

A Glance at **Meal Planning** for **People with** **Diabetes**



When you have diabetes, your body does not make proper use of the energy circulating in your bloodstream in the form of **glucose**. That is why your glycemia (blood glucose level) can rise above normal values.

The glucose circulating in the bloodstream comes mainly from the **carbohydrates** (sugars) we eat. **Carbohydrates** (ex.: starch, fructose, lactose) are found naturally in many types of food: **grains, legumes, fruit, fruit juice, vegetables, milk and yogurt**. Sugars are also added to many other foods: cookies, sweetened drinks, candy, cake, etc. If you have diabetes, you should not eliminate all carbohydrates from your diet. You should, however, **carefully monitor the amount of carbohydrates you eat and spread them evenly over at least three meals** in order to control your blood glucose.

To avoid or delay complications to your eyes, kidneys, nerves, blood vessels and heart, you should try to maintain your blood glucose levels:

- between **4 and 7 mmol/L** prior to eating;
- between **5 and 10 mmol/L** two hours after eating.

How much carbohydrate do you need?

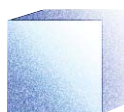
The amount of carbohydrate (and calories) that you need each day depends on many factors, such as your age, height, weight and the amount of physical activity you do. Most people generally need 45 to 75 g of carbohydrates per meal and if necessary, 15 to 30 g of carbohydrates per snack. The section **Foods to eat every day** (p.6) tells you the minimum and maximum number of servings from each food group that you should eat each day to stay healthy. **Your dietitian will help you determine the exact amounts that you need.**

Dietitian: _____

Telephone: _____

Sugar Cubes

The sugar cube concept helps you visualize the carbohydrate content of each food group so you can easily identify the foods with the most carbohydrate and, therefore, the greatest effect on your blood glucose level. Each sugar cube represents 5 grams of carbohydrate (or 1 teaspoon or 1 packet of sugar).



= 5 g carbohydrate

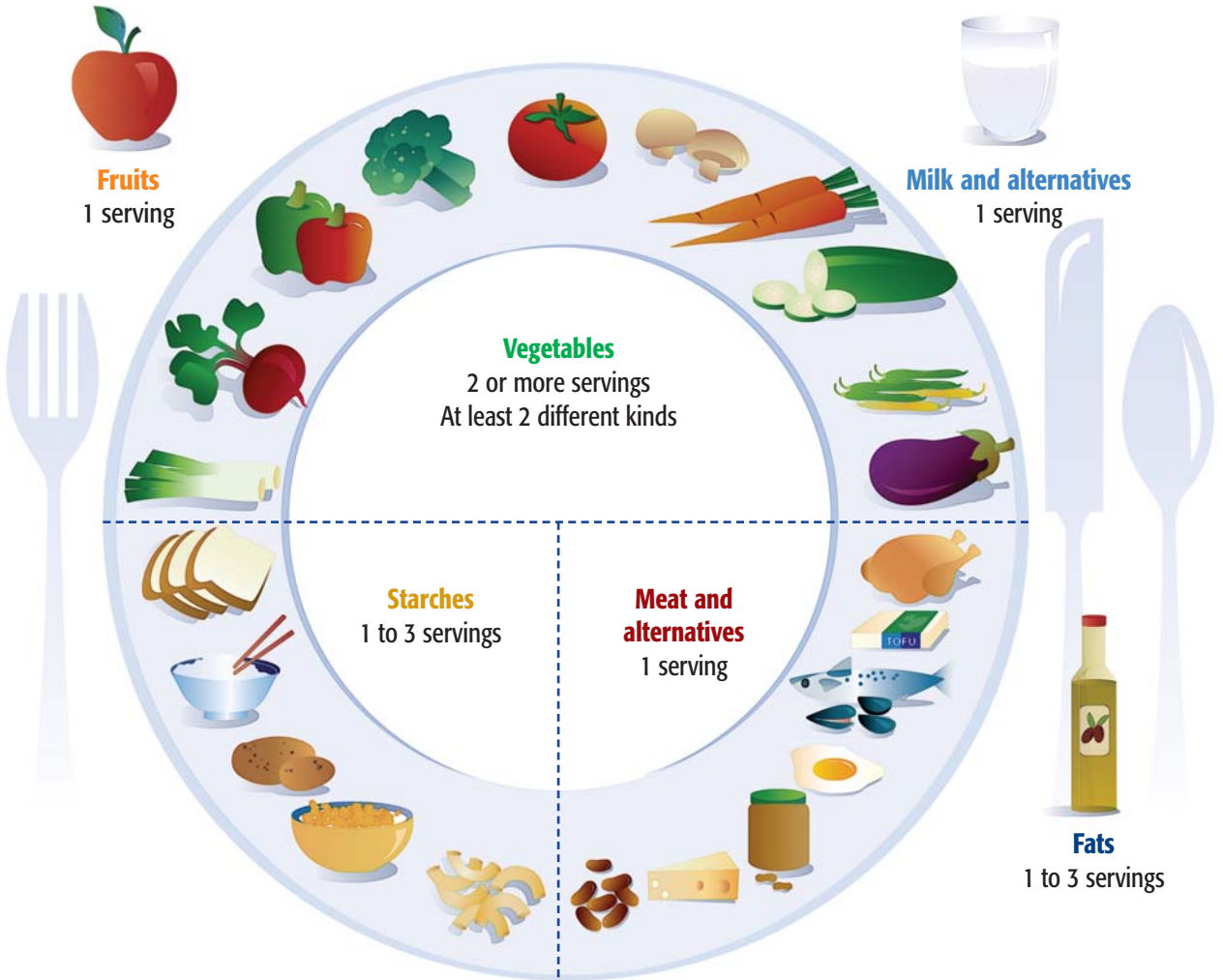
Tips to help you control your blood glucose levels and weight

