PaleoCleanse Plus™



Beef bone broth protein with nutrients and botanicals for healthy detoxification*

By David M. Brady, ND, DC, CCN, DACBN, IFMCP, FACN and Amy Berger, MS, CNS

THIS INFORMATION IS PROVIDED AS A MEDICAL AND SCIENTIFIC EDUCATIONAL RESOURCE FOR THE USE OF PHYSICIANS AND OTHER LICENSED HEALTH-CARE PRACTITIONERS ("PRACTITIONERS"). THIS INFORMATION IS INTENDED FOR PRACTITIONERS TO USE AS A BASIS FOR DETERMINING WHETHER TO RECOMMEND THESE PRODUCTS TO THEIR PATIENTS. ALL RECOMMENDATIONS REGARDING PROTOCOLS, DOSING, PRESCRIBING AND/OR USAGE INSTRUCTIONS SHOULD BE TAILORED TO THE INDIVIDUAL NEEDS OF THE PATIENT CONSIDERING THEIR MEDICAL HISTORY AND CONCOMITANT THERAPIES. THIS INFORMATION IS NOT INTENDED FOR USE BY CONSUMERS.

PaleoCleanse Plus™ dairy-free functional food powder contains a comprehensive combination of nutrients, antioxidants, herbs, fiber, and fruit and vegetable extracts that support the metabolic detoxification process while balancing phase I and II detoxification pathways.* This product aids the body's defenses against xenobiotics, pollutants and other harmful substances, as well as against remnants of pharmaceutical drugs, excess steroid hormones, and the byproducts of normal, healthy metabolism.* This is the same protein and nutrient source in our PaleoCleanse Plus™ Detox Program, now available as a standalone product.

Detoxification Support

Phase I reactions transform toxins and metabolic wastes into forms that are then metabolized by phase II enzymes. Phase I primarily involves cytochrome P450 enzymes, while phase II reactions conjugate the intermediate metabolites into forms that are more water-soluble, thereby facilitating their excretion. This is crucial, because if phase II reactions are sluggish — perhaps due to insufficiency of key conjugates and cofactors — then the intermediate products of phase I may accumulate and overwhelm the body's capacity to

PaleoCleanse Plus™ Highlights:

- Features 18 grams of easy-to-digest beef bone broth protein per serving
- A true Paleo protein: free of grains, legumes, dairy, gluten, and lactose; sweetened with stevia
- Can serve as a meal supplement during detoxification protocols
- Offered in delicious berry-vanilla and chocolate flavors

conjugate and excrete them. This can potentially lead to undesirable health complications, since some intermediate metabolites are more harmful than the initial compounds.¹

Like all enzymes, cytochrome P450 enzymes are proteins, and higher protein diets have been shown to increase the activity of these enzymes, while chronic high-carbohydrate intake may have the opposite effect. The beef bone broth protein in PaleoCleanse Plus^M ensures a steady supply of the individual amino acids required for effective detoxification — particularly the sulfur-containing amino acids — with no added sugar.

Studies in animals and humans indicate that multiple nutrient deficiencies can depress the function of several enzymatic reactions involved in detoxification. The insufficiency of vitamins A, C, E, and B complex, folate, copper, iron, zinc, magnesium, calcium, and more, can have adverse effects on the body's ability to metabolize harmful compounds. PaleoCleanse $Plus^{TM}$ provides a wide array of nutrients to ensure sufficient levels of these critical enzyme cofactors.

Highlights

Each serving of PaleoCleanse $Plus^{TM}$ provides 18 g of protein as HydroBEEF, a highly concentrated bone broth protein isolate produced through an exclusive proprietary process that allows the protein to be hydrolyzed or 'split' into a high concentration of functional peptides. Delivering protein in the form of peptides allows for easier absorption and assimilation. This protein is sourced from animals raised in Sweden without hormones or antibiotics, and is free of GMO grains, grasses, and/or ensilage.

