



CARBMATE™

Carb Neutralizer/Carb Controller with Chromium, Fiber, & Prebiotics

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HOW IT WORKS

CarbMate™ contains a clinically studied, all natural, non-stimulant starch neutralizer/carb controller extracted from crushed bean powder (*Phaseolus vulgaris*).

CarbMate™ works in the intestinal tract by temporarily inhibiting the action of a starch digestion enzyme, called alpha-amylase. This is the enzyme that breaks down starch into sugar.

When CarbMate™ is taken prior to a carbohydrate meal it results in less starch being absorbed and a lower rise in blood sugar. The major source of carbohydrates in the US diet is starch and New Spirit's Phase 2 bean extract significantly inhibits starch absorption.

The central theory is that the digestion of carbohydrates begins with salivary amylase in the mouth and continues with pancreatic amylase in the gut. The ability to neutralize these enzymes may assist in weight loss control. The ability to neutralize these enzymes results in a decrease in the digestion of carbohydrates into mono- and diaccharides, which are then absorbed in skeletal tissue after conversion to triglycerides and fatty acids.

Supplement Facts

	Amt. Per Serving	%DV*
Serving Size: 1/2 teaspoon slightly rounded (1500mg)		
Servings Per Container: 80		
Calories	5	2%
Carbohydrate	1g	<1%
Dietary Fiber	1g	4%
Sodium	30mg	1.5%
Bean Extract (<i>Phaseolus vulgaris</i>)* *	1250mg	†
Chromium GTF	50mcg	41%
Magic Fiber™ CLR(soluble fiber) (digestion resistant maltodextrin)	235mg	†
NSN Proprietary Blend	15mg	†
Trace mineral complex (70+ natural trace minerals), Inulin, Short chain fructooligosaccharides (prebiotics)		

CarbMate™
120 grams Item# 6021

WHO CAN BENEFIT?

Obesity is a dangerous and highly prevalent condition throughout the United States and much of the world. Approximately, 61% of the U.S. population is either overweight or obese. Obesity increases the risk of several co-morbidities, including degenerative arthritis, obstructive sleep apnea, dyslipidemia, hypertension, diabetes mellitus, and coronary heart disease. In addition to health risks, obese individuals have a lower quality of life evaluation scores (SF12) than their non-obese counterparts.¹

Fortunately, obesity is treatable and there is strong evidence that even modest weight loss (5% of body weight) significantly decreases the risk of these diseases, especially diabetes and cardiovascular disease.

There are pharmaceutical treatments available for obesity, but the side effects are numerous including; cardiac valvular disease, hypertension, seizures, sexual dysfunction and fecal incontinence.²

HOW MUCH CARBMATE™ DO I NEED?

Original in vitro research showed that one gram of bean extract (1000mg) is capable of neutralizing approximately 2,250 starch calories.

However, through review of numerous clinical studies and research, convincing evidence is shown that due to genetic differences among individuals, different dietary habits, and metabolic differences, one gram neutralizes approximately 1600 starch calories per one gram.

The recommended serving size of 1/2 rounded teaspoon consists of 1250mg of Phase 2. (1.25 grams of Phase 2 times 2250 starch calories equals 2813 starch calories x 70% is approximately a 2000 starch calorie neutralization.)

CarbMate™ is most effective when taken two times per day and should be ingested prior to consuming starchy foods or a starchy meal.

CARB MATE™

THE CLINICAL RESEARCH SHOWS

Numerous clinical studies have been conducted over the past 60 years since the discovery in the 1940s that found that some plants (beans) contained specific inhibitors of animal alpha-amylases. Research was conducted to find out how to extract and purify the anti-amylase inhibitor.

In 2000 an independent test by Lycoming Laboratories, using a modified USP test method, found that Phase 2 (a standard extract made from a portion of the white bean) could neutralize approximately 2,250 starch calories per gram. Since that time several double blind trials have been conducted on Phase 2 Starch Neutralizer/Carb Controller as follows:

Study 1: A double blind, placebo-controlled study of 60 human subjects, aged 20-45 years and characterized as 11-33 lbs. overweight was conducted to evaluate the efficacy of a food supplement (500mg Phaseolamin) *interdes??* to help weight loss by reducing absorption of calories from carbohydrates. Participants were given a high carbohydrate diet.