- Try to do at least **30 minutes of moderately intense physical activity** most days of the week. Examples of moderate activity: brisk walking, biking, swimming, aqua fitness, dancing, raking leaves.
- Eat **3 well-balanced meals** per day. Don't skip meals. Snacks are not always necessary. Depending on the type of diabetes medication you are taking, or if you feel hungry between meals, take a nutritious snack. Examples:
 - During the day: 1 fruit or 175 g (3/4 cup) of yogourt
 - In the evening: 1 slice of toast with 30 g (1 oz.) of low-fat cheese or 250 mL (1 cup) of milk
 - Raw vegetable can be eaten at any time of the day!
- Try to eat your meals and snacks at the **same time every day**. Space your meals 4 to 6 hours apart and snack 2 to 3 hours after meals, if necessary.
- Choose **high-fibre foods**: whole-grain breads, high-fibre cereals, legumes, brown rice, whole-wheat pasta, fruit, vegetables, nuts and seeds.
- **Limit your intake of sweetened and non-nutritious (so-called "empty-calorie") foods**: cookies, donuts, fruit drinks, soft drinks, candy, brown sugar, sugary cereals, chocolate, jam, cake, molasses, honey, pastry, syrups, sugar, pie, etc. If you do eat them, take a small portion and only eat these foods on rare occasion.
- **Drink 1 to 2 litres of water** per day and reduce your intake of fruit juices.
- If you use **sugar substitutes** (ex.: aspartame, cyclamates, saccharine, sucralose) or food products that contain them, do so in **moderation**.
- If you drink **alcohol** (wine, beer, hard liquor), eat something with it, and limit yourself to 1 or 2 drinks per day. Alcoholic beverages can increase or decrease your blood glucose level. You should avoid them completely if you have high blood pressure or elevated triglyceride levels. As they are a source of calories, they can promote weight gain.

Tips for a healthy heart

- **Limit your intake of foods that are high in fat, saturated fat or trans fats**: bacon, butter, cakes, cookies, deli meats, chocolate, cream, ice cream, chips, fried foods, cheese with more than 20% milk fat, hydrogenated margarine, commercially prepared muffins, pastry, lard, shortening, cream sauces, etc.
- **Limit your intake of very salty foods**: condiments (ketchup, mustard, etc.), deli meats, chips and other salty snack foods, pickles, frozen meals and ready to serve foods, sauces (soy, BBQ, etc.), commercially prepared soups and salad dressings, salt, etc.

A balanced meal containing 45 to 75 g of carbohydrates looks like this:



Use your hand to measure the size of your servings



The tip of your thumb equals about 5 mL (1 teaspoon), or 1 serving of vegetable oil or margarine.



The palm area of your hand equals about 90 g (3 oz.), or approximately 1 serving of meat, poultry, fish or tofu.



Your thumb equals about 15 mL (1 tablespoon), or 1 serving of nuts or seeds.



A fist equals about 250 mL (1 cup), or 2 servings of starches, 2 servings of cut-up fruit or 2 servings of vegetables.

