

D-Ribose

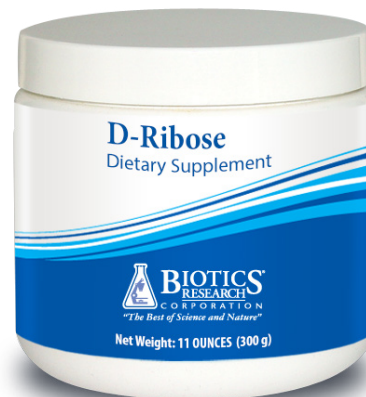
D-Ribose

D-ribose is a naturally occurring five-carbon sugar found in all living cells. It is an essential component of RNA and DNA, as well as an essential ingredient in the production of ATP. It is found in high amounts in organs and tissues of high-energy output, including the heart, liver, adrenals, brain, muscles, endocrine glands and the gastrointestinal tract. Although ribose can be made *in vivo* from glucose, and is not considered an essential nutrient, it may become conditionally essential in times of high-energy output. In the production of ATP, ribose is an essential part of both the *de novo* pathway, and what is termed the "salvage pathway." In the salvage pathway, ribose is "salvaged" from ATP metabolites, which in turn is utilized to form new ATP molecules.

Research

It has been demonstrated that oral administration of ribose has the ability to rapidly restore ribose levels of both nerves and muscles. Oral administration has also shown to have a beneficial effect on ATP production in all muscle fiber, and especially in that of the heart. It has been documented that supplemental ribose augments the production of ATP via oxidative phosphorylation by 340-440%.⁽¹⁾ In regards to cardiovascular health, supplemental

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d-ribose has been shown to improve cardiac metabolism,⁽²⁾ and to be a beneficial conditionally essential nutrient.⁽³⁾

References

1. Dean W. Mitochondrial Restoration, Part III. D-Ribose and Creatine Increase Mitochondrial Energy Production. <http://www.warddeanmd.com/antiaging.htm>.
2. Schneider HJ, Rossner S, Pfeiffer d, Hagedorff A. d-ribose improves cardiac contractility and hemodynamics, and reduces expression of c-fos in the hippocampus during sustained slow ventricular tachycardia in rats. *Int J Cardiol.* 2007 Apr 12; [Epub ahead of print].
3. Kendler BS. Supplemental conditionally essential nutrients in cardiovascular disease therapy. *J Cardiovas Nurs.* 2006 Jan-Feb;21(1):9-16.

D-Ribose is available in 11 ounce bottles (#5231).

Supplement Facts

Serving Size: 2 teaspoons (approx. 5 g)
Servings Per Container: 60

	Amount Per Serving	% Daily Value*
Calories	20	
Total Carbohydrates	5 g	2%*
Sugars	5 g	†
D-Ribose	5 g	†

* Percent Daily Values are based on a 2,000 calorie diet.

† Daily Value not established

Ingredient: D-Ribose.

D-Ribose is a white to slightly yellow, naturally occurring five carbon sugar with a neutral to slightly sweet taste.

This product is gluten and dairy free.

RECOMMENDATION: Two (2) teaspoons (approx. 5 g) mixed with six (6) to eight (8) ounces of water or other beverage, two (2) times each day or as otherwise directed by a healthcare professional.

CAUTION: Insulin dependent diabetics and pregnant women should consult their physician before use of this product.

KEEP OUT OF REACH OF CHILDREN

Store in a cool, dry area at room temperature away from direct light.

Container should be resealed immediately after use.
Sealed with an imprinted safety seal for your protection.

Product # 5231 Rev. 05/13



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These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.