



Smoothie Bowl: A dietary approach for well being

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Abstract: Smoothie bowls offer the chance to combine flavors, textures, and appearance while preserving the nutritional value. Due to the abundance of fiber, good fats, vitamins, minerals, antioxidants, and other phyto-nutrients human system can utilize it in a well manner which can provide us nourishment for many hours. The present study is giving insights about the different smoothie bowls along with the recipes and the provision of health benefits in our day to day life. Now a day, Smoothie bowls become a trend among everyone because of its convenience and hassle free preparation and the satiety value. This study is basically focusing on the weight management therapy with smoothie bowl as obesity and under nutrition are the two major problems in the developed and developing countries. This malnutrition can lead to different types of lifestyle co-morbidities such as cardiovascular diseases, cancer, osteoporosis, diabetes and so on. So to tackle the malnutrition, smoothie bowl can be a dietary approach in the present day lifestyle.

Keywords: Smoothie Bowls, Weight Management, Malnutrition, Phytonutrients, Convenience Food. Well Being.

1. Introduction

A common South American breakfast item is the acai bowl. The Amazonian region is home to the acai fruit, which is regarded as a super food. The berry is well-known for strengthening the immune system, heart and brain. The acai bowl is essentially a smoothie in a bowl with freshly cut fruit and cereals on top. It is available now in a wide variety of ingredients, shapes, and colors. As a result, it can be now called as the beneficial smoothie bowl. Smoothie bowls offer the chance to combine flavors, textures, and temperatures while preserving the nutritional value. Due to its abundance of fiber, good fats, vitamins, minerals, antioxidants, and nutrients that our systems can utilize right away and provide us energy for many hours. It has a thicker consistency and contains more energy. The base, toppings and add-ons are the three fundamental components of any smoothie bowl. Human body can utilize all the ingredients of smoothie in a very simple but significant way. Additionally, complex carbohydrates with high fiber digest more gradually, balancing the blood sugar, cholesterol level in a desired manner. Smoothie bowl is very much convenient in present day lifestyle due to its hassle free preparation along with the desired nourishment^{1,2}.



Fig 1. A healthy smoothie bowl

1.1. Basic components of a smoothie bowl

- Liquids: To provide consistency liquid is required.
- Fruits: Fruit provides natural sweetness and essential nourishment.
- Toppings: Dates, raisins, honey, maple syrup, peanut butter and fruit juice concentrates are added for the taste. Spinach, kale, cucumber, wheat germ, chia, hemp, flaxseed, protein powder and cocoa powder can also be added as the nutritional additives¹.

1.2. History and origin

Frozen acai pulp started making its way from the Amazon to cities in northern Brazil in the early 1970s. Carlos Gracie, the illustrious founder of Brazilian jujitsu, is thought to have popularized the acai bowl in 1980 in tropical places like Rio de Janeiro. As time went on; acai bowls became popular among Brazilian surfers and fitness fanatics in the 1990s. When organic acai pulp first flew to the United States in the 2000s, the celebration had just begun. Ryan and Jeremy Black, two brothers from Southern California, started bringing acai berries into the country for the first time in the 2000s, and then the trend for frozen acai bowl was born³.



Fig 2. Acai used for smoothie bowl

1.3. Recipe

Preparation of smoothie bowl is very convenient as it requires only the ingredients and the blender. Chop all the ingredients and blend them together in the blender and serve the smoothie bowl with the desirable toppings. The preparation time of a smoothie bowl is within 5 minutes.

2. Types of Smoothie Bowl For Underweight

Underweight can be defined as lesser weight-for-age as compared to ideal body weight. A person who is underweight may be stunted, wasted or both. Micronutrient deficiencies are the lack of vitamins and minerals which are essential for body functions such as producing enzymes, hormones and other substances needed for growth and development. Under the cut-off point at a BMI of 18.5, a person is considered as underweight⁴.

2.1. High protein Smoothie Bowl

Proteins are the primary component of skeletal muscle, making up 80% of muscle mass. Consumption of protein rich diet helps to support muscle growth and maintain healthy muscle mass. Studies showed that taking in more protein and fewer carbohydrates than the current recommended dietary allowance (RDA) can help people build muscle mass and preserve it during weight management therapy⁵.



