

# Blood Sugar Support:

A whole-person care approach



## What is whole person care blood sugar support?

Blood sugar, also called blood glucose, is the amount of sugar measured in your blood. Many factors can affect blood sugar, including diet, exercise, stress, sleep, hormonal imbalances, and medications. When blood sugar is too high for a long time, it increases the risk of serious health problems.

Whole person care blood sugar support aims to treat the individual as a whole rather than focusing on one isolated factor. This approach considers all aspects of a person's life that influence blood sugar to keep it within a healthy range successfully.



### Step 1

## Personalized assessment

Your provider may recommend laboratory tests to better understand how your body is managing blood sugar. In addition to measuring blood sugar directly, these tests can look at related areas of health, such as how well your liver, kidneys, and heart are working, and whether there are signs of inflammation. Together, these results give your provider a more complete picture of your overall metabolic and cardiovascular (heart and blood vessel) health.

Laboratory tests may include:

- **Insulin resistance markers:** These markers measure how well your body's cells respond to insulin. Insulin resistance means your body's cells don't respond to insulin as well as they should. This often develops years before your blood sugar rises and can be a warning sign of future blood sugar problems.
- **Kidney function tests:** These tests measure blood and urine kidney filtration markers to determine if blood sugar levels are affecting kidney health.
- **Liver function tests:** These tests measure certain enzymes, proteins, and waste products in the blood associated with liver health.
- **Lipid panel:** Lipid panels measure cholesterol and triglyceride levels in the blood to evaluate cardiovascular and metabolic health.
- **Inflammation markers:** These markers measure various proteins in the blood that may indicate chronic inflammation, which can impact blood sugar control.

## Step 2

# Lifestyle foundations for blood sugar support

## Nutrition

Creating balanced meals by combining protein, healthy fats, and fiber-rich carbohydrates at each meal helps slow the absorption of sugar and keeps you feeling fuller for longer.



- Eat a whole-foods, minimally processed diet, emphasizing intake of non-starchy vegetables, beans, nuts, seeds, lean animal proteins, and healthy fats.
- Choose complex carbohydrates over simple carbohydrates. Easy swaps include:
  - Whole-grain bread instead of white bread
  - Brown rice or quinoa instead of white rice
  - Sweet potatoes instead of white potatoes
  - Popcorn instead of potato chips
- Aim to eat at least 10–12 g of fiber with every meal (or 35 g per day). Examples of fiber-rich foods include:
  - ½ cup lentils: 7.8 g
  - 1 cup sweet potato: 6.3 g
  - 1 cup (cooked) broccoli: 5.2 g
  - ½ cup avocado: 5 g
  - 1 cup raspberries: 8 g
  - 1 oz almonds: 3.5 g

- Minimize your intake of added sugars by avoiding sugar-sweetened beverages, desserts, and other processed foods.
- Saturated and trans fats promote insulin resistance. Limit daily saturated fat to less than 10% of total calories by replacing it with mono- and polyunsaturated fats (olive oil, fatty fish, nuts, seeds, and avocado). Eliminate trans fats from your diet by avoiding fried foods, baked goods, and other foods that contain partially hydrogenated oils.
- The order in which you eat your food can affect your blood sugar. Eat your meals by starting with nonstarchy vegetables, lean protein, and healthy fats before eating carbohydrates.
- Add onion, garlic, flaxseed meal, cinnamon, and apple cider vinegar to your meals as ingredients with medicinal properties to support healthy blood sugar levels.

