People with diabetes must balance foods high in carbohydrates and foods low in carbohydrates.

Low-carbohydrate foods include vegetables, meats and nuts, and fats.

High-carbohydrate foods include grains, fruits, milk, and sweets. These foods raise blood glucose.

In the 50/50 method, half of each meal is taken from the low-carbohydrate groups and half from the high-carbohydrate groups.

It helps to divide up high- and low-carbohydrate foods visually, keeping each on its own side of the plate or the table.

Eating extra vegetables can help you feel fuller and more satisfied after meals without raising your glucose levels.

The Diabetes Food Guide Pyramid is very helpful as a guide for food choices during the course of a day. However, you want to balance these food choices during the day so that foods high in carbohydrate are not eaten all at once. For example, two to four servings of fruit and two to three servings of milk every day are recommended. But you would not want to consume all your fruit and milk servings at breakfast because this could be too much carbohydrate for your body to handle at one time.

**50/50 Method**

The purpose of the 50/50 method is to make meal planning and food selection easy for people with diabetes. The 50/50 method balances foods high in carbohydrate with foods low in carbohydrate. It works particularly well for lunch and dinner meals.

For most people, a good balance is to have about 50% (half) of servings from foods high in carbohydrate and about 50% (half) of servings from foods low in carbohydrate.

The food groups that contain significant amounts of carbohydrate are the grains, beans and starchy vegetables group; the fruits group; the milk group; and sweets. These foods raise blood glucose.

The food groups low in carbohydrate are the vegetables group; the meat and meat substitutes group; and fats. These foods do not cause blood glucose to go up.

It can help to think of placing foods high in carbohydrate on one side at a meal and foods low in carbohydrate on the other side.
How does this actually look when you sit down to eat? With some foods, you could actually place them on different sides of your plate and look to see if your plate is “balanced.” Often, though, not everything we eat at lunch or dinner is on our plate. So we need to remember those foods—like salads, milk, a piece of fruit or dessert—that often aren’t served on the plate. These foods also need to fit into the overall balance of a meal.

Here is another thing to remember: many dishes, such as enchiladas or pizza, are made up of foods from different food groups. For these dishes, you’ll need to estimate how much is from each of the foods that make up the dish (see enchiladas, Example 6).

Vegetables can help you feel fuller and more satisfied after meals. An easy way to be sure to eat enough low-carbohydrate foods is to serve up double portions of vegetables. For example, a serving of cooked green beans on the Diabetes Food Guide Pyramid is 1/2 cup. If you take 1 cup of green beans, you’ve already got two servings on the low-carb side of your plate! Green salads are another case where it’s easy to eat two servings. A serving of salad on the Diabetes Food Guide Pyramid is 1 cup. Fill a good-sized salad bowl, and you’ve likely dished up two cups. So again, you’ve got two servings of low-carbohydrate foods and are well on your way to getting the recommended servings of vegetables for the day. It’s fine to have an extra low-carb serving from vegetables (see carne adobada, Example 8).

Here are nine examples of meals that you might commonly have for lunch or dinner. Each of these examples has two to three servings of foods that are high in carbohydrate and at least three servings of foods that are low in carbohydrate. Two to three high-carbohydrate foods are used as examples. The diet plan from your dietitian or diabetes educator may differ in the number of high-carbohydrate foods recommended for your meals. You should follow the recommendation from your dietitian or diabetes educator.

Even so, the 50/50 plan can be used for different levels of carbohydrate serving recommendations. For example, if four servings of carbohydrate foods are recommended for lunch for an active person, then four servings of low-carbohydrate foods provide a good balance.

The 50/50 method doesn’t work as well for breakfast because a lot of breakfast foods are high in carbohydrate. Try to include some protein at breakfast. Protein doesn’t affect blood sugar, but it does increase satiety (feeling full). Most people can have 3 eggs per week. Add nuts to dry or cooked cereal. Have toast with peanut butter or a slice of cheese. Put peanut butter on pancakes or french toast. Control the overall amount of high carbohydrate foods eaten at breakfast. Follow the recommendations of your dietitian or diabetes educator. Table 1 gives examples of breakfasts that have 3 servings of high carbohydrate foods.

“Remember those foods—like salads, milk, a piece of fruit or dessert—that often aren’t served on the plate.”
## Table 1. What about breakfast?

