

Distilled water in our organism

The Hydration Code · Chapter 7

BOOK

The Hydration Code

CHAPTER

7 of 10

AUDIO IN GERMAN

14 minutes

What is needed is a fundamental change in our understanding of “the role” of our drinking water.

In a world in which we are confronted daily with a flood of exogenous pollutants, the “transport capacity” of our water decides whether our channel systems can flow freely or gradually silt up.

How does distilled water act in our organism? We must let go of the idea that water serves us as a supplier of nourishment. Instead it is first and foremost a service provider of cleansing and logistics. To understand this essential task, a look at the central role of the cleansing organs in our body helps. Picture your kidneys, your liver, your lymphatic system and your connective tissue as a gigantic and highly complex system of channels.

This network is continually occupied with navigating vital nutrients precisely to the cells and, in return, effectively carrying away metabolic end products and the cellular waste that arises. In this dynamic process water acts as the all-decisive transport medium, whose effectiveness is inseparably bound to its purity. Only water free of substances possesses the full capacity to take up these burdens and keep the organism clean from within.

In a world in which we are confronted daily with a flood of exogenous pollutants, the transport capacity of our water decides whether our channel systems can flow freely or gradually silt up. Since only a medium free of substances is able to take up new burdens, the purity of the water deter-

mines the effectiveness of inner cleansing and the preservation of vital flow properties. In the following sections we shall now explore how distilled water, through its unique physical capacity to absorb, raises the body's own logistics to an entirely new level.

The kidneys

First, the kidneys. The kidneys serve as the supreme regulators of homeostasis and preserve our vital inner balance. As dynamic guardians, these biological power stations keep blood pressure, the electrolyte balance and the pH value stable. It is an impressive physiological achievement that they filter about 1,800 litres of blood every day. In the finest filter units, the glomeruli, primary urine is formed without pause. In a highly complex process of recovery the body then takes back vital water and nutrients from it, until finally about one to two litres of final urine remain for excretion.

As soon as the kidney no longer has to struggle against the constituents of the water, distilled water becomes its “mightiest” ally.

Biophysically speaking, this process represents a gigantic feat of sorting. The more useless or inorganic substances are already dissolved in the drinking water, the more laborious this work becomes for the kidney. In this case the organ must struggle against an increased osmotic resistance to separate ballast from what is of use. Distilled water, by contrast, enters the system as a medium free of substances and considerably lowers the energy required for filtration. Since it acts as a receptive service provider, it makes it easier for the kidney to carry away the dross, instead of itself becoming a burden or contributing to a gradual silting up of the fine filter structures. As soon as the kidney no longer has to struggle against the constituents of the water, distilled water becomes its mightiest ally.

Our kidneys perform the hardest labour in regulating electrolytes. But since distilled water contains no inorganic minerals, this additional burden falls away completely for the kidneys. One can picture this process as a perfectly functioning traffic system. Since in distilled water no interfering foreign ions obstruct the flow, the electrical shield of the waste particles remains stable. In technical language this shield is called the zeta potential.

We have already encountered this principle in the analysis of Mario's story. As we already know, the zeta potential ensures that the particles repel one another instead of sticking together. The waste substances thus remain in a fluid state of suspension, which scientists describe as the sol state. In this mobile form the substances can simply be washed out of the body through the solvent drag effect, with which we have likewise already become acquainted.

The liver

This physical drag effect works like a gentle pull that takes the dissolved particles along in the stream of pure water. Without this electrical stability, the substances would clump together uncontrollably and pass into a viscous, gel-like state. The liver. The liver acts as our central organ of detoxification and operates like a highly developed chemical factory. Tirelessly it neutralises toxins from food and the environment and, as the strategic hub of metabolism, governs the entire energy balance of the body. It also produces bile, which is indispensable for the digestion of fats.

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In this high-performance organ, thousands of complex biochemical processes take place every second. Although the liver has no direct contact with the water we drink, it benefits indirectly and massively from the purity of this medium free of substances. Here a biological principle of synergy takes hold, for the highly pure water frees the kidneys of inorganic ballast and their filtration performance rises significantly. The blood is thereby cleansed faster and more thoroughly, so that the basic toxic load in the entire circulation falls measurably.

This relief sets in motion a veritable turbo of regeneration for the liver. Normally this organ must laboriously transform every molecule of pollutant in elaborate enzymatic steps before it can be excreted at all. Through the increased activity of the kidneys and the high dissolving power of pure water, however, many metabolic end products are already swept out of the system highly efficiently via the urinary tract. This physical drag effect relieves the liver of part of its heavy chemical labour and creates the necessary room for its vital processes of building and storage.

