

A wall of ignorance and prejudice

The Hydration Code · Chapter 4

BOOK

The Hydration Code

CHAPTER

4 of 10

AUDIO IN GERMAN

11 minutes

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Water is food

It sounds paradoxical that in an age in which we critically question every ingredient of our food, a collective mistrust prevails towards drinking the purest of all waters. Whenever conversations touched on the subject of everything that can happen in the body through drinking distilled water, it often felt as though the subject set off a veritable wave of prejudice and rejection. The greatest misconception is that water is food.

The human body is no quarry. It needs organic “life force” rather than an inorganic “burden”.

One of the most stubborn dogmas in the field of nutrition is the notion that we must cover our need for minerals through drinking water. From a physiological point of view, however, this assumption is a fundamental error. To understand the role of minerals in water correctly, we must distinguish between two fundamentally different forms of matter, namely between inorganic and organic minerals. The human body is no quarry.

It needs organic life force rather than an inorganic burden. The human body is programmed to draw its minerals from food, while it recognises water primarily as a means of dissolving and cleansing. If, however, large quantities of inorganic substances are supplied to it through water, this means above all additional regulatory work for the system. Human beings, biologically speaking, are heterotrophic. This means that we depend on obtaining energy and nutrients primarily from organic compounds.

Perfect hydration for the body means supplying it with an “absolutely empty” medium.

The plant, by contrast, is autotrophic. This means that a plant possesses the seemingly magical ability of photosynthesis. This fits into the alchemical process of transmutation. Just as the caterpillar becomes a butterfly, the plant achieves this fantastic transformation of minerals from a dead into a living form. For only now are the minerals embedded in complex molecular chains and bioavailable for our cells. If you need magnesium for your muscles or calcium for your bones, an apple, a handful of nuts or green leafy vegetables are a far more efficient source than any litre of mineral water.

Distilled water is dead!

There are a few more astonishing details on this in the next table. Perfect hydration for the body means supplying it with an absolutely empty medium. A further misconception is that distilled water is dead. The assumption that distilled water is dead stems primarily from the fact that it is free of inorganic and organic constituents. Many people wrongly regard these dissolved substances as indispensable for their mineral balance. From this results the conviction that distillation has robbed the water of its vitality.

In fact, historically the mineral content of drinking water was relevant only in times of extreme famine. When hardly any solid food was available, every milligram of dissolved minerals in water served as a crutch vital for survival. In the present, however, this situation has changed fundamentally. Through our modern supply of food, we have long since covered our need for vital substances through solid foods. The following table impressively substantiates this finding.

MINERAL	RECOMMENDED DAILY DOSE	MEAN VALUES IN TAP WATER	QUANTITY OF WATER REQUIRED
Calcium (Ca)	1,000 mg	20 – 100 mg/L	10 – 50 litres
Magnesium (Mg)	300 – 400 mg	5 – 20 mg/L	15 – 80 litres
Sodium (Na)	1,500 mg	5 – 20 mg/L	75 – 300 litres
Chloride (Cl)	2,300 mg	5 – 30 mg/L	75 – 460 litres
Potassium (K)	2,000 – 4,000 mg	1 – 5 mg/L	400 – 2,000 litres
Zinc (Zn)	7 – 10 mg	barely detectable	> 2,000 litres
Iron (Fe)	10 – 15 mg	< 0.1 mg/L	> 100 litres
Phosphorus (P)	700 mg	< 1 mg/L	> 700 litres
Selenium (Se)	55 µg	barely detectable	> 2,000 litres
Iodine (I)	150 µg	barely detectable	> 2,000 litres

SOURCES

- BLV, Trinkwasser in der Schweiz (Federal Food Safety and Veterinary Office, drinking water in Switzerland)
- UBA, Trinkwasserverordnung 2023, German Drinking Water Ordinance
- BMASGPK, Trinkwasserverordnung, Austrian Drinking Water Ordinance
- WHO and FAO, Vitamin and mineral requirements in human nutrition, 2nd edition, Geneva 2004

On the left it shows the officially recommended daily requirement of essential minerals for an average adult. These recommendations are set against the mean values of the quantities dissolved on average in the tap water of the DACH region (Germany, Austria and Switzerland). The quantity of water required, on the far right of the table, makes clear how little the medium of water contributes to the actual supply of nutrients. Let us look at a few concrete figures.

