CROWN SPORT NUTRITION

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# Magnesium Caps DUAL

## HIGHLY ASSIMILABLE MAGNESIUM CAPSULES





- High Magnesium concentration: 170 mg/capsule
- From 2 sources: Bisglycinate and Citrate
- **With anti-doping certified by Informed-Sport**
- Organic salts for increased absorption and bioavailability
- Only 3 ingredients: no additives and no excipients
- Allergen free and Suitable for Vegan

**Magnesium Caps DUAL** are vegetable capsules based on 2 highly assimilable sources of Magnesium, namely the organic salts Magnesium Bisglycinate and Citrate. No more and no less, that is, no excipients or additional additives, only the vegetable capsule that covers it, which gives it a high purity, which is why they are also 100% allergen-free.

Magnesium is the fourth most abundant mineral in the body, which is why it is so important for human beings, as it fulfils an infinite number of functions and is necessary for the correct functioning of cardiovascular, immune and hormonal responses (Musso, C.G. et al., IUN. 2009). Although following a balanced diet, with sufficient vegetable intake, should be enough to provide the necessary daily intake of Magnesium, according to some studies (Mertens, E. et al., EJN. 2.019; Rosanoff, A. et al., NR. 2.012) this is not the case and a large part of the population consumes less than the recommended daily intake (approx. 400 mg/day in men and 300 mg/day in women). This is due to the high consumption of processed foods, impoverishment of water and agricultural soils, etc., which means that supplementation is often necessary.
Furthermore, these deficits can occur not only due to a lack of sufficient Magnesium intake, but also because there may be interactions with other micronutrients (iron and zinc), malabsorption due to the use of drugs (omeprazole, diuretics, etc.), or simply physiological factors that hinder its absorption (elderly people and certain diseases such as diabetes, Crohn's disease, etc.) or that increase its excretion (kidney disease) and, lastly, when a greater quantity is simply required, such as during pregnancy, breastfeeding or intense physical exercise.

**Benefits for athletes**
As we have just mentioned, physiological conditions that increase energy demands, such as physical exercise, also increase the demand for Magnesium. This mineral is involved in countless fundamental processes for athletes, such as, for example, the correct functioning, together with calcium, of muscle contraction and relaxation, as well as for the processes of anabolism, that is, muscle creation and regeneration. In fact, Magnesium levels have been related to testosterone, one of the main anabolic hormones, as well as to strength, muscle mass (Valenzuela, P.L. et al., EJN. 2.019) and jumping (Santos, D.A. et al., MR. 2.011).

By acting as a cofactor for hundreds of intracellular enzymes, it is directly involved in obtaining and releasing energy, such as the biochemical processes involved in oxidative phosphorylation and glycolysis.
It is involved in nerve impulse transmission and is particularly involved in neuromuscular transmission processes, as well as in electrolyte balance, which may explain its possible involvement in muscle cramps.
In addition, at a structural level, again together with calcium, it forms part of bone, teeth and soft tissues, extracellular fluid and is involved in the maintenance of cell membranes.

Its efficacy as a performance-enhancing ergogenic aid has not been demonstrated, but it does appear that low levels of this mineral have a negative effect on performance, for example, by making light exercise more costly (Lukaski, H.C. et al., HNM. 2002).

Some important global organisations such as the EFSA (European Food Safety Authority) grant Magnesium important benefits, such as those published in 2012, which are related to the above and which can be summarised as follows: Magnesium helps to reduce tiredness and fatigue, and contributes to: normal energy metabolism, normal muscle function, normal protein synthesis, electrolyte balance, the maintenance of normal bones and teeth, normal functioning of the nervous system, normal psychological function and the process of cell division.

**Combination of Magnesium Bisglycinate and Citrate**
There are numerous sources or salts of Magnesium, the differences between them are, on the one hand, the amount of Magnesium they contain and, on the other hand, the bioavailability of the Magnesium, that is, what percentage of the Magnesium provided is assimilable, and this is where the different types of salts come into play.
We have inorganic salts with higher and less assimilable contributions (oxide, carbonate, chloride, sulphate, etc.) and vice versa with organic salts (citrate, bisglycinate, gluconate, etc.) (Pardo, M. et al., N. 2.021). Our capsules are made from organic salts with high bioavailability, such as bisglycinate (Magnesium chelated to 2 molecules of the amino acid glycine) and citrate (Magnesium bound to citric acid).
All Magnesium salts, organic and inorganic, can a priori be

used for supplementation, the problem is that some have a very low assimilation and, therefore, can cause gastrointestinal discomfort. Moreover, the choice of one or the other is important not only because of the above, but also because some may have a greater impact on certain areas of the body or seek different objectives than others, so you have to take this into account depending on the objective you are looking for when supplementing with Magnesium. For example, some salts, such as threonate (not authorised in Spain) only affect the cognitive level, which is valid if we are only looking to improve rest and relaxation; while other salts, such as citrate and bisglycinate, are distributed more on a general level, not only on a cerebral level, which is why we have combined different salts, because our priority was to increase the total amount of Magnesium in the body as quickly as possible (muscle, bone, brain, etc.) and not just focus on a single objective.

**High concentration, quality and purity**
We have managed to ensure that our capsules contain no excipients, thus achieving a high purity and concentration of highly assimilable Magnesium per capsule (170 mg), without using magnesium oxides or other inorganic salts. These other salts (carbonates, oxides, etc.) can be used if the objective is to produce laxative effects, but in our case, this is not what we want.

And not forgetting that **Magnesium Caps DUAL** is 100% safe as it is **anti-doping certified** by **Informed-Sport**.

**Ingredients:** (47%) Magnesium bisglycinate, (42%) magnesium citrate, vegetable capsule of hydroxypropylmethylcellulose.

**Intructions for use:** take one capsule preferably before going to bed or as prescribed by your doctor or nutritionist. You can open the capsule and pour the contents directly into water (it will taste bad) or mix it with another drink or food to mask it (milk, vegetable drink, juice, yoghurt, etc.).

**Professional tips:**
- **Do not take in conjunction with a source or supplement of Iron and/or Zinc.**
- **If you want to improve sleep and rest:** take it 30 - 40 minutes before bedtime as it helps the production of the neurotransmitters GABA and serotonin, and is necessary for the synthesis of the hormone melatonin, thus improving sleep and relaxation.
- **Consult your doctor or nutritionist if you are taking the following drugs because you may need a higher dosage:** Proton pump inhibitors (Omeprazole) and antacids, antibiotics, diuretics, hormonal contraceptives, insulin (if you are diabetic), etc.
- **Consult your doctor or nutritionist if you have any of the following diseases or pathologies because you may need a higher dosage:** diabetes, gastritis, hypothyroidism, Crohn's disease, etc.
- **You may also need a higher dosage if:** you are in the third age group, pregnant or breastfeeding, have a high level of stress, suffer from insomnia, are at a time of the season with a high training load, etc.

**Available formats:** tin of 90 capsules.

| NUTRITIONAL INFORMATION | Per 1 capsule | %NRV* | Per 2 capsules | %NRV* |
|---|---|---|---|---|
| **Total Magnesium** | **170 mg** | **45%** | **340 mg** | **90%** |
| • From Bisglycinate | 102 mg | 27% | 204 mg | 54% |
| • From Citrate | 68,0 mg | 18% | 136 mg | 36% |

*NRV: Nutrient Reference Values

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