

SLENDERIIZ

WEIGHT LOSS STUDY RESULTS

EVALUATION OF A MULTI-FACETED APPROACH TO WEIGHT LOSS, INCLUDING LIFESTYLE MODIFICATION, LOW GLYCEMIC DIET, NATURAL AND CLINICALLY-PROVEN DAY & NIGHT DROPS, ALONG WITH NUTRITIONAL SUPPORT.



ABSTRACT

Objective: To evaluate the effectiveness of a comprehensive, multi-faceted weight loss program, including lifestyle modification, diet, water intake, clinically-proven Day & Night drops, and high-density nutritional supplementation.

Research methods and procedures:

Thirty-two subjects wanting to lose at least 20 pounds were studied before, during, and after a 28-day, open-label program. They were prescribed a low-glycemic diet, nutritional supplementation, Day & Night drops, and optional light exercise.

Results: The average weight loss was 12.72 pounds; for men the average was 14.75 and 11.96 for women, respectively. This equated to the average percentage weight loss of 6.52% within the timeframe. Participants also were measured for inches lost in waist, hips, chest, and thigh, with an average total inches lost of 10.87.

INTRODUCTION

According to the World Health Organization, worldwide obesity has doubled since 1980 with over 1.8 billion adults (over age 18) overweight and 600 million of them obese.¹ Adults classified as overweight have a BMI of 25%+ and obese adults have a BMI of 30%+. The connection between weight and the development of chronic disease is well documented, so embarking on an effective and sustainable weight loss program is a critical component in the prevention of chronic disease.

Many interventions focus primarily on the reduction of caloric intake and increase in exercise as the best way to lose weight. The most common strategy and approach to weight loss is based on calories in being less than calories out. One pound of body fat is equal to 3,500 calories; in order to lose one pound a person needs to restrict their diet by 3,500 calories and increase calories out (via metabolic rate and exercise). If 3,500 calories expended over what is taken in, one pound of weight loss can be achieved. Based on this widespread concept, common understanding is that safe weight loss is 1-2 pounds per week.

This study was designed to investigate the impact of an overall, multi-faceted approach to weight loss, extending far beyond these commonly accepted methodologies, including lifestyle modification, low-glycemic diet, and using supportive supplementation.

METHODOLOGY

Forty-one participants were selected for the initial study, men and women, ranging in age from 28-54 with starting weights ranging from 140-354 pounds. Participants were screened based on willingness to comply with the outlined 28-day program and the intent to lose weight. They self-selected as wanting to lose 20 or more pounds and some were athletic, and wanted to become stronger and more defined as a secondary goal.

Subjects were required to adhere to the program, which included a 1,250 calorie daily target, eating only foods from an extensive Approved Food list, drinking a minimum of

¹ WHO (2016). Obesity and overweight. ACCESSED AUGUST, 2016. RETRIEVED FROM <http://www.who.int/mediacentre/factsheets/fs311/en/>.

100 ounces of purified water, replacing one meal (usually breakfast) with a nutrient-dense meal replacement shake, taking measurements and weighing in once a week, participating in a weekly video conference, taking before and after pictures, using Day & Night drops, and completing a daily food journal.

Participants were highly encouraged to attend a weekly check-in webinar to share results, ask questions, and clarify the protocol.

FOOD AND DIETARY GUIDELINES:

Participants were given an extensive Approved Food list of grocery store foods and were instructed to eat from this list only. These foods were selected due to their nutrient density, macronutrient balance, and low-glycemic properties. Other guidelines were communicated as well, such as choosing organic options as often as possible, avoiding processed and packaged foods, as well as specific items and ingredients to avoid.

EXERCISE:

Participants were given the option to start light exercise (walking 30 minutes 2-3 times per week). If they were on an exercise routine prior to starting this study, they were advised to continue what they had been doing previously.

