

Glucose comes from foods that contain carbohydrates such as fruit, milk, some vegetables, starchy foods and sweet foods like honey, candy and desserts. Healthy eating and physical activity help to manage your blood sugar. You may also need to take pills, insulin and/or other medications.



Healthy lifestyle behaviours

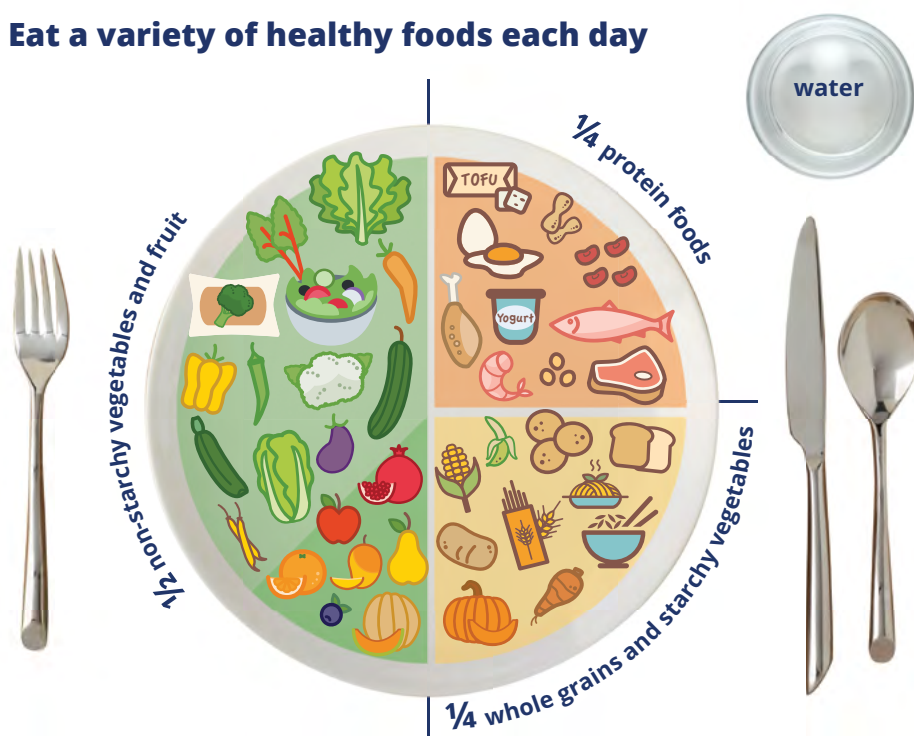
Healthy lifestyle behaviours help manage all types of diabetes. These include:

- healthy eating
- physical activity
- stress management
- sleep
- reducing alcohol consumption
- quitting smoking

Diabetes occurs when your body cannot properly use and store food for energy. All bodies need energy in the form of sugar called glucose. Insulin is a hormone that helps our bodies take this glucose and use it for energy. Without insulin, glucose builds up and causes high blood sugar.

Type of Diabetes	How this type is managed
Type 1 diabetes The pancreas does not produce insulin. Glucose builds up in your blood instead of being used for energy.	• Insulin injections, medications • Healthy lifestyle behaviours
Type 2 diabetes The pancreas does not produce enough insulin, or your body does not properly use the insulin it makes.	• Healthy lifestyle behaviours • Pills and/or insulin or other injectable medication
Pre-diabetes Blood glucose levels that are higher than normal, but not high enough to be diagnosed as type 2 diabetes.	• Healthy lifestyle behaviours
Gestational diabetes High blood sugar that happens during pregnancy.	• Insulin or pills may be used • Healthy lifestyle behaviours

Eat a variety of healthy foods each day





Fruits/Grains & Starches

Examples:

Orange, guava, potatoes, brown rice, fufu, porridge, breadfruit, yams, taro, cassava, plantain

Vegetables

Examples:

Callaloo, cabbage, okra, eggplant, bell peppers, watercress

Protein Foods

Pigeon peas, split peas, kidney beans, tofu, lean beef, goat, poultry, fish, yogurt, milk (skim, 1%), cheese

Fats

Examples:

Non-hydrogenated margarine, canola oil, olive oil, peanut oil

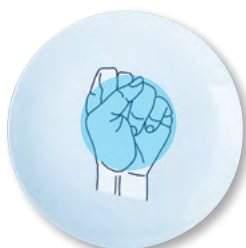
Even if someone is taking diabetes medications, all types of diabetes are managed better with healthy eating. Knowing what to eat and how much to eat will help you manage your blood sugar levels.

The balanced plate approach applies to all mealtimes, even if you use a bowl! The balanced plate is designed to help you meet your nutrient needs and manage your blood sugar.

