



BE EXCELLENT

TECHNICAL DATA SHEET

100% Creatine Monohydrate GoldNutrition® Increases Physical Performance

FOOD SUPPLEMENT SUITABLE FOR:

- Promote the increase of lean muscle mass.
- Increase sprint strength and power and jumping ability
- Longer workouts and less fatigue (due to decreased lactic acid accumulation).
- Faster recoveries between workouts.



Presentation: 200g bag of Pineapple flavour and unflavoured.

References: Unflavoured: GN61132; Pineapple: GN61136.

It's time to reach your full athletic potential with our **100% Creatine Monohydrate GoldNutrition®**. Creatine monohydrate is perhaps the most studied dietary supplement to date in sports nutrition and has been shown to increase strength, power and physical performance in different sports. Creatine monohydrate is essential for energy metabolism as it boosts ATP production, optimizing muscle recovery and promoting lean muscle mass.

100% Creatine Monohydrate GoldNutrition® is indicated for sports that require quick and short bursts of energy such as football, handball, rugby, basketball, hockey, sprinters, sprinters, hurdlers, swimmers, weightlifters, bodybuilders, martial arts modalities, among others.



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COMPOSITION

Composition	Per dose
Creatine monohydrate	5g

Ingredients Pineapple flavour: creatine monohydrate [95%], acidifier (citric acid), flavouring, sweeteners (sucralose). **Can contain traces of soy, milk, nuts, sesame and sulphites.**

Ingredients unflavoured: creatine monohydrate [100%]. **Can contain traces of soy, milk, nuts, sesame and sulphites.**

HOW TO TAKE:

Take 1 dose per day (5g), for a maximum continuous period of 8-10 weeks, after which a break of at least 3-4 weeks must be taken before continuing. It must be taken every day. On training days it should be taken after training, on the rest of the days it can be taken at any time of the day. The loading phase may or may not be done with 4 daily doses for 5 days. To prepare 1 serving, add 2 level teaspoons (5 g) to 150 ml of water, mix well and drink. Do not exceed the recommended daily dose.

WHY?

Creatine supplementation has well-documented positive effects such as:

- Amplification of the effects in resistance training with better results in terms of strength and hypertrophy^{1, 2, 3}.
- Improved quality and benefits in high-intensity intermittent speed training⁴.
- Positive effects on strength, power, fat-free mass, daily life performance and neurological function in young and old⁵.
- Improved performance in endurance aerobic training lasting longer than 150s⁶.
- Antioxidant effect, reducing oxidative damage at the DNA level and lipid peroxidation^{7, 8}.

WARNINGS:

- Do not use during pregnancy and lactation.
- Not recommended in case of renal insufficiency.

MATCH WELL WITH:

- Whey protein to increase muscle mass.
- ZMA for muscle recovery.

HEALTH CLAIMS:

- Creatine increases physical performance during repeated, short-term, high-intensity exercise.

INGREDIENTS DESCRIPTION:

Creatine is a naturally occurring amino acid, produced in our body, which is essentially found in the muscles. The majority of Creatine found in muscles is stored in the form of phosphocreatine



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(66%), while the remainder is stored as free creatine (33%). Our body uses 1 to 2% of the total stored Creatine daily. Its replacement is carried out from food or from the amino acids glycine, arginine and methionine. Many studies have shown that supplementation with creatine monohydrate can increase muscle creatine, between 10 and 40%, depending on several factors, namely the athlete's physical shape. By increasing the availability of phosphocreatine in the muscle, we increase the availability of energy during high-intensity exercises, such as sprinting and/or series of intense exercises. Supplementation for short cycles appears to work better in resistance exercises, such as weight lifting and consecutive sprints, while supplementation for longer cycles appears to increase the quality of training, leading to gains of between 5 and 15% in overall performance and strength. Creatine supplementation can influence body mass and composition in several ways, with regard to increasing fat-free mass or muscle mass⁵.

How does it work?

Creatine monohydrate is absorbed intact, through the intestines, passing into the blood. Subsequently, it is absorbed by the muscles, or is eliminated in the urine. This means that creatine is not degraded in the stomach and intestinal absorption is not a limiting factor for muscle retention. About 95% of the body's creatine is stored in muscles, with higher concentrations in fast-twitch fibers. Total creatine reserves are approximately 120 g in adult men^{9,10}. The entry of creatine into the muscles is dependent on sodium, being mediated by insulin, which is why it is highly recommended that athletes take creatine with a drink rich in carbohydrates, or with a drink with carbohydrates and protein. When taken with carbohydrates, creatine reserves can increase by 60%¹¹.

Creatine plays a very important role in energy transfer and replenishes cellular ATP reserves. In muscles, it is used to fuel the contraction process, combining with phosphate and converting into phosphocreatine, which is essential for producing quick, short bursts of energy. Its depletion can result in fatigue and loss of muscle strength, which is why several studies report that creatine produces significant improvements in sports that require high levels of strength. Creatine is fundamental for energy metabolism: during high-intensity exercise, creatine phosphate is cleaved to provide energy for ATP resynthesis. The energy derived from the degradation of creatine phosphate allows ATP to be recycled an additional 12 times during a maximum effort. The lack of Creatine has also been associated with pathologies such as heart failure, ischemia, increased prevalence of ventricular arrhythmias, among others¹². There is also evidence that Creatine may have an important role in brain function¹³⁻¹⁵, as well as neuromuscular control¹⁵.

REFERENCIAS:

1. J Int Soc Sports Nutr 2007, 4:6.
2. *Nutrition* 2004, 20:609-614.
3. *Int J Sport Nutr Exerc Metab* 2003, 13:198-226.
4. *Clin Sci (Lond)* 2003, 104:153-162.
5. *Amino Acids* 2011, 40: 1349-1362.
6. *Int J Sports Nutr Exerc Metabol* 2003.
7. *Amino Acids* 2011, 40 (5): 1385-96.
8. *J Strength Cond Res* 2011 Dec; 25 (12): 3448-55.
9. *Sports Med* 2005, 35:107-125.
10. *Amino Acids* 2011, 40: 1325-1331.
11. Kleiner, S., Power Eating, Human Kinetics Publishers, Inc., 1998.
12. Conway, M.A., and Clark, J.F., eds. 1996. Creatine and creatine phosphate: Scientific and clinical perspectives. San Diego: Academic Press.
13. *Nutrients* 2011, 3, 735-755;16-
14. *The Journal of Clinical Investigation* 2012; 122 (8): 2837-4.
15. *Wiener Klinische Wochenschrift* 109 (3): 86-88, 1997.