SUPPLEMENTS:

All participants were instructed to use the Slenderiiz Day Drops (0.7ml 15-20 minutes before each meal) three times daily, and the Slenderiiz Night Drops one to two hours before bedtime, and were advised to not eat or drink following the drops in the evening.

They were also instructed to consume one PureNourish shake daily, using either pure water or unsweetened, non-dairy milk (almond, coconut, hemp, cashew—no rice or soy milk), with the option of adding a handful of berries or nuts to the shake. There was no requirement of what time of day the shake was to be consumed, as long as they used it as a snack only.

If participants were on a nutritional support regimen prior to the study, they were instructed to maintain their protocol in order to accurately measure the effect of the Slenderiiz program.

DAY DROPS

KEY INGREDIENTS:

- Cacao Bean Extract
- Natural Caffeine (from Guarana and Green Coffee Bean)
- Green Tea Extract
- White Kidney Bean Extract
- Chromium
- Cinnamon

MAIN BENEFITS OF DAY DROPS:

Helps towards appetite suppression/hunger and hormone control—studies have shown that cacao bean extract and white kidney bean help with hunger^{2,3}. Cacao also increases feelings of wellbeing.^{4,5}

Delayed carbohydrate absorption—there have been studies to show that white kidney bean inhibits alpha-amylase^{6,7,8}, the enzyme that breaks down carbohydrates. This results in slower carbohydrate uptake and delayed gastric emptying.^{9,10}

Increased metabolism—epigallocatechin-3-gallate (hereafter referred to as EGCG) and caffeine combine to help increase metabolism and provide energy.

Contributes to the maintenance of normal blood glucose levels—there are studies showing that chromium^{11,12}, EGCG^{13,14}, and cinnamon^{15,16,17} have an effect on insulin and blood sugar levels. Cinnamon has been shown to contribute to the maintenance of normal blood glucose levels. Cacao has also been shown to have a positive effect on feelings of hunger.¹⁸

Anti-Inflammatory—When inflammation is present, cells don't take in or process nutrients as efficiently. Both cinnamon, green tea, and cacao have been shown to have an anti-inflammatory effect.

NIGHT DROPS

KEY INGREDIENTS:

- L-Theanine
- L-Glutamine
- Vitamin C
- Holy Basil
- Cordyceps Sinesis
- Astragalus

MAIN BENEFITS OF NIGHT DROPS:

Promotes rest/sleep—L-theanine is present to provide a feeling of restfulness and calm.^{20,21,22} Cordyceps has also been shown to increase sleep time²³ and adaptogenic herbs support improved sleep and helps with stress.²⁴

Wellbeing—adaptogenic herbs, such as holy basil, cordyceps, and astragalus²⁵, help positively effect the mood. Glutamine also has been shown to improve mood.²⁶

RESULTS:

Of the initial 41 participants, 32 finished

or completed the program with a 90% + compliance.

Of the 32 participants who completed the program, the average weight loss over the 28-day period was 12.72 pounds and the average total inches lost was 10.87”, measured at the waist, hip, chest, and thigh. Average percentage of body fat lost was 6.52%. These were all statistically significant.

Average weight loss per day was .454 pounds with a range of .178 to .903 pounds. Percentage of body fat lost was an average of 6.52% with a range of 2.6-12.8%. Men lost an average of 14.75 pounds, with the range being 5.8 to 25.3. Women lost an average of 11.96 pounds with the range being 5 to 24.

OBSERVATIONS:

Of the 32 participants who completed the study, approximately 40% did incorporate some light exercise 2-3 times per week, 20% heavily exercised, and 40% did not exercise. Approximately 60% attended the weekly coaching calls. As with any lifestyle and diet

² Massolt, ET, et al. (2010). Appetite suppression through smelling of dark chocolate correlates with changes in ghrelin in young women. Accessed August, 2016. doi:

³ Akyol, A., Dasgin, H., Ayaz, A., Buyuktuncer, Z. and Besler, H. (2014). B-glucon and dark chocolate: a randomized crossover study on short-term satiety and energy intake. doi: 10.3390/nu6093863.

