

MacroEssentials Real Food Bar

Chocolate Coconut

Nutrition Facts	Amount/Serving	% Daily Value*	Amount/Serving	% Daily Value*	*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs: Calories: 2,000 2,500
	Serving Size 1 Bar (56g) Servings Per Container Calories 210 Calories from Fat 80	Total Fat 9g	14%	Total Carbohydrate 20g	
	Saturated Fat 2.5g	12%	Dietary Fiber 5g	19%	Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4
	Cholesterol 10mg	3%	Sugars 10g		
	Sodium 55mg	2%	Sugar Alcohol 0g		
			Protein 14g		
	Vitamin A 2%	Vitamin C 0%	Calcium 15%	Iron 4%	

Ingredients: Almond Butter, Organic Agave Syrup, Whey Protein Crisps (Whey Protein Isolate, Whey Protein Concentrate, Rice Flour, Calcium Carbonate), Water, Whey Protein Isolate, Chocolate Chips (Sugar, Chocolate Liquor, Cocoa Butter, Soy Lecithin [added as an emulsifier], Vanilla), Gum Arabic, Whey Protein Concentrate, Cocoa (processed with alkali), Unsweetened Coconut, Natural Coconut Flavor, Rice Bran, Stabilized Flax Meal, Natural Vanilla Extract, Chocolate Liquor, Sea Salt.

- **Macronutrient Balanced** – Contains a balanced mix of high quality proteins, fats, and carbohydrates
- **Great Source of High Quality Protein** – 14 grams of protein per bar as whey protein concentrate and isolate
- **Good Source of Dietary Fiber** – 5 grams of fiber per bar
- **Blood Sugar Friendly** – Each bar has a glycemic load of approximately 5 (Note: A glycemic load of less than 10 is considered low)
- **Heart Healthy**[†]
 - Contains approximately 9 grams of almonds per bar
 - Has a catechin and polyphenol (plant antioxidants) content equivalent to what would be found in ½ to 1 glass of red wine
 - Contains a diversified portfolio of dietary ingredients associated with improved cholesterol levels*
- **Exercise Nutrition**
 - Replenishes muscle tissue glycogen (energy) stores
 - Provides the high quality protein needed to repair and rebuild active muscles

[†]Scientific evidence suggests but does not prove that eating 1.5 ounces per day of most nuts, such as almonds, as part of a diet low in saturated fat and cholesterol may reduce the risk of heart disease.” [See nutrition information for fat content.]

*Research has shown that diversifying cholesterol-lowering components in the same dietary portfolio increased the effectiveness of diet as a way to improve cholesterol levels. The following ingredients within the MacroEssentials Real Food Chocolate Coconut Bar have been found to promote improvements in cholesterol levels, rice bran, flax meal, almonds, and chocolate – making a Real Food Bar a solid investment in your heart health portfolio.

ALLERGY WARNING: This food product contains tree nuts and should not be consumed by persons with tree nut allergies. The product is manufactured on equipment that may process products containing peanuts and other nuts.

SPECIFIC INGREDIENTS

WHEY PROTEINS

Whey proteins are from the whey fraction of dairy. Unfortunately this fraction is relatively low in total protein percent. In order to improve the overall protein profile to use in a powdered beverage like MacroEssentials, removal of the majority of the milk sugars and milk fat is required. We use a combination of whey protein concentrates and whey protein isolates which have had milk sugars and fats removed by a process called ultrafiltration. This combination of whey proteins allows for a great tasting protein source which is low in fat and milk sugars.

Whey proteins have some substantial benefits compared with other available protein source options. Whey protein provides a balanced source of essential amino acids with an extremely high protein efficiency ratio (PER=3.1). In a simplified sense, the PER is a measure of the degree to which lean muscle gain is promoted. Whey protein contains all the essential amino acids and is a very good source of branched chain amino acids and the amino acids needed to make a critically important tri-peptide called 'glutathione', involved in antioxidant status, immunity, and detoxification. Whey proteins are easily digested. In fact they have the best ability of the available proteins used for making protein powders with respect to quickly passing through the digestive system and being available in the blood for rebuilding and repairing muscles. This is one of the reasons that whey proteins are the dominant protein source used by strength athletes and weight lifters. Several health benefits have been defined for whey proteins. These include (1) promoting a feeling of fullness & satiety 2) supporting gastrointestinal mucosal barrier function, 3) enhancing the growth of beneficial gut microflora, 4) improving nitrogen balance to support better muscle tissue integrity in circumstances characterized by muscle wasting; 5) supporting immune system performance and detoxification pathways, and 6) enhancing aspects of athletic performance and body composition.

