



DIABETES

Diabetes is a disorder in which the body cannot make proper use of carbohydrates (sugar and starches). The major forms of diabetes are **Type 1** (your body doesn't make enough insulin) and **Type 2** (your body is unable to use insulin properly). Both types of diabetes share one central feature: The cells of your body do not absorb enough insulin (a hormone produced by the pancreas). This results in high sugar in your blood. Here's the normal process:

- During and immediately after a meal the process of digestion changes sugar and starches into *glucose* and proteins into *amino acids*.
- Glucose and amino acids are absorbed from your intestines directly into the bloodstream, and blood glucose levels rise sharply.
- The rise in blood glucose levels signals important cells in the pancreas (*beta cells*) to secrete insulin, which pours into the bloodstream. Within ten minutes after a meal insulin rises to its peak level.
- Insulin acts like a key that opens the door to body cells and allows glucose (and amino acids) to enter from the blood and be broken down to provide energy to all of the cells in the body, but its major targets are liver cells, fat cells and muscle cells. Without sufficient insulin, unused glucose builds up in the blood and passes into the urine. (This produces several, but not necessarily all, of the following symptoms: frequent urination, excessive thirst, fatigue, extreme hunger or constant eating, numbness or tingling in hands and feet, changes in vision, slow-healing wounds or sores, burning/itching of the skin, fatigue.)
- When we have an oversupply of glucose, our body stores the excess in the liver and muscles by making *glycogen*—long chains of glucose. When glucose is in short supply, our body mobilizes glucose from stored glycogen and/or stimulates us to eat food.

Insulin is a key regulator of the body's metabolism. Being overweight increases insulin resistance and contributes to many health problems, including heart and blood vessel disease.

The best defense against complications for diabetics is to maintain a healthy weight which, in turn, gives them a greater ability to maintain healthy blood sugar level. In order to do that, diabetics must closely monitor not only the quality and quantity of their food intake, but eat foods from each group every day to make sure their bodies have all the nutrients needed. Healthy eating habits along with good control of blood glucose are the basic goals in managing diabetes.

All Lifestyle Programs at Weight★No★More Diet CenterSM are balanced amongst the food groups, and all are low-fat/high-fiber, low-protein/high complex carbohydrates—the perfect lifestyle to help you learn new eating habits, lose weight, keep it off, and manage your diabetes. **We encourage you to show your program to your physician.**

HELPFUL HINTS FOR MANAGING DIABETES

1. **Don't skip meals.** Whether you take insulin or pills, regular meals are important.
2. **If you're on insulin,** it is best to eat meals at the same time each day to best coordinate your insulin administration with calorie intake. (The timing of your insulin intake is directed solely by your doctor.) Eat a similar amount of food at each meal. Even distribution of carbohydrate over the day will make best use of the available insulin and prevent wide variations in blood glucose levels.
3. **Smaller amounts of food** eaten more frequently result in steadier, more even blood glucose levels (and the same holds true for those who don't have diabetes).
4. **Choose whole-grain breads, cereals and pasta.** Eat fresh fruits, vegetables and legumes. These foods contain more fiber and slow the release of glucose into your blood after a meal..
5. **Limit foods high in saturated fat and cholesterol.** Enjoy fish, soy foods and other foods rich in omega-3 fats. (Omega-3 polyunsaturated fats can lower blood cholesterol, and also confer extra benefits by lowering blood triglycerides.) Good sources of omega-3 fats are: virgin olive oil and canola oil; salmon, tuna, lake trout, mackerel, sardines and herring. Eat lean cuts of meat and poultry without the skin. Limit the amount of eggs you eat. Use diet margarine instead of butter.
6. **Avoid sugars and foods high in added sugar** (this is especially important for overweight people). For most diabetics, foods and drinks sweetened with *Splenda* or *Equal* are OK. Check with your doctor. Additionally, small amounts of sugar eaten as part of a meal may not adversely affect blood glucose in persons with good blood glucose control and may be allowed by your doctor. Nevertheless, minimal amounts of sugar are encouraged for nutritional and weight control reasons. A good rule of thumb is to avoid products listing more than 5 grams of sugar per serving.
7. **Foods rich in antioxidant vitamins C, E and beta-carotene** may help prevent long-term complications of diabetes (such as damage to small blood vessels and nerves): apples, beans, berries (dark colored), broccoli, brussel sprouts, carrots, cauliflower, onions, oranges, soy, spinach and all dark green leafy vegetables, sweet potatoes, tomatoes.
8. **Salt** can raise blood pressure, and people with diabetes should limit salt intake, particularly if they have hypertension, are overweight, or both.
9. **Caffeine** causes a temporary increase in blood pressure in everyone, but regular intake of coffee has a harmful effect on blood pressure in people with existing hypertension. De-caf does not.
10. **Slower acting carbohydrates (fruits, vegetables, whole grains)** are foods that are more slowly digested and absorbed. They help maintain more even blood glucose levels. **Quicker acting carbohydrates** ('refined' carbs such as bagels, rice cakes, cookies, most breakfast cereals) are foods that more rapidly raise blood glucose levels. [Most diabetics are allowed by their physician to eat these only in moderation. Check with your doctor.]
11. **As often as possible, your snacks and meals should consist of a protein or dairy "linked with" a fruit, vegetable or whole grain.** Examples: a yogurt with an apple; a piece of cheese with a fruit or vegetable; tuna salad spread on celery sticks; an omelet with spinach; whole grain cereal with milk or yogurt. By eating this way you will "complement" a carbohydrate with a slower-acting protein, thereby slowing the digestion of the carbohydrates, the absorption of sugars into the blood, and, in the end, enhance your body's ability to burn fat while satisfying your appetite far better and longer.

The above is provided for information purposes only. Weight★No★MoreSM Diet Center is not responsible for clients who make food selections that do not comply with medical conditions or prescribed protocols or medications. Always consult with your physician.

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