⁴Sunni, A. and Latif, R. (2014). Effects of chocolate intake on perceived stress; a controlled clinical study. International Journal of Health Sciences, Vol. 8, No. 4.

⁵ Katz, D., Doughty, K., and Ali, A. (2011). Cocoa and chocolate in human health and disease. Antioxidants & Redox Signaling, Vol. 15, No. 10. doi: 10.1089/ars.2010.3697.

⁶ Barret, M.L. & Udani, J.K. (2011). A proprietary alpha-amylase inhibitor from white bean (*Phaseolus vulgaris*): a review of clinical studies on weight loss and glycemic control. Nutrition Journal, Vol. 10, No. 24. Retrieved from <http://www.nutritionj.com/content/10/1/24>

⁷ Udani, J., & Singh, B.B. (2007). Blocking carbohydrate absorption and weight loss: a clinical trial using a proprietary fractionated white bean extract. Alternatives Therapies, Vol. 13, No. 4.

⁸ Gamboa-Gomez, C.I., Rocha-Guzman, N.E., Gallegos-Infante, J.A., Moreno-Jimenez, M.R., Vazquez-Cabral, B.D., & Gonzalez-Laredo, R.F. (2015). Plants with potential use on obesity and its complications. Accessed August, 2016. Retrieved from <http://dx.doi.org/10.17179/excli2015-186>.

⁹ Campbell, et al. (2016). The effects of a single-dose thermogenic supplement on resting metabolic rate and hemodynamic variables in healthy females—a randomized, double-blind, placebo-controlled, cross-over trial. Journal of International Society of Sports Nutrition. doi: 10.1186/s12970-016-0123-1.

¹⁰ PDR Staff, Medical Economics. (2004). PDR for herbal medicines, edition 3. Pgs. 408-412.

¹¹ Hoffman, N.J., Penque, B.A., Habegger, K.M., Sealls, W., Tackett, L., & Elmendorf, J.S. (2014). Chromium enhances insulin responsiveness via AMPK. Journal of Nutritional Biochemistry. doi: 10.1016/j.jnutbio.2014.01.007.

¹² Abdollahi, M., Farshchi, A., Nikfar, S., Seyedifar, M. (2013). Effect of chromium on glucose and lipid profiles in patients with type 2 diabetes; a meta-analysis review of randomized trials. Journal of Pharmacy & Pharmaceutical Sciences, Vol. 16(1), Pgs. 99-114.

¹³ Liu, K., Zhou, R., Wang, B., Chen, K., Shi, L., Zhu, J., & Mi, M. (2016). Effect of green tea on glucose control and insulin sensitivity: a meta-analysis of 17 randomized controlled trials. The American Journal of Clinical Nutrition. Retrieved from <http://ajcn.nutrition.org/>.

¹⁴ PDR Staff, Medical Economics. (2004). PDR for herbal medicines, edition 3. Pgs. 408-412.

¹⁵ Lu, T., Sheng, H., Wu, J., Cheng, Y., Zhu, J., & Chen, Y. (2012). Cinnamon extract improves fasting blood glucose and glycosylated hemoglobin level in Chinese patients with type 2 diabetes. Nutrition Research, Vol. 32, Pgs. 408-412.

¹⁶ Kannappan, S., Jayaraman, T., Rajasekar, P., Ravichandran, M.K., & Anuradha, C.V. (2006). Cinnamon bark extract improves glucose metabolism and lipid profile in the fructose-fed rat. Singapore Medical Journal, Vol. 47(10), Pg. 858.

¹⁷ Shihabudeen, H.M., et al. (2011). Cinnamon extract inhibits α-glucosidase activity and dampens postprandial glucose excursion in diabetic rats. Nutrition & Metabolism, Vol. 8, Pg. 46.

