

Belly Fat Reducing Puree (BFR): Efficacy of Its Tonic Effect

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Abstract:

This is a descriptive study of which both developmental and experimental approaches were employed to explore and examine the efficacy extent of the tonic effect of the Belly Fat Reducing (BFR) Puree in decreasing participants' abdominal fats. A pre- and post-measurement record of the health parameters of the 15 volunteered participants were collated and analyzed using appropriate statistical tools. In a .05 margin of errors results of the t-test disclosed that an intake of 1 tablespoon; twice a day preferably before breakfast and dinner; straight in a row for a 15- day regimen is found out that the BFR Puree works efficiently in cutting the unwanted bulges of fats in the belly with no adverse clinical sign consequences even in an eat all you can and no strenuous exercise situation. The participants' health markers on waist-hip measurement vastly decreased with a remarkable weight loss and two participants even reducing in half of their blood glucose levels from being in the diabetic range.

Keywords

BFR Puree; Tonic Effect

1. Introduction

Per observation, as people get through their middle years, the ratio of fat to body weight tends to increase. Extra pounds incline to accumulate around the body's midsection. According to [American Heart Association, National Heart, Lung and Blood Institute](#) - A waist circumference of more than 35 inches in women and 40 in men or a waist-to-hip ratio greater than 0.85 in women and 0.9 in men is a marker of abdominal obesity and an indicator of chronic health risk. ([World Health Organization](#)- WHO- as cited by [K. Aleisha Fetters](#), Contributor /Sept. 15, 2017, at 2:16 p.m. <https://health.usnews.com/wellness/articles/2017-09-15/is-your-belly-fat-raising-your-cancer-risk?>)

Getting rid of belly fat can be challenging but, in most cases, can be done in the privacy of one's own home. In a study at the University of

Alabama, Birmingham, dieting women lost an average of 24 pounds and reduced both visceral and subcutaneous fat, with or without aerobic or strength-training exercise. But the question is - how? Health and fitness websites offer quick-fix tricks of fat reduction, but how reliable are they?

Hippocrates' tenet, "Let food be thy medicine and medicine be thy food," opens a renewed interest in the use of herbal medicine to discover new drugs and innovative mechanisms of action in treating and preventing disease. (Prof. Joao Rocha, PharmD MSc Ph.D. *Guest Editor Medicine |Special Issue: Herbal Medicines and Functional Foods* www.mdpi.com/journal/medicines/special_issue/s/_herbal_med_food) Thus, the Interactive Management Solution (iMs) Team of Northwestern Mindanao State College of Science and Technology (NMSCST), Labuyo, Tangub City has done both developmental and experimental study to finally get to the bottom of it producing a project called Belly-Fat Reducing Puree acronym as BFR Puree. This BFR Puree is a proprietary blend of wholesome "RaGiLeHoCi" - radish, ginger, lemon, honey and cinnamon-; 5 locally - grown plants formulated into a puree on intent as fat buster for a non-invasive weight loss. (Sayson DOI No.: 10.24940/ijird/2017/v6/i7/JUN17118 www.ijird.com)

To date, there are not many publications or records on the use of traditional herbal medicine in reducing a person's belly fat. There is, therefore, an urgent need to document the "Tonic Effect of Belly-Fat Reducing (BFR) Puree" for future reference and research.

2. Theoretical Framework

The basic concept of this study is anchored on Hippocrates' tenet concurrence to Thomas Edison, J C Kurian's *Amazing Healing Plants* (2010), George D. Pamplona-Roger's *Healthy Foods* (2013) and the Interactive Management Solution (iMs) Team BFR Puree project (2016).

Science in Nutrition today uses the **Hippocrates' tenet** "Let food be thy medicine and medicine be thy food" with a concurring

statement from **Thomas Edison** “*that the present generation will no longer treat human frame with drugs, but rather will cure and prevent diseases with nutrition.*” What it means with nutrition is the use of functional food that facilitates the prevention or treatment of a certain disease or disorder and provides health or medical benefits beyond the basic nutrients it contains.

