



## Weight Loss Optimal Toning Formula

Become more by losing more. OptimALL Nutrition Reduce contains MetaBIOLize™ a unique formula of ingredients that helps your body’s metabolism work more efficiently. Supported by science, these unique ingredients focus on helping you achieve a healthy weight when combined with diet and regular exercise. By supporting satiety and healthy blood sugar levels, Reduce helps you achieve your goals.\*



## Product Features

- Features clinically proven, standardized ingredients
- Uses therapeutic doses supported by science
- Contains OptimALL Nutrition’s Bio-accelerate™ for improved nutrient absorption
- Made in the U.S.A. according to rigorous FDA GMP standards
- Free from preservatives, toxins, pesticides and heavy metals

## Ingredient Information

### Chromium

Chromium is an essential mineral that is typically found in foods and supplements. Broccoli is one of the richest natural sources of chromium. Chromium participates in the metabolism of glucose (primarily carbohydrate) by enhancing the effects of insulin. It is also a cofactor for several enzymes, which are involved in the production of energy. Interestingly, chromium also has been shown to support cardiovascular health by improving blood lipid profiles.\*

### OptimALL Nutrition MetaBIOLize™

#### Green coffee bean extract (50% chlorogenic acid)

Green coffee refers to raw or unroasted beans or seeds of Coffea fruits. They are sometimes referred to as coffee berries or cherries. Green coffee beans contain literally hundreds of natural constituents and some of them have been identified in research to have beneficial physiological effects. A primary component of green coffee bean, chlorogenic acid (an antioxidant polyphenol) has been the subject of a good amount of scientific research and its effect in the body.

## KEY BENEFITS

### OptimALL Nutrition MetaBIOLize™

- Green coffee bean extract, Garcinia cambogia, and raspberry ketones promote a more efficient metabolism of fats and carbohydrates\*
- Maintains healthy blood sugar levels\*

### OptimALL Nutrition Thermosaf™

- An ingredient formulation of L-theanine, theobromine from cocoa, and potato protein extract that supports thermogenesis for a more efficient use of calories\*
- Helps appease appetite\*

\*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.



Chlorogenic acid in green coffee beans have been shown to support proper glucose metabolism in animal and clinical models. This possible benefit was first observed through association of high coffee consumption and the reduced risk of type 2 diabetes in several epidemiological studies. In an oral glucose tolerance test, chlorogenic acid reduced the raise of blood glucose levels. The study's authors surmised this to be due to a reduction of glucose absorption in the intestines.\*

In a recent clinical study published in journal in Diabetes, Metabolic Syndrome and Obesity, two-thirds of the study participants, who took a green coffee bean extract standardized to 45% chlorogenic acids for 22 weeks, lost significant body weight, reduced their body fat percentage, and reduced their body mass index (BMI).\*

This study of 16 participants utilized the highest standards of clinical research, which included a double-blind, placebo-controlled, cross-over design. According to this study, significant reductions in body weight (-8.04 + 2.31 kg or 16.08 lbs), BMI (-2.92 + 0.85) and body fat percentage (-4.44% + 2.00%) were observed.\*

Interestingly, in a post-trial phone interview, 4 months after the completion of the study, 14 of the 16 subjects maintained their initial weight loss seen at the completion of the study. The two remaining participants had gained only 1 kg (about 2 pounds) and 0.75 kg (about 1.5 pounds) of body weight.\*

All participants were given counsel on how to eat properly and to exercise routinely, but were not given a specific diet or exercise regimen to follow. Data was gathered from participants on daily calorie intake and eating habits. According to this data, study participants ate a diet consisting of about 2400 calories a day.\*

In several clinical trials, green coffee bean extracts also have been shown to maintain healthy blood pressure levels and to lower post meal blood sugar levels.

