



Hydration

The foundation of physical, cognitive and skin health.

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Good hydration underpins good health

Hydration is essential for human physiology. Water constitutes 50-60% of the human body and plays a vital role in many different biochemical processes. A delicate balance is required between water and essential solutes and salts for optimal cell functioning. This equilibrium is paramount in maintaining good health and helping to prevent chronic diseases. Dehydration can occur very quickly when water loss exceeds water intake.

Dehydration not only results in a loss of water but also leads to electrolyte depletion and imbalance. Essential electrolytes, including sodium, calcium, potassium, chloride, phosphate, and magnesium, are pivotal for various bodily functions. They maintain fluid and pH balance, support heart health, regulate nerve and muscle function, control blood pressure, and promote gut health. These minerals are also necessary for transporting nutrients into cells and eliminating toxins.



The prevalence of dehydration is notable among athletes, where the demanding nature of training and intense sweating, often leads to electrolyte and mineral deficiencies.

The consequences of dehydration extend far beyond mere water loss, negatively affecting both physical and mental performance. Factors such as reaction time, cognitive function, and overall athletic prowess can all be compromised. Recognizing and addressing hydration as a critical factor is imperative for athletes. Ensuring a sufficient intake of electrolytes before, during, and after physical activity is a vital component of optimal performance and swift recovery.



In the rapidly expanding e-sport sector, hydration is essential. 'Gamers' require intense concentration and focus over prolonged periods of time in order to manage the fast-paced and highly competitive environment. Proper hydration is essential to boost concentration and focus and prevent the cramping of muscles.



Hydration is also an important topic of conversation in the beauty industry. Beauty really does come from within and cannot be achieved without sufficient hydration. Moisturising from within through good hydration holds the same importance as external skincare products used.

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Aquamin Hydration

Aquamin, is a multi-mineral complex derived from seaweed. It is naturally sourced, and rich in calcium and magnesium and is accompanied by a 72-trace mineral tail. Aquamin-Mg, sourced from seawater, is abundant in magnesium and also features a 72-trace mineral tail. The distinctive presence of these minerals in both Aquamin and Aquamin-Mg is characteristic of their oceanic origin. Aquamin and Aquamin-Mg are recognized for their potential advantages in promoting hydration.

Here are some key factors explaining why Aquamin is deemed beneficial for hydration:



Rich in minerals and electrolytes:

The blend of minerals in Aquamin includes electrolytes such as magnesium, sodium, calcium and potassium, crucial for maintaining electrolyte balance and hydration in the body.



Deep Dive – Find out more



Alkaline pH

Aquamin has an alkaline pH, which may help balance the acidity within the body. Maintaining a slightly alkaline environment is believed to support overall health, including hydration status.



Deep Dive – Find out more



Bioavailability

The minerals in Aquamin are in a natural, plant-based form, enhancing bioavailability. This means the body can absorb and utilize these minerals more efficiently compared to synthetic forms.



Deep Dive – Find out more



Digestive well-being

Endurance-sport athletes frequently experience gastrointestinal disorders, which can undermine performance and affect overall health. Aquamin enhances gastrointestinal health by fortifying gut barrier integrity, ultimately boosting athletic performance while also promoting proper hydration.



Deep Dive – Find out more



Joint Health

Aquamin is also recognized for its potential benefits in supporting joint health. While not directly related to hydration, maintaining healthy joints can contribute to overall well-being, potentially influencing the ability to stay active and hydrated.



Deep Dive – Find out more



Bone Health

Individuals engaged in rigorous physical activities, such as cyclists and runners, often experience a decline in serum calcium levels and an elevation in parathyroid hormone (PTH) due to intense exercise. These alterations over time contribute to diminished bone density, increasing the likelihood of developing osteopenia and osteoporosis. Taking Aquamin prior to exercise is an effective strategy to reduce PTH level, maintain calcium balance and protect bone mineral density.



Deep Dive – Find out more

Aquamin and Aquamin-Mg are recognized for their potential advantages in promoting hydration.

The Science of Aquamin for Athletes

Athletes and bone loss

In recent years, there has been a growing concern within sports science regarding bone health, especially in non-impact sports like cycling. Cyclists often show low values in bone health markers, increasing the risk of injury and early onset of conditions like osteoporosis. Various factors contribute to this, with sweat loss during exercise believed to be a significant one. The loss of calcium through sweat triggers reactions in the body. When calcium levels decrease, a hormone called parathyroid hormone (PTH) increases, leading to the breakdown of bones to release more calcium. Repeated occurrences of this process, particularly during regular exercise, may result in bone loss. Hence, maintaining proper hydration with electrolytes is crucial for athletes to prevent these bone health issues.

Aquamin supports strong bones

Aquamin is a promising solution to prevent bone loss and several studies have been conducted to validate its efficacy among athletes. In one study conducted in the University of Colorado by Barry et al. (2011), the impact of Aquamin Soluble on levels of PTH, and the loss of bone mineral density was tested in a group of 20 competitive male cyclists during three 35km time trials. The findings clearly indicate that incorporating Aquamin into a pre-exercise beverage is an effective strategy in reducing PTH hormone levels and preserving bone mineral density.



READ MORE – Barry et al. (2011)
University of Colorado

Another study at the University of Colorado by Sherk et al. (2017) administered Aquamin in a chewable supplement to a group of 51 male cyclists, 30 minutes before exercise. Similar to the previous study, this study reduced the decrease in ionized calcium (iCa) and the increase in PTH during exercise. Calcium metabolism disruption isn't exclusive to elite athletes, as vigorous walking also induces comparable increases in PTH and CTX in post-menopausal women. Notably, Aquamin supplementation before and during exercise positively influenced these responses, as highlighted in the study by Shea et al. (2014).



READ MORE – Sherk et al. (2017)
University of Colorado



READ MORE – Shea et al. (2014)

Making the grade.

Application flexibility.

Aquamin and Aquamin Mg are available in various grades to support a wide variety of finished applications, including tablets, powders, low pH beverages, clear drinks, and sports beverages.

Specifically tailored for sports beverages and gels, the following grades are recommended:



Aquamin Soluble

A natural mineral source derived from calcareous marine algae (*Lithothamnion* sp.) that has been treated with organic acids in order to render it water soluble. With a calcium content minimum 12%, it is a highly bioavailable source of 72 minerals. Aquamin Soluble is ideal for use in various beverage applications, such as low pH (pH 3.0-6.0) beverages, isotonic drinks, still and carbonated beverages, as well as clear beverages and powder mixes.



Aquamin Mg Soluble

Produced through the reaction of seawater-derived magnesium oxide with citric acid, this grade is rendered soluble in aqueous systems. With a minimum magnesium content of 10%, it offers a highly bioavailable source of 72 minerals. Aquamin Mg Soluble is suitable for incorporation into low pH (pH 3.0-6.0) beverages, isotonic drinks, still and carbonated beverages, as well as clear beverages and powder mixes.





Marigot Ltd.
Strand Farm, Currabinny, Carrigaline,
Co. Cork, Ireland

TEL 353 (0) 21 4378727

AQUAMIN.COM