Glutathione and Supportive Nutrients: Glutathione is well-known as the body's "master antioxidant" and is a key factor in detoxification, acting as an antioxidant as well as participating in conjugation reactions. As a hydrophilic molecule, it also aids in increasing the water-solubility of lipophilic toxins, thus facilitating their excretion. The cycling of glutathione between its oxidized and reduced forms, via glutathione reductase, requires riboflavin, niacin, and vitamins C and E, all of which are present in PaleoCleanse Plus™. Part of the biochemical action of glutathione is accomplished via the glutathione peroxidase enzyme family (GPx),³ which is dependent on selenium (also included in this product). GPx neutralizes harmful lipid peroxides and also reduces hydrogen peroxide safely to water. Additionally, PaleoCleanse Plus™ contains N-acetyl-cysteine — a precursor to glutathione — as well as cysteine and glycine, which are two of the three amino acids that comprise glutathione.

Sulfur-containing Compounds: Aside from contributing to the synthesis of sufficient glutathione, multiple sulfur-containing compounds in this product support the sulfation mechanism of detoxification. These include L-cysteine, L-methionine, methylsulfonylmethane (MSM), N-acetyl-cysteine, taurine, and sodium sulfate.

Methylation reactions involving the sulfurous compound S-adenosylmethionine (SAMe) require adequate levels of vitamins B6 and B12, along with folate, for proper functioning of the methionine-homocysteine cycle. This product provides folate as Quatrefolic*, a glucosamine salt 5-MTHF form of folate proven to dissociate easily before absorption and raise plasma folate levels. It also overcomes common genetic polymorphisms related to folate metabolism.

Glucuronidation: The glucuronidation of xenobiotics is one of the primary mechanisms for the detoxification of a host of common pharmaceutical drugs, harmful environmental chemicals, and endogenously synthesized substrates, such as excess estrogen. The resulting metabolites are hydrophilic, rendering them more easily excreted. Calcium d-glucarate inhibits beta-glucuronidase, a colonic bacterial enzyme capable of de-conjugating glucuronic acid-tagged toxins, which may have the undesirable result of harmful substances being reabsorbed into the body. Elevated beta-glucuronidase activity is associated with increased risk for hormone-dependent cancers, such as breast, prostate, and colon.⁴

Molybdenum Oxotransferases: Molybdenum is a required cofactor for a family of enzymes that includes xanthine oxidase and sulfite oxidase. A molybdenum deficiency may impair the body's ability to metabolize environmental contaminants, such as sulfur dioxide in polluted urban areas, and compounds in several commonly consumed foods, such as caffeine and the sulfites used for color retention and food preservation in wine, dried fruit, vinegar and more.^{5,6}

Antioxidants: Phase I oxidation reactions may generate increased amounts of free radicals. PaleoCleanse Plus™ provides several helpful antioxidant compounds to minimize the potential harm that may result, including vitamins C, E, and A, selenium, green tea extract, glutathione, and a proprietary blend of alkalizing high-antioxidant vegetable and fruit juice powders. Animal studies indicate that, in addition to their antioxidant function, tea polyphenols and quercetin may have stimulatory effects on select cytochrome P450 enzymes.^{7,8}

Support for Gealthy Bile Production and Toxin Excretion: Products of liver detoxification are typically excreted through the gastrointestinal tract, after being secreted into the intestines via bile. Thick, sluggish or stagnant bile can result in a backup of toxins in the body. PaleoCleanse Plus™ contains ingredients designed to stimulate both the production of bile and bile's proper consistency, so that harmful metabolites can exit the liver smoothly and proceed through the intestines in order to be excreted through the feces.* These compounds include inositol, milk thistle and choline. The silymarin in milk thistle may also help reduce liver oxidative stress induced by the detoxification mechanisms.^{9,10}

Glucomannan: PaleoCleanse Plus[™] provides fiber, which is critical for the excretion of toxins in a timely manner. It features glucomannan, a water-soluble polysaccharide naturally occurring as a hemicellulose in the cell walls of select plant species. As a potent soluble fiber, glucomannan may reduce constipation, thereby aiding in excretion.¹¹