#### Garcinia cambogia Extract (50% Hydroxycitric acid)

Garcinia cambogia is a purple fruit, which is native to Southeast Asia. Hydroxycitric acid (HCA), a primary component thought to aid weight loss, is found in the rind of the fruit. Historically, Garcinia has been used as an appetite suppressant, food preservative, flavoring agent, and an aid to occasional gastrointestinal upset.\*

HCA appears to block the enzyme citrate lyase, which is responsible for converting carbohydrates into fat. Excess carbohydrate (or sugars) not utilized can be transformed and stored in the body as fat. By limiting this enzyme, the body cannot store as much fat. HCA also promotes the oxidation of fat. This is the process whereby fat is metabolized and converted into energy. In preclinical research, HCA appears to promote an increase of serotonin levels, which may help with appetite suppression and the elevation of a positive outlook.\*

#### Raspberry ketones

Raspberry ketones, a natural constituent of raspberries, have been used in many popular and top-selling weight loss products for their metabolic enhancing effect. Ketones of the raspberry are responsible for their fruity aromatic properties and is commonly used as a flavoring agent in foods and beverages.\*

One raspberry constituent or ketone, called 4-(4-hydroxyphenyl) butan-2-one, may have the potential to support the metabolism of fat by reducing

## Recommended Usage

Take 1 capsule 30 minutes before a meal three times daily.

## References

- Lindsay, L. A. Trivalent chromium and the diabetes prevention program. *Med Hypotheses* 1997;49(1):47-49. View Abstract
- Anderson, R. A. Nutritional factors influencing the glucose/insulin system: chromium. *J Am.Coll.Nutr.* 1997;16(5):404-410. View Abstract
- Anderson, R. A. Chromium and diabetes. *Nutrition* 1999;15(9):720-722. View Abstract
- Newman, H. A., Leighton, R. F., Lanese, R. R., and Freedland, N. A. Serum chromium and angiographically determined coronary artery disease. *Clin Chem.* 1978;24(4):541-544. View Abstract
- Vincent, J. B. The biochemistry of chromium. *J Nutr.* 2000;130(4):715-718. View Abstract
- Mertz, W. Chromium research from a distance: from 1959 to 1980. *J Am Coll Nutr.* 1998;17(6):544-547. View Abstra
- Hellerstein, M. K. Is chromium supplementation effective in managing type II diabetes? *Nutr Rev.* 1998;56(10):302-306. View Abstract
- Racek, J., Trefil, L., Rajdl, D., Mudrova, V., Hunter, D., and Senft, V. Influence of chromium-enriched yeast on blood glucose and insulin variables, blood lipids, and markers of oxidative stress in subjects with type 2 diabetes mellitus. *Biol.Trace Elem.Res.* 2006;109(3):215-230. View Abstract
- Singer, G. M. and Geohas, J. The effect of chromium picolinate and biotin supplementation on glycemic control in poorly controlled patients with type 2 diabetes mellitus: a placebo-controlled, double-blinded, randomized trial. *Diabetes Technol.Theor.* 2006;8(6):636-643. View Abstract
- Anderson, R. A. Chromium in the prevention and control of diabetes. *Diabetes Metab* 2000;26(1):22-27. View Abstract
- McCarthy, M. E. Complementary measures for promoting insulin sensitivity in skeletal muscle. *Med Hypotheses* 1998;51(6):451-464. View Abstract
- O'Mathuna DP. Chromium supplementation in the treatment of type II diabetes mellitus. *Alternative Medicine Alert* 2000;3(4):40-44.
- Smith, A. Antidepressant chromium. *Trends Pharmacol Sci* 1-1-2001;22(1):12. View Abstract
- Anderson, R. A. Trace elements and cardiovascular diseases. *Acta Pharmacol Toxicol. (Copenh)* 1986;59 Suppl 7:317-324. View Abstract
- Anderson RA. Chromium metabolism and its role in disease processes in man. *Clin. Physiol Biochem.* 1986;4(1):31-41. View Abstract
- Wallach, S. Clinical and biochemical aspects of chromium deficiency. *J Am Coll Nutr.* 1985;4(1):107-120. View Abstract
- Balk, E. M., Tatsioni, A., Lichtenstein, A. H., Lau, J., and Pittas, A. G. Effect of chromium supplementation on glucose metabolism and lipids: a systematic review of randomized controlled trials. *Diabetes Care* 2007;30(8):2154-2163. View Abstract
- Bahijji, S. M. Effect of chromium supplementation on glucose tolerance and lipid profile. *Saudi.Med.J* 2000;21(1):45-50. View Abstract
- Van Dam RM. [Coffee consumption and the reduced risk of diabetes mellitus type 2.] *Ned Tijdschr Geneeskd* 2006 Aug 19; 150(33):1821-5. [Article in Dutch] PubMed Abstract View Abstract
- Legrand D, Scheen AJ [Does coffee protect against type 2 diabetes?] *Rev Med Liege* 2007 Sep;62(9):554-9. [Article in French] PubMed Abstract View Abstract
- Bassoli BK, et al. Chlorogenic acid reduces plasma glucose peak in the oral glucose tolerance test: effects on hepatic glucose release. *Cell Biochem Funct.* 2008 Apr; 26(3):320-8. PubMed Abstract View Abstract
- Greenberg, J. A., Boazer, C. N., and Geliebter, A. Coffee, diabetes, and weight control. *Am.J.Clin.Nutr.* 2006;84(4):682-693. View Abstract
- Yamaguchi, T., Chikama, A., Mori, K., Watanabe, T., Shioya, Y., Katsuragi, Y., and Tokimitsu, I. Hydroxyhydroquinone-free coffee: a double-blind, randomized controlled dose-response study of blood pressure. *Nutr.Metab Cardiovasc.Dis.* 2008;18(6):408-414. View Abstract