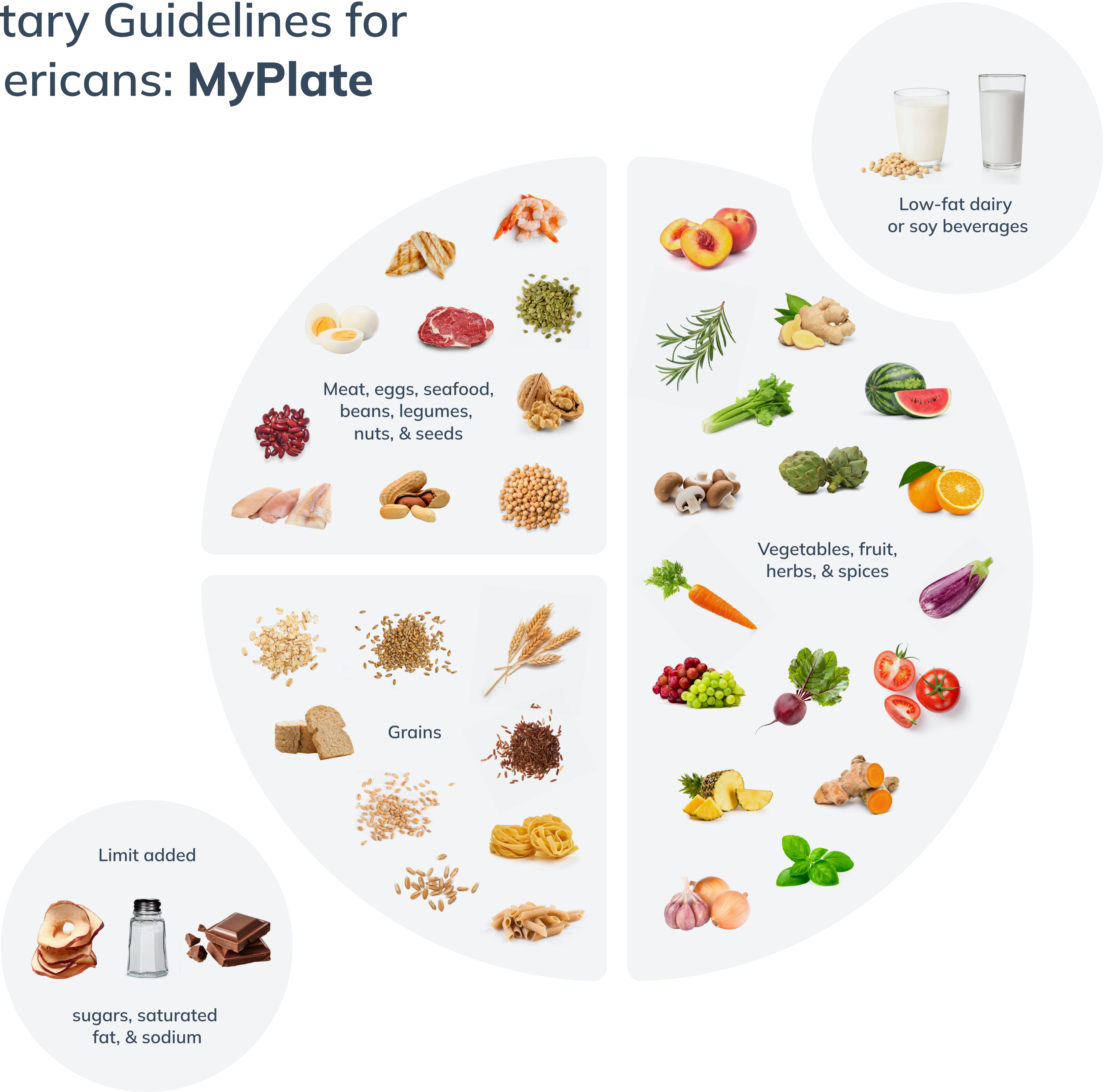
Foods to limit	Foods to include
<div><b>Starchy vegetables</b><ul style="list-style-type: none"><li>• Corn</li><li>• Lima beans</li><li>• Peas</li><li>• Plantains</li></ul></div> <div><ul style="list-style-type: none"><li>• Potatoes</li><li>• Winter squash (e.g., acorn, butternut)</li></ul></div>	<div><b>Non-starchy vegetables</b><ul style="list-style-type: none"><li>• Mushrooms</li><li>• Peppers</li><li>• Tomatoes</li><li>• Zucchini</li></ul></div> <div><ul style="list-style-type: none"><li>• Cruciferous vegetables (e.g., broccoli, cabbage)</li><li>• Leafy greens (e.g., spinach, kale)</li></ul></div>
<div><b>Beverages with added sugar</b><ul style="list-style-type: none"><li>• Energy drinks</li><li>• Fruit-flavored juices</li><li>• Lemonade</li></ul></div> <div><ul style="list-style-type: none"><li>• Regular soda</li><li>• Sweet tea</li></ul></div>	<div><b>Low calorie beverages</b><ul style="list-style-type: none"><li>• Low-fat milk</li><li>• Unsweetened tea</li></ul></div> <div><ul style="list-style-type: none"><li>• Vegetable juice</li><li>• Water</li></ul></div>
<div><b>High-fat protein foods</b><ul style="list-style-type: none"><li>• Bacon</li><li>• Fried meats</li><li>• Full-fat dairy products</li></ul></div> <div><ul style="list-style-type: none"><li>• Hot dogs and sausages</li><li>• Meets with untrimmed fat</li></ul></div>	<div><b>Lean protein foods</b><ul style="list-style-type: none"><li>• Beans and legumes</li><li>• Eggs</li><li>• Lean beef (e.g., flank, sirloin)</li><li>• Poultry</li></ul></div> <div><ul style="list-style-type: none"><li>• Fish and shellfish</li><li>• Lean pork (e.g., Canadian bacon, tenderloin)</li><li>• Low-fat dairy products</li><li>• Soy</li></ul></div>
<div><b>Unhealthy fats and oils</b><ul style="list-style-type: none"><li>• Lard</li><li>• Palm oil</li><li>• Partially-hydrogenated vegetable oils</li><li>• Shortening</li></ul></div>	<div><b>Healthy fats and oils</b><ul style="list-style-type: none"><li>• Avocado oil</li><li>• Extra virgin olive oil</li><li>• Grass-fed butter and ghee</li><li>• Virgin coconut oil</li></ul></div>
<div><b>High-sugar fruit</b><ul style="list-style-type: none"><li>• Dates</li><li>• Pineapple</li><li>• Raisins</li><li>• Sweetened dried cranberries</li></ul></div>	<div><b>Low-sugar fruit</b><ul style="list-style-type: none"><li>• Apples</li><li>• Bananas</li><li>• Berries</li><li>• Cherries</li></ul></div> <div><ul style="list-style-type: none"><li>• Kiwi</li><li>• Pears</li><li>• Citrus fruit (e.g., oranges, grapefruit)</li></ul></div>