WHEY RESEARCH BULLET POINTS*:

- Whey proteins have been shown to improve nitrogen balance better than protein sources such as egg whites, soy or casein.
- Whey proteins have been shown to promote satiety better than an equivalent amount of casein
- Whey proteins have been shown to reverse overnight muscle tissue breakdown.
- Whey proteins have been shown to improve glutathione status
- Whey proteins have been shown to improve nutritional status because of the nutrition they contain and their positive impact on nutrient absorption.
- Whey proteins have been shown to positively influence body composition in some individuals
- Whey proteins have been shown to improve aspects of memory and cognitive performance especially in stress-vulnerable subjects and elderly individuals.

THE FIBERS

Each serving of the Chocolate Coconut MacroEssentials Real Food Bar contains 5 grams of dietary fiber. Leading health authorities routinely recommend higher fiber diets. In the U.S. the current recommendations are that we should consume a minimum of 25 grams of dietary fiber daily. Each bar contributes approximately 20% of the fiber needed to meet this daily total fiber goal. In our keeping with

recommendations of most health agencies for having a variety of fibers in your daily diet, we use a combination of the following fibers in Chocolate Coconut MacroEssentials Real Food Bar – Arabic Gum, Rice Bran Fiber Complex, Stabilized Rice Bran, and Stabilized Flax Meal.

Emerging studies suggest that dietary fibers can have a variety of health benefits. These benefits include:

- Positive influence on lipid metabolism and blood sugar regulation
- Improved bowel transit time and stool bulk
- Improved gut microbial ecology

Arabic Gum is... a soluble fiber. While gum fibers can lower cholesterol and blood sugar at high doses, the amounts used in MacroEssentials Real Food Bars are far lower than those that have been used in studies on cholesterol and blood sugar and so wouldn't be expected to have any significant impact on these biomarkers. The real reason that arabic gum is used in this product (and other food products) has to do with the functional properties of gum fibers. Gum fibers are actually a relatively expensive source of fiber; however, they are very soluble in water (and other liquids) so do an excellent job at improving the 'moistness' of a food bar.

Rice Bran Fiber Complex and Stabilized Rice Bran... contain a diverse range of compounds with antioxidant and immunoenhancing properties. In addition to the benefits of the fiber found in rice bran, compounds with health-related benefits found in the bran component of rice include inositol hexaphosphate (IP6 or phytate), ferulic acid, gamma-oryzanol, plant sterols, and tocotrienols.

RESEARCH BULLET POINTS*:

- Increased stool mass and frequency (more so than fibers like wheat bran)
- Improved bowel transit time
- Improved metabolism of cholesterol in a manner similar to oat bran
- Helped minimize bioaccumulation and accelerate elimination of environmental chemicals (Note: Rice bran has been used as a component of treatment plans in persons inadvertently poisoned with PCB's)

Note: Bran fibers may increase pain and bloating in some individuals with irritable bowel syndrome (IBS).

Stabilized Flax Meal is... a source of fiber with exceptionally high amounts of plant lignins. Plant lignins are unique compounds that, in the body, have an ability to positively influence the production and metabolism of sex hormones resulting in a more balanced (and healthier) sex hormone profile. The influence of lignins from flax meal on estrogen metabolism highlight this health benefit. Estrogen is metabolized along two competing pathways; forming the 2-hydroxylated and the 16 alpha-hydroxylated estrogen metabolites. The ratio between the 2 and 16 metabolites is important for many reasons, among which is that it appears to influence a woman's lifetime risk of breast cancer. Having more of the 2 metabolite and less of the 16 metabolite (a higher 2 to 16 estrogen metabolite ratio) is associated with lower breast cancer risk and hence is considered to be an important health goal. Consuming lignins from flax meal is among the only known dietary changes with an ability to create a higher (better) estrogen metabolite ratio.

RESEARCH BULLET POINTS*:

- Increased stool mass and frequency
- Improved cholesterol metabolism
- Improved 2:16 estrogen metabolite ratios

ALMOND BUTTER

Nuts, like almonds, are increasingly receiving attention for their contribution to a heart healthy diet. The U.S. Food and Drug Association (FDA) has recognized the heart healthy benefits of diets including an appropriate amount of nuts and has approved the following health claim, "Scientific evidence suggests but does not prove that eating 1.5 ounces per day of most nuts, such as almonds, as part of a diet low in saturated fat and cholesterol may reduce the risk of heart disease."

The reason for the approval of this health claim goes beyond the studies which have found an association between people who eat more nuts having a lower incidence of heart disease. Adding more nuts in general (and almonds specifically) into the diet has actually been shown to favorably influence several very important risk factors for heart disease.

