

# **Big White Hydrogen Water: Best Water in the World?**

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A critical part of a human's daily life is the consumption of water as many of the body's vital functions depend on water. The water obtained from natural reservoirs present underground and springs are known as mountain water or mineral water.

Many essential minerals could be present in high amounts in mountain water such as magnesium, calcium, or sodium. Therefore, several health benefits can be achieved when mountain water is consumed (1).

The source of water or the area from where it is obtained also determines the amount and type of minerals. Because of this the flavor of water and the health benefits it provides may differ greatly. However, some minerals can be found in tap water, mountain water packed in cans generally have a higher percentage of these minerals (2).

## **BENEFITS OF DRINKING MOUNTAIN WATER**

The unique combination of organic compounds and minerals present in mountain water makes it beneficial for health. Calcium present in mineral water promotes bone health as research shows that calcium present in mountain water is readily absorbed by the body effectively similar to dairy products (3,4). Furthermore, strong bones are also supported by magnesium and bicarbonate present in the mountain water (1,5,6).

High blood pressure as suggested by research could be due to an inadequate amount of magnesium and calcium present in the body (1,7,8). In a recent study, drinking water rich in calcium and magnesium was associated with decreased blood pressure (9). Since both of these minerals are found in mountain water, drinking it may promote decrease in blood pressure especially in hypertensive patients (10).

In addition, prevention and treatment of constipation may also be achieved with mountain water rich in magnesium. A study conducted on constipated individuals found

that frequency of bowel movement and consistency of stool improved significantly on the consumption of 500ml of mountain water rich in sulfate and magnesium daily (11).

## **HYDROGENATED MOUNTAIN WATER**

Mountain water itself provides a lot of health benefits but when hydrogen gas is added into it, its benefits increase. The anti-inflammatory property of hydrogen water boosts the wound healing process and helps to regulate appearance of wrinkles, heart diseases, skin issues, and diabetes (12). The anti-oxidant property of hydrogen rich water neutralizes the oxidative stress and freely roaming reactive oxygen species (ROS). Moreover, hydrogen rich water also activates the pathway that enhances the production of body's own antioxidants. Thus the combined efforts of both hydrogen water and body's antioxidant slows down the aging process and increases longevity (13).

If you are looking for extra energy, hydrogen water is the best source to get your supply of that extra energy. Because hydrogen water functions as a signal modulator, it reduces the production of lactic acid and improves metabolism. This allows you to remain full of energy for a longer time without experiencing fatigue and stiffness. This is especially beneficial for athletes (14). Oxidative stress damages the cells and decreases the level of energy. However, hydrogen water replenishes this energy by signaling cells to make the natural energy in the form of ATPs.

From our research it is our belief that Big White Hydrogen Water, sourced from the highest elevation mountains in British Columbia, Canada, well above environmental contamination, filtered and then hydrogen-infused, would be the healthiest water available on the market today.

### **Sources**

1. Quattrini S, Pampaloni B, Brandi ML. Natural mineral waters: chemical characteristics and health effects. *Clin Cases Miner Bone Metab.* 2016 Dec;13(3):173.
2. Azoulay A, Garzon P, Eisenberg MJ. Comparison of the Mineral Content of Tap Water and Bottled Waters. *J Gen Intern Med.* 2001 Mar;16(3):168.

3. Bohmer H, Müller H, Resch KL. Calcium supplementation with calcium-rich mineral waters: a systematic review and meta-analysis of its bioavailability. *Osteoporos Int J Establ Result Coop Eur Found Osteoporos Natl Osteoporos Found USA*. 2000;11(11):938–43.
4. Heaney RP. Absorbability and utility of calcium in mineral waters. *Am J Clin Nutr*. 2006 Aug;84(2):371–4.
5. Wynn E, Krieg M-A, Aeschlimann J-M, Burckhardt P. Alkaline mineral water lowers bone resorption even in calcium sufficiency: alkaline mineral water and bone metabolism. *Bone*. 2009 Jan;44(1):120–4.
6. Castiglioni S, Cazzaniga A, Albisetti W, Maier JAM. Magnesium and Osteoporosis: Current State of Knowledge and Future Research Directions. *Nutrients*. 2013 Aug;5(8):3022.
7. van Mierlo L a. J, Arends LR, Streppel MT, Zeegers MPA, Kok FJ, Grobbee DE, et al. Blood pressure response to calcium supplementation: a meta-analysis of randomized controlled trials. *J Hum Hypertens*. 2006 Aug;20(8):571–80.
8. Laurant P, Hayoz D, Brunner HR, Berthelot A. Effect of magnesium deficiency on blood pressure and mechanical properties of rat carotid artery. *Hypertens Dallas Tex* 1979. 1999 May;33(5):1105–10.
9. Naser AM, Rahman M, Unicomb L, Doza S, Gazi MS, Alam GR, et al. Drinking Water Salinity, Urinary Macro-Mineral Excretions, and Blood Pressure in the Southwest Coastal Population of Bangladesh. *J Am Heart Assoc Cardiovasc Cerebrovasc Dis [Internet]*. 2019 May 7 [cited 2022 Feb 28];8(9). Available from: <https://www.ncbi.nlm.nih.gov/labs/pmc/articles/PMC6512114/>
10. Rylander R, Arnaud MJ. Mineral water intake reduces blood pressure among subjects with low urinary magnesium and calcium levels. *BMC Public Health*. 2004;4:56.
11. Bothe G, Coh A, Auinger A. Efficacy and safety of a natural mineral water rich in magnesium and sulphate for bowel function: a double-blind, randomized, placebo-controlled study. *Eur J Nutr*. 2017 Mar;56(2):491–9.
12. Jafta N, Magagula S, Lebelo K, Nkokha D, Mochane M j. The Production and Role of Hydrogen-Rich Water in Medical Applications. In: *Applied Water Science Volume 1 [Internet]*. John Wiley & Sons, Ltd; 2021 [cited 2022 Feb 28]. p. 273–98. Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1002/9781119725237.ch10>
13. Hara F, Tatebe J, Watanabe I, Yamazaki J, Ikeda T, Morita T. Molecular Hydrogen Alleviates Cellular Senescence in Endothelial Cells. *Circ J*. 2016;80(9):2037–46.

14. Botek M, Krejčí J, McKune AJ, Sládečková B. Hydrogen-Rich Water Supplementation and Up-Hill Running Performance: Effect of Athlete Performance Level. *Int J Sports Physiol Perform.* 2020 Feb 10;15(8):1193–6.