Meal Planning for People with Diabetes at a Glance
When you have diabetes, your body has trouble using the energy circulating in the form of **glucose** (sugar) in your blood, which is why your glycemia (blood sugar level) may rise above normal values.

Glucose circulating in the blood comes mainly from the **carbohydrates** (sugars) that you eat. Carbohydrates are found in many foods:

- They are found naturally in plain milk and yogurt, grain products, legumes, fruits and vegetables and their juices, etc.
- They are added to cookies, sweetened drinks, candies, cakes, granola bars, flavoured milks and yogurts, etc.

If you have diabetes, this does not mean that you should **eliminate** all carbohydrates from your diet since carbohydrates are the body’s main source of energy. You should instead keep a close eye on the amount of carbohydrates you eat and spread them out over at least three meals in order to control your blood sugar level.

**What amount of carbohydrates do you need?**

The amount of carbohydrates that people need every day depends on various factors such as age, gender, height, weight and level of physical activity.

In general, most people need:

- 45 to 75 g of carbohydrates per meal
- 15 to 30 g of carbohydrates per snack, if required

**Your dietitian can help you determine the amount of carbohydrates you need.**

Dietitian: ___________________________  Telephone: ___________________________

The sugar cube method allows you to visualize the amount of carbohydrates in each food group, making it easier to estimate the total amount in your meals and snacks. Each sugar cube represents 5 grams of carbohydrates (or 1 tsp. or 1 sachet of sugar).

![Sugar cube]

= 5 g of carbohydrates

**Blood sugar level targets**

To avoid or delay complications affecting your eyes, kidneys, nerves, blood vessels and heart, blood sugar level should normally be between:

- **4 and 7 mmol/L** before meals
- **5 and 10 mmol/L** 2 hours after meals
Tips to help you control your blood sugar level and your weight

• Physical activity offers many benefits for people with diabetes. To get maximum benefits, here are a few recommendations:
  - Do 30 minutes of moderate-intensity physical activity (walking at a brisk pace, swimming, aquafitness, dancing, cycling, etc.) most days of the week. This activity can also be divided into ten-minute sessions.
  - Add two sessions of resistance exercises using elastic bands or light weights each week.
  - Take advantage of your daily activities (household chores, gardening, etc.) to get moving, and embrace active ways of getting around (walking, cycling, roller-blading, etc.).

• Eat three balanced meals every day. Avoid skipping meals. Snacks are not always necessary. However, if you feel hungry between meals or your diabetic medications require them, eat a nutritious snack. For example:
  - During the day: 1 fresh fruit or 175 g (3/4 cup) of yogurt
  - In the evening: 1 slice of toast with 15 mL (1 tbsp.) of peanut butter or 250 mL (1 cup) of milk

Raw vegetables can be eaten any time of the day!

• Eat your meals and snacks at regular hours. Space your meals at 4 to 6 hour intervals and, if needed, eat snacks 2 to 3 hours after meals.

• Go for high-fibre foods: whole grain bread, high-fibre cereals, legumes, brown rice, whole wheat pasta, fruits, vegetables, nuts and seeds.

• Limit your intake of sugar-rich foods with little nutritional value: donuts, cookies, fruit drinks, soft drinks, candies, brown sugar, sugar-rich cereals, chocolate, jam, cakes, molasses, honey, pastries, syrups, sugar, pies, etc. If you eat these foods, eat very small servings and then, only occasionally.

• Drink water regularly to quench your thirst. Choose water for your everyday beverage.

• If you use sugar substitutes (e.g., aspartame, cyclamate, saccharine, sucralose, stevia) or food products containing them, do so in moderation.

• If you drink alcohol such as wine, beer or spirits, do so while eating. Limit yourself to one or two drinks a day, but don’t drink alcohol every day. Alcoholic beverages can raise or lower your blood sugar level. They can also cause weight gain because they are a source of calories. Check with your doctor to find out whether there are risks associated with consuming alcohol in your situation.

Tips for a healthy heart

• Limit your intake of high-fat foods that are harmful to your health (saturated and trans fats): bacon, butter, cookies, deli meats, chocolate, cream, ice cream, potato chips, fried foods, cheeses with a fat content over 20%, cakes, hydrogenated margarine, store-bought muffins, pastries, lard, cream-based sauces, etc.

• Limit your intake of high-salt foods: condiments (ketchup, mustard, etc.), deli meats, potato chips and other salty snack foods, marinades, ready to eat or frozen meals, sauces (soy, BBQ, etc.), store-bought soups and salad dressings.

• Use less salt when cooking and avoid adding salt at the table. Spice up your food with herbs, onion, garlic, lemon juice, etc.
A balanced meal containing 45 to 75 g of carbohydrates looks like this:

- **Vegetables**: 2 servings or more, At least 2 varieties
- **Starches**: 1 to 3 servings
- **Fruit**: 1 serving
- **Meat and alternatives**: 1 serving
- **Milk and alternatives**: 1 serving
- **Fats**: 1 to 3 servings

Use your hand to estimate the size of your servings:

- The tip of your thumb equals roughly 5 mL (1 tsp.), or 1 serving of vegetable oil or margarine.
- The palm of your hand equals roughly 90 g (3 oz.), or 1 serving of meat, poultry, fish, or tofu.
- Your thumb equals roughly 15 mL (1 tbsp.), or 1 serving of nuts or seeds.
- Your fist equals roughly 250 mL (1 cup), or 2 servings of starches, 2 servings of fruit cut into pieces, or 2 servings of vegetables.
Examples of meals

