

MAGNUM™

PRODUCT INGREDIENT BENEFITS

INGREDIENTS

Milk Protein Isolate (Low Lactose)

This ingredient, as is suggested by its name, provides the same proteins found in fresh milk. The lactose is removed, which is the primary dairy sugar. The result is that two types of protein are left, casein and whey. Milk protein isolate is high-quality protein source. This is fantastic for post-workout recovery as it provides essential amino acids necessary for muscle growth, protein synthesis, lean body mass and skeletal muscle metabolic function.⁷ This is also a great supplement for those who do not get enough protein in their diet.

Calcium Sodium Caseinate

Sodium caseinate is often used to help with protein formation, binding and emulsification properties. Most sodium caseinate is used as a food supplement because it improves the nutritional features in the food as well as increases the shelf life, improves taste and enhances smell.⁴ Calcium caseinate acts as an effective oil-in-water emulsifier.³

Whey Protein Isolate

Whey protein is a naturally complete protein containing all the essential amino acids required in the daily diet. This supplement promotes protein synthesis and muscle growth. Why protein is soluble and easy to digest. It is often referred to as the “fast” protein because it provides nourishment to the muscles so quickly. This ingredient helps to maintain a healthy immune system. This source of protein is great to use immediately after exercise to rebuild muscle and recover.⁹

L-Glutamine

Glutamine is an important amino acid involved with the immune response to muscle damage. L-glutamine supplementation during periods of intense exercise may accelerate the recovery of muscle strength following exercise. In addition, glutamine has been well documented to restore plasma glutamine concentrations and improve systemic immune system function.⁶

Egg White

Egg white, also known as egg albumen, is one of the highest-quality proteins available. Some call it the perfect protein, due to its amino acid makeup and the body's ability to utilize it properly. As many as 40 different proteins can be found in egg whites.

Egg-white protein digests moderately quickly, falling somewhere between fast-digesting whey and slow-digesting casein. As a result, egg white is able not only to boost protein synthesis, but also to prevent muscle protein breakdown.¹⁰

Raw Cocoa

Cacao contains more than 300 phytonutrients, including high levels of antioxidants, vitamins, minerals, and amino acids. In its purest form, cacao can help guard against heart disease and cancer, the two leading causes of death in North America. The polyphenols abundant in cacao are among the most effective of antioxidants, protecting our cells from damage by free radicals and helping us stay young and vital. In addition, cacao is also rich in flavonols, shown to lower blood pressure and improve blood flow, benefitting the circulatory system, brain function, and memory.²

Cocoa (Processed with Alkali)

Cocoa is frequently dented-treated with alkali using a 180 year old process. This is done for several reasons. The process darkens the cocoa ingredients, changes the taste by reducing bitterness, and increases the dispersability of cocoa powder for various applications such as beverages.⁸

Calcium

This mineral builds and protects bones and teeth. Calcium helps with muscle contractions and relaxation, blood clotting, and nerve impulse transmission. It plays a role in hormone secretion and enzyme activation. In addition, calcium has been found to help maintain healthy blood pressure.⁵

Iron

Iron helps hemoglobin in red blood cells and myoglobin in muscle cells ferry oxygen throughout the body. This mineral is needed for chemical reactions in the body and for making amino acids, collagen, neurotransmitters, and hormones.⁵

Phosphorus

Phosphorous helps build and protect bones and teeth. This mineral is part of DNA and RNA. It helps convert food into energy. Phosphorous is part of phospholipids, which carry lipids in blood and help shuttle nutrients into and out of cells.⁵

Magnesium

The majority of magnesium in the body is found in bones. If your blood levels are low, your body can tap into those magnesium reserves to correct the problem. This mineral is needed for many chemical reactions in the body as it works with calcium in blood clotting, regulation of blood pressure and muscle contraction. In addition, magnesium helps build bones and teeth.⁵

Chromium

Chromium assists in keeping blood sugar levels healthy, and it also helps build lean, muscular bodies(Campbell).² Enhances the sensitivity of insulin, helps maintain normal blood glucose levels, and is needed to free energy from glucose.⁵

Sodium

Sodium is an extremely important electrolyte and plays a critical role in balancing fluids in the body. Sodium helps send nerve impulses. It has been established that this mineral is needed for muscle contractions. Sodium plays a vital role in regulation of fluid in the body, in preventing sunstroke and maintaining healthy brain function.⁵

Potassium

Potassium aids in the balancing of fluids in the body. It helps maintain a steady heartbeat and send nerve impulses. This mineral is needed for muscle contractions. A diet rich in potassium has been found to lower blood pressure. It has also been established that getting enough potassium from your diet may benefit bones.⁵

References

- (1) Campbell, W. W., Joseph, L. J. O., Anderson, R. A., Davey, S. L., Hinton, J., & Evans, W. J. (2002). Effects of resistive training and chromium picolinate on body composition and skeletal muscle size in older women. *International Journal of Sport Nutrition & Exercise Metabolism*, 12(2), 125-136.
- (2) Csiki, C. (2008). Ch...ch...ch... Chocolate. *Alive: Canada's Natural Health & Wellness Magazine*, 304, 146-147.
- (3) Gupta, S. S., & Ghosh, M. (2015). Formulation development and process parameter optimization of lipid nanoemulsions using an alginate-protein stabilizer. *Journal of Food Science Technology*, 52(5), 2522-2557.

- (4) Gupta, V. K., & Mulay, C. A. (1989). Studies on sodium and calcium caseinates prepared from fresh and sour buffalo milk edible caseins: Part II some physical and functional characteristics. *Indian Journal of Dairy Science*, 42(3), 595-600.
- (5) Harvard Medical School. (2009). Harvard Health Publications: Listing of vitamins. *Harvard Medical School*. Retrieved from http://www.health.harvard.edu/staying-healthy/listing_of_vitamins
- (6) Legault, Z., Bagnall, N., & Kimmerly, D. S. (2015). The influence of oral L-glutamine supplementation on muscle strength recovery and soreness following unilateral knee extension eccentric exercise. *International Journal of Sport Nutrition & Exercise Metabolism*, 25(5), 417-427.
- (7) McGregor, R. A., & Poppitt, S. D. (2013). Milk protein for improved metabolic health: A review of the evidence. *Nutrition & Metabolism*, 10(1), 46-58.
- (8) Miller, K. B., Hurst, W. J., Payne, M. J., Stuart, D. A., Apgar, J., Sweigart, D. S., & Ou, B. (2008). Impact of alkalization on the antioxidant and flavanol content of commercial cocoa powders. *Journal of Agriculture & Food Chemistry*, 56(18), 8527-8533.
- (9) Sharawy, A. (2013). The effects of a pre and post exercise whey protein supplement on protein metabolism and muscular strength among elite wrestler. *Ovidius University Annals, Series Physical Education & Sport/Science, Movement & Health*, 13(1), 1-6.
- (10) Stoppani, J. (2007). Be an egghead. *Flex*, 25(10), 222-228.