RESEARCH BULLET POINTS*:

- Increasing the amount of almonds in the diet produces a dose-related improvement in cholesterol metabolism (more almonds equals better cholesterol levels)
- In a 6-month study, substituting almonds (about the equivalent amount of almonds that would be found in 9 MacroEssentials Real Food Bars) into a weight loss program in place of complex carbohydrates improved a preponderance of abnormalities associated with metabolic syndrome (syndrome X). The almonds-enriched diet resulted in:
 - greater reductions in weight (62% better)
 - greater reductions in waist circumference (50% better)
 - greater decrease in body fat (56% better)
 - greater improvements in insulin sensitivity (90% better)
 - better blood sugar regulation
 - greater improvements in blood pressure (11% improvement compared with no improvement in people eating the complex carbohydrates instead of almonds)

CHOCOLATE (COCOA)

Over the past few years, chocolate has received the same type of 'healthy lifestyle' attention as red wine and green tea. The reason for this is that chocolate has high amounts of the same types of compounds found in these two beverages; compounds that when consumed in adequate amounts are associated with a lower risk of heart disease. The Latin name for the plant which ultimately gives us chocolate is *Theobroma cacao*. This translates basically as 'chocolate, food (or beverage) of the gods'. The reason for this name is that historically, the beverage made from this plant (analogous to almost a coffee but made from cocoa beans rather than coffee beans) was a sacred drink of the Aztecs, the Mayans, and other cultures that preceded them. It's consumption can be traced back to at least as early as 600 years B.C.E. Cocoa as a drink was

introduced into Europe in the 6th & 17th century; but it wasn't until 1828 when van Houten separated cocoa butter from the cocoa bean and ground the remainder to form cocoa powder, that chocolate became widely popular.

Although chocolate is considered by some nutritionists as a 'bad food', the reality is far different. Chocolate is relatively high in protein, has a high percent of mineral salts, and is a great source of plant pigments called catechins and polyphenols which are the same family of compounds in things like blueberries and other berries, red wine, and green tea which are credited for much of these antioxidant-rich foods/beverages health benefits. Five to ten grams of cocoa powder can contribute as much in terms of these compounds as a glass of red wine. Chocolate is a major source of dietary copper. As little as 10-15 grams of cocoa powder daily can reverse copper deficiency and 5-10 grams daily can maintain normal copper levels. Chocolate is also an excellent source of magnesium; capable of reversing tissue deficiency of this mineral when consistently consumed in adequate amounts. Far from being a 'bad food', chocolate is actually a nutritionally dense food capable of contributing significantly to our overall nutritional requirements and health. As it turns out chocolate has many of the same heart friendly actions found in aspirin (though not as strong since aspirin is a concentrated drug). Research has also shown, when comparing things strictly in terms of antioxidant potential, cocoa powder has more antioxidant activity than red wine, green tea, or black tea.

CHOCOLATE/COCOA RESEARCH BULLET POINTS*:

- Heart Healthy
 - Contributes to better blood pressure regulation
 - Improves the functional properties of arteries
 - Decreases blood platelet stickiness
 - Modestly decreases oxidation of bad (LDL) cholesterol
 - Modestly increases levels of good (HDL) cholesterol
- A Great Choice for Exercise
 - Results suggest that having a bar with chocolate before exercise creates the necessary prerequisite physiology for improved exercise performance and post-exercise recovery.
 - The presence of cocoa powder in beverages or food bars leads to greater postprandial insulin secretion compared to alternate flavorings.
 - Since insulin facilitates the transport of proteins and sugars into muscles, chocolate flavored protein powders or sports bars might be the best choice in terms of post-exercise snacks to replenish muscle glycogen and promote better muscle growth.
- Pregnancy Safe
 - Mothers who reported daily consumption of chocolate during pregnancy rated more positively the temperament of their infants at 6 months.
 - Weekly or daily chocolate consumption during pregnancy was especially linked to better infant temperament in women with higher levels of prenatal stress.

NOTE 1: A Chocolate Coconut Real Food Bar contains between 4-8 mg of caffeine. This is an amount equivalent to what would be found in approximately 1-2 cups of decaffeinated coffee.

NOTE 2: In some individuals chocolate can contribute to reflux or heartburn symptoms. While double-blind research has found no association between consumption of chocolate and triggering of headaches, knowingly eating chocolate by persons who believe themselves sensitive to it can trigger headaches (sort of a reverse placebo effect). Despite beliefs to the contrary, no proven association between chocolate consumption and acne, asthma, allergies, fibrocystic breast disease, IBS, & hyperactivity currently exist.

AGAVE SYRUP

Agave syrup is a natural sweetener extracted from the agave plants that grow in the American Southwest and Mexican deserts.

AGAVE BENEFITS*:

- Blood Sugar Friendly – Low Glycemic
 - Glycemic index represents the amount blood sugar increases after eating specific foods. The higher the glycemic index number, the faster and higher a food will raise blood sugar.
 - Agave syrup has a glycemix index number of 48 compared to sugar (glycemic index of 100) and honey (glycemic index of 58).
 - Produces a lower post-meal blood sugar response in healthy individuals than does either glucose or sucrose (table sugar)
- Certified Organic and Kosher

For more information contact this office:

Call 866-887-4633 for customer service, product information, or additional information on ordering this and other nutritional products and services. Visit our website www.mynutriscan.com. References available on request

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

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