

Health+ Bar Using Green Peas and Brinjals

Ved Prakash¹, Neel Doifode², Rohit Honde³, Govind Shirude⁴, Shaikh Mohammed Ahsan⁵, Prof. Vivek Nagnath⁶.

^{1,2,3,4,5,6}Department of Engineering, Sciences and Humanities

Vishwakarma Institute of Technology, Pune, India.

ABSTRACT

The purpose of the project is to create a regular intake of required meal nutrition for patients with Diabetes and Cholesterol. At the same time, it should be economical and handy. Focusing on certain crucial factors such as ease of availability, the cost and the way of consumption, the product we're proposing is a health bar named Health+.

Health+ bar is made up of natural and highly nutritious sources such as Peas, Brinjals, Kiwi, Soya beans, Holy Basil leaves and Stevia (as sweetener). This pure vegetarian product is having least cholesterol and fats with minimal sugar content. This energy bar contains no harmful preservatives and its ingredients are cost effective and easily available in our surroundings. It is very useful for the people having hectic daily schedule in order to provide required daily intake of nutrients to them.

Keywords - Brinjal and Green Peas, Economical Health Bar, Diabetes, Cholesterol, Daily dose of Nutrition, Holy Basil, Soya bean.

INTRODUCTION

Although there are commercial health bars available in the market, they are expensive. They're filled with preservatives, artificial colors, sweeteners, thickeners and even oils and fats which can contribute to high cholesterol, despite the muscle benefits a person may gain. Regular consumption of such protein bars might lead to inevitable gain weight.^[1]

So, Health+ bar is a healthy alternative which can overcome the listed issues and become a handy source of energy. Especially the patients with Diabetes and Cholesterol can safely consume this product. The product is a pure vegetarian product made up of all-natural ingredients which are easily available in the market and hence the product is cost effective.

I. DESCRIPTION OF THE COMPONENTS OF HEALTH+ BAR^[2]

1. Green Peas(Pisum sativum):

It is one of the most nutritious plants and contains good amount of proteins, soluble as well as insoluble fibers and vitamins. It has low fat content and zero cholesterol. It can be beneficial for people suffering from diabetes and cholesterol.

2. Brinjals (Solanum oleraceum):

It has low calories and fat content but is rich in soluble fiber content. 100g of brinjals provides just 24 calories but about 9% of RDA (Recommended Daily Allowance) of fiber. It is very effective in controlling high blood cholesterol. It can be very effective as a medicine for fighting cancer, heart problems, aging and neurological diseases.

3. Holy Basil (Ocimum tenuiflorum):

Holy basil commonly known to us by the name of Tulsi and has many health advantages and is rich in vitamins. Use it to beat bronchitis, diarrhea, nausea and vomiting. Chewing 10 to 12 basil leaves can immediately cure acidity.

4. Broccoli (Brassica oleracea):

Broccoli is a great source of vitamin K and vitamin C which builds collagen and forms blood tissue and bone. It also helps wounds heal faster. It is also a very good source of folic acid, calcium and potassium.

5. Kiwi (Actinidia chinensis):

Kiwis

are packed with vitamins especially vitamins C & K. They contain phytonutrients which protect our DNA. They also reduce the oxygen-related damage to our cells and offer premier antioxidant protection and boost our immune system. Fibers in Kiwi help in controlling blood sugar levels and cardiovascular problems.

6. Soya bean (Glycine max):

It is an important component of Asian diets and usually eaten as whole. It contains antioxidants and phytonutrients which help in strengthening our immune systems. It contains high amounts of proteins, calcium, iron, magnesium and vitamins and contains zero cholesterol and least amount of sugar.

7. Stevia (Stevia rebaudiana):

It can be used as a sweetener. However, it does not impact the blood sugar level. Stevia doesn't contain any fats or cholesterol.

