



ENDOCRINOLOGY

Manage Type 2 Diabetes with Lifestyle Changes

A registered dietitian can help you create and follow a goal-driven plan that will reduce your risk of complications.

Twenty-six million Americans have diabetes, according to the National Diabetes Fact Sheet released by the Centers for Disease Control and Prevention (CDC) in January 2011.

Since diabetes often has no symptoms in its early stages, patients who have the disease sometimes lack motivation to adopt a healthier lifestyle. However, early intervention is critical, because diabetes can cause major complications—it is the seventh leading cause of death in the U.S.

“Serious complications of uncontrolled diabetes include, but are not limited to, heart disease, stroke, high blood pressure, blindness, kidney failure, nervous system damage, amputations, and gum disease,” says Georgia Giannopoulos, RD, CDN, CNSC, a dietitian at Weill Cornell Medical Center. “That’s why it is vital to achieve and maintain blood glucose control—to help reduce the risk of these complications.”

However, controlling your blood glucose levels is easier said than done, since many variables come into play. That’s why it makes sense to enlist the aid of a dietitian who can provide medical nutrition therapy (MNT).

What is medical nutrition therapy?

MNT is a service provided by a registered dietitian (RD) that assists

patients in managing medical conditions via dietary and other lifestyle modifications.

“RDs help patients create individual goals, develop tools, and implement lifestyle habits to realize these goals. Everyone is different and has unique nutrition needs. When creating an individualized



Exercise is an essential component of managing diabetes and reducing the risk of serious complications. A program that includes both aerobic and resistance exercise is recommended.

plan with a patient, it is important to consider his/her preferences, access to food, and readiness for change,” explains Giannopoulos. MNT can help patients understand and follow key lifestyle recommenda-

tions for diabetes management listed below.

These guidelines were published in the December 2010 issue of the *Journal of the American Dietetic Association*.

CARBOHYDRATES

“Carbohydrate intake is the key dietary factor that affects blood glucose,” says Giannopoulos. “Distributing carbohydrate intake at

meals and snacks consistently throughout the day has been shown to improve glycemic control.”

What is allowable total carb intake per day? Carbs should account for between 55 and 60 percent of your total daily calorie intake. According to the American Diabetes Association, for most people, this translates into about 45 to 60 grams (g) of carbs per meal, although the number varies depending

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on factors such as age, sex, weight, and physical activity level.

For people with diabetes, one serving of carbs is equivalent to 15 g of carbs. Foods made from grains (bread, pasta, cereals and rice) and starchy vegetables, such as potatoes, have the highest carb content per volume.

However, carbs are also found in many other types of foods, including fruits, vegetables, dairy products, and legumes (beans, peas and lentils).

“It is important to identify these foods when making a meal plan to achieve consistent carbohydrate intake. For example, the following foods all contain 15 grams of carbohydrate (or one carbohydrate serving): one small apple, ½ cup corn, ½ cup beans, and one cup of milk,” says Giannopoulos.

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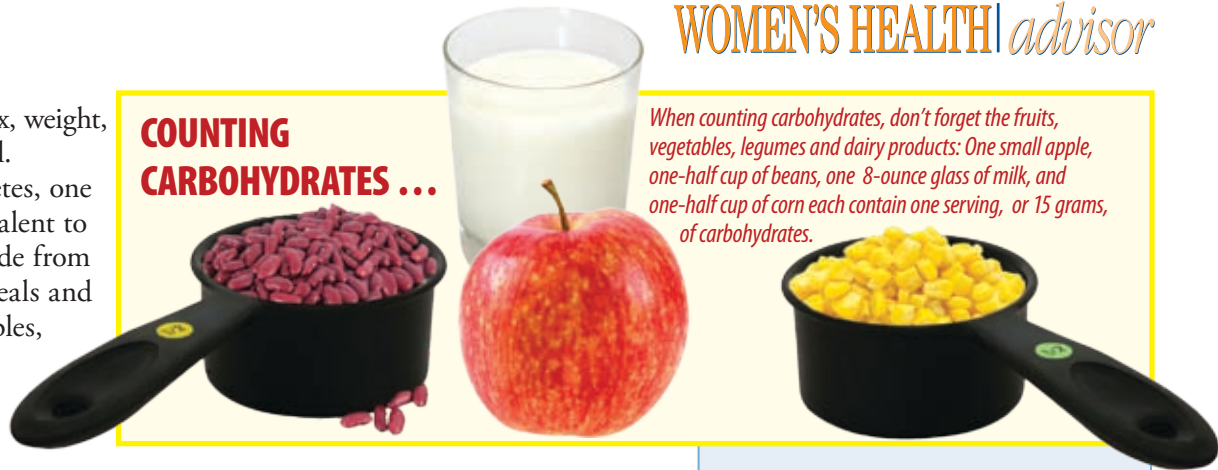
If you have diabetes, you should consume 25 to 30 g of fiber each day.