- Fill half your plate with vegetables (callaloo, okra). These are very high in nutrients and low in calories.
- Include 1/4 of your plate as proteins such as fish, chicken, lean meats, low-fat cheese, eggs, dried beans and peas. Limit offal (organ meats, trotters, etc) as it is high in saturated fat.
- Choose oils such as olive, peanut and canola more often. Nuts and avocado are good sources of fat. Use animal fats, palm and coconut oil occasionally.
- Include 1/4 of your plate as grains and starches including cassava, plantain, fufu, rice, cereals, breads, millet, sorghum and teff based foods, corn or maize based foods (eg. Ugali).

Handy portion guide

Your hands can be very useful in estimating the right amount of food to eat. When you are planning a meal, use the following portion sizes as a guide:



Fruits/Grains & Starches Choose an amount the size of your fist for grains or starches, or fruit.



Vegetables Choose as much as you can hold in both hands.



Protein Foods Choose an amount the size of the palm of your hand and the thickness of your little finger.



Fats Limit fat to an amount the size of the tip of your thumb.

Eating Well Helps You and Your Family

When to eat?	
Tips	Why?
• Eat something within a few hours of waking. • Eat three meals per day at regular times. • Space meals no more than six hours apart. • You may want to include a healthy snack.	• It provides a good start to the day. • Eating the right amount at the right time keeps your blood sugar well-managed.
• Pack healthy foods with you (such as chicken and roasted eggplant in a whole grain wrap, dried chickpeas (channa) and favourite piece of fruit) in case you are going to be away from home at mealtime.	• This helps you have healthy choices, wherever you go. The combination of protein and carbohydrate helps to manage blood sugars.
What to Eat	
• Eat a variety of foods at each meal or snack.	• Choosing foods at each meal that include non-starchy vegetables, protein and grains will help to ensure that your body gets all the nutrients it needs to be healthy.
• Limit sugars and sweets such as regular soft drinks, desserts such as cassava cake, fruit cake, preserved/ dried fruit, potato pudding, coconut drops, candies, jam and honey.	• Simple or 'added' sources of sugar cause blood glucose levels to rise rapidly.
• Limit high fat and greasy foods. • Prepare foods in a healthy way, such as baking, broiling, braising, steaming, poaching, roasting, stir-frying, sautéing.	• High fat foods increase heart disease risk and may add additional calories to your healthy eating plan.
• Eat at least two different kinds of non-starchy vegetables at each meal.	• Vegetables are high in nutrients the body needs to be healthy and most have little to no impact on blood sugar.
• Include foods high in fibre (whole grain breads, roti, and cereals, sweet potato, yam, lentils, dried beans, brown rice, vegetables and fruits).	• High fibre foods help you feel full, and lower your blood glucose and cholesterol levels.
• If you are thirsty, drink water.	• Drinking regular pop, fruit juice, sweetened coffee and tea, will raise your blood glucose.
• Limit alcohol.	• Alcohol can affect blood glucose levels. It also provides unwanted calories, no nutrients and can change how your body uses medicine. It's best to consume in moderation.
How much to eat	
• Eat slowly and stop when you feel full and satisfied.	• The right amount of food gives your body what it needs to be healthy.

Understanding Carbohydrate Portions

Carbohydrates give your body energy. They are found in foods like grains, starchy foods, fruits, milk, starchy vegetables and legumes. Knowing the portion size of common carbohydrates and how much carbohydrate they provide can help manage your blood sugar.

