

**Corvalen M®**  
*Improved*  
 NPN 80068279

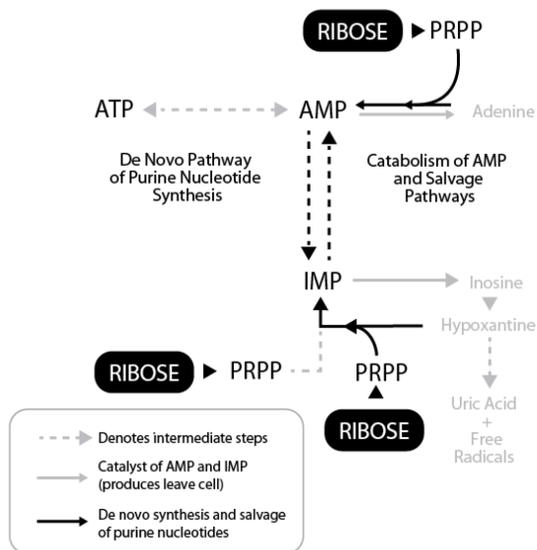
**DESCRIPTION**

Corvalen M® offers D-ribose, a natural pentose sugar, plus magnesium to help utilize energy and maintain proper muscle function. This formula also contains malic acid, sometimes known as the “apple acid.”

**FUNCTIONS**

Corvalen M® contains pure D-ribose, a safe and clinically researched ingredient. Ribose is the vital structural backbone of critical cellular compounds called purines and pyrimidines. Our bodies must have an adequate supply of purines and pyrimidines to form major cellular constituents such as our genetic material (DNA and RNA), numerous cofactors, certain vitamins, and, importantly, adenosine triphosphate (ATP). Ribose is the starting point for the synthesis of these fundamental cellular compounds, and the availability of ribose determines the rate at which they can be made by our cells and tissues.

D-ribose is a structural component of DNA, RNA, ATP, GTP, flavins (FAD, riboflavin) and other important nucleotides found in all living cells. Ribose is formed naturally via the pentose phosphate pathway. This pathway is slow and rate-limited in cardiac and skeletal muscle due to an inherently low concentration (lack of expression) of the enzymes, glucose-6-phosphate dehydrogenase and 6-phosphogluconate dehydrogenase. The product of this pathway is ribose-5-phosphate, which in turn is converted to 5-phosphoribosyl-1-pyrophosphate (PRPP), the primary driver in the synthesis and salvage of purine nucleotides. No other compound can be used by the body for this metabolic purpose. Purine nucleotides (ATP and its precursors) lost due to hypoxia or genetic predisposition are replaced via the purine nucleotide pathway. This pathway is rate-limited by the availability of ribose in tissue. Administration of exogenous ribose bypasses the rate-limiting steps in the pentose phosphate pathway, resulting in a significant acceleration of PRPP.

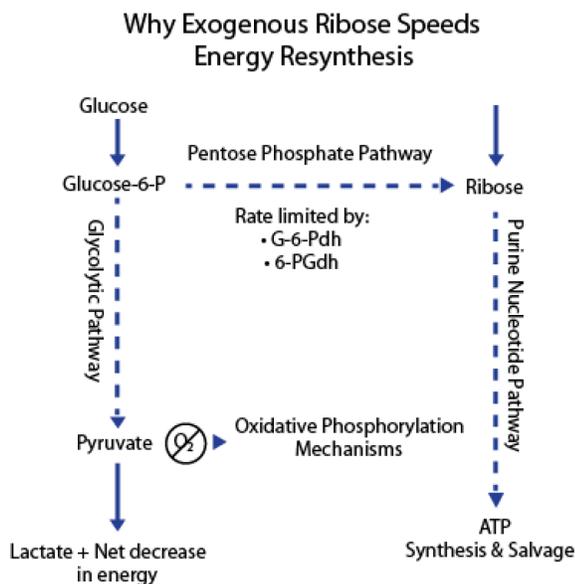


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A deficiency of ATP energy in the cell, also called mitochondrial dysfunction, can lead to symptoms of occasional muscle pain, fatigue, sleep disturbances and brain fog. It has been postulated that some people may have an alteration in muscle adenine nucleotide metabolism, which leads to depleted energy reserves and an imbalance in cellular ATP:ADP:AMP ratios with an abnormal energy charge. Magnesium is critical in facilitating hundreds of biochemical reactions including those involved in energy production. Interconnected with ATP, the main carrier of metabolic energy in the body, magnesium is essential for all biosynthetic processes, glycolysis, formation of c-AMP, energy-dependent membrane transport, and muscle function.



Corvalen M® D-ribose is non-GMO, highly soluble in both hot and cold solutions, and tastes slightly sweet and tart. D-ribose is rapidly and readily (~95%) absorbed with peak blood levels found within 30 – 45 minutes. Ribose not taken up by the cell is excreted unchanged in the urine. Although D-ribose is a five-carbon monosaccharide, it does not raise blood sugar.

**INDICATIONS**

- Muscle function
- Energy metabolism
- Electrolyte balance

**FORMULA (#57452P-340HYC-C)**

Each Scoop (6.2 g) Contains:

D-Ribose.....	5 g
Magnesium (magnesium citrate) .....	40 mg

Non-medicinal ingredients: L-malic acid.

Protected by U.S. patents 6,159,942; 6,534,480; 6,218,366; 6,339,716; 6,703,370 and other U.S. and foreign patents issued and pending ©2008 Bioenergy, Inc.

**SUGGESTED USAGE**

Adults: Take 1 scoop (2 teaspoons) daily with a meal or as directed by your healthcare practitioner. Dissolve powder in water, juice or other beverage and consume.

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**STORAGE**

Store in a cool, dry place. Keep out of reach of children.

**REFERENCES**

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**For more information on Corvalen M®, visit [douglaslabs.ca](http://douglaslabs.ca)**

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