. H. (2000). Whole-body cryotherapy in rehabilitation of patients with rheumatoid diseases--pilot study. *Die Rehabilitation*, 39(2), 93-100.
3. Dugue, B., & Leppanen, E. (2000). Adaptation related to cytokines in man: effects of regular swimming in ice-cold water. *Clinical physiology*, 20(2), 114-121.

It increases anti-oxidant production

Even short sessions of cold exposure cause you to increase your glutathione production, one of the most important anti-oxidants that you have at your disposal. It supports your liver and immune function and improves cellular function (4).

It increases fat burning

When you expose yourself to a cold environment (like a cold shower), your body is not just letting you freeze to death. It is going to generate the right amount of heat to make you function well for as long as it can.

To generate this extra heat, it speeds up your metabolism and burns fat via a process called 'cold thermogenesis'. This can speed up your metabolism up to 350% (5). That may sound a bit complicated, but it is what is going on behind the scenes while you are shivering. Imagine: you wake up on a cold winter morning, and the heating has not really done its job yet. This does not stop you from going into the kitchen and making a cup of coffee. While you are waiting for your cup to be ready, you shiver every now and then. What is happening there?

By shivering, your body tries to regulate your body temperature. It increases the amount of brown fat, a 'healthy' fat which your body uses to generate heat.

Why 'healthy'? Because brown fat, as opposed to white fat, speeds up your metabolism (6). Increasing your brown fat can be as easy as making sure that your bedroom is a bit chilly when you are going to sleep, around 19 degrees celsius (7).

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It improves your mood and sleep

Want to improve your mood and your sleep? It can be as simple as taking a cold shower.

Cold exposure causes you to produce feel-good endorphins and norepinephrine (8). Norepinephrine is a hormone and neurotransmitter that influences your energy, focus, mood and sleep-wake cycle. This could be because of its role in neurogenesis (making of new neurons), which can lead to a better mood and sharper memory (9). The increase in norepinephrine and the decrease in cortisol support a healthy sleep-wake cycle (10,11).

It supports a healthy skin and hair

Taking a cold shower or washing your face with cold water increases your blood flow (12). This means that more oxygen and nutrients can flow to your skin cells, which gives you that youthful glow. Your collagen production increases as well. Collagen is a protein which is essential for a beautiful skin, hair and nails (13).

What do we do now?

You do not have to jump into the nearest cryochamber. If you turn the water to cold for the last 30 seconds of your shower, you will already get a lot of the benefits.

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A glass of water for a glass of wine



Have you ever considered what happens when you eat?

All those tasty things on your plate seem to have disappeared within half an hour. After a while, you can feel a boost in your energy.

There is a lot happening behind the scenes. All kinds of unbelievable processes that convert food into energy. If you want those to run smoothly, it is essential to have enough water in your body.

In his book, 'You're Not Sick, You're Thirsty', Dr. Batmanghelidj recommends to drink a glass of water (approx. 300ml) before and after every meal. There is a reason for that.

You need water to absorb all of the nutrients from your food. But when you are not properly hydrated, the digestive process can harm your body. Your stomach, intestines and liver all need the right amount of water to do their jobs.

When there is not enough water in your system, these organs will have to take it from somewhere else. This could result in your blood getting more concentrated and thicker, which makes it harder to flow through your body. It can also harm your cellular function (1). When that is happening, we do not feel and look as good as we could.

Fortunately, this can all be prevented by drinking a glass of water before and after each meal. Especially when you are dealing with stomach aches during or after a meal, we can really recommend to give this a try. It will help more than you would think.

If you are drinking a glass of fine wine or a beer with your dinner, it is good to drink some extra water. Alcohol dehydrates, which can make it harder for your body to digest all of that delicious food (1).

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Why it is sometimes best to do nothing at all

You have probably already heard of intermittent fasting. Some see it as the latest health fad and dismiss it completely. But when we look at the science, it seems that there is a lot to be gained with intermittent fasting.

Several of those studies were done by Dr. Ruth Patterson. She and her team researched breast cancer recurrence rates and they found that there is a 40% decrease for women who fast for 13 hours.

That means that, if you had breast cancer and you eat within an 11 hour window, you reduce the chances of it happening again by 40%.

Thirteen hours might sound like a long time, but it becomes much less when you count in in your sleep. For example: when you eat your last meal around 19:00, you can already eat your breakfast at 8:00. That is pretty do-able, right?

You might think: “well women who pay attention to when they eat must also pay a lot of attention to other aspects of their health.” That is the beauty of this research: it was corrected for life style factors and body weight. In other words: the effects of life style factors and body weight don't play a role in that 40% decrease.

