



By  
Nik Nikam, M.D.

Most people have a myth that Desi vegetarian diet is good for their heart? What is good for your palate is not necessarily good for your heart. The vegetarian diet is neither good or nor bad depending upon its composition. However, if take a close look at the composition of a typical Desi vegetarian diet, you will notice that it is loaded with excessive amounts of carbohydrates:

Breakfast Carbohydrates: breads, dosa, Idli, cereals, rice, chapatti, nan, potatoes, milk, fruits.

Lunch carbohydrates: Rice, wheat, chapatti, flour, potatoes, peas, nan, milk,

Dinner carbohydrates: Nan, chapatti, alcohol, rice, beans, potatoes, sweets, banana, milk, fruits,

With the exception of eggs, meat, and pure butter just about everything you touch is loaded with carbohydrates. As a result, much so, the Desi vegetarian diet may comprise of 80% of its calories coming from carbohydrates, whereas most American diet's carbohydrates account for 50% to 55% of the total calories. When you consume such an enormous amount of carbohydrates you are likely to have glucose intolerance, elevated triglycerides, and/or over weight. How much carbohydrate do we need?

You body needs about 200 grams of carbohydrates per day. It is interesting to note that your body stores about 400 grams of carbohydrates in the form of glycogen in the liver and muscles

to supply the immediate energy needs. For long term energy needs, your body depends on fatty acids. When you stuff your system with 300 to 600 grams of sugar per day, the body has no choice but to store only a part of it as glycogen, while the rest of it is going to be converted into fatty acids or triglycerides. The triglycerides are now considered an independent risk factor for heart disease. The triglycerides produce LDL (the bad) cholesterol. Now, you can see the link between a vegetarian high carbohydrate diet, triglycerides, elevated LDL levels, and the heart disease.

### *What is the solution?*

Even though most American diets recommend 1800 to 2400 calories per day, we do not expense that amount of calories. Whatever calories we do not burn, will turn into fat and LDL cholesterol. The first step in modifying your diet is to reduce the amount of carbohydrates to less than 200 g per day or perhaps to less than 100 grams per day. The total reduction in calories has multiple benefits such as reduced sugar levels, lower triglycerides levels, reduced LDL level, weight control, and better diabetes control. You can have a healthy lifestyle by consuming as little as 1200 to 1500 calories per day. There are two main types of carbohydrates based on their glycemic index. A glycemic index refers the rapidity at which your carbohydrate turns into pure glucose in the body. When you consume pure glucose, it is readily available for energy in the body. Hence, it is supposed to have a glycemic index of 100. On the other hand, certain fat and meat products have a very low glycemic index. You should select foods that have less than 50% glycemic index. Please visit [www.sugarlandheartcenter.com](http://www.sugarlandheartcenter.com) and look for a chart that has a list of foods along with their glycemic index numbers. The lower glycemic index, the slower the release of sugar. This serves to maintain a steady glucose level without overloading

the system and increasing the insulin demand.

### *What about fats?*

Fat contains triglycerides which are the building blocks of fatty tissue in the body. Unlike carbohydrates, which are stored in a finite amount in the body (400 mg in the form of glycogen), there is no limit as to the amount of fat that your body can accumulate. Like a friend of mine said, when it comes to fats, "a second on your lips, and the rest of the time on your hips. That is a very high price to pay, especially, when you are having a love affair with sweets and fried foods. The key here is to reduce your fat intake drastically.

According to the American heart association, your total fat intake should be less than 30% of your total calories. If you are on a 1500 calories that amounts to 500 calories, which translates into roughly 55 grams of fat per day. There are different types of fats namely: saturated fats that are generally solid at room temperature and are the precursors of cholesterol. There are poly and monounsaturated fats that are less harmful. Avoid animal fat, butter, coconut, and avocado which are high in saturated fats. Select olive oil for cooking and minimize frying foods. You can also choose plant sterol and stanol spreads such as, "*Total Control*," or "*Benecol*," which reduce your cholesterol levels. Keep your saturated fat intake to less than 10% of the total calories. That means less than 150 calories can come from saturated fats, which amount to 16 to 17 grams of saturated fat or equal to a table spoon of saturated fat. It would be very difficult to count such small quality fat, and the simplest solution is to minimize the intake of saturated fats. Remember that the so called low fat precuts may be loaded with carbohydrates to provide the consistency. Read the labels!

*Where can I get more proteins?*

Unlike carbohydrates and fats, which our body has the ability to manufacture, most of the protein has to come from our dietary sources. There are 8 essential amino acids, the building block of proteins, which have to be provided from dietary sources. The biggest concern that most vegetarians have is how they can increase their protein intake while keeping the carbohydrate intake low. There are plenty of vegetable sources that contain protein. However, you need to understand that most vegetable sources of proteins such as peas and dals also have carbohydrates which need to be taken into consideration while cooking.

Take for example a serving of chickpeas. When you read the nutritional label, you will notice that it has 6 grams of protein, but also has 12 grams of carbohydrates. The rule of thumb is that there twice as many grams of carbohydrates as there are proteins. None the less, there are excellent sources of proteins such as eggs without the yolk, cottage cheese, tofu, peas, beans, dals, skim milk, avocado, soy beans, and nuts. One more important point to remember is that most of these products also contain fat. Over 60% of the calories in nuts come from polyunsaturated fats (peanuts and cashews). Each gram of protein contains 4 calories. The average daily intake of protein should be less than 2 g per/Kg, which amounts to less than 150 g per day.

### *Do I need to hire a dietitian?*

You do not need to be an expert dietitian to craft out a heart-healthy diet. If you know how to precisely measure the ingredients for a cheesecake or determine the quantity of salt and spices for your favorite biryani, you can calculate the amount of carbs, fats, and proteins by simply reading the labels and translating the amount of carbohydrates, fats, and proteins you consume per day. Multiple the carbohydrate or protein grams by 3.5 to get the calories from each group. Multiple the fat grams by 9 to get the calories from your fats. Use that as the

starting point, and then systematically reduce to quantity of carbohydrates or fats, until you reach a desired calorie count and the right combination of carbohydrates, fat, and proteins (roughly 100 to 200 g of carbohydrates, 50 g of fats, and less than 150 g of proteins per day).

If you are preparing for the entire family, measure the amount dry food such as rice to get the total calories and then divide it by the number of people to arrive at each person's consumption. For example; a cup of dry rice has 240 g of carbohydrates. That translates into 840 calories (240 X 3.5). A cup of dry rice turns into 6 cups of cooked rice. If four people eat a that rice, each person will get approximately 210 calories from carbohydrates. Similarly pour the amount of cooking oil you use per day, into a measuring cup. Multiply the volume (cc) with 9 to get the calories from fat. If you have 50 cc of oil, it accounts for 450 calories!!! To that, add all the fat that comes from the nuts, dals, peas, etc. Now you have daily total fat and fat calorie intake.

You give a man a fish, he will eat for a day. You teach a man how to fish, he will eat for the rest of his life. With his short introduction, I have given you tips on how to fish out your heart-healthy diet with some simple useful hooks. For an in-depth look at carbs, fats, proteins, Omega-3s and others, please visit [www.sugarlandheartcenter.com](http://www.sugarlandheartcenter.com) and read up on, "Nikam's Diet," a free electronic book that contains numerous articles on heart-healthy diet.

Visit [www.sugarlandheartcenter.com/](http://www.sugarlandheartcenter.com/) for past articles.

Nik Nikam, M.D. P: 281-265-7567  
[nikam@alttel.net](mailto:nikam@alttel.net)