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Diabetes and Nutrition

Why does it matter what I eat?

What you eat is closely connected to the amount of sugar in your blood. The right food choices will help you control your blood sugar level.

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Do I have to follow a special diet?

There isn't one "diabetes diet." Your doctor will probably suggest that you work with a registered dietitian to design a meal plan. A meal plan is a guide that tells you what kinds of food you can choose at meals and snack time and how much to have. For most people with diabetes (and those without, too), a healthy diet consists of 40% to 60% of calories from carbohydrates, 20% from protein and 30% or less from fat.

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Can I eat any sugar?

Yes. In recent years, doctors have learned that eating some sugar doesn't usually cause problems for most people with diabetes--as long as it is part of a balanced diet. Just be careful about how much sugar you eat and try not to add sugar to foods.

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What kinds of foods can I eat?

In general, at each meal you may have 2 to 5 choices (or up to 60 grams) of carbohydrates, 1 choice of protein and a certain amount of fat. Talk to your doctor or dietitian for specific advice.

Carbohydrates. Carbohydrates are found in fruits, vegetables, beans, dairy foods and starchy foods such as breads. Try to have fresh fruits rather than canned fruits (unless they are packed in water or their own juice), fruit juices or dried fruit. You may eat fresh vegetables and frozen or canned vegetables. Condiments such as nonfat mayonnaise, ketchup and mustard are also carbohydrates.

Protein. Protein is found in meat, poultry, fish, dairy products, beans and some vegetables. Try to eat poultry and fish more often than red meat. Don't eat poultry skin, and trim extra fat from all meat. Choose nonfat or reduced-fat dairy products such as cheeses and yogurts.

Fat. Butter, margarine, lard and oils add fat to food. Fat is also in many dairy and meat products. Try to avoid fried foods, mayonnaise-based dishes (unless they are made with fat-free mayo), egg yolks, bacon and high-fat dairy products. Your doctor or dietitian will tell you how many grams of fat you may eat each day. When eating fat-free versions of foods (like mayonnaise and butter), check the label to see how many grams of carbohydrates they contain. Keep in mind that these products often have added sugar.

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What is the exchange list?

The exchange list (see the sample below) is a tool to help you plan healthy meals and snacks. To add variety to your diet, you can substitute certain foods for other foods in the same group. Some examples are listed at the right.

Sample Exchange List

Food group	You can have.....	Or exchange it for...
Fruit (each serving contains about 15 grams carbohydrates)	1 small or medium piece of fresh fruit	1/2 cup fruit juice, or canned or chopped fruit
Vegetable (each serving contains about 5 grams carbohydrates)	1 cup raw vegetables	1/2 cup cooked vegetables or vegetable juice
Starch (each serving contains about 15 grams carbohydrates)	1 slice or ounce bread	1/2 cup pasta, cereal, starchy vegetable
Sugar, honey, molasses	1 teaspoon	4 grams carbohydrates
Milk (does not include cream, yogurt or cheese)	1 cup milk	12 grams carbohydrates and 8 grams protein
Meat	1 ounce meat, fish, poultry, cheese or yogurt	1/2 cup dried beans
Fat (includes nuts, seeds and small amounts of bacon & peanut butter)	1 teaspoon oil, butter or margarine	5 grams fat

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What if my blood sugar is below or above normal?

If your blood sugar is low, you may become cranky, tired, confused, shaky or

sweaty. This is a condition called hypoglycemia. This can happen after you have been working hard or exercising. You should check your blood sugar level first, and then drink fruit juice or a regular (not diet) soda right away if your blood sugar level is low. This will usually bring your level back to normal.

However, if you are very thirsty, urinate a lot or have blurred vision, your blood sugar may be much too high. Check your blood sugar level and contact your doctor to find out what to do.

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Other Organizations

- [American Dietetic Association](#)
<http://www.eatright.org>
800-366-1655
- [American Diabetes Association](#)
<http://www.diabetes.org/home.jsp>
1701 North Beauregard Street
Alexandria, VA 22311
1-800-DIABETES (1-800-342-2383)
- [Revolution Health Diabetes Community](#)
<http://www.revolutionhealth.com/forums/diabetes>

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Source

[Written by familydoctor.org editorial staff.](#)

This handout was developed by the American Academy of Family Physicians in cooperation with the American Diabetes Association.

