

### Zack Bush MD-HydrationSeries.pdf

### The connection between water & stress: Dehydration and anxiety

**Lack of water in the brain** also changes how you respond to **STRESS**. How does that work? Well, we have this hormone in our bodies called **cortisol**, which is well known as a stress hormone. Even a little bit of dehydration can cause cortisol levels in the body to increase and lead to STRESS.

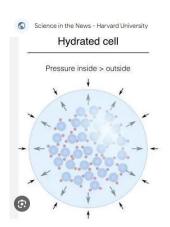
Water has been shown to have **natural calming properties**, likely as a result of addressing dehydration's effects on the body and brain. Drinking enough water is an important step in managing your anxiety.

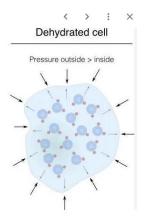
#### Biological Roles of Water: Why is water necessary for life?

Water helps **improve the circulation of oxygen** throughout the body. It also plays a crucial role in the **digestion of food.** Water is a very important component of **saliva**, **which helps break down food**. The **excretion of waste** in the human body requires water.

### What is the role of water or biological importance of water?

On a biological level, water's role as a solvent **helps cells transport and use** substances like **oxygen or nutrients**. Water-based solutions like blood **help carry molecules** to the necessary locations. Sep 26, 2019





# Water as the often neglected medium at the interface between materials and biology

The polar nature of water enables crucial cellular functions such as <u>cell membrane formation</u>, support of the three-dimensional shape of the <u>DNA double helix</u>, and it has an important role in the tertiary structure of proteins—specifically, <u>water enables hydrophobic interactions</u>, which are crucial to protein folding and aggregation. Water has the **ability to ionize** both itself and other molecules. Due to its high heat capacity, water protects against the effects of **temperature fluctuation**.



### What minerals are in spring water?

High-quality spring water is rich in magnesium, potassium, calcium, sodium, and other trace minerals. It is naturally more alkaline than tap water, which can create an environment in the human body less vulnerable to disease proliferation.

### Can you drink demineralized water?

Demineralised water is water completely free (or almost) of dissolved minerals as a result of one of the following processes: distillation. deionization. membrane filtration (reverse osmosis or nanofiltration). It's not recommended to drink demineralized water, as health experts have reported that drinking extremely pure water can increase the risk of developing multiple mineral deficiencies.



urinating and eliminating waste.

## Why is dehydration making you fat and sick?

Dehydration can **throw off our body's natural rhythms**, which directly impact how our hormones are able to function. If our hormones are not able to function properly, **weight gain, among other symptoms,** can occur as a result.