# The Diabetes Plate Method

To help you balance meals, the American Diabetes Association created its Diabetes Plate Method. Using a nine-inch dinner plate, construct meals with the following formula:

- Fill half the plate with non-starchy vegetables (asparagus, broccoli, cabbage, eggplant, and kale).
- Fill a quarter of the plate with lean protein foods (poultry, eggs, and seafood).
- Fill a quarter of the plate with carbohydrate foods (whole grains, starchy vegetables, beans, fruits, and dairy products).
- Drink water or another low-calorie drink, such as unsweetened tea.

# Dietary Guidelines for Americans: MyPlate



## The glycemic index

The glycemic index (GI) is another tool for balancing blood sugar. It is a scale from 0–100 that specifies how quickly a carbohydrate-containing food increases blood glucose when consumed in isolation. Choosing lower-GI foods over high-GI foods helps prevent blood sugar spikes after eating.

## Glycemic index of common foods

Low GI: 0-55 | Moderate GI: 56-69 | High GI: 70-100

Food	Glycemic index
Peanuts	7
Non-starchy vegetables (e.g., broccoli, mushrooms, peppers)	<20
Chickpeas	28
Black beans	30
Cow's milk or soy milk	35
Apples	36
Yogurt (flavored, low-fat)	41
Spaghetti pasta (white or whole wheat)	49
Bread (multi-grain)	53
Corn	54
Oatmeal (steel-cut or rolled)	61
Sweet potato	63
Brown rice	68
White rice	73
Bread (white or whole wheat)	75
Russet potato	78

## Physical activity

Staying physically active can help reduce the risk of diabetes by at least 44%. Specific exercise goals should include:

- **Strength training:** Do 2–3 sessions per week of strength training on nonconsecutive days, targeting all major muscle groups. Below are common exercises that target major muscle groups and can easily be added to a routine:
  - Legs (glutes, thighs, and calves): Squats, lunges, or step-ups
  - Back: Rows or resistance band pulls
  - Chest: Push-ups or chest presses
  - Shoulders: Overhead presses or arm raises
  - Arms (biceps and triceps): Curls or dips
  - Core (abs and lower back): Planks or crunches
- **Cardiovascular activity:** Work up to at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity aerobic (“cardio”) exercise per week.