Supplement Fa Serving Size 35 grams (approx. one scoop) Servings Per Container 15	cts								
Amount Per Serving	% Daily Value	Amount Per Serving	% Dail	y Value	Amount Per Serving	% Daily Value	Amount Per Serving	% Da	aily Value
Calorie	130	Pantothenic Acid (as d-Calcium Pantothenate)	12.5 mg	250%	Potassium	470 mg 10%	N-Acetyl-L-Cysteine	75 mg	*
Total Fat	.5 g 2%†	Calcium (as DimaCal® Dicalcium Malate and	120 mg	24%	Vennis/Fruit Descriptory Disard	2,5 q *	L-Methionine	50 mg	*
Cholesterol less than !	mg <2%	Calcium D-Glucarate USP)			Veggie/Fruit Proprietary Blend [organic spinach powder (Spinacia ole		Inositol	50 mg	*
Total Carbohydrate	8 g 3%†	Iron	0.8 mg	4%	juice powder (Beta vulgaris)(root juic		Methylsulfonylmethane (MSM)	50 mg	*
Dietary Fiber	3 g 11%†	Phosphorus (as Dipotassium Phosphate)	100 mg	8%	powder (Daucus carota)(root juice), o		Sodium Sulfate	50 mg	*
Total Sugar	2 g *	lodine (as Potassium lodide)	25 mcg	17% 24%	powder (<i>Punica granatum</i>)(fruit juice powder (<i>Vitis labrusca</i>)(fruit juice)]), organic grape juice	Green Tea Extract (Camellia sinensis)(leaves)	50 mg	*
	18 g 12%	Magnesium (as TRAACS® Magnesium Bisglycinate Chelate Buffered from Magnesium Bisglycinate	100 mg	Z476	Cellulose	1,5 q *	standardized to contain 98% polyphenols and 45	% EGCg]	
Vitamin A (as Mixed Carotenoids from Algae) 730 mcg		Chelate and Magnesium Oxide)			Glycine	750 mg *	L-Glutathione	12.5 mg	*
	mg 278%	Zinc (as Zinc Bisglycinate Chelate)	3.5 mg	32%	Glucomannan	500 mg *	Vitamin E Isomers	5 mg	*
Vitamin D (as Cholecalciferol) 0.6 mcg (2		Selenium (as Selenomethionine)	25 mcg	45%	L-Carnitine	500 mg *	(as DeltaGold® delta and gamma tocotrienols)		
	mg 125%	Copper (as TRAACS® Copper Bisglycinate Chelate)	0.5 mg	56%	I-Threonine	275 mg *	Vanadium (as TRAACS® Vanadium Nicotinate Glycinate Chelat	25 mcg	*
	mg 115%	Manganese (as TRAACS® Manganese Bisglycinate Chelai		22%	L-Lysine	275 mg *	(ds TRAACS Validation) Nicotifiate diversale cheids	e)	
Niacin (Vitamin B-3)(as Niacinamide) 4 m		Chromium	25 mcg	71%	Calcium D-Glucarate USP	150 mg *	*Percent Daily Values are based on a 2,000 calorie d	iet.	
	mg 118%	(as TRAACS® Chromium Nicotinate Glycinate Chela			L-Cysteine	125 mg *	*Daily Value not established.		
Folate (as Quatrefolic® [6S]-5-methyltetrahydrofolate, 85 mcg	DFE 21%	Molybdenum (as TRAACS® Molybdenum Glycinate Chela	te) 25 mcg	56%	Quercetin	100 mg *			
glucosamine salt) Vitamin B-12 (as Methylcobalamin) 2	ncg 83%	Choline (as Choline Dihydrogen Citrate)	20 mg	4%	Taurine	100 mg *			
	ncg 233%	Sodium	350 mg	15%	Milk Thistle (<i>Silybum marianum</i>)(seed) [standardized to contain 80% silymari	100 mg *			

Ingredients: Bone broth protein (HydroBEEF^m), natural flavors, cocoa powder, medium chain triglycerides, cellulose gum, sodium chloride, stevia leaf extract (Slevia rebaudiana), luo han guo extract.