<table>
<thead>
<tr>
<th></th>
<th>Calories</th>
<th>Carbohydrate (grams)</th>
<th>Servings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oatmeal</strong></td>
<td>347</td>
<td>41</td>
<td>1</td>
</tr>
<tr>
<td>½ cup Cooked oatmeal</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>½ cup Milk</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1 slice Toast</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1 handful Pecans</td>
<td></td>
<td></td>
<td>½</td>
</tr>
<tr>
<td>(low-carbohydrate food)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dry Breakfast Cereal</strong></td>
<td>350</td>
<td>44</td>
<td>1</td>
</tr>
<tr>
<td>¾ cup Oat rings</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1 cup Milk</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1 slice Toast</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1-oz slice American cheese</td>
<td></td>
<td></td>
<td>½</td>
</tr>
<tr>
<td>(low-carbohydrate food)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pancakes</strong></td>
<td>450</td>
<td>38</td>
<td>3</td>
</tr>
<tr>
<td>Three 4-inch pancakes</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>2 tablespoons Peanut butter</td>
<td></td>
<td></td>
<td>½</td>
</tr>
<tr>
<td>(low-carbohydrate food)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Egg and Breakfast Potatoes</strong></td>
<td>322</td>
<td>40</td>
<td>1</td>
</tr>
<tr>
<td>One Poached egg</td>
<td></td>
<td></td>
<td>½</td>
</tr>
<tr>
<td>(low-carbohydrate food)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 slice Toast</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1 small Potato, diced and cooked in non-stick skillet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 cup Milk</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>Breakfast Burrito</strong></td>
<td>427</td>
<td>56</td>
<td>2</td>
</tr>
<tr>
<td>One Flour tortilla</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>One Scrambled egg</td>
<td></td>
<td></td>
<td>½</td>
</tr>
<tr>
<td>(low-carbohydrate food)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One Small potato, diced</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>2 tablespoons Green chile</td>
<td></td>
<td></td>
<td>—</td>
</tr>
<tr>
<td>(low-carbohydrate food)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 sprinkle Grated cheese</td>
<td></td>
<td></td>
<td>—</td>
</tr>
<tr>
<td>(low-carbohydrate food)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Example 1. 50/50 Method

- Grains, Beans & Starchy Vegetables
- Fruit
- Milk
- Sweets
- Vegetables
- Meat & Meat Substitutes
- Fats

Example 2. Steak Dinner

- 1 small baked potato, 1 serving
- 1 dinner roll, 1 serving
- 1/2 cup ice cream, 1 serving
- 3 oz steak, 1 serving
- 2 cups tossed salad, 2 servings
Example 3. Chicken Dinner

1/2 cup milk, 1 serving
1/2 cup peas, 1 serving
1/2 cup mashed potatoes, 1 serving
3 oz chicken breast, 1 serving

Example 4. Stir Fry

2/3 cup cooked white rice, 2 servings
1 small peach, 1 serving
1 cup stir-fried vegetables, 2 servings
2 oz stir-fried pork, 1 serving
1 cup stir-fried vegetables, 2 servings
2 cups tossed salad, 2 servings
3 oz chicken breast, 1 serving
1 tablespoon salad dressing
Example 5. Spaghetti Dinner

- 1 cup cooked spaghetti, 3 servings
- 3 oz meatballs, 1 serving
- 1/2 cup homemade spaghetti sauce, 1 serving
- 1 cup cooked broccoli, 2 servings

Example 6. Enchiladas

- 2 corn tortillas, 2 servings
- 1/2 cup refried beans, 1 serving
- 1/2 cup diced green chile, 1 serving
- 1/4 cup grated cheese, 1/2 serving
- 1 oz chicken, 1/2 serving
- 1 cup quelites, 2 servings
Example 7. Bean Burrito

- 1 flour tortilla, 2 servings
- 1/2 cup refried beans, 1 serving
- 1/2 cup diced tomato, 1 serving
- 1/2 cup chopped lettuce, 1/2 serving
- 1 cup jicama slices, 2 servings
- 1/2 cup grated cheddar cheese, 1 serving

Example 8. Carne Adovada

- 1/3 cup Spanish rice, 2 servings
- 1/2 cup refried beans, 1 serving
- 3 oz carne adovada, 1 serving
- 1 cup cabbage slaw, 2 servings
Example 9. Navajo Taco

1 piece fry bread, 2 servings
1/2 cup beans, 1 serving
1/2 cup diced tomatoes, 1/2 serving
1/4 cup grated cheese, 1/2 serving
1/2 cup chopped lettuce, 1/2 serving
1/2 cup cooked summer squash, 2 servings

Example 10. Mutton Stew

1/2 cup potatoes, 1 serving
1/2 piece fry bread, 1 serving
1 small apple, 1 serving
3 oz mutton, 1 serving
3/4 cup squash (in stew), 1 1/2 servings
1/4 cup carrots (in stew), 1/2 servings

Where to go for more information

- Your health care provider
- American Diabetes Association:
  1-800-DIABETES
- National Diabetes Education Program:
  1-800-438-5383
  or visit the World Wide Web at ndep.nih.gov or www.cdc.gov
- Your county Extension office

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