Reviewed/Updated: 11/06

Created: 03/99

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NATIONAL Diabetes Education PROGRAM

Recipe and Meal Planner Guide

Control your diabetes For Life



Introduction

- What is Diabetes
- Steps to Healthy Eating
- How to Create a Healthy Meal Plan
- What is the Diabetes Food Pyramid
- What is the Right Number of Servings
- What is a Serving Size in the Food Pyramid
- What to do When Eating Combined Foods

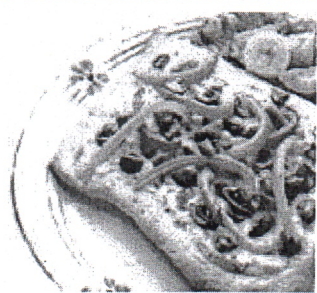
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- Recipes
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Eating Healthy and Staying Fit to Control and Manage Diabetes

What is diabetes and are you at risk?

Diabetes is a disease that results in too much sugar (glucose) in the blood. Your body does not have enough insulin available to turn food into energy. High levels of glucose slowly damage your eyes, heart, kidneys, nerves, legs, and feet. Diabetes is a serious disease affecting 20.8 million people in this country, and you may be at risk if you are Hispanic, overweight, or do not exercise regularly. Hispanics are nearly twice as likely as non-Hispanic whites to develop this disease.



Steps to healthy eating and a healthy lifestyle to control and manage diabetes:

- Begin with a healthy eating plan. Healthy eating means eating more grains, fruits, vegetables, and less meat, sweets, and fats every day. "Let the Food be the Medic and Medicine be the Food" (Hippocrates).
- Be physically active every day to help prevent weight gain and improve blood sugar control.
- Check the sugar in your blood and take your medication every day if needed.

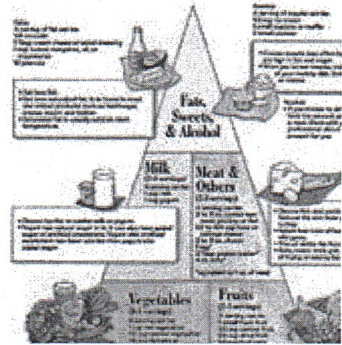
How to create a healthy meal plan:

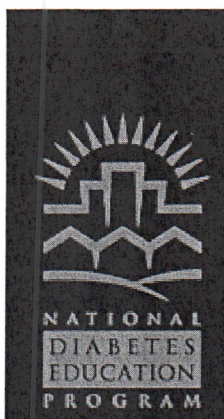
To create a healthy meal plan you should do the following:

- Eat a variety of foods as recommended in the **Diabetes Food Pyramid** to get a balanced intake of the nutrients your body needs - carbohydrates, proteins, fats, vitamins, and minerals.
- Make changes gradually because it takes time to accomplish lasting goals.
- Reduce the amount of fat you eat by choosing fewer high-fat foods and cooking with less fat.
- Eat more fiber by eating at least 5 servings of fruits and vegetables every day.
- Eat fewer foods that are high in sugar like fruit juices, fruit-flavored drinks, sodas, tea or coffee sweetened with sugar.
- Use less salt in cooking and at the table. Eat fewer foods that are high in salt, like canned and packaged soups, pickles, and processed meats.
- Eat smaller portions and never skip meals.
- Learn about the right serving sizes for you.
- Learn how to read food labels.
- Limit use of alcohol.

What is the Diabetes Food Pyramid?

The **Diabetes Food Pyramid** is a general guide of what and how much to eat each day. It is similar to the Food Pyramid you see on many food packages. The pyramid is divided into six groups. You should eat more foods from the largest group at the base of the pyramid and less from the smaller groups at the top of the pyramid. The number of servings needed every day is not the same for everyone, so a range of servings is given to ensure you get the foods you need for good health. The food groups and suggested servings per day are listed below.





A Joint Initiative of the National Institutes of Health and the Centers for Disease Control and Prevention

- **Grains, Beans, and Starchy Vegetables:** (good source of B vitamins and fiber) 6 or more servings/day
- **Fruits:** (contain vitamins C, A, potassium, folate, and fiber) 3-4 servings/day
- **Vegetables:** (provide vitamins A, C, folate, and fiber) 3-5 servings/day
- **Milk:** (source of calcium, protein, vitamins A and D) 2-3 servings/day
- **Meats and Others:** (good source of iron, zinc, B vitamins, and protein) 2-3 servings/day
- **Fats, Sweets, and Alcohol:** The foods at the tip of the pyramid should be eaten small amounts. Fats and oils should be limited because they are high in calories. Sweets are high in sugar and should only be eaten once in a while.