**Breakfast**
- 1 fruit
- 2 starches
- 1 meat and alternatives + 2 fats
- 1 milk and alternatives

**Lunch**
- Vegetable soup
- 1 vegetable
- 2 vegetables + 2 starches + 1 meat and alternatives
- Non-hydrogenated margarine 2 x 5 mL
- 2 fats
- Soy beverage 250 mL
- 1 fruit
- 1 milk and alternatives

**Supper**
- Spaghetti with tomato sauce and meatballs
- 1 vegetable + 2 starches + 1 meat and alternatives
- Garden salad
- 1 vegetable
- Olive oil (salad dressing) 2 x 5 mL
- 2 fats
- Plain yogurt 175 g
- 1 fruit
- 1 milk and alternatives
## Foods to eat every day

### Starches

1 serving of starches = 15 g of carbohydrates =

<table>
<thead>
<tr>
<th>6 to 10 servings a day</th>
<th>12 servings a day</th>
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</thead>
<tbody>
<tr>
<td>• 1 slice of bread</td>
<td>• 1 medium-sized potato or 125 mL (1/2 cup) of mashed potatoes</td>
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<tr>
<td>• 1/2 pita bread or 1/2 hamburger bun</td>
<td>• 75 mL (1/3 cup) of cooked rice, couscous, or barley</td>
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<tr>
<td>• 4 Melba toasts</td>
<td>• 125 mL (1/2 cup) of whole kernel corn</td>
</tr>
<tr>
<td>• 75 mL (1/3 cup) of cooked pasta</td>
<td>• 125 mL (1/2 cup) of breakfast cereal that is low in sugar and that contains at least 2 g of fibre per serving</td>
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<tr>
<td>• 125 mL (1/2 cup) of cooked legumes (red beans, lentils, etc.)</td>
<td>• 125 mL (1/2 cup) of cooked quinoa</td>
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<tr>
<td>• 75 mL (1/3 cup) of cooked chickpeas</td>
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<tr>
<td>• 1/2 medium-sized potato or 125 mL (1/2 cup) of mashed potatoes</td>
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Go for whole grain products.

### Vegetables

1 serving of vegetables = 5 g of carbohydrates =

<table>
<thead>
<tr>
<th>At least 4 servings a day</th>
<th>12 servings a day</th>
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<tbody>
<tr>
<td>• 125 mL (1/2 cup) of cooked vegetables</td>
<td>• 125 mL (1/2 cup) of fruit cut into pieces</td>
</tr>
<tr>
<td>• 125 mL (1/2 cup) of low-sodium vegetable juice</td>
<td>• 125 mL (1/2 cup) of unsweetened fruit compote</td>
</tr>
<tr>
<td>• 250 mL (1 cup) of raw vegetables</td>
<td>• 125 mL (1/2 cup) of 100% pure unsweetened fruit juice</td>
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Eat generous amounts of a wide variety of vegetables.
Go for the most highly coloured vegetables: dark green, orange, red.

### Fruit

1 serving of fruit = 15 g of carbohydrates =

<table>
<thead>
<tr>
<th>2 to 5 servings a day</th>
<th>12 servings a day</th>
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</thead>
<tbody>
<tr>
<td>• 1 medium-sized fruit: orange, peach, apple, pear</td>
<td>• 125 mL (1/2 cup) of fruit cut into pieces</td>
</tr>
<tr>
<td>• 1/2 banana or 1/2 grapefruit</td>
<td>• 125 mL (1/2 cup) of unsweetened fruit compote</td>
</tr>
<tr>
<td>• 2 small kiwis or 2 plums or 2 clementines</td>
<td>• 125 mL (1/2 cup) of 100% pure unsweetened fruit juice</td>
</tr>
<tr>
<td>• 3 prunes</td>
<td>• 250 mL (1 cup) of cantaloupe, Honeydew melon, or blackberries</td>
</tr>
<tr>
<td>• 15 large grapes</td>
<td>• 500 mL (2 cups) of whole strawberries</td>
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<tr>
<td>• 30 mL (2 tbsp.) of raisins</td>
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</tbody>
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Fruit make excellent desserts. They are rich in fibre, vitamins, and antioxidants. Choose whole fruit rather than fruit juice.
• 5 mL (1 tsp.) of vegetable oil (e.g., canola, olive, peanut)
• 5 mL (1 tsp.) of non-hydrogenated margarine
• 5 mL (1 tsp.) of mayonnaise
• 10 mL (2 tsp.) of salad dressing made from vegetable oil
• 15 mL (1 tbsp.) of nuts or seeds
• 1/6 of an avocado
• 30 mL (2 tbsp.) of ground flax seed

Go for mono-unsaturated and poly-unsaturated fats.
Eating out

Your best strategy to ensure a healthy, balanced diet is to cook your own meals on a regular basis and to only eat meals prepared outside the home on an occasional basis.

When you eat meals prepared outside the home, choose one similar to the balanced meal model. To avoid eating too much, use your hands to estimate the size of the servings.

When you eat out, you should also measure your blood sugar level more often. This will help you to see the impact that meals eaten outside the home have on your blood sugar level and to make the appropriate adjustments, if required.

One change at a time...

Changing your lifestyle habits takes time and motivation. Wanting to change everything too fast often results in failure. Set realistic objectives, give yourself time, and make sure you have all the help you need (family, friends, professionals, support groups, books, etc.).

My objectives

For example:  • I will eat three meals a day beginning next Monday.

• I will eat at least two kinds of vegetables at lunch and supper.

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