



Patient education: Diabetes and diet (The Basics)

Written by the doctors and editors at UpToDate

Why is diet important in diabetes? — Diet is important, because it is part of diabetes treatment. Many people need to change what they eat and how much they eat to help treat their diabetes. It is important for people to treat their diabetes so that they:

- Keep their blood sugar at or near a normal level
- Prevent long-term problems, such as heart or kidney problems, that can happen in people with diabetes

Changing your diet can also help treat obesity, high blood pressure, and high cholesterol. These conditions can affect people with diabetes and can lead to future problems, such as heart attacks or strokes.

Who will work with me to change my diet? — Your doctor or nurse will work with you to make a food plan to change your diet. He or she might also recommend that you work with a "dietitian." A dietitian is an expert on food and eating.

Do I need to eat at the same times every day? — When and how often you should eat depends, in part, on the diabetes medicine that you take. For example, people who use a certain type of insulin or who take diabetes pills that increase insulin levels (called "sulfonylureas") should eat meals at the same time each day. This helps prevent people from getting low blood sugar.

People who use an insulin pump, insulin before each meal, or pills that improve the way insulin works (called "metformin") do not always have to eat meals at the same time. That's because people who use these treatments have a smaller chance of getting low blood sugar.

What do I need to think about when planning what to eat? — Our bodies break down the food we eat into small pieces called carbohydrates, proteins, and fats.

When planning what to eat, people with diabetes need to think about:

- Carbohydrates (or "carbs") Carbohydrates, which are sugars that our bodies use for energy, can raise a
 person's blood sugar level. Your doctor, nurse, or dietitian will tell you how many carbohydrates you should
 eat at each meal or snack. Foods that have carbohydrates include:
 - · Bread, pasta, and rice
 - Vegetables and fruits
 - Dairy foods
 - Foods with added sugar

It is best to get your carbohydrates from fruits, vegetables, whole grains, and low-fat milk.

- Protein Your doctor, nurse, or dietitian will tell you how much protein you should eat each day. It is best to eat lean meats, fish, eggs, beans, peas, soy products, nuts, and seeds.
- Fats The type of fat you eat is more important than the amount of fat. "Saturated" and "trans" fats can increase your risk for heart problems, like a heart attack.
 - Foods that have saturated fats include meat, butter, cheese, and ice cream.
 - Foods that have trans fats include processed food with "partially hydrogenated oils" on the ingredient list. This may include fried foods, store bought cookies, muffins, pies, and cakes.

"Monounsaturated" and "polyunsaturated" fats are better for you. Foods with these types of fat include fish, avocado, olive oil, and nuts.

- Calories People need to eat a certain amount of calories each day to keep their weight the same. People
 who are overweight and want to lose weight need to eat fewer calories each day.
- Fiber Eating foods with a lot of fiber can help control a person's blood sugar level.
- Salt People who have high blood pressure should not eat foods that contain a lot of salt (also called sodium). People with high blood pressure should also eat healthy foods, such as fruits, vegetables, and lowfat dairy foods.
- Alcohol Having more than 1 drink (for women) or 2 drinks (for men) a day can raise blood sugar levels.
 Also, drinks that have fruit juice or soda in them can raise blood sugar levels.

What can I do if I need to lose weight? — If you need to lose weight, you can:

- Exercise Try to exercise for 30 minutes a day, most days of the week. Some people with diabetes need to change their medicine dose before they exercise. They might also need to check their blood sugar levels before and after exercising.
- Eat fewer calories Your doctor, nurse, or dietitian can tell you how many calories you should eat each day in order to lose weight.

If you are worried about your weight, size, or shape, talk with your doctor, nurse, or dietitian so that he or she can help.

Can I eat the same foods as my family? — Yes. You do not need to eat special foods if you have diabetes. You and your family can eat the same foods. Changing your diet is mostly about eating healthy foods and not eating too much.

What are the other parts of diabetes treatment? — The other parts of diabetes treatment are:

- Exercise
- Medicines

Some people with diabetes need to learn how to match their diet and exercise with their medicine dose. For example, people who use insulin might need to choose the dose of insulin they give themselves. To choose their dose, they need to think about:

- What they plan to eat at the next meal
- How much exercise they plan to do

• What their blood sugar level is

If the diet and exercise do not match the medicine dose, a person's blood sugar level can get too low or too high. Blood sugar levels that are too low or too high can cause problems.

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