“Some studies show that high-fiber diets improve glycemic control, but overall, the evidence is inconclusive. However, there is strong evidence that fiber-rich foods help lower total cholesterol, which lowers the risk of cardiovascular disease (CVD),” explains Giannopoulos. This is especially important for people with diabetes, as their CVD risk is three to four times higher than people who don't have diabetes. Foods that are high in fiber include whole grains, legumes, and some fruits and vegetables.

FAT AND CHOLESTEROL

Limiting intake of saturated and trans fat and cholesterol is recommended to help decrease risk of cardiovascular disease. Foods high in saturated fat include fatty cuts of meat, full-fat dairy products, and palm, palm kernel and coconut oils. Cholesterol is found

COUNTING CARBOHYDRATES ...



When counting carbohydrates, don't forget the fruits, vegetables, legumes and dairy products: One small apple, one-half cup of beans, one 8-ounce glass of milk, and one-half cup of corn each contain one serving, or 15 grams, of carbohydrates.

primarily in foods high in saturated fat, so if you limit your saturated fat intake, you'll also be limiting your cholesterol intake. Trans fat, which forms when oils are partially hydrogenated, is found in many processed and packaged foods.

EXERCISE/PHYSICAL ACTIVITY

Another essential component of diabetes management is physical activity, which improves insulin sensitivity and glycemic control. People with diabetes are advised to get 90 to 150 minutes of moderate-intensity aerobic physical activity a week and to do resistance exercises three times per week.

Since exercise causes blood glucose levels to drop, steps must be taken to prevent hypoglycemia (low blood glucose); an RD can explain adjustments to insulin dosage and/or carb intake.

GLUCOSE MONITORING

For people who take insulin, at least three to eight glucose tests per day are recommended. Frequent glucose readings provide information that helps guide adjustments in insulin doses, as well as food intake and physical activity.

Combining all of these recommendations into a practical plan for day-to-day living can be extremely challenging, and this is where an RD can provide invaluable assistance.

“We help patients structure a plan with attainable goals, track their progress, and identify what is working and

FACTS AND FIGURES ON PREDIABETES

The National Diabetes Fact Sheet 2011 issued by the Centers for Disease Control and Prevention estimates that 79 million Americans have prediabetes, a condition in which blood sugar levels are higher than normal but not yet high enough to be diagnosed as diabetes (a fasting plasma glucose test result of above 100 and below 125 milligrams per deciliter). Prediabetes boosts your odds for developing type 2 diabetes.

However, even if you have prediabetes, lifestyle modifications can cut your chances of developing diabetes by more than half. In one study, called the Diabetes Prevention Program (DPP), people with prediabetes who reduced the number of calories and the amount of fat in their diets and were physically active for at least 30 minutes a day, five a days a week, reduced their risk of diabetes by 58 percent. They also lost between five and seven percent of their total body weight. Among people age 60 or older, the results were even better—they reduced their diabetes risk by 71 percent.

what needs to be changed to promote long-term success. We also encourage patients along the way and help them discover that eating healthfully can be enjoyable,” says Giannopoulos. 🍌