\*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.



the accumulation of fat in the body. It appears to do this through two primary mechanisms of action: first, by the reduction of the absorption of dietary fat, and second, by increasing fat lipolysis or breakdown of fats for more immediate use as energy.

Two animal studies using raspberry ketones demonstrated its ability to boost the break-up of fat cells by increasing the secretion of adiponectin and norepinephrine, while on a high-fat diet. Adiponectin regulates the proper metabolism of sugar and fat in the blood.\*

## OptimALL Nutrition Thermosaf™

### L-theanine

Theanine is an amino acid found primarily in green tea leaves. Traditionally, green tea has been consumed for its relaxing effect. Theanine is component of green tea that promotes cognitive function and has been shown to have a calming effect. Current research suggest theanine may have physiological, cognitive and mild anxiolytic effects for occasional nervousness. In preclinical research, theanine has been shown to promote a reduction of blood pressure already in the normal range and it may also increase serotonin levels. One clinical study demonstrated that theanine negated the adverse effects of caffeine on blood pressure. Theanine may help combat the urge to eat as a result of nervousness.\*

### Theobromine from Cocoa

Theobromine, a substance with a chemical structure similar to caffeine, can be found mainly in cocoa beans. Theobromine comes from the Greek word Theobroma. Theo stands for “god” and “broma” stands for food and when combined is translated to mean “food of the gods.” The highest levels of theobromine are found in dark chocolate. It is believed to be the “feel-good” substance found in chocolate. While structurally similar to caffeine, theobromine’s stimulatory effect is milder and gentler on the cardiovascular system. It also has relaxing effects and acts as a mild diuretic.\*

Some research has shown the components of cocoa to have potential glucose metabolism benefits as well. A study published in the March 2005 issue of the American Journal of Clinical Nutrition looked at the effects of dark chocolate on blood pressure and insulin sensitivity. Insulin is the hormone responsible for regulating levels of glucose or sugar in the blood and transporting glucose to cells in the body where it can be utilized for energy metabolism.\*

Researchers compared the effect of a polyphenol rich dark chocolate bar to a white chocolate bar. Although still within normal levels, participants who consumed the dark chocolate had reduced levels of blood pressure and saw improvements in insulin sensitivity. In other words, insulin’s efficiency was improved after consuming dark chocolate. Plasma glucose levels were reduced from baseline and when compared to placebo (white chocolate). Insulin levels were also reduced from baseline and placebo.

### Potato protein extract

Successful weight loss isn’t rocket science. It’s as easy as reducing calorie intake and increasing physical activity. Unfortunately, this is much easier said than done. When reducing your calorie intake, feelings of hunger can be distracting and difficult to overcome. Managing hunger while reducing calories is critical to your weight loss success. To help curb feelings of hunger and promote feelings of satiety, Avisae Reduce uses a scientifically-validated, patented, all-natural potato protein extract backed by 20 years of research.\*

