

**A Study to Assess the Efficacy of Extend Bar
as an Appetite Suppressant in Males and Females.**

**A Crossover Study in Moderately Overweight
Subjects with BMI 27-31**

Final Report of Study

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ExtendBar Study

INTRODUCTION

There are always several items of interest that appear on the market every year to Promote weight loss or to help metabolic processes increase efficiency in order to indirectly cause, weight loss. One such method used to reach such goal is to decrease food consumption by either causing individuals to be satiated for longer periods of time or by simply providing stimulus of satiety such that food need not be consumed. Extend Bar uniquely attempts to influence both criteria by providing a long-acting carbohydrate snack bar containing uncooked cornstarch. This study is designed to assess the efficiency of each 40 gram bar in terms of taste and calorie intake. Essentially, the capability of Extend Bar as a potentially adequate appetite suppressant in adults will be evaluated in this pilot study.

CRITERIA

This prospective study did not enroll participants at random. Several strict criteria were adhered to in order to complete the evaluation. To be considered for the study, volunteer patients had to be between the ages of 18 and 50, although either males or females were acceptable. Furthermore, their Body Mass Index (BMI) had to be between 27 and 31 at the time of the study period. BMI was calculated by the following formula:

- 1) Multiply weight in pounds by 703
 - 2) Multiply height in inches by height in inches
 - 3) Divide the answer in step 1 by the answer in step 2 to obtain BMI
- Exclusionary criteria were important for patient safety and management. No pregnant or lactating women were allowed to participate, any history of significant endocrinology disorder such as Type I or Type 2 diabetes, hypo- or hyperthyroidism. Adrenal disorder, or pituitary disease meant exclusion. Also, any states history of eating disorder. Such as anorexia nervosa or bulimia warranted exclusion from the study.

METHODS

In an effort to evaluate the efficiency of Extend Bar, 50 participants were enlisted and randomly assigned numbers to denote patient identification. Two buffet-style dinner meals on separate dates were also scheduled. For the first meal, patients 001-025 were given the placebo bar and told to eat it 3 hours prior to the buffet and fast after lunchtime. Patients 026-050 were given the active bar and instructed similarly. For the second meal, scheduled for a separate day, the patients were switched, i.e., patients 001-025 were given the active bar and patients 026-050 were given the placebo bar. Once again, the instructions regarding intake were the same, During the meal, patients were further told to eat whatever pleased them at the buffet and to consume only the amount of food that would be required to achieve satiation. Overloading of food was strongly discouraged, although unlimited returns to the buffet were allowed. All 50 participants showed for the first meal, but only 41 showed for the second meal thus necessitating the need to schedule the final 9 for the second meal again. After completing each scheduled meal, participants were given a survey as to their satisfaction of the study and to specifically rate the taste and texture of the

two bars in a comparison, giving scores for the placebo and active within a range of 1 to 10 with 10 being superior. Additionally, during each meal, each patient was identified by identification number and a calorie intake value was tabulated. Calorie intake was assessed by weighing each portion of food taken prior to ingestion at each separate trip to the buffet table per individual; after consuming the food, the uneaten portions were also weighed in order to accurately assess the amount of calorie intake during the meal.

RESULTS

Since patients were identified previously to each meal as receiving either active or placebo, it was then possible, to statistically analyze the data in regards to two key components of this trial. First, taste was evaluated. With $p < 0.05$ using ANOVA (single factor) and t-Test (two-sample assuming unequal variances), the taste of the placebo was rated statistically significantly better than the taste of the active. As the data shows, the patients rated taste for placebo averaging a score of 7.5 out of 10 for level of satisfaction as compared with active, which averaged 6.08. Variance between the two series was 1.969 and 3.585 respectively. Using ANOVA, the P-value with one degree of freedom was 4.69 E-05 for the differential between taste of placebo versus active, substantiating statistical significance. T-Test further asserted that the P-value was 2.51 E-05, also statistically significant. Assessing the caloric intake similarly, patients on placebo bar consumed an average of 879.36 calories while active bar consumption yielded a caloric intake of 697.12 calories for the meal. This averages to a difference of 182.24 calories between the two groups, approximately giving a 20.724% decline in caloric intake after consuming the active product. Statistically, significance was proved as above in the taste analysis. ANOVA provided a P-value of 1.014 E-3 with one degree of freedom and t-test analysis supplied a P-value of 5.12 E-4. Both a P-values are considered statistically significant, substantially less than the $p < 0.05$ goal stated earlier. Additionally, data was obtained from the aforementioned pool of 50 patients, whose distribution was 32 females and 18 males. Average height was 66.96 inches, average weight was 182.6 pounds, and the average BMI was 28.54.

DISCUSSION/CONCLUSION

The goal of this study was to obtain qualitative data regarding not only the effectiveness of Extend Bar as an appetite suppressant, but also to evaluate the taste of the active bar versus the placebo. As the data clearly shows, the bar is effective in reducing calorie intake, both by raw percentages and by statistical significance. This finding would be of immense benefit to a multitude of patients, many of whom are attempting to lose weight by unsafe methods or means that risk complications. Extend Bar, by providing consumers with a product that is completely natural and devoid of known side-effects, fills a large need in the weight-control market. Consumers will appreciate and acknowledge this due to the effectiveness and safety of the product. The only negative aspect that may be considered is the taste. Although the taste of the active bar was not rated unappealing by any means, it was still statistically less appealing than the placebo bar. There may still be room for improvement in this area. Otherwise, this appears to be a viable market in the attempt to aid in the weight loss of the general public.