## Aerobic exercise

	Moderate-intensity	Vigorous-intensity
Target heart rate	40–60% of maximum heart rate*	60–85% of maximum heart rate*
Perceived effort (on a scale of 1–10)	Level 5-8	Level 8-10
Talking ability	Can talk but can’t sing	Can’t say more than a few words without pausing for a breath
Examples	<ul style="list-style-type: none"><li>• Biking</li><li>• Boxing</li><li>• Brisk walking</li><li>• Climbing stairs</li><li>• Dancing</li><li>• Doubles tennis</li><li>• Gardening</li><li>• Jumping on a trampoline</li><li>• Hiking</li><li>• Roller skating</li><li>• Water aerobics</li></ul>	<ul style="list-style-type: none"><li>• Biking 10+ mph (16+ kph)</li><li>• Endurance sports (e.g., basketball, soccer)</li><li>• Jogging/running</li><li>• Jumping rope</li><li>• Rock climbing</li><li>• Rowing</li><li>• Swimming laps</li><li>• Yard work (e.g., raking, shoveling)</li></ul>

\*Age-related maximum heart rate can be calculated by subtracting your current age from 220. This calculation provides your maximum heart rate in beats per minute.

To prevent injuries, start slow and increase the amount and intensity of exercise over time, customizing your routine based on health-related and physical limitations.



If you're just starting to get active, remember that any physical activity is better than none.

- Increase active leisure activities, such as gardening, dancing, nature walks, or playing with pets, to reduce sedentary behavior.
- Interrupt sedentary time with at least three minutes of light activity every 30 minutes.
- Walk 10–30 minutes at a comfortable pace within 15–30 minutes after finishing a meal.

## Stress

When you are stressed, your body makes a hormone called cortisol, which does many things, including raising blood sugar. Many people also struggle with emotional eating—and are more likely to turn to high-sugar foods—when they feel stressed.

Instead of grabbing a sweet treat, healthier habits that may help you reduce feelings of stress include:

- **Relaxation techniques:** Practice meditation, mindfulness, deep breathing, and yoga.
- **Stay organized:** Plan out daily tasks, upcoming events, and deadlines to manage your schedule and keep yourself on track.
- **Prioritize time for yourself:** When schedules begin to feel overwhelming, don't be afraid to turn down invitations in favor of taking quiet time for yourself.
- **Connect with nature:** Spend more time outdoors.
- **Foster relationships:** Stay connected with your friends, family, and loved ones.
- **Seek additional support:** If you're struggling to cope with stress, talk to your doctor or a licensed mental healthcare provider.

## Sleep

It will be harder for your body to regulate blood sugar levels if you get too little, too much, or poor-quality sleep. Aim to sleep 7–9 hours every night.

If you are having trouble falling asleep, focus on establishing good sleep habits by:

- Going to bed and waking up at the same time every day, even on weekends
- Making sure your bedroom is dark, quiet, and cool, which creates an environment conducive to sleep
- Avoiding the use of electronic devices for at least 30 minutes before bedtime
- Avoiding caffeine, nicotine, and alcohol in the evenings

If you still have trouble falling or staying asleep, schedule an appointment with your doctor to be evaluated for sleep disorders, such as obstructive sleep apnea.