24. Watanabe, T., Arai, Y., Mitsui, Y., Kusaura, T., Okawa, W., Kajihara, Y., and Saito, I. The blood pressure-lowering effect and safety of chlorogenic acid from green coffee bean extract in essential hypertension. *Clin. Exp. Hypertens.* 2006;28(5):439-449. View Abstract
25. Kozuma, K., Tsuchiya, S., Kohori, J., Hase, T., and Tokimitsu, I. Antihypertensive effect of green coffee bean extract on mildly hypertensive subjects. *Hypertens. Res.* 2005;28(9):711-718. View Abstract
26. Ochiai, R., Jokura, H., Suzuki, A., Tokimitsu, I., Ohishi, M., Komai, N., Rakugi, H., and Ogihara, T. Green coffee bean extract improves human vasoreactivity. *Hypertens. Res.* 2004;27(10):731-737. View Abstract
27. Thom, E. The effect of chlorogenic acid enriched coffee on glucose absorption in healthy volunteers and its effect on body mass when used long-term in overweight and obese people. *J. Int. Med. Res.* 2007;35(6):900-908. View Abstract
28. Blum, J., Lemaire, B., and Lafay, S. Effect of a green decaffeinated coffee extract on glycaemia: a pilot prospective study. *Nutrafoods* 2007;6(3):13-17.
29. Saito, T., Tsuchida, T., Watanabe, T., Arai, Y., Mitsui, Y., Okawa, W., and Kajihara, Y. Effect of coffee bean extract in essential hypertension. *Jpn J Med Pharm Sci* 2002;47:67-74.
30. van Dam, R. M. Coffee and type 2 diabetes: from beans to beta-cells. *Nutr. Metab. Cardiovasc. Dis.* 2006;16(1):69-77. View Abstract
31. Ramalakshmi, K., Kubra, I. R., and Rao, L. J. Physicochemical characteristics of green coffee: comparison of graded and defective beans. *J. Food Sci.* 2007;72(6):S333-S337. View Abstract
32. Wang, L., Meng, X., and Zhang, F. Raspberry ketone protects rats fed high-fat diets against nonalcoholic steatohepatitis. *J. Med. Food* 2012;15(5):495-503. View Abstract
33. Park, K. S. Raspberry ketone increases both lipolysis and fatty acid oxidation in 3T3-L1 adipocytes. *Planta Med* 2010;76(15):1654-1658. View Abstract
34. Morimoto, C., Satoh, Y., Hara, M., Inoue, S., Tsujita, T., and Okuda, H. Anti-obese action of raspberry ketone. *Life Sci.* 5-27-2005;77(2):194-204. View Abstract
35. Ushiki, M., Ikemoto, T., and Sato, Y. Anti-obese activities of raspberry ketone. *Aroma Research* 2002;3(4):361.
36. Preuss HG, Bagchi D, Bagchi M, et al. Effects of a natural extract of (-)-hydroxycitric acid (HCA-SX) and a combination of HCA-SX plus niacin-bound chromium and *Gymnema sylvestre* extract on weight loss. *Diabetes Obes Metab* 2004;6(3):171-180. View Abstract
37. Soni MG, Burdock GA, Preuss HG, et al. Safety assessment of (-)-hydroxycitric acid and Super CitriMax, a novel calcium/potassium salt. *Food Chem Toxicol* 2004;42(9):1513-1529. View Abstract
38. Heymsfield SB, Allison DB, Vasselli JR, et al. Garcinia cambogia (hydroxycitric acid) as a potential antiobesity agent: a randomized controlled trial. *JAMA* 1998;280(18):1596-1600. View Abstract
39. Jena BS, Jayaprakasha GK, Singh RP, et al. Chemistry and biochemistry of (-)-hydroxycitric acid from *Garcinia*. *J Agric Food Chem* 2002;50(1):10-22. View Abstract
40. Lim K, Ryu S, Nho HS, et al. (-)-Hydroxycitric acid ingestion increases fat utilization during exercise in untrained women. *J Nutr Sci Vitaminol (Tokyo)* 2003;49(3):163-167. View Abstract
41. Mattes RD, Bormann L. Effects of (-)-hydroxycitric acid on appetitive variables. *Physiol Behav* 2000;71(1-2):87-94. View Abstract
42. Bryant J, Green TR, Gurusiddaiah T, and Ryan CA. Proteinase inhibitor II from potatoes: isolation and characterization of its protomer components. *Biochemistry* 15: 3418-3424, 1976. View Abstract
43. Hill Andrew J, Peikin Steven R, Ryan Clarence A., and Blundell John E. Oral Administration of Proteinase Inhibitor II from Potatoes Reduces Energy Intake in Man. *Physiology and Behavior.* 48: 241-246. 1990. View Abstract
44. Ritter RC, Covasa M, Matson CA. Cholecystokinin: proofs and prospects for involvement in control of food intake and body weight. *Neuropeptides* 33 (5): 387-399. 1999. View Abstract
45. Matson C, Reid D, Cannon T, Ritter R. Cholecystokinin and leptin act synergistically to reduce body weight. *Am J Physiol Regulatory Integrative Comp Physiol.* 278: R882-R890. 2000. View Abstract
46. Spreadbury D, Shao A, Essmann M, Sheabar F, Geletta S, Larsen B. A Proteinase Inhibitor Extract from Potatoes Reduces Post-Prandial Blood Glucose in Human Subjects. *J Am Nutraceutical Association.* 6 (1): 29-38. 2003. View Study
47. Bryan, J. Psychological effects of dietary components of tea: caffeine and L-theanine. *Nutr Rev.* 2008;66(2):82-90. View Abstract
48. Chen, C. N., Liang, C. M., Lai, J. R., Tsai, Y. J., Tsay, J. S., and Lin, J. K. Capillary electrophoretic determination of theanine, caffeine, and catechins in fresh tea leaves and oolong tea and their effects on rat neurosphere adhesion and migration. *J Agric. Food Chem.* 12-3-2003;51(25):7495-7503. View Abstract
49. Nathan, P. J., Lu, K., Gray, M., and Oliver, C. The neuropharmacology of L-theanine (N-ethyl-L-glutamine): a possible neuroprotective and cognitive enhancing agent. *J Herb. Pharmacother.* 2006;6(2):21-30. View Abstract
50. Egashira, N., Hayakawa, K., Mishima, K., Kimura, H., Iwasaki, K., and Fujiwara,