What is the right number of servings for you?

The **Diabetes Food Pyramid** gives a range of servings for each group, but it is only a guide. If you have diabetes, a dietitian can design a specific meal plan for you.

Remember that the number of servings listed is for the entire day. Since food raises blood sugar levels, it is best to space servings throughout the day. For example, 4 servings of fruit might be divided between 3 meals and 1 snack.



Keep in mind

Follow a healthy lifestyle, eat healthy foods, and keep physically active to help control diabetes. If you have diabetes, be an active member of your diabetes care team: you, your doctor, dietitian, and other health care providers. This meal planner gives you only general information. Consult with your diabetes care team.

What is a serving size in the Food Pyramid?

Each of the following represents **one serving** from each of the food groups in the **Diabetes Food Pyramid**:

Grains, Beans, and Starchy Vegetables: 1 slice of bread; 1/2 small bagel, English muffin or bun; 1/2 cup cooked cereal, pasta, rice; 3/4 cup ready-to-eat cereal; 1/2 cup cooked dried beans, corn, peas

Vegetable Group: 1 cup raw vegetable; 1/2 cup vegetable juice

Fruit Group: 1 medium-size fresh fruit; 1/2 cup canned fruit; 1/2 cup fruit juice

Milk Group: 1 cup (8 ounces) milk or yogurt

Meat Group: 2-3 ounces cooked lean meat, skinless poultry, or fish; 1 egg; 2 tablespoons peanut butter; 2-3 ounces cheese

Fats, Sweets, and Alcohol: 1 teaspoon butter, margarine, or mayonnaise; 1 tablespoon cream cheese or salad dressing; 1 tablespoon cream cheese; 1/2 cup ice cream.

What to do when eating combined foods:

Many dishes are made up of several types of foods. Therefore, they do not fit in one specific group. The meal planner includes 7 recipes that will help you to measure using foods from the **Diabetes Food Pyramid**.

Spanish Omelet

1 Grains/Beans/Starchy Vegetables, 1 Meat, 1/2 Fat

Beef or Turkey Stew

1 Grains/Beans/Starchy Vegetables, 1 Vegetable, 1 Meat, 1 Fat

Caribbean Red Snapper

1 Meat, 1 1/2 Fat

Two Cheese Pizza

2 Grains/Beans/Starchy Vegetables, 1 Meat, 1 1/2 Fat

Eggplant Lasagna

1 Vegetable, 1 Meat, 1 Fat

Rice with Chicken, Spanish Style

1 1/2 Grains/Beans/Starchy Vegetables, 1 Vegetable, 1 Meat, 1 Fat

Seafood Stew

2 Meat, 1/2 Fat

This is just an example. If you have diabetes, consult a registered dietitian to help you make your own meal plan. Your meal plan will be based on many factors, including your weight, height, age, and physical activity. The following Sample Meal Plan includes 3 meals and 2 snacks, with suggested servings.

Sample meal plan for a day

Meal	Food Pyramid Group Servings	Suggested Menu
Breakfast	1 Fruit	Fresh orange, 1 medium
	2 Grains/Beans/Starchy Veg.	Baked plantain, 1 medium
	1 Milk	Milk, 1% low fat, 1 cup
	1 Fat	Oil, 1 teaspoon
Lunch	1 Meat	Two Cheese Pizza
	2 Grains/Beans/Starchy Veg.	2 slices (see recipe)
	1 Fat	
	1 Fruit	Melon, 1 cup/cubes
Afternoon Snack	1 Vegetable	Mixed green salad
	1 Fruit	Apple, 1 medium
	1 Meat	Peanut butter, 2 tablespoons
Dinner	1 Grains/Beans/Starchy Veg.	Whole wheat crackers, 5
	1 Grains/Beans/Starchy Veg.	Rice with Chicken Spanish Styl
	1 Meat	1 cup (see recipe)
	1 Vegetable	
	1 Fat	
Evening Snack	1 Fruit	Pineapple rings, 1/2 cup
	1 Vegetable	Spinach, 1 cup raw
	1 Fat	Vinaigrette, 1 tablespoon
	1 Milk	Yogurt, low fat, 1 cup
	1 Grains/Beans/Starchy Veg.	Bread sticks, 2

National Diabetes Education Program (NDEP) <http://ndep.nih.gov>
 NIDDK, National Institutes of Health, Bethesda, MD

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[Food Pyramid](#) | [References](#) | [Spanish Guide](#)

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