Water fasting is not just good against breast cancer, but also against diabetes, acid reflux and liver disorders (like NAFLD) (4). It also stimulates fat burning. If you do not eat for a while, your body can use fat as fuel instead of glucose (sugar), which allows you to burn more fat in a water fast.

You do not even have to do it constantly. Each waterfast is its own and has measurable effects (4). The more often you do it, the better. But you do not have to worry when you skip a few nights.

Try it out. Make sure that there is 13 hours between your meals. Have your dinner a little bit earlier or eat your breakfast a little bit later, it is up to you.

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Feeling blue? Drink some!

We all have those moments where we can be irritable or a bit grumpy. Where does that come from?

It could mean that you have not been drinking enough water. When we are dehydrated, our brain shrinks, even in very minor cases (after a work-out, for example) (1).

In this study, they found out that people who were mildly dehydrated were more tired and sleepy, less active, less alert and more confused.

These effects were almost immediately reversed after they gave the subjects a glass of water. Within 5 minutes, the water enters into your bloodstream and can make you feel a lot better. Cold water (about 12°C) tends to be absorbed most quickly (3).

In this 3 minute video, they go into a little more depth. Certainly worth watching



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Lose weight by drinking water

Imagine that you are a doctor and you are getting these messages from your patients:

'I followed your advice and I have lost 18 kilograms'

'I've tried so many things... and to think that such a simple thing could be the solution.

Unbelievable!'

The happy doctor that got to receive these messages was Dr. Batmanghelidj. His advice: drink more water.

No diet pill, strict training schedules or a complicated diet: just water. How can such a simple change have such a huge effect?

According to Batmanghelidj (1), it all starts in our brain. Among many other things, it keeps tabs on our energy level. When it is low, the brain sends a signal: I need energy. This could come from our body fat, but that tends to take a while. Instead, the brain focuses on two other sources: hydro-electricity and bloodsugar.

Your brain tends to prioritise water (hydro-electricity). Batmanghelidj thinks that is because water is not just a source of energy, it is necessary for the distribution of it as well.

The problem is that we can mix up the signs for hunger and for thirst. We think that we are hungry and start looking for food. But all we actually need is a glass of water. When you make sure that you have been drinking enough water before your meal, you are much less likely to eat too much. You will not mistake the signal for thirst for the signal for hunger.

Try it out the next time you are feeling hungry. If the 'hunger' subsides, you will know that you were just thirsty. If it does not, go ahead and eat something. You will be properly hydrated in any case.

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The simplest remedy for a (head)ache

We all have headaches from time to time. It might be part of being ill, it can come up after a long day at work or maybe you just had a few too many last night. It happens.

The causes can vary, but there's a big chance that water plays a part, according to Dr. Batmanghelidj (1). This is called a "dehydration headache", which is a form of a secondary headache (a headache that occurs from another imbalance in the body, in this case dehydration).

A dehydration headache occurs when we have too little fluid in our body. Our body needs the right balance of fluid and electrolytes to function properly. We lose these important deposits during our daily lifeactivities. We can easily keep this in balance by drinking enough water.

If we don't do that, we become dehydrated, which can cause our brain to shrink. As the brain shrinks, it pulls away from the skull, which can cause pain.

You may experience a dehydration headache without feeling thirsty. In that case we can also recommend drinking a glass of water. After all, we can be dehydrated without being thirsty and an extra glass of water won't hurt.

In short: drinking enough water can prevent headaches in most cases. Even if you do get a headache, it can be remedied fairly quickly. This does not apply to all types of headache, for example with migraine etc.



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Alkaline water

Many claims are made about alkaline water. Claims about alkaline water improving your hydration, your physical performance and that it can make you younger. That all sounds great. But is there evidence to support any of those claims?

What does alkaline mean?

Alkaline water is water that has a pH score of 8 or higher. The pH scale indicates the acidity and alkalinity of your body. Acidity and alkalinity are not 'good' or 'bad', as they are often portrayed in the health industry. It's not healthier to be alkaline, neither is it unhealthy to be acidic.

Both ends of the pH spectrum have their distinctive functions. While you want some parts of your body to be alkaline, you want others to be more acidic. For example, your stomach should be more acidic to digest your food properly, while your mouth and oral cavity should be more alkaline to avoid damaging your teeth and throat tissues.

So it is not about being more alkaline or being more acidic. It is about having a healthy balance and a good distribution throughout the different parts of your body.