Herbal medicine also known as botanical medicine or phytomedicine refers to the use of herb’s scent, flavor, or therapeutic properties or plant’s seeds, berries, roots, leaves, bark or flower. This Herbal medicine had been practiced long before recorded history such as Ayurveda, a medical system primarily practiced in India that includes diet and herbal remedies, while emphasizing the body, mind and spirit in disease prevention and treatment; the Ancient Chinese and Egyptian papyrus writings describe medicinal uses for plants as early as 3,000 BC; Indigenous cultures (such as African and Native American) used herbs in their healing rituals, while others developed traditional medical systems in which herbal therapies were used. (J.C Kurian, **Amazing Healing Plants 2010**). Herbal medicines are also one type of dietary supplement that are sold as tablets, capsules, powders, teas, extracts, and fresh or dried plants. (George D. Pampalona-Roger’s **Healthy Foods 2013**).

iMs Team BFR Puree project is a proprietary blend of five locally found healthful plants of radish, lemon, honey, ginger and cinnamon which are good for a 15 – day regimen intended as *fat buster for a non-invasive weight loss*. With an intake of 1 tablespoon; twice a day preferably before breakfast and dinner; straight in a row for 15 days is found out that the BFR Puree’s tonic effect works 100% to cut the unwanted bulges of fats in the human beings’ belly with no adverse clinical sign consequences even in an eat all you can and no strenuous exercise situation. For proof, the BFR Puree is adjudged - *Best project Runner Up, Food and Nutrition Category, IIT Technnovation (Sayson DOI No.:10.24940/ijird/2017/V6/i7/JUN17118 www.ijird.com)*

3. Methods and Procedures

3.1. Background Profile

3.1. a. The Developmental Phase

Five locally found healthful plants were chosen in great consideration of their therapeutic properties: raw flesh of radish, juice of the lemon, pure honey of the bees, raw flesh of ginger and the powdered cinnamon were proprietarily blended by the *iMs Team* to produce a puree – called BFR Puree - which are good for a 15 – day regimen intended as fat buster for a non-invasive weight loss.

3.1. b. The Experimental Phase

The initial testing of the BFR puree was piloted first to the six (6) members of the *iMs Team*, January 2016, with focus on the pre-and post-records of waist–hip measurement only. Based on record, an average of 2 inches decrease took place in each of the 6 members of the *iMs Team*’s waist–hip measurement after the 15 – day regimen with a twice intake of the BFR puree daily.

3.1. c. Sample Preparation & Sensory Test

The proprietarily blended BFR puree was shown to the One Hundred Forty-Two (142) interested participants who voluntarily responded to the open recruitment done by the researcher to be the panelists for the sensory (looks, smells, feels and tastes) evaluation of the BFR Puree. The target number of panelists is grouped in 2 sets:

The first panel set of 110 belongs to the possible consumers not aware nor tasted the product yet, who were randomly chosen between the 8:00 a.m. to 10:00 a.m. costumers of *Sha pharmacy*, located at the city proper of Tangub during the March 2017 4P’s. The second panel set of 32 is a composite of Agriculture, Food Tech and Hotel Restaurant Service Technology Instructors of Northwestern Mindanao State College of Science and Technology (NMSCST), Labuyo, Tangub City who are trained or have tested foods’ sensory attributes during their classes. Each of the randomly chosen participants in the two sets of panelists was given one teaspoonful of BFR Puree for affective analysis on its four sensory attributes – *looks, smells, tastes and feels*– using the description of the hedonic point of scaling. Testing of the BFR Puree was done simultaneously on the same date and time.

In a .05 margin of error, the ANOVA computation disclosed that there is no significant difference in the panelists’ acceptance of the BFR Puree. The acceptability perception towards BFR Puree does not matter whether the panelists are trained or untrained because the data clearly show that both panelists are looking at the BFR Puree in the same manner or perspective. (Sayson DOI No.:10.24940/ijird/2017/v6/i7/JUN17118.p.22. www.ijird.com)

3.2. Method

This descriptive study of which both developmental and experimental approaches were employed tries to explore, examine, and describe the extent of efficacy of the Belly Fat Reducing (BFR) Puree in its tonic effect of cutting unwanted belly fats along the midsection of the human's body.