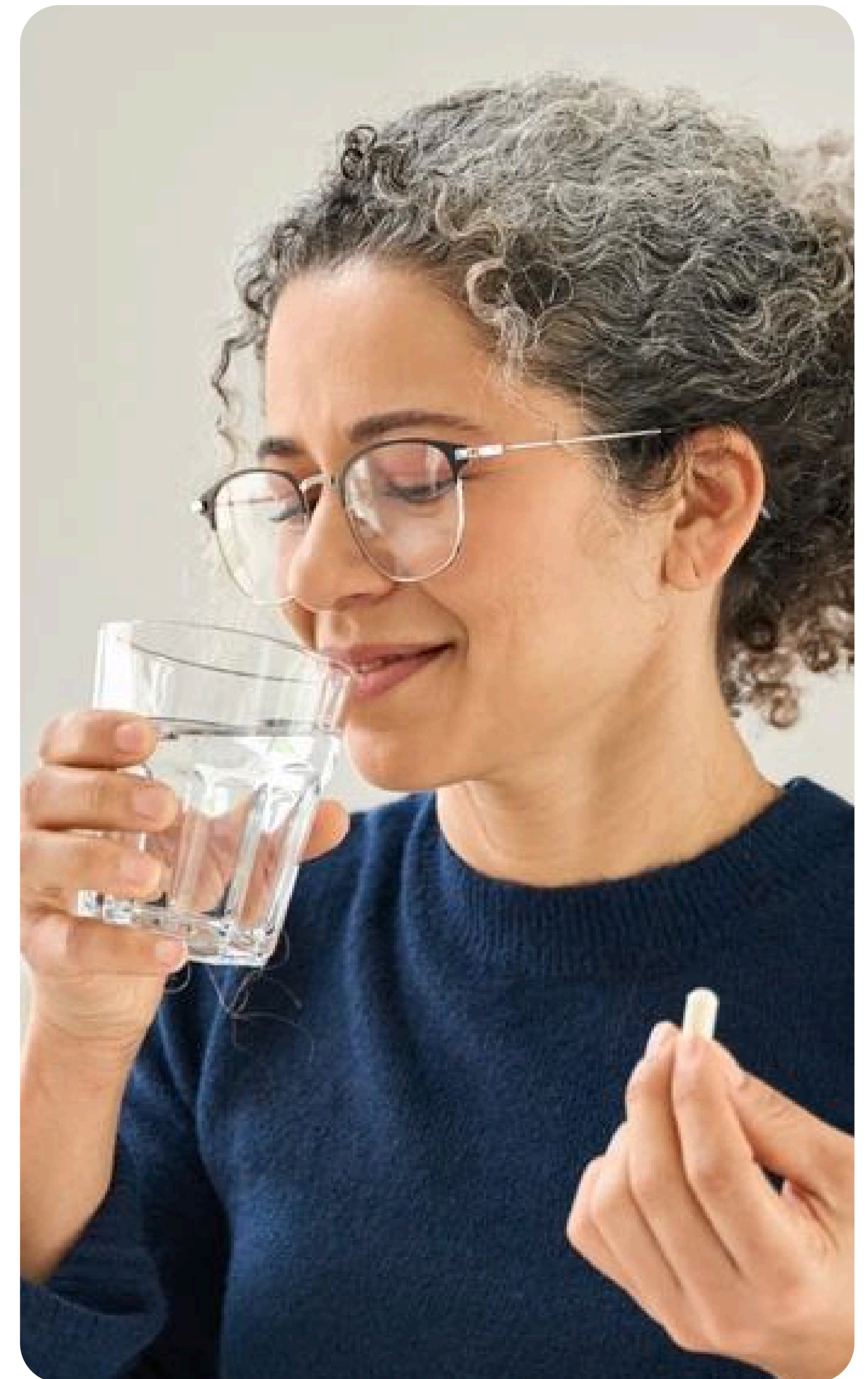
### Step 3

## Targeted supplement support

In addition to helping you implement blood sugar-balancing dietary and lifestyle habits, your doctor may also suggest taking herbal or nutritional supplements to help you maintain your blood sugar goals more successfully. Examples may include:

- Berberine
- Chromium picolinate
- IMG-1 (a cutting-edge peptide hormone)
- Probiotics
- Psyllium husk

Always consult your provider before starting new supplements. Supplement plans should be personalized and monitored over time.



## Final thoughts: You're not alone

Controlling your blood sugar shouldn't be put on the back burner. If you are struggling with blood sugar fluctuations, schedule an appointment with your doctor to help uncover the root causes and guide you toward safe, effective interventions tailored to your unique needs.

Small, consistent steps in the right direction can make a powerful difference, and with the right support, you can achieve healthy blood sugar control.

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