Making alkaline water

Some machines will filter your water and then make it alkaline. Others will only alkalize your water. We already talked about where you should pay attention to when it comes to buying a water filtration system in our 'Choosing the right filter' whitepaper, so we will not discuss this again. Instead, we will just talk about the alkalisation process.

There are two different ways to alkalize your water. The first is by doing it naturally, by adding minerals like magnesium, calcium and potassium (1). One way to alkalize your water is by adding a mineral rich salt (like Himalaya salt) to your water. This can be very beneficial to your health with a balanced approach; too little minerals are not optimal, but you do not want too many either. A good basic rule is to add a pinch of salt to every second glass of RO filtered water you drink.

Alkaline water can be beneficial to your health because it contains a lot of minerals . As you might have already noticed: you do not need a €1000 machine for that. Just a little bit of salt. So why are those machines so expensive? Is it just for adding a little bit of salt?

References:

1. Dr berg video: <https://www.youtube.com/watch?v=ovCJ0RE2sok>

It is because they use a different method to alkalize your water, and it is one that is not beneficial to your health. This artificial method is called ionisation. The water molecules are separated by electricity, which makes your water alkaline, but not in a healthy way.

Do we want our water to be alkaline?

Dr. Berg measured the pH in the urine of some of his patients who drank this artificial alkaline water. What he found is that their bodies became too alkaline. The pH of their urine was three full points above the healthy average.

As we discussed before: alkalinity is not a sign of health (1). Some things in your body need to be more acidic, like your stomach and large bowel to help with digestion and your urine to help combat bacterial infections. It is all about the right balance.

According to the NY times, drinking alkaline water from machines that use the artificial process, is at best a waste of money and at worst bad for your health (2).

A quote from Dr. Fenton, who was interviewed for the article:

“ The only health effects that we know of are danger signs, so for people to continue to market alkaline water — they are really as bad as the snake oil salesmen of yesteryear, ”

You are better off buying a good waterfilter. One that has been scientifically tested to remove the contaminants from your water that are detrimental to your health. You can take a look at [AquaTru's test results here](#).

Add a pinch of salt to every second glass of water, to mineralise your water and make it a bit more alkaline in a healthy, natural way.



Having a drink to help you think

Dehydration has been studied a lot. Most of that has been focusing on extreme circumstances: soldiers that have to walk through a desert with all their equipment, extended cardio sessions (over 3 hours) or intense weight lifting exercises.

But what about the everyday situations? How does relatively mild dehydration impact our day to day lives?

This started to become an area of scientific interest around 2009. One of these studies focused on mild dehydration and the effect on cognitive performance.

The design was simple: first, children were measured for their hydration levels. Those who were mildly dehydrated, were selected. They were given some cognitive tests. After the first round, half of them were given a glass of water and the other half had to continue in their mildly dehydrated state. They were given a new, but similar set of cognitive tasks and their performance was measured once more. Can you guess what happened?

The results were twofold. First, the kids who were given a glass of water did better on the second set of tasks, after they had gotten their glass of water. Second, the kids who were given a glass of water outperformed the kids who had to continue in their dehydrated state (1, 2, 3, 4).

Even though these studies focus on children, it is very probable that the effects are similar for adults. What we do know for sure is that proper hydration improves your mood and your metabolism.

[Link to the video](#)

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Get a fresh start with water



How would you feel when you do not drink anything for 8 hours straight?

This happens when we are sleeping. Our body and brain are cleaning, recovering and repairing all kinds of things. Your muscles, your brain, your skin; everything is being prepared for the next day.

In this process, your body also tries to get rid of toxins. To do that effectively, it needs a transporter: water (1). But how much, exactly?

By drinking half a liter of water when you wake up, your metabolism increases up to 30% (2). This causes you to burn more fat, get rid of toxins more quickly and make your body and brain function better overall. You're getting all of that, just by drinking half a liter of water.

Try it tomorrow morning. Fill up your bottle (or get yourself a nice one if you do not have one yet) with half a liter of water the night before, and put it on your nightstand. It will be impossible to forget. Once you experience the shift in your state, you are going to want to do it every single morning.

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Thank you for reading!

We hope that you enjoyed reading this whitepaper. If you have any further questions, please visit our FAQ page. And if you have any friends who could find this information useful, feel free to share this whitepaper with them.

We would really like to hear what you think of this whitepaper. What did you find interesting? What hacks have you tried and did you notice any difference? How do you make sure that you get the most out of your water?

Please let us know, we read every message! You can do this via the contact form on our website www.aquatruwater.eu, by telephone on +31 649 536 820 or by e-mail to info@aquatruwater.eu

Sincerely,
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