Carbohydrate Source	Serving Size	Grams of Carbohydrate*
Amaranth, grains, cooked	1/2 cup (125 mL)	25 g
Amaranth, flour	1/4 cup (60 mL)	30 g
Banana	1 small	15 g
Beans, lentils, peas (e.g. cowpeas, kidney beans, black eyed peas, split peas)	1/2 cup (125 mL)	15 g
Bread, whole grain	1 slice	15 g
Cassava Manioc, boiled	1/2 cup (125 mL)	40 g
Corn	1/2 cup (125 mL)	15 g
Cornmeal, dry	1/4 cup (60 mL)	25 g
Dasheen Taro, cooked	1/2 cup (125 mL)	25 g
Fufu, cassava	approx. 1/2 cup (125 mL) or 2" round	50-55 g
Fufu, plantain	approx. 1/2 cup (125 mL) or 2" round	40-45 g
Fufu, yam, corn	approx. 1/2 cup (125 mL) or 2" round	30-35 g
Green Banana, boiled	1 small	15 g
Guava	2 guava	15 g
Injera	50 g (2 oz)	15 g
Mango	1/2 medium	15 g
Melon	1 cup (250 mL)	15 g
Milk	1 cup (250 mL)	13 g
Millet, grains, cooked	1/3 cup (80 mL)	15 g
Millet, flour	1/4 cup (60 mL)	25 g
Oats, cooked	3/4 cup (175 mL)	15 g
Pasta Noodle, cooked	1 cup (250 mL)	45 g
Papaya	1 cup (250 mL)	15 g
Pineapple	3/4 cup (175 mL)	15 g
Plantain, boiled or mashed	1/3 cup (80 mL)	17-22 g
Plantain, green, fried	1/3 cup (80 mL)	20 g
Potato, boiled, baked	1/2 medium	15 g
Rice, cooked	1/2 cup (125 mL)	25 g
Roti	1 x 6 inch	15 g
Sorghum, dry	1/4 cup (60 mL)	35 g
Sorghum, flour	1/4 cup (60 mL)	25 g
Squash, winter, cooked	1/2 cup (125 mL)	10 g
Sweet Potato, cooked	1/3 cup (80 mL)	15 g
Teff, flour	1/4 cup (60 mL)	25 g
Tortilla, whole wheat	1 x 6 inch	15 g
Yam, all varieties, boiled or baked	1/2 cup (125 mL)	20 g
Yogurt, Greek, plain	3/4 cup (175 mL)	5-8 g

*carbohydrate values can vary depending on cooking method and time

African Caribbean Meal Plans

African Sample Meal Plan	Caribbean Sample Meal Plan
Breakfast: • Porridge, oatmeal (1 cup, 250 mL) measured after cooking • Milk, low-fat (1/2 cup, 125 mL) • Nuts (1/4 cup, 60 mL) • Mixed berries (1/2 cup, 125 mL) • Tea or coffee with milk, no sugar	Breakfast: • Ackee & saltfish (1 cup, 250 mL) • Plantain, fried (2/3 cup, 160 mL) • Papaya (1/2 cup, 125 mL), cubed • Tea or coffee, with milk, no sugar
Lunch: • Lentil stew (1 cup, 250 mL) • Injera (one 8" piece) • Kale and carrots, cooked (1 cup, 250 mL) • Chicken or meat sauce (1/4 cup, 60 mL), optional • Pineapple (1/2 cup, 125 mL) • Water	Lunch: • Yellow yam, cooked (1 cup, 250 mL) • Spinach or calaloo, cooked (1 to 2 cups, 250-500 mL) • Baked or grilled chicken, cooked (3 oz, 90 g) • Mango, 1/2 medium • Water
Afternoon Snack (optional): • 1 Medium orange	Afternoon Snack (optional): • 1 Medium apple
Dinner: • Fish stew with spinach, tomatoes (2.5 cups, 625 mL) • Ugali/Soor* (1 cup, 250 mL) • Milk, low-fat (1 cup, 250 mL) * made with whole maize flour for increased fibre	Dinner: • Beef stew (chuck or brisket), with carrots, tomatoes (1-1/2 cups, 375 mL) • Brown rice (3/4 cup, 175 mL) • Side salad (1 cup, 250 mL) • Salad dressing (1 Tbsp, 15 mL) • Guava, 2 fruits • Milk, low-fat (1 cup, 250 mL)
Evening Snack: • Almonds (1/4 cup, 60 mL) • Yogurt, plain, low-fat (1/2 cup, 125 mL) • Blueberries (1/3 cup, 80 mL)	Evening Snack: • Whole grain crackers (4 pieces) • Low-fat cheese (1 oz, 30 g)





Physical activity is also a way to live well with diabetes

Tips	Why?
Find fun and enjoyable ways to move your body.	- Regular physical activity will improve your blood glucose control. - Diabetes Canada recommends aiming for 150 minutes of activity each week. - You can break down the 150 minutes of physical activity into 30 minutes, five times a week. - Moving your body is good for overall well-being.

How to add physical activity to life?

Tips	Why?
Build time for physical activity into your daily routine.	Walking around the neighbourhood, taking the stairs, getting off the bus one stop early.
Start slowly and gradually increase the amount of effort.	Start with slow walking. When you are ready increase your pace and distance.
Try to be active most days of the week.	Brisk walking, raking leaves, jogging, swimming, basketball, vacuuming.
Strength resistance exercises are recommended at least two times a week.	Bodyweight squats, lunges, push-ups, sit ups and resistance band exercises.
Make family activities active instead of watching TV or going to a movie.	Taking your family on a walk around the neighbourhood or to swim at a local pool.
Challenge yourself by trying new activities.	Learn to dance, play tennis or do yoga.
Be active indoors.	Dancing, weightlifting and resistance exercises. Climb up and down the stairs or go for a walk in a mall.

For more information visit diabetes.ca

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