¹⁸ Katz, D.L., Doughty, K., & Ali, A. (2011). Cocoa and chocolate in human health and disease. Antioxidants & Redox Signaling, Vol. 15, No. 10. doi: 10.1089/ars.2010.3697.

¹⁹ Crozier, S.J., Preston, A.G., Hurst, J.W., Payne, M.J., Mann, J., Hainly, L., & Miller, D.L. (2011). Cacao seeds are a “super fruit”: a comparative analysis of various fruit powders and products. Chemistry Central Journal, Vol. 5, No. 5.

²⁰ Lwin, M.R., Kapoor, M.P., & Juneja, L.R. (2011). The effects of l-theanine (Sunt-heanine®) on objective sleep quality in boys with Attention Deficit Hyperactivity Disorder (ADHD): a randomized, double-blind, placebo-controlled clinical trial. Alternative Medicine Review, Vol. 16., No. 4.

²¹ Barrett, J.R., Tracey, D.K., & Giaroli, G. (2013). To sleep or not to sleep: a systematic review of the literature on pharmacological treatments of insomnia in children and adolescents with Attention-Deficit/Hyperactivity Disorder. Journal of child and adolescent psychopharmacology, Vol. 23, No. 10.

²² White, D.J., de Klerk, S., Woods, W., Gondolia, S., Noonan, C., & Scholey, A.B. (2016). Anti-stress, behavioural and magnetoencephalography effects of an L-theanine-based nutrient drink: a randomised, double-blind, placebo-controlled, crossover trial. Nutrients, Vol. 8, No. 53. doi: 10.3390/nu8010053.

²³ Lwin, K.M., & Lwin, M., K. (2014). Cordyceps sinensis (Berk.) Sacc. Medicinal Plant Series, Vol. 9.

²⁴ Panossain, A. & Wikman, G. (2010) Effects of adaptogens on the central nervous system and the molecular mechanisms associated with their stress—protective activity. Pharmaceuticals, Vol. 3(1). doi: 10.3390/ph3010188.

modification program, there is a learning curve and to make sure compliance stayed high throughout the 28-days, these webinars were an opportunity to hear from other participants and understand some ways they may have been unknowingly eating inappropriate foods, giving them a chance for correction. Weight loss success is due in large part to supporting someone on their journey and changing old habits that they may not have known were contributing to their weight gain.

Of the participants who reported feelings of hunger during the trial, almost all was due to heavy exercising, which was in excess of 4-6 times per week. Once instructed to increase caloric intake to counteract extensive calorie

Criteria:	Media	Std Dev	DF	T
Weight loss total (lbs)	12.72	5.33	32	13.49
Total waist inches lost	3.33	1.23	32	15.36
Total hip inches lost	2.92	2.11	32	7.83
Total thigh inches lost	2.05	2.65	32	4.37
Total chest inches lost	2.58	1.45	32	10.03
Total inches lost	10.87	5.6	32	10.98
% body fat lost	6.52	2.36	32	15.65

burn due to their physical regimen, weight loss continued with higher degrees of satiety.

It is interesting to note that the lowest weight loss in the male category was a heavy exerciser who intended to get more lean and defined. The lowest weight loss in the women's category was a woman who, though incredibly compliant throughout the entire trial, ran out of

	Average total lost (lbs and inches)			Average Total		Average % body	
	Weight	Waist	Hips	Thigh	Chest	Inches Lost	Weight Lost
Men	14.75	3.69	2.66	2.07	1.76	10.18	7.32
Women	11.96	3.19	3.01	2.04	2.89	11.13	6.21

²⁵ Park, H., Kim, H.Y., Yoon, K., Kim, K.S., & Shim, I. (2009). The effects of astragalus membranaceus on repeated restraint stress-induced biochemical and behavioral responses. Korean Journal of Physiol Pharmacol, Vol. 13, Pgs. 315-319.

