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Role of calories in weight management

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Abstract
The present study was designed to study the calories content in different food items and how these calories help in weight management. As we know these are various reasons behind obesity. Exercise and healthy diet plays an important role for our weight management.

Introduction: Our body composed of mainly three components such as muscle, bone and fat. The average adult male contains 15 percent fat while female contain 20 percent of the total body weight. When this value increased by 5% then person falls in the category of overweight/obesity. Obesity is defined as excess accumulation of fat which harm our health. Physical exercise plays an important role in weight reduction. In some cases there may not be change in total body weight but there will be change in body composition. Various research studies have shown that physical exercise also helps to gain weight. These weight gain results in increase in lean body weight. If an individual wants to increase lean body weight then he should follow strength and power training programs. On the other hand, majority of the people tackling with their overweight. So to reduce the body weight one should follow endurance training as its main source of energy is fat.

The most common reason for overweight is intake of more calories than we burn up. Now a days we are going to gym, park and various fitness centre to burn extra intake calories. One question arises here, why it is not easy to burn extra calories at home. To understand this we have to go back in history. The history of human being is witness to the fact that each and every daily routine work was done with his own efforts, either it was physical or mental. It is well said for our body that "Use it or lose it." Technology has provided numerous comfort to today's generation as compared to ancient one. All these comforts have made the man most inactive and lethargic, which give birth to obesity, decrease in immunity, poor memory and many more problems. Moreover, obesity and overweight cause many health related problems.

Keywords: Obesity, calories, physical exercise, lean body weight and BMR

Introduction
Exercises for weight reduction
To reduce the excess body weight we should indulge in endurance training. As endurance training burns fat from our body. The most important thing is to monitor our heart rate while involving in exercise so that to reach at optimal fat burning capacity 60% to 70% of maximum heart rate is required to increase our body's natural ability to burn fat. We can calculate our fat burning heart rate by subtracting our age from 220 and multiplying it by 0.7 (70%) i.e

Fat burning heart rate = 70% of 220- your age.
For example your age is 34 years then your fat burning heart rate is $70/100 \times 220-34 = 130$

Causes of obesity or overweight
- Lack of physical exercise.
- Heredity or genetic factor
- Overeating
- Fast food
- Beverage culture
- Metabolic change
- Psychological factor
- Taste and food preferences
- Lack of knowledge about calorie content in food items.

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- Thyroid gland malfunctioning.

BMR
When we are at complete rest our body require some amount of energy. And the total amount of energy used at complete rest is known as BMR i.e Basal Metabolic Rate. On average adults needs one calorie per minute for their BMR. If we are totally immobilized then to maintain BMR, we need to burn about 1400 calories per day. Moreover, an extremely sedentary person may require an additional 200 to 300 calories i.e BMR plus additional calories which means 1600 to 1700 calories per day. On the other hand athletes performing vigours exercises require a total 2000 to 5000 amount of calories per day. Various researches have shown that after the age of 25years the BMR decreases approximately 1% every year. So losing weight become more difficult after 25 years of age.

Calories and weight management
In dietary terms calories can be defined as the amount of energy that a food provides. Food is the body's fuel. More active the people are, more the fuel they need. On the other hand less the active people, lesser the food they need. As we know fats and carbohydrates are the main sources of energy for our body. Following table shows the calories in one gram of fat, carbohydrate and protein.

Table 1: Show the item and Calories Quantity

S. NO.	Name of item	Calories	Quantity
1	Fat	9	1 gram
2	Carbohydrate	4	1gram
3	Protein	4	1 gram

As in the above table it is shown that fat contains highest calories than proteins and carbohydrates. We should not cut fat totally from our diet, because small amount of fat are essential for our body. It is the essential component of our cell membrane and also helps for the absorption of some vitamins.

Table 2: Calories of some common dry fruits, per 100gm

S. NO.	Food items	Calories per 100 gram
1	Walnut	687
2	Almond	655
3	Pistachio nut	626
3	Cashew nut	596
4	Groundnuts	541

Table 3: Calories per 100gm in milk and milk products

S. NO.	Name of food Item	Calories
1	Buffalo's milk	117
2	Goat's milk	72
3	Cow's milk	67
4	Curd	60
5	Khoa, Buffalo's milk	421

Table 4: Calories per 100gm in Fruits

S. NO.	Name of item	Calories
1	Grapes	17
2	Papaya	28
3	Apple	50
4	Banana	153
5	Orange	47
6	Watermelon	30
7	Mango	60
8	Strawberries	32
9	Peach	39
10	Guava	68
11	Pomegranate	83
12	Kiwi	61

Table 5: Calories per 100gm in Vegetables

S.NO.	Name of item	Calories
1	Beetroot	43
2	Broccoli	34
3	Cabbage	25
4	Capsicum	27
5	Carrot	41
6	Cauliflower	23
7	Cucumber	16
8	Garlic	133
9	Mushroom	19
10	Green Onion	33
11	Onion	40
12	Peas	81
13	Potato	77
14	Pumpkin	26
15	Radish	16
16	Spinach	23
17	Sweet Potato	86
18	Tomato	18

Table 6: Calories in fast food

S.NO.	Name of food item	Quantity	Calories
1	Somosa	1 piece	262
2	Pakora	100gm	287
3	Aloo Tikki	1 piece	275
4	Aloo Paratha	1 piece	300
5	Aloo Tikki Burger	1 piece	573
6	Soyabean chaap	100gm	435
7	Noodles	100gm	137
8	Pasta	100gm	131
9	Cheese Piza	100gm	280

Table 7: Calories in 100gm sprouts

S.NO.	Name of food Item	Calories
1	Mung Dal	30
2	Black Channa(chikpeas)	165

All above table helps us to calculate our calories as per our daily requirement. Moreover, without knowing the calories of food items we consume it which results in weight gain. On the other hand a healthy diet keeps our body fit. So stay away from fast food, packed food and include natural form of food in our diet, especially fruits and green vegetables.

Conclusion

Calories play an important role for weight management. After studying different calories present in different food items we came to know that even small amount of some food items contain large number of calories. So, while having the knowledge of the calories of different food items we can manipulate the calories intake as per our daily requirement and which helps us in our weight management. Instead of eating a somasa we can choose an apple. As a somosa contains 260 calories and on the other hand apple contains 80 calories only. So while choosing the food items one should keep in mind the number of calories in it, which helps us to gain weight, to reduce weight and to maintain weight.

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