Again, sometime in September 2016, an open recruitment of 15 volunteered participants underwent a 15 – day regimen incorporating the BFR Puree in their diet. All the 15 volunteered participants both male and female are from 25 to 56 years old who carried abdominal fat which gave them waist sizes that put them in the danger zone for abdominal obesity and an indicator of chronic health risk. Their weight ranges from 52 to 88 kilos; A waist–hip measurement arraying from 32”-35” to 44” – 47” and a blood sugar count of 97mg/dl to 433mg/dl.

Before the start of the 15-day regimen, each of the participants had their health parameters measured – height, weight, blood pressure, blood sugar and of course waistline (upper and lower) measurements by the NMSCST College Nurse and at the same time the iMS Team Adviser.

Since the 15 recruited -volunteered participants are all employed and working at NMSCST, Labuyo, Tangub City, they were monitored to include the BFR Puree in their diet with an intake of 1 tablespoon; twice a day preferably before breakfast and dinner; straight in a row for 15 days and eat as they normally would with no changes whatsoever in their lifestyle.

At the end of the 15-day regimen, all the participants were measured again on their health parameters such as weight, blood sugar and of course waistline (upper and lower) measurements with a follow through interview.

3.3 Statistical Analysis

The record of observation, result of the follow through interview with the 15 participants and the health parameters measurement on weight, blood pressure, blood sugar and of course waistline (upper - waist and lower- hip)midsection of the participants' body were collated and scrutinized using the t- test.

$$\bar{D} = \frac{\sum D}{n}$$

$$\alpha=0.05$$

$$Df = 15-1=14$$

$$\text{Two tail value of } t \text{ (tabular)} = 2.145$$

4. Results and Discussion

4.1. Result

Table1. Participants' Record on Pre- and Post - Waist Measurement

No. of Participants	Participants' Waist Measurement			
	Pre	Post	D	D ²
1	36"	27"	9"	81
2	42	39	3	9
3	32	30.5	1.5	2.25
4	38.5	35.5	3	9
5	35	33	2	4
6	34	32.6	1.4	1.96
7	39	37	2	4
8	36	33.5	2.5	6.25
9	36	34	2	4
10	34	34	0	0
11	44	43	1	1
12	38	37	1	1
13	33	31	2	4
14	37	33.5	3.5	12.25
15	37	36	1	1
SUM			34.9	140.71

$$t = \frac{\bar{D}}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{n}}{n(n-1)}}} = \frac{2.327}{\sqrt{\frac{140.71 - \frac{(34.9)^2}{15}}{15(15-1)}}} = 4.3716$$

t - test for the Waist measurement

Findings

The computed value of t is 4.3716 which is greater than the tabular value of 2.145 at 5% level of significance with 14 degrees of freedom. The H_0 therefore is rejected. It goes to show that there is a significant difference in the pre-measurements and post-measurements of the participants' waists after taking the BFR Puree for 15 days regimen.

Table2. Participants' Record on Pre- and Post - Hip Measurement

No. of Participants	Participants' Hip Measurement			
	Pre	Post	D	D ²
1	38"	27"	11"	121
2	43	41	2"	4
3	36	34	2	4
4	41	41	0	0
5	36.5	34	2.5	6.25
6	35	34	1	1
7	38	36	2	4
8	37	36	1	1
9	37	35	2	4
10	37	35	2	4
11	47	45	2	4
12	39	38	1	1
13	37	35	2	4
14	38	33.5	4.5	20.25
15	37	37	0	0
SUM			35	178.5

t-test for the Hip measurement

$$\bar{D} = \frac{\sum D}{n} = \frac{35}{15} = 2.333$$

$$t = \frac{\bar{D}}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{n}}{n(n-1)}}} = \frac{2.333}{\sqrt{\frac{178.5 - \frac{(35)^2}{15}}{15(15-1)}}} = 3.4357$$

Findings

Result disclosed that at the 5% level of significance with 14 degrees of freedom, the computed value of *t* is 3.4357 which are higher by 1.2907 than the tabular value which is 2.145. The H_0 therefore is rejected. This means that the pre-measurements and post-measurements of the participants' hips have significant difference after taking the BFR Puree for 15-day straight regimen.

