

Making Dieting Easier for Diabetics

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The history of dietary treatment of diabetes is as old as that of diabetes itself. Our ancient texts mention that Sushruta and Charaka recognized the value of dietary therapy for diabetes. They recommended a reduction in total quantity of food consumed and the avoidance of animal fats. Many of the principles recommended by them are accepted even today by modern day diabetologists. Diet treatment can be considered the very foundation in the management of diabetes and without this, the building (treatment of diabetes) will collapse.

The history of dietary therapy of diabetes makes fascinating reading. In the pre-insulin era, i.e., prior to 1922, it was believed that since sugar was lost in the urine, the diabetic should be asked to consume a lot of sugar to replace that lost from the body! Then the pendulum swung to the other end and we had the era of carbohydrate restriction. In fact, till recently the diet of diabetics in most western countries consisted of a low carbohydrate content (about 35% of the total calories), 15% was protein and 50% fat. This type of diabetic diet was followed in India also till the 1950's. The late Prof. M. Viswanathan, well known diabetologist was one of the pioneers the first to suggest that the carbohydrate content of diets could be increased without any deleterious effect on the blood sugar levels. The diet of most Indians is cereal based and therefore consists of nearly 70-80% carbohydrates. Thus "western diets" with their 35% carbohydrate content are unsuitable for the Indian conditions where the diet being cereal-based, carbohydrate forms nearly 75-80% of the total calories. Thus we increased the carbohydrate content of the diet to 60% with a reduction in fat content to 30%. Follow-up studies showed that contrary to expectations, the control of diabetes actually became easier. Moreover, the dose of antidiabetic drugs required

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seemed to be very small. Further refinement of the diet led to an increase in the protein and fibre contents of the diet. Thus was evolved the high carbohydrate high fibre (HCHF) diet. Studies with the HCHF diet have been carried out by us for over 3 decades have shown the following findings:

1. The diet helps to achieve quick and effective control of diabetes.
2. The control could be sustained for years.
3. There was also a decrease in the cholesterol and triglyceride levels, the two major fats in the diet which are risk factors for atherosclerosis (thickening of arteries leading to strokes, heart attacks).

What are the general principles of diet for diabetes?

1. Direct sugar intake in the form of refined carbohydrates should be totally avoided. This includes table sugar, sweets, honey, jaggery etc.
2. The total quantity of food must be restricted.
3. There is no need to change over from rice to wheat or ragi, as the carbohydrate content of these different cereals is not significantly different.
4. Green leafy vegetables and other low calorie foods can be taken in unlimited quantities.
5. Addition of vegetable proteins in the form of bengal

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gram, green gram, etc. have multiple benefits:

- (a) They increase the protein content.
- (b) They increase the fibre content.
- (c) They help to flatten sudden surges of blood sugar after a meal.
- (d) They help to reduce serum lipid (fat) levels.

6. The diet should help to maintain ideal body weight.

7. The diet should not only help to control diabetes, but also bring down the cholesterol and triglyceride levels.

Can artificial sweeteners be used?

Yes. Most available artificial sweeteners or "alternative" sweeteners as they are referred to now-a-days are quite safe. Because of the fear of carcinogenicity raised by the cyclamate group of drugs, other sweeteners too came under a cloud of suspicion. However, saccharin, the most widely used sweetener, has been extensively tested and found to be safe. Saccharin in tablet or liquid form can be used, but it is better to use it sparingly. Newer sweeteners like

aspartame, have now been introduced and are sweeter and probably even safer than saccharin.

Role of fibre

Several brands of artificial fibre are being introduced in the market. If your diet includes sufficient leafy vegetables, grams and pulses, it is already a fibre-rich diet. Hence, addition of artificial fibre is usually unnecessary. However, whenever sufficient fibre is not available in the diet there is a justification to add dietary fibre which may help to not only improve diabetic control but also correct lipid abnormalities.

Role of fat in the diet

The amount of fat in the diet must be minimized and restricted to that used for cooking and is used mainly to ensure palatability. It would be better to use fats with high polyunsaturated fatty acid (PUFA) and monounsaturated fats (MUFA) content. Saturated fats are to be restricted to the minimum. Saturated fats usually solidify at room temperature, eg. butter. Unsaturated fats on the other hand usually remain liquid at room temperature. The fats with highest PUFA content are Sunflower oil and Safflower oil followed by gingelly oil and ground nut oil. Ground nut oil however has a higher content of MUFA which is now gaining a lot of importance.

In summary, modern day diabetic diets need not be as "terrible" or frustrating as they once used to be. Provided one is sensible and eat the right foods and in the right quantities, one can have a long and healthy life with diabetes.