\*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.



OPTIMALL  
Nutrition

reduce™  
WEIGHT LOSS

This unique ingredient, extracted from non-GMO white potatoes, acts as a Proteinase Inhibitor II (PI2). It works by enhancing the body's release of cholecystokinin (CCK), a natural factor used by the body to signal to the brain that food has been eaten. The release of CCK helps create feelings of fullness and satisfaction. CCK is considered to be the best-studied satiety factor in the body. This all-natural extract is safe and does not cause undesirable side effects.\*

51. M. Neuroprotective effect of gamma-glutamylethylamide (theanine) on cerebral infarction in mice. *Neurosci.Lett* 6-3-2004;363(1):58-61. [View Abstract](#)
52. Nagasawa, K., Aoki, H., Yasuda, E., Nagai, K., Shimohama, S., and Fujimoto, S. Possible involvement of group I mGluRs in neuroprotective effect of theanine. *Biochem.Biophys.Res Commun.* 7-16-2004;320(1):116-122. [View Abstract](#)
53. Zheng, G., Sayama, K., Okubo, T., Juneja, L. R., and Oguni, I. Anti-obesity effects of three major components of green tea, catechins, caffeine and theanine, in mice. *In Vivo* 2004;18(1):55-62. [View Abstract](#)
54. Egashira, N., Ishigami, N., Pu, F., Mishima, K., Iwasaki, K., Orito, K., Oishi, R., and Fujiwara, M. Theanine prevents memory impairment induced by repeated cerebral ischemia in rats. *Phytother.Res* 2008;22(1):65-68. [View Abstract](#)
55. Rogers, P. J., Smith, J. E., Heatherley, S. V., and Pleydell-Pearce, C. W. Time for tea: mood, blood pressure and cognitive performance effects of caffeine and theanine administered alone and together. *Psychopharmacology (Berl)* 2008;195(4):569-577. [View Abstract](#)
56. Haskell, C. F., Kennedy, D. O., Milne, A. L., Wesnes, K. A., and Scholey, A. B. The effects of L-theanine, caffeine and their combination on cognition and mood. *Biol Psychol.* 2008;77(2):113-122. [View Abstract](#)
57. Lu, K., Gray, M. A., Oliver, C., Liley, D. T., Harrison, B. J., Bartholomeusz, C. F., Phan, K. L., and Nathan, P. J. The acute effects of L-theanine in comparison with alprazolam on anticipatory anxiety in humans. *Hum Psychopharmacol.* 2004;19(7):457-465. [View Abstract](#)
58. Yokogoshi, H. and Kobayashi, M. Hypotensive effect of gamma-glutamylmethylamide in spontaneously hypertensive rats. *Life Sci* 1998;62(12):1065-1068. [View Abstract](#)

\*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.