PaleoCleanse PlusTM Chocolate

PaleoCleanse Plus™ Strawberry Vanilla

Amount Per Serving % Daily Value		Amount Per Serving	% Daily Value		Amount Per Serving	% Daily Value	Amount Per Serving	% Daily Va	
lories	110	Pantothenic Acid (as d-Calcium Pantothenate)	12.5 mg	250%	Veggie/Fruit Proprietary Blend	2.5 g †	N-Acetyl-L-Cysteine	75 mg	
tal Fat olesterol less t	1 g 19 ian 5 mg <29	Calcium D-Glucarate USP)	120 mg	24%	[organic spinach powder (<i>Spinacia oleracea</i>)(le juice powder (<i>Beta vulgaris</i>)(root juice), organ	nic carrot juice	L-Methionine Inositol	50 mg 50 mg	
al Carbohydrate Dietary Fiber	6 g 29 2 g 7%	lodine (as Potassium lodide)	100 mg 25 mcg	8% 17%	powder (<i>Daucus carota</i>)(root juice), organic po powder (<i>Punica granatum</i>)(fruit juice), organi		Methylsulfonylmethane (MSM) Sodium Sulfate	50 mg 50 mg	
Total Sugar otein amin A (as Mixed Carotenoids from Algae) 730	1 g 18 g 12% mca RAF 819	Cholato and Magnocium (Ivido)	100 mg	24%	powder (<i>Vitis labrusca</i>)(fruit juice)] Cellulose Glycine	1.5 g †	Green Tea Extract (<i>Camellia sinensis</i>)(leaves) [standardized to contain 98% polyphenols and 45		
amin C (as Sodium Ascorbate)	mcg RAE 819 250 mg 2789 g (25 IU) 39	Zinc (as Zinc Bisglycinate Chelate)	3.5 mg 25 mcg	32% 45%	Glucomannan L-Carnitine	500 mg †	L-Glutathione Vitamin E Isomers (as DeltaGold* delta and gamma tocotrienols)	12.5 mg 5 mg	
amin (Vitamin B-1)(as Thiamin HCl) oflavin (Vitamin B-2)(as Riboflavin-5-Phosphate)	1.5 mg 125% 1.5 mg 115%	Copper (as TRAACS® Copper Bisglycinate Chelate)	0.5 mg ate) 0.5 mg	56% 22%	L-Threonine L-Lysine	275 mg † 275 mg †	Vanadium (as TRAACS* Vanadium Nicotinate Glycinate Chela	25 mcg te)	
cin (Vitamin B-3)(as Niacinamide) 4 mg NE 25% (as TRAACS* Chromium Nicotinate Glycinate Chelate)			-	71%	Calcium D-Glucarate USP L-Cysteine	150 mg † 125 mg †	*Percent Daily Values are based on a 2,000 calorie	diet.	-
	mcg DFE 219	Molybdenum (as IRAALS" Molybdenum Glydnate Chela Choline (as Choline Dihydrogen Citrate)	ate) 25 mcg 20 mg	56% 4%	Quercetin Taurine	100 mg †	†Daily Value not established.		
ramin B-12 (as Methylcobalamin) otin (as d-Biotin)	2 mcg 839 70 mcg 2339	I Dotaccium	150 mg 370 mg	7% 8%	Milk Thistle (<i>Silybum marianum</i>)(seed) [standardized to contain 80% silymarin]	100 mg †			

Ingredients: Bone broth protein (HydroBEEF"), natural flavors, medium chain triglycerides, cellulose gum, sodium chloride, stevia leaf extract (Stevia rebaudiana).

Recommended Use: Mix one scoop in 10 to 12 ounces of liquid, or as directed by your health-care practitioner. Use a shaker bottle or blender, and shake or mix well. For best blending results, liquid should be at room temperature.

For a list of references cited in this document, please visit:

https://www.designsforhealth.com/techsheet-references/paleocleanse-plus-references.pdf

Dosing recommendations are given for typical use based on an average 150 pound healthy adult. Health care practitioners are encouraged to use clinical judgement with case-specific dosing based on intended goals, subject body weight, medical history, and concomitant medication and supplement usage.

Quatrefolic* Quatrefolic* is covered by U.S. Patent No. 7,947,662 and is a registered trademark of Gnosis S.p.A.

TRAACS* and DimaCal* are registered trademarks of Albion Laboratories, Inc.

HydroBEEF™ is a trademark of Essentia Metabolic Proteins.

DeltaGold* is a registered trademark of American River Nutrition, LLC and protected by US Patent Numbers 6,350,453 and 8,586,109.

*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.

To contact Designs for Health, please call us at (860) 623-6314, or visit us on the web at www.designsforhealth.com.