²⁶ Young, L.S. (1993). Patients receiving glutamine-supplemented intravenous feedings reports an improvement in mood. Journal of Parenteral & Enteral Nutrition Vol, 17, No. 5, Pgs. 422-427.

the drops after her 3rd week and therefore was not on the full protocol the entire 28-days.

Approximately 70% of the participants were using some additional nutritional support including:

NUTRIFII OPTIMAL-V
AND OPTIMAL-M —
per recommended dosage

NUTRIFII REJUVENIIX —
2 capsules twice, daily

NUTRIFII OMEGA-Q —
per recommended dosage

While the purpose of this study was designed to evaluate weight loss, participants also reported the following improvements in their overall health parameters:

- More restful sleep
- Increased energy
- Improved performance exercising
- More stamina
- Stronger nails

The improved stamina, energy, and better sleep are all documented effects of using adaptogenic herbs. In addition, cacao has also been documented to help improve recovery post exercise. ²⁷

Participants who experienced temporarily stalled weight loss during the 28-days were usually not eating enough calories, as they felt satiated with fewer than 1,250. They were then coached to increase their daily calories by adding in healthy fats in the form of raw organic coconut oil, avocado, or raw nuts. With long-term weight loss programs, it is common to experience temporary plateaus in pounds lost. Participants were informed of this and instructed to continue taking their measurements, as oftentimes when the scale stops dropping, inches can still continue to decrease. In order to avoid disappointment and to continually see results, participants were also advised to only weigh themselves once a week.

ADVERSE REACTIONS

Adverse reactions reported included some mood swings, rapid heartbeat (which resolved immediately with eating carbohydrates), and low energy.

ATTRITION:

Because this is a consumer study and much of the onus falls upon the participants to follow through, some attrition was expected. Therefore, participants who were not at least 90% compliant with the program were excluded from the study.

SOME FEEDBACK FROM PARTICIPANTS:

“In the past 4 years I have managed to lose 28 pounds through trying various diets but ended up with yo-yo weight loss and then gained most of it back again. On this program, I was feeling so much better and not so bloated. In the first 2 months, I lost more weight than the previous 4 years. I actually found it easy to give up the carbs. The drops really helped with any cravings and after a day or two I didn’t miss them at all. I never before succeeded in changing my lifestyle the way I have been able to as a result of being on the Slenderiiz Beta Test Programme.”

-Leonora

“I’ve just completed my first 28-days on the Slenderiiz Programme and I can’t believe the difference it is has made. When I first started, my goal was to lose a few pounds and hopefully get back on track, but what I actually got was so much more. I’m a 43-year-old firefighter and dad of four boys. I have always been fit and active and up until recently was an avid Crossfit participant. I used the start of this program as the impetus to get myself back to the gym and into a regular exercise plan. Within a short period of time I was back to my old self, finding new energy reserves I had been lacking. What started out for me as a “weight loss” journey has ended up turning into a journey of rediscovery. I am back to loving wholefood nutrition and the way it makes me feel.” -David

"I've absolutely loved the Slenderiiz products; they've really helped me lose the weight and make better choices for my meals. I lost 12lbs and 12 inches in the first 28 days. I noticed I had far more energy than usual when I was taking the drops and find them really easy to use. The night ones certainly helped me sleep more soundly. I usually wake on the slightest sound but found myself sleeping a full seven hours a night."

-Laura

"I'm very happy with the products and the results. I lost 15 pounds. I didn't have any feelings of hunger during the entire four weeks. At first I thought 1,250 calories would be too little. But it's really better than expected!"

-Maarten



MAARTEN -16.5 LBS



LAURA - 12LBS



CONNIE - 19.5 LBS



ANDRE - 25.3 LBS



RACHEL - 11.75 LBS

ACKNOWLEDGEMENT: THIS STUDY WAS FUNDED BY ARIIX, AND WAS CONDUCTED IN PARTNERSHIP BETWEEN ARIIX AND ERIKA ELMUTS, CN, CBT, MBA.