Breakfast



1 fruit

+



2 starches

+



Peanut butter
30 mL

1 meat and alternatives
+ 2 fats

+



Milk
250 mL

1 milk and
alternatives

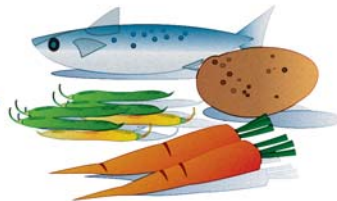
Lunch

Vegetable soup



1 vegetable

+



2 vegetables + 2 starches
+ 1 meat and alternatives

+



Margarine
non hydrogenated
10 mL

2 fats

+



1 fruit

+



Soy beverage
250 mL

1 milk and
alternatives

Dinner

Green salad



1 vegetable

+

Olive oil
10 mL



2 fats

+



Spaghetti
250 mL
with meat sauce

1 vegetable + 2 starches
+ 1 meat and alternatives

+



1 fruit

+



Plain yogurt
175 g

1 milk and
alternatives

Foods to Eat Every Day

STARCHES

1 serving of starches = 15 g of carbohydrates =



6 to 10 servings per day

- 1 slice of bread
- 1/2 pita pocket or 1/2 hamburger bun
- 4 Melba toasts
- 125 mL (1/2 cup) of **cooked** pasta
- 125 mL (1/2 cup) of **cooked** legumes (baked beans, lentils, chick peas, etc.)
- 1/2 medium-size potato or 125 mL (1/2 cup) of mashed potatoes
- 75 mL (1/3 cup) of **cooked** rice, bulgur or barley
- 125 mL (1/2 cup) of corn kernels
- 125 mL (1/2 cup) of breakfast cereal (only lightly sweetened), containing at least 2 g of fibre per serving

Choose whole-grain, less refined products.



VEGETABLES

1 serving of vegetables = 5 g of carbohydrates =



At least 4 servings per day

- 125 mL (1/2 cup) of cooked vegetables
- 125 mL (1/2 cup) of vegetable juice
- 250 mL (1 cup) of raw vegetables

*Eat a wide variety of vegetables, in generous quantities.
Choose deeply coloured vegetables: deep green, orange, red.*



FRUITS

1 serving of fruits = 15 g of carbohydrates =



2 to 5 servings per day

- 1 medium-size fruit: orange, peach, apple, pear
- 1/2 banana or 1/2 grapefruit
- 2 small kiwis or 2 plums or 2 clementines
- 3 prunes
- 15 large grapes
- 30 mL (2 tablespoons) of raisins
- 125 mL (1/2 cup) of cut-up fruit
- 125 mL (1/2 cup) of stewed fruit with no added sugar
- 125 mL (1/2 cup) of 100% pure fruit juice with no added sugar
- 250 mL (1 cup) of cantaloupe, strawberries, raspberries or melon

Fruits make excellent dessert. They are high in fibre and full of vitamins and antioxidants.



MILK AND ALTERNATIVES

1 serving of milk and alternatives = 12 to 15 g of carbohydrates =



2 to 4 servings per day

- 250 mL (1 cup) of milk
- 250 mL (1 cup) of enriched soy beverage, vanilla flavoured
- 175 mL (3/4 cup) or 175 g of natural or flavoured yogurt with no added sugar

Choose products with 2% milk fat (m.f.) or less.

MEAT AND ALTERNATIVES

1 serving of meat and alternatives = 0 g of carbohydrates



2 to 3 servings per day

- 60 to 90 g (2 to 3 oz.) of meat, poultry, fish, seafood or giblets
- 90 to 150 g (3 to 5 oz.) of firm tofu
- 250 mL (1 cup) of cooked legumes (also counts as 2 servings of starches)
- 1 to 2 eggs
- 125 mL (1/2 cup) of cottage cheese
- 60 g (2 oz.) of low-fat cheese (less than 20% m.f.)
- 30 mL (2 tablespoons) of peanut butter (also counts as 2 servings of fat)

Trim off all visible fat. Eat fish 2 to 3 times per week.

FATS

1 serving of fats = 0 g of carbohydrates



4 to 8 servings per day

- 5 mL (1 teaspoon) of vegetable oil (ex.: peanut, canola, olive)
- 5 mL (1 teaspoon) of non-hydrogenated margarine
- 5 mL (1 teaspoon) of mayonnaise
- 10 mL (2 teaspoons) of salad dressing with a vegetable-oil-base
- 15 mL (1 tablespoon) of nuts or seeds
- 1/6 of an avocado

Choose monounsaturated and polyunsaturated fats.