The Results (after 30 days)--Participants loss approximately 4% of body weight (compared with 0.47% loss in the placebo group, this weight loss resulted in a 10.45% reduction in fat body mass, without loss of lean body mass. In addition, participants had a 11.63% reduction in adipose membrane (by echography), a 3.44% reduction in waistline, a 1.39% reduction in hip circumference, and 1.44% reduction in thigh circumference. *Reference: Summary of Clinical Study Evaluation: Effectiveness of Phaseolamin. Conducted by Dr. R. Ballerini, Managing Director of Pharmaceutical Development & Service Srl., Milano, Italy, Sept 7, 2001.*

Study 2--A four week randomized, double blind, placebo controlled study of 25 healthy subjects consuming 1000mg of white bean extract, twice a day before meals.

The Results: The active group lost 6 lbs. (3.4%) in four weeks versus the placebo group at 2.6%. However when the results were *stratified* by total carbohydrate intake, those in the highest percentile lost an average of 8.7 lbs. versus the placebo group at 1.7 lbs. The active group lost 3.3 inches from their waistlines versus 1.3 inches from the placebo group. These results show that those who consume the largest amount of carbohydrates in their diet will likely achieve the best results. *Reference: Blocking Carbohydrate Absorption and Weight Loss: A Clinical Trial Using a Proprietary Fractional White Bean Extract, J. Udani, MD, Asst. Professor at the Univ. of Calif., School of Medicine, Med. Dir. of the Integrative Med. Program at Northridge Hospital & B. B. Singh, MD, Pres. BRCG, Midlothian, VA. Alternative Therapies July/Aug 2007 Vol. B, No. 4.*

Study 3: The University of Scranton study found that Phase 2 white bean extract was found to be a potent in vitro amylase inhibitor, thus potentially affecting the absorption of starch calories by decreasing the breakdown of starch.

Study 4: The Bread Consumption study, participants were given four large slices of white bread with 3 Tbl. of soybean oil margarine (610 calories from 60.5 grams of carbohydrates, 36.5 grams of fat, and 10.5 grams of protein and 4 grams of Sweet N Low with 1.5 grams of Phase 2), which was mixed with the margarine. The Phase 2 group had a slower rate of glucose absorption, lower changes in glucose _____ and the glucose returned to baseline earlier than the control (62 minutes vs. 80 minutes). **The area under the curve** from Phase 2 (0-60minutes) was 66% lower than the

control, indicating that approximately 66% of the calories from starch were not absorbed with Phase 2.

The Phase 2 extract slows the rate of absorption of glucose from starch and increases the rate of clearance, which may be beneficial for decreasing meal induced hyperglycemia in diabetic subjects.

Reference: Investigation of an Amylase Inhibitor on Human Glucose Absorption After Starch Consumption. J.A. Vinson, H. Al Kharrat, D. Shuta, Dept. of Chemistry, Loyola Hall, Univ. of Scranton, PA 18510

SUMMARY

Many people love to eat starchy foods like bread, pasta, potatoes, and rice and in moderation these foods are fine, but the problem is that consuming large portions of starchy foods and not being physically active can contribute to weight gain and blood sugar imbalances.

Consuming CarbMate™ can help lessen the impact of a high carbohydrate meal. CarbMate™ does not raise blood pressure, cause nervousness or cause a racing heart.

REFERENCES

¹Hansen B. Emerging Strategies for Weight Management. Postgrad Med Special Report 2001:June 3-9.

²Layer P, Zinsmeister, AR D:Mayno EP Effects of Decreasing Intraluminal Amylase Activity on Starch Digestion and Postprandial Gastrointestinal Functions in Humans. *Gastroenterology* 1986;91:41-48.

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