For an adequate intake of calcium, the recommended daily dose is 1,000 mg. Since on average only 20 to 100 mg per litre are dissolved in tap water, an adult would have to drink 10 to 50 litres of water a day to cover this need through drinking water alone. Magnesium looks similar. With a daily requirement of 300 to 400 mg, we would have to drink 15 to 80 litres a day. The ratio becomes even more extreme for the essential trace elements. For the daily dose of 7 to 10 milligrams of zinc or 55 micrograms of selenium, the quantities in tap water are so small that they are barely detectable.

The most astonishing table

Wooden barrels with supplies of “drinking water”

To cover the need through water alone, a utopian quantity of well over 2,000 litres a day would theoretically be necessary in each case. I can imagine that these figures astonish you. I felt no different when compiling this comparison. The results make unmistakably clear that drinking water in Central Europe is no significant source for covering our daily need for minerals. Since we take up our essential minerals almost entirely through solid food, enjoying distilled water cannot cause any appreciable deficits.

Distilled water can “kill” you

These facts place the concrete purpose of our drinking water in an entirely new light. Water does not serve as a relevant supplier of nutrients but acts primarily as our universal means of dissolving and transport. Distilled water can kill you. Picture the year 1492. A time when America had not even been discovered. The proud fleet of Christopher Columbus sails with the ships Pinta, Niña and Santa Maria into unknown lands. Driven solely by the plan to reach India by sea, they sailed into absolute uncertainty.

Columbus's fleet set sail in the course of the morning of Thursday, 6 September 1492, from the harbour of San Sebastián on La Gomera. The crew consisted of 90 men. 26 of them served on the Pinta and 24 on the Niña. 40 men were aboard the flagship Santa Maria. It took 36 days across the open Atlantic until all the ships finally reached an island of today's Bahamas on Friday, 12 October 1492. Out of deep gratitude, Columbus gave this new land the name San Salvador.

Translated, this means Holy Saviour. He chose this name deliberately, because this island was the last salvation for his utterly exhausted crew, although all the men of the original crew reached the new, unknown land safely. During the crossing the crew worked in the burning heat of the sun, while others toiled in the shade below deck in the humid heat of the Atlantic. Under such extreme conditions a man surely needs three litres of drinking water a day for his hydration.

Yet our body is no Petri dish.

For the entire fleet this amounts to a need for 270 litres of drinking water on every single day at sea. Over the entire crossing, this calculation leads to an enormous sum of necessary water supplies. In planning, however, this would necessarily have presupposed that Columbus knew his destination

would be reached after exactly 32 days. Yet Columbus did not know how long his voyage would last. Perhaps 36 days, perhaps 90 days. Perhaps the entire crew would never have seen land again.

Perhaps they would have remained at sea. Had Columbus planned for 90 days, say, the fleet's need for drinking water would already have exceeded 27,000 litres. That means 100 barrels. In detail, that means 100 monsters of the hardest oak. Each of these colossi weighed 300 kilos, scarcely movable or stackable. Moreover, these giants would have robbed the precious space in the bellies of the ships. On the small Niña alone, 30 of these wooden monsters would have taken up all the space.

The pH value of distilled water is utterly unhealthy!

The truly alarming thing about this fact, however, was that the water in these wooden monsters would have become a massive danger within the shortest time, if not the greatest danger aboard all the ships. Spoiled water. Any major bacterial infection from foul water would have meant the end of the mission. The truth is what happened at the time. The fleets of Christopher Columbus never had large supplies of drinking water on board. Columbus and his captains were initiated into the great secret of alchemy.

“Solve et coagula”. Separate and bind. The crew of Christopher Columbus mastered the art of distillation. Drinking distilled water formed the absolute basis of all those bold voyages into the unknown for the crew. Today some 300 million people worldwide rely on distilled water as drinking water. In regions such as Dubai or the Canary Islands, drinking water is obtained predominantly through seawater desalination plants. Technically speaking, this method corresponds to large-scale distillation. In view of all these facts, the present-day fear of distilled water among many people seems positively grotesque.

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