

## WONDER OF WATER 4

1. Histamine is a neurotransmitter (a nerve cell which transmits electrical and chemical messages within the body) and it plays a part in the way that water is used and distributed around the body. In addition, it regulates bronchial muscle contraction. An asthmatic response is an indication that the body has resorted to an increase in the production of histamine, as a consequence of dehydration. This is because every time we breath out, we lose water in the form of vapour and in an attempt to regulate and preserve water, histamine induces the constriction of the bronchial muscles, hence the familiar asthmatic response of struggling for breath.
2. Histamine is also heavily involved with immunity - antibacterial, anti-viral and anti-foreign body activity. In the state of dehydration, histamine activity is exaggerated (as indicated in the first point). This explains the over-zealous allergic response to foreign bodies such as pollen, which results in the range of symptoms commonly referred to as hay fever.
3. High blood pressure is one of the consequences of an 'adaptive process' undertaken by the body in response to dehydration. Blood volume decreases as water in the body decreases and in response the body closes down some capillary beds in order to keep other blood vessels full. Resistance to blood flow results and only an increase in pressure behind the circulating blood will ensure the passage of fluids through the system. This increased pressure is referred to as hypertension. Where there is not free-flowing movement of essential fluids in the body, increased tension will result.
4. Where there is dehydration, the body holds onto sodium (salt) in an effort to retain water. The very delicate balance between water inside a cell and water held around the cell is regulated by salt. Hypertension or high blood pressure is often treated with diuretics (medication which makes the body expel water) to reduce salt levels as it is widely accepted that salt is a causal factor in high blood pressure. However it is water that is needed to restore the balance.
5. The causes of depression are multi-factorial and can be identified on physical, psychological, and spiritual levels. Successful treatment likewise needs to address all levels. On the physiological level, as the brain is about 85% water, it follows that where there is dehydration brain function will be compromised. One aspect of this is that the brain uses electrical energy to conduct chemical messages from one site to the next and this is facilitated by the presence of water.
6. Water facilitates the uptake of nutrients. Orthomolecular medicine shows us that depletion in specific nutrients contributes to a range of mental health difficulties. Dehydration directly inhibits adequate absorption of vital nutrients in the brain and therefore impacts on our emotional and psychological health.
7. The digestive system is critical to health. If this system is unable to function properly, then every other system is undermined, because all macro and micronutrients, dealt with by our digestive processes, are responsible for cell/tissue generation and repair, hormone production, metabolism maintenance etc. When a glass of water is drunk, it is immediately absorbed. Approximately half an hour later the same amount of water is secreted back into the stomach lining to create a buffer from acid which the stomach secretes in preparation for food. Without sufficient water, this protective mechanism cannot work effectively and so painful damage to the stomach lining can result.