Fig. 3. High Protein smoothie bowl

Table 2.1.1. Nutritional composition of high protein smoothie bowl (100gms)

Ingredients	Amounts	Protein (gm)	Fat (gm)	Carbohydrates (gm)	Fiber (gm)	Energy (Kcal)
Protein Powder	10gm	8.8	0.8	1.2	0.4	47.6
Cow Milk	64ml	2.31	2.86	3.16	-	195.2
Strawberry	50gm	0.50	0.27	1.69	1.25	51.48
Peanut Butter	15gm	04	7.5g	03	0.8	96
Chia Seeds	15gm	2.1	4.5	6.45	5.55	73.5
Almonds	15gm	2.76	8.76	0.45	1.95	87.9
Blueberry	30gm	-	-	4.2	0.81	15
Raspberry	30gm	0.24	-	4.08	1.92	12
Total		20.71	24.69	24.23	12.68	578.68

2.1.2. Therapeutic potential

- Protein powder is advised for weight gain as it provides essential amino acids that support muscular growth. Additionally, peanut butter is a high source of protein and it can be beneficial for vegetarians who want to increase their protein intake.
- Milk is a rich source of protein, which is vital for growth and development. The majority of the protein in cow's milk is casein.
- Strawberries are flavorful fruit packed with vitamins, minerals as well as contain natural sugar and antioxidants.
- Chia seeds are high in protein, omega 3 fatty acids, which are the important ingredients for weight management.
- Almonds can function as a super food for gaining weight because of their nutritional value i.e. 7 grams of protein is present in 100gms of almonds⁶.

2.2. High calorie Smoothie Bowl

The calorie requirements vary depending upon the activities. For increasing weight the total calorie intake should be in excess of the recommended energy requirement. An additional 500 kcal per day is recommended. Several studies showed that when a high-fat diet is taken, both calorie intake and metabolic energy expenditure are channelized in favor of weight gain and that the high caloric density of high-fat meals is the main factor contributing to weight gain⁷.



Fig. 4. Coconut almond butter smoothie bowl

Table 2.2.1. Nutritional composition of high calorie smoothie bowl (100gms)

Ingredients	Amounts	Protein (gm)	Fat (gm)	Carbohydrates (gm)	Fiber (gm)	Energy (Kcal)
Banana	160gm	02	0.5	39.92	3.52	176.8
Coconut Milk	40ml	0.9	9.5	2.2	-	92
Almond Butter	45gm	9.4	23	9.4	4.	269
Coconut Shavings	15gm	1.08	9.45	1.2	2.37	93.6
Almond	15gm	2.76gm	8.76	0.45	1.95	87.9
Total		16.14	51.21	53.17	12.74	719.3

2.2.2. Therapeutic potential

- Banana is a high calorie fruit. This is loaded with carbohydrates, vitamins and minerals along with the phyto-chemicals. This can provide sufficient energy as well as helping in weight management^{8, 9}.
- Coconut milk and coconuts shavings have significant fat and calorie content. A diet rich in carbohydrates and fat can help to gain weight. Both of these two ingredients can aid in natural weight gain.
- Almonds can function as a super food for gaining weight because of the omega 3 fatty acids and high amount of protein content. Almonds provides up to 160 calories per ounce serving, whereas almond butter also enriched with good fats helping in weight management¹⁰.

3. Types of Smoothie Bowl For Overweight

According to WHO, Overweight is defined as abnormal or excessive fat accumulation in the adipose tissue. A body mass index (BMI) greater than 25 is considered as overweight whereas greater than 30 is considered as obesity¹¹.

3.1. Low calorie Berrylicious Smoothie Bowl

A person will eventually acquire weight if they consume more calories than they expend. It aids in weight loss by consuming fewer calories and increasing calorie expenditure through exercise. Different types of berries can be added in the smoothie bowl as they are the good sources of antioxidants and polyphenols along with the natural sweetness and providing fewer calories and more fiber¹².