The lymphatic system

Through the relief of the kidneys, the liver regains precious enzymatic capacity. Instead of being trapped in an incessant defensive battle against a flood of exogenous residues and inorganic saturation, it can now invest its energy where it is most urgently needed. In building vital proteins, in the efficient storage of vitamins and in renewing its own cellular substance. The lymphatic system. The lymphatic system represents far more than merely a drainage system of the organism.

The lymphatic system has no pumping system of its own, as the blood circulation has the heart.

Parallel to the blood circulation it runs through every fibre of our body and fulfils a twofold mission. It carries cell debris, metabolic waste and fats away from the tissue and at the same time forms a decisive pillar of the immune defence. Since lymphatic fluid consists of about 96 percent water, the quality of hydration determines directly how smoothly or sluggishly this system can work. The lymphatic system has no pumping system of its own, as the blood circulation has the heart.

It is very important to know that the flow of lymph depends on the movement of your muscles and above all on an optimal viscosity. In this highly sensitive network, distilled water acts as the decisive lubricant that maintains the flow properties of the lymph. The medium free of substances prevents the fluid from stagnating through inorganic burdens or excessive saturation. Only through this fluid lightness can the immune cells patrol unhindered.

Osmosis

Osmosis. Our cells are cleansed by a fascinating physical process known as osmosis. This process acts like a molecular rinsing effect that penetrates into the smallest unit of the body. Every one of your trillions of cells is surrounded by a semi-permeable membrane that acts as a partially permeable protective envelope. This membrane works like an intelligent sieve that preferentially lets pure water molecules pass and purposefully holds back larger particles and metabolic end products.

The fundamental physical law of osmosis states that water strives inexorably towards an equalisation of concentration. In doing so it always moves to where the saturation of dissolved substances is higher. Since our cells consist largely of water, this process forms the decisive engine for cellular renewal and the removal of spent substances. It is precisely at this point that drinking distilled water offers an immense advantage. Because of its absolute purity, it has the greatest physical urge to penetrate the cells and clear them from within.

In a constant process, water “moves” to where the concentration of dissolved substances is higher.

This osmotic pressure ensures that pure water acts like a magnetic pull that releases the dross from the interior of the cells and carries it away efficiently. Since distilled water is hypotonic, that is, highly pure, it has the lowest possible osmolarity. When this pure medium washes around the cell membranes, a powerful and yet gentle concentration gradient arises. This physical difference in pressure acts like a natural pull that favours the inflow of fresh and unsaturated water into the cell.

At the same time this process generates the hydraulic pressure needed to convey spent metabolic end products and toxins out of the interior of the cell. This is also called cellular respiration. One can picture this process as a biological draught of air that exchanges the spent atmosphere in the cell for fresh air of life. Through this physical superiority of pure water, the cell is not only hydrated but positively rinsed clear from within.

Free radicals

This osmotic effect ensures that cellular logistics run at full speed and that no burdensome residues slow down the biological system. Free radicals. Free radicals arise in our body without pause. They are highly reactive and aggressive oxygen compounds that act in the organism like chemical robbers. They forcibly withdraw electrons from other molecules and can in this way lastingly damage vital cell structures or even DNA.

This process of oxidation resembles a creeping inner rusting that attacks the biological substance. Astonishingly, these radicals arise primarily from endogenous, that is, the body's own, causes. Especially when the mitochondria, as the power stations of our cells, use oxygen to generate energy. In

this cellular respiration, free radicals constantly arise as a by-product, which may be pictured as the exhaust gases of a combustion engine. Since this process is the reverse side of our vitality, the organism depends on a highly efficient disposal system in order to neutralise these aggressive compounds.

Free radicals are not merely waste for our body.

In this context, too, the purity of the transport medium once again plays a decisive role, since it significantly influences the fluidity and thus the availability of protective antioxidants at the focal points of the cells. Within us, free radicals act as targeted weapons of the immune system. Our immune system deploys white blood cells to literally burn invading bacteria and viruses with the help of these aggressive compounds. A health problem arises for our organism only when the quantity of free radicals falls out of balance and their production exceeds the natural capacity for neutralisation.

In this case the much-cited oxidative stress develops, which today is regarded as a major factor in premature ageing processes and chronic inflammation. Although distilled water is itself no antioxidant, such as vitamin C or E, it plays a fundamental role in protecting against oxidative stress. Since the highly pure medium optimises the flow properties of blood and lymph, it ensures that the body's own protective substances and supplied antioxidants are transported quickly and precisely to the cellular focal points.

At the same time, the high absorption capacity of maximally unsaturated water ensures that the reaction products arising in immune defence are swiftly carried out of the tissue. The purity of water thus forms the logistical basis for a stable balance between necessary defence and protective neutralisation.

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