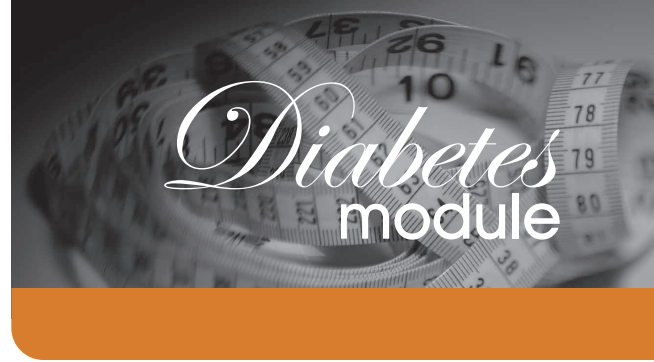


# NUTRITION—THE CORNERSTONE OF DIABETES MANAGEMENT



Good nutrition is important for everyone, but if you have diabetes it is even more so. To control your diabetes and have a healthful energetic life, you need to keep your blood glucose level stable within a normal range. To do this, you need to control what you eat, how much you eat, and when you eat.

The dietitians at the Numetra Center can help answer all of your nutrition questions. They can provide meal plans and advise you on food choices, grocery shopping, and preparing foods in a healthy way for yourself and your family. Additionally you will receive food lists developed by the American Diabetes Association and the American Dietetic Association that will help you design meals specifically suited to your nutritional needs and lifestyle.

## Meal Planning Guidelines

The following guidelines form the basis of good meal planning for people with diabetes:

### Achieve a Healthy Weight

Cut back on the amount of food you eat and increase your physical activity. In general, weight loss lowers blood pressure and decreases cholesterol and triglyceride levels in the blood. For people with diabetes, losing weight can also regulate the level of sugar (glucose) in the blood. You probably noticed that your own glucose levels improved as you lost weight. Keeping the weight off will help you keep your glucose levels under control and maintain any improvements in your blood pressure and levels of cholesterol and triglycerides.

### Count your Carbohydrates

Carbohydrates, which are found in starches and sugars, make your blood glucose level increase. In the past, people with diabetes were advised to avoid foods high in sugar. But experts now know that starches (like potatoes, corn, bread, and pasta) and sugars (found naturally in fruit and milk and in processed foods) have a similar effect on blood glucose levels. It's the amount of carbohydrate, rather than the source, that's most important, although emphasis should be placed on choosing whole grains, fruits, and vegetables rather than refined starches and sugars.

You can have moderate amounts of sugar or sweets, if you substitute sugar-containing foods for other carbohydrate-containing foods in your meal plan. Keep

in mind, though, that sugary foods tend to be high in calories and fat and do not provide the vitamins, minerals, and fiber found in starches. The registered dietitians at the Numetra Center will show you how to include carbohydrate foods into a healthful meal plan.

### Trim Fat—Lean Toward Lean

Reduce the amount of fats (especially saturated and trans-saturated fat) and cholesterol in your diet by choosing foods low in these substances. A diet high in fat is high in calories and increases the risk for heart disease and heart attacks. All Americans are at risk for heart disease, but the risk is greater for persons with diabetes.

### Shake the Salt Habit

Limit salt in cooking, do not add salt to foods at the table, and avoid foods generally high in salt such as processed foods and many snacks and fast-food items. A diet high in salt, obesity, and an inherited tendency can all increase the risk of developing high blood pressure, especially for people with diabetes.

### Emphasize variety

As the adage says, variety is the spice of life, so eat a variety of foods. Not only will this help ensure that you will not get too much or too little of the vitamins and minerals your body needs, but a variety of foods lets you experience and enjoy many different tastes.

## Timing and Quantity

Following the dietary goals listed above is a good start to controlling your diabetes. Just as important as what you eat, though, are when and how much you eat, especially if you are to control your blood glucose levels.

### When You Eat

Regularly spaced meals (breakfast, lunch, dinner, and possibly some snacks) will allow your body the time it needs to bring down the level of glucose in the blood before the next meal. Here's how it works: After you eat, food is digested and much of it goes into the bloodstream as glucose (blood glucose). It stays there until it is taken into the cells. As the glucose enters the cells, the level in the blood goes down. How fast it goes down depends in part on how much insulin your body produces and how well it works.

### How Much You Eat

A very large meal gives your body a great deal of food to use at one time. The more food, the more glucose. Your body may not be able to produce enough insulin or the insulin you produce may not work well enough to keep the blood glucose level within the normal range. Because you have diabetes, your body does not handle glucose as efficiently as it should. When you overload—give your body too much at once—you make the problem even worse.

### Monitoring Your Blood

As you can see, when and how much you eat affects not only your weight, but also your blood glucose day-to-day and meal-to-meal. By monitoring your blood glucose, you can actually see the effect of a larger-than-usual meal or snack, or the effect if you delay or skip a meal (and we do not recommend you do that!). During the Sustaining Phase, you should measure your blood glucose at least every third day:

1. Before your morning meal
2. Before your largest meal of the day
3. 120 minutes after your largest meal

## Medication

Weight loss greatly improves blood glucose control, but for some people it does not eliminate the need for certain medications. Others can discontinue some medications when they are on the Numetra System, but they may have to resume medications when they start eating regular food again. In both cases, the amount of medication needed to control blood glucose is generally much less than before weight loss.

If you need either insulin injections or diabetes pills to control your blood glucose, it's important that you take these medications about the same time each day. It's also important to match meals and snacks to the times the medication is at its peak action. Following the same schedule for medication and eating every day will help you avoid episodes of hypoglycemia.