II. PROCEDURE^[4]

1. Take 20grams of Peas, 10grams of Brinjal, 10grams Soyabeans, 20grams Holy Basil, 20grams of Broccoli, 15 grams of Kiwi, 5grams of Stevia and 0.2grams of preservative(Sodium Benzoate).
2. Wash them thoroughly and then grind them separately.
3. Remove the seeds of Brinjals before grinding.
4. Collect grinded mixture in a bowl and mix them well.
5. Then put the mixture in a baking tray and bake it on induction at 1100W for 15 minutes.
6. Then take out the mixture and leave it for cooling for 10 minutes.
7. Then place it in the refrigerator for 3 to 4 hours.
8. The product is ready.



III. BENEFITS OF HEALTH+ BAR OVER OTHER COMMERCIAL ENERGY BARS

1. Health+ bar is cost effective.
2. It uses known natural ingredients.
3. It does not contain any harmful preservatives.
4. It is a pure vegetarian product.
5. It has least sugar content.
6. It has least fats content.
7. It is cholesterol free.
8. It provides all necessary nutrients required by human body.

IV. EFFECTS OF HEALTH+ BAR ON PEOPLE AND ENVIRONMENT

1. It will help people especially those who are suffering from Diabetes and Cholesterol to obtain daily required nutrients in a cheap and handy manner.
2. The making of Health+ bar is by natural process.
3. The ingredients of Health+ bar is completely natural, cheap and easily available in our surroundings.
4. It can be disposed in the environment very easily as it does not contain any harmful substances for the environment.

V. NUTRITIONAL DATA OF THE INGREDIENTS

The following table shows the contents per 100gm of each of the ingredients of Health+ bar:^[3]

	Brinjal	Green Peas	Holy Basil	Broccoli	Kiwi	Soya Beans	Stevia
Vitamin-A(%)	1	15	106	12	2	0	0
Vitamin-B6(%)	4	8	8	9	6	19	0
Vitamin-B12(%)	0	0	0	0	0	0	0
Vitamin-C(%)	4	67	30	149	155	10	0
Vitamin-D(%)	0	0	0	0	0	0	0
Vitamin-E(%)	1	1	4	4	7	4	0
Vitamin-K(%)	4	31	518	127	50	59	0
Calcium(%)	1	2	18	5	3	28	0
Iron(%)	1	8	18	4	2	87	0
Magnesium(%)	3	8	16	5	4	70	0
Phosphorus(%)	2	11	6	7	3	70	0
Potassium(%)	7	7	8	9	9	51	0
Sodium(%)	0	0	0	1	0	0	0
Zinc(%)	1	8	5	3	1	33	0
Copper(%)	4	9	19	2	6	83	0
Manganese(%)	13	21	57	10	5	126	0
Selenium(%)	0	3	0	4	0	25	0
Total Fats(%)	0	1	1	1	1	31	0
Carbohydrates(%)	2	5	1	2	5	10	1
Calories(%)	1	4	1	2	3	22	0
Protien(%)	2	11	6	6	2	73	0
DietryFibres(%)	14	20	6	10	12	37	0
Cholesterol(%)	0	0	0	0	0	0	0

VI. CONCLUSION

We achieved success in making health+ bar which is having nearly all important nutritional values. We came to know the daily required values of nutrition to the human body. We also learned our daily vegetables and fruits contain huge amounts of nutrition. Through this project learned how to make a nutritious bar for the diabetic and cholesterol suffering patients. This project was also very cost effective and easily accessible. The philosophy of the project is that we learned the values of performing in a team and its ethics.

ACKNOWLEDGEMENT

We would like to thank our Vishwakarma Institute of Technology for providing us platform for producing such a wonderful project.

We would like acknowledge our honorable Director Dr. Rajesh M.Jalnekar for his overwhelming guidance.

Also the Head of Department of Department of Engineering, Sciences and Humanities, Prof. C.M.Mahajan for his valuable support and time.

Even our Applied Science Prof. VivekNagnath sir gave us his valuable time, support and inspiration for creating this project.

REFERENCES

- [1] What are health bars: <http://time.com/4914384/healthy-granola-bar/>
- [2] Nutritional information about all ingredients: <https://en.m.wikipedia.org>
- [3] Nutritional data contents: <https://nutritiondata.self.com/>
- [4] Procedure: <https://www.wikihow.com/Make-a-Healthy-Snack-Bar>