Table3. Participants' Record on Pre- and Post –Weight Measurement

No. of Participants	Participants' Weight Measurement			
	Pre In kilos	Post	D	D ²
1	60	59	1	1
2	88	88	0	0
3	57	55.5	1.5	2.25
4	80	78.5	1.5	2.25
5	64	63	1	1
6	72	72	0	0
7	63	60	3	9
8	67	66	1	1
9	52.5	50	2.5	6.25
10	68	66	2	4
11	80	81	+1	1
12	76.5	78	+1.5	2.25
13	56	55	1	1
14	57	56.5	0.5	0.25
15	72	70	2	4
SUM	60		14.5	35.25

t-test for the Weight measurement

$$\bar{D} = \frac{\sum D}{n} = \frac{14.5}{15} = 0.9667$$

$$t = \frac{\bar{D}}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{n}}{n(n-1)}}} = \frac{0.9667}{\sqrt{\frac{35.25 - \frac{(14.5)^2}{15}}{15(15-1)}}} = 3.0399$$

Findings

The analyzed data reveal that at a 5% level of significance with 14 degrees of freedom, the computed value of *t* is 3.0399 which are greater than the tabular value of *t* which is 2.145, therefore H_0 is rejected. It be then deduced that there is a significant difference in the pre-measurements and post-measurements of the participants weight after an intake of the BFR Puree for a 15 – day regimen.

Table3. Participants' Record on Pre- and Post – Fasting Blood Sugar Count

No. of Participants	Participants' Fasting Blood Sugar Count			
	Pre	Post	D	D ²
1	121	120	1	1
2	244	147	97	9409
3	105	108	+3	9
4	107	94	13	169
5	151	129	22	484
6	97	98	+1	1
7	134	132	2	4
8	108	123	+15	225
9	129	124	5	25
10	105	98	7	49
11	106	140	+34	1156
12	433	218	215	46225
13	108	107	1	1
14	106	111	+5	25
15	131	131	0	0
SUM	121	120	305	57783

t-test for the Fasting Blood Sugar Count

$$\bar{D} = \frac{\sum D}{n} = \frac{305}{15} = 20.3333$$

$$t = \frac{\bar{D}}{\sqrt{\frac{\sum D^2 - (\sum D)^2}{n(n-1)}}} = \frac{20.3333}{\sqrt{\frac{57783 - \frac{(305)^2}{15}}{15(15-1)}}} = 1.2974$$

Findings

Based on the 5% level of significance with 14 degrees of freedom, the computed value of *t* which is 1.2974 is lesser than the tabular value of 2.145 therefore H_0 is accepted that there is no significant difference in the pre-measurements and post-measurements of the participants' blood sugar counts after incorporating the BFR Puree in the diets for 15 days.

4.2. Discussion

The results were rather revealing. In a .05 margin of errors results of the *t*-test disclosed that an

intake of 1 tablespoon; twice a day preferably before breakfast and dinner; straight in a row for a 15- day regimen is found out that the BFR Puree works efficiently in cutting the unwanted bulges of fats in the participants' belly with no adverse clinical sign consequences even in an eat all you can and no strenuous exercise situation. The participants' health markers on waist-hip measurement vastly decreased with a remarkable weight loss and two participants whose blood glucose levels are already in the diabetic range even reduced in half.

The findings from this study confirm previous reports that consuming pureed tomato soup before a meal can increase gastric distension and decrease the rate of gastric emptying, resulting in an increase satiety (Cecil, Francis, & Read, 1998; Spiegel et al, 1993). In another set of studies, a pureed vegetable soup consumed prelude to a meal decreased gastric emptying time, increase insulin response, and increase diet-induced thermogenesis (Laboure, Van Welbeck, Fantino, & Nicolaidis, 2002; Perracchi et al., 2000).

5. Conclusion

The data, findings and information presented in this study are evidences which disclosed that when Belly Fat Reducing (BFR) Puree is incorporated in the diet is found out to have tonic effects of cutting the unwanted bulges of fats in the belly. The decreasing difference affected by the BFR Puree in the participants' waist-hip and weight measurements may appear modest but very evident considering that the intake is only done in a 15-day regimen. Thus, it could be deduced that the BFR Puree is really true to its tonic claim as Belly Fat Reducer and weight loss enhancer.

Taken it all together, the results from the present study offer additional support for recommending the inclusion of the BFR Puree in the diet as a strategy to suppress large entrée intake of food during meal time to enhance weight loss for weight management. It also provides new food-specific guidance for the prevention of abdominal obesity and other chronic health risk.

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