Fig. 5. Berrylicious smoothie bowl

Table 3.1.1. Nutritional composition of low calorie smoothie bowl (100gms)

Ingredients	Amounts	Protein (gm)	Fat (gm)	Carbohydrates (gm)	Fiber (gm)	Energy (Kcal)
Raspberry	80gm	0.64	-	10.88	3.52	32
Blueberry	80gm	-	-	11.2	-	40
Strawberry	50gm	0.48	0.27	1.69	4.	51.4
Banana	110gm	1.36	0.30	27.32	2.37	122.32
Almond Milk	50ml	0.33	0.78	0.33	1.95	9.5
Total		16.14	1.08	52.62	12.74	348.82

3.1.2. Therapeutic potential

- Raspberry is a low-calorie fruit that may speed up fat burning, boost metabolism, and decrease appetite.
- Through antioxidant and anti-inflammatory actions, the flavonoid subclass anthocyanin, mostly found in blueberries, can aid to prevent weight gain and decrease body fat.
- A bowl of strawberries could be quite helpful in reducing tummy fat as they contain large amount of fiber.
- Bananas are low in calories and high in fiber. The high fiber content may help people to lose weight by making them feel more satisfied and decreasing their appetite.
- Due to the fact that it has 50% fewer calories than cow's milk, almond milk aids in weight loss.
- Weight loss may be aided by coconut flesh. It might encourage satiety, calorie and fat burning, which might help with weight loss^{13, 14}.

3.2. Mixed fruit smoothie bowl

It's creamy in texture with a sweet, tangy tropical flavor and yellow in colour. It tastes so good that it can be used as dessert. It is an easy and healthy option for any time of day. This mango smoothie recipe involves simple ingredients and prepared within 5 minutes only. Any seasonal fruits can be added in this smoothie bowl to make it more nutritious^{15, 16}.



Fig. 6. Mixed fruit smoothie bowl

Table 3.2.1. Nutritional composition of low calorie smoothie bowl (100gms)

Ingredients	Amounts	Protein (gm)	Fat (gm)	Carbohydrates (gm)	Fiber (gm)	Energy (Kcal)
Mango	85gm	0.45	0.48	9.65	1.71	46.92
Pineapple	30gm	0.15	0.04	2.82	1.03	12.90
Banana	50gm	0.61	0.13	12.41	1.1	55.6
Coconut Milk	50ml	1.12	11.8	2.75	-	115
Coconut Shavings	15gm	1.08	9.45	1.2	2.37	93.6
Blueberries	30gm	-	-	4.2	0.81	15
Flax Seeds	15gm	2.74	6.33	4.33	4.09	80.1
Total		6.15	28.23	37.36	11.11	419.12

3.2.2. Therapeutic potential

- Mangoes are devoid of saturated fat or cholesterol. Mango consumption in moderation has been shown to lower blood sugar levels and body fat.
- The pineapple enzyme bromelain aids in enhancing metabolism, which in turn helps to burn fat. Pineapple contains both soluble and insoluble fiber which helps to lose weight by keeping an individual full for a long time¹⁷.
- Since they are low in fat and high in fiber, they may aid in weight loss by increasing satiety and lowering cravings.
- Coconut milk contains medium-chain triglycerides, a form of healthy fat (MCTs). MCTs have been found to promote weight loss by lowering appetite and increasing energy.
- Blueberries are loaded with anthocyanins, which have antioxidant and anti-inflammatory properties that can help to prevent weight gain and reduce body fat percentage.
- Flax seeds have high fiber content and beneficial for weight management^{18, 19}.

4. Conclusion

Smoothie bowls have lots of nutritious components as these bowls frequently contain a mix of fruits, vegetables, and other healthy ingredients. Smoothie bowls are the excellent source of protein, which is one of the components of a healthy body. These protein-packed meals help in muscle regeneration, gives the satiety and boost overall energy. The fiber in smoothie bowls is great for digestive system. The fruits, vegetables and toppings like nuts and granola in an oatmeal dish can contribute to the high fiber content. Smoothie bowls are beneficial for weight management therapy as obesity and under nutrition are the two major problems in the developed and developing countries. This malnutrition can lead to different types of lifestyle co-morbidities such as cardiovascular diseases, cancer, osteoporosis, diabetes and so on. So to tackle the malnutrition smoothie bowl may be a dietary approach in the present day lifestyle.

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