



Lower Your Blood Sugar Level

CHALLENGE

Choose the right foods to keep your blood sugar low.



Requirements to Complete this HEALTH CHALLENGE™

1. Keep a written record of the days you eat healthy carbs (you'll read about this soon) in place of unhealthy carbs.
2. Read "What Is Blood Sugar?" "A Healthy Blood Sugar Level," and "What's a Healthy Carb?"
3. To complete the Challenge, you must eat healthy carbs instead of unhealthy carbs.
4. Keep a record of your completed Challenge in case your organization requires documentation.

What Is Blood Sugar?

To stay healthy, you need blood sugar (also called blood glucose) to fuel your body – including your brain. Your body turns most of the food you eat into glucose. Without food your body doesn't have enough energy to function or feel well. Have you ever skipped a meal only to realize an hour or two later that you are shaky, can't pay attention, and feel grumpy?

That's because your blood sugar is too low (called *hypoglycemia*). The American Diabetes Association (ADA) lists the following as signs of blood sugar that is too low:

- ✓ Shakiness
- ✓ Dizziness
- ✓ Headache
- ✓ Sudden moodiness or behavior changes
- ✓ Sweating
- ✓ Hunger
- ✓ Pale skin color
- ✓ Clumsy or jerky movements
- ✓ Difficulty paying attention
- ✓ Confusion
- ✓ Tingling sensations around the mouth

However, blood sugar that is too high is a more serious problem than low blood sugar. Your body can use only so much sugar. When you consistently have too much sugar in your body, the excess sugar begins attaching itself to your red blood cells. Too much sugar in your blood can make you tired, thirsty, or sick more often.

High blood sugar is called *hyperglycemia*. When levels stay consistently high, you have diabetes. The ADA lists the following as signs of high blood sugar:

- ✓ Excessive thirst
- ✓ Frequent urination
- ✓ Extreme hunger
- ✓ Fatigue
- ✓ Sudden vision changes, including blurry vision
- ✓ Unexplained weight loss
- ✓ Slow-to-heal sores
- ✓ Dry, itchy skin
- ✓ Tingling or numb hands or feet
- ✓ More infections than usual

If you have one or more of these signs, check with a medical professional. It's important to note that people have been diagnosed with diabetes when they have had NONE of the symptoms.

There is a warning.

Before someone becomes diabetic, he or she almost always has prediabetes – where the blood sugar level is higher than normal but not yet high enough to be diabetes. Prediabetes can damage your heart and circulatory system.

Unless people with prediabetes take action to lower their blood sugar level, many will develop diabetes within 10 years.

Almost everyone knows someone who has prediabetes. Maybe you have prediabetes. If so, you're not alone.

Today, around 400 million people – adults and children – worldwide have prediabetes. The ADA estimates that 79 million people in the United States have prediabetes.

But in most cases, diabetes can be stopped or at least delayed when you make changes to your diet and exercise more.



The International Diabetes Federation estimates that 285 million people around the world currently have diabetes. This total is expected to double within 20 years.

A Healthy Blood Sugar Level

People have been diagnosed with prediabetes or diabetes even when they had no symptoms. Because of this, the ADA recommends that you have your blood sugar checked every three years beginning at age 45. Have it checked sooner if you are overweight and are inactive, have family members with diabetes, or have other risk factors. If you have prediabetes, you should be checked for diabetes every year or two after your diagnosis. Talk to your healthcare provider to see if you should be tested.

What Your Blood Sugar Level Means

LEVEL OF RISK	Blood Test Results (mg/dL)	
	FASTING	NON-FASTING
Normal (Low risk)	70-99	less than 140
(High normal)	90-99	120-139
Prediabetes (Increased risk)	100-125	140-199
Diabetes (High Risk)	126+	200+

If your blood sugar is not high, good for you – and do what you can to keep it that way! If it is high, do whatever you can to lower it. By making lifestyle changes, some people with diabetes have actually been able to lower their blood sugar to a normal level.

Here's what the ADA and the Harvard School of Public Health recommend you do to lower your risk of developing diabetes:

- 1. Keep your weight healthy.** If you are overweight, losing even 10-15 pounds can greatly cut your risk of diabetes.
- 2. Get regular exercise.** Aim for 30-60 minutes of moderate exercise such as brisk walking most days of the week, preferably daily.
- 3. Don't smoke.** In Harvard's Health Professional Follow-up Study, men who smoked were 92% more likely to develop diabetes.
- 4. Choose healthy fats.** Eating saturated fats (e.g., butter, sour cream, and meats) and trans fats (e.g., stick margarine and shortening) increases your risk for diabetes. In place of these fats, choose healthy fats such as vegetable oils (e.g., canola, olive, and soy), trans fat-free margarines, nuts, and trans fat-free baked goods. (Read food labels).
- 5. Avoid unhealthy carbohydrates (carbs).** Refined carbs are in any food that's been processed: white rice, white bread, and, of course, soft drinks, cookies, pastries, and snack foods. Instead, eat whole grains, legumes, fruits, vegetables, and nuts.



What's a Healthy Carb?

Almost everything you eat is a carb: cookies, soft drinks, even vegetables, fruits, and seeds. But not all carbs are equal.

Healthy carbs help keep blood sugar levels normal. Unhealthy carbs can cause your blood sugar level to rise quickly. When that happens, your pancreas releases a lot of insulin which pulls excess sugar from your blood and deposits it in your cells. In a matter of minutes, your blood sugar level crashes. That's what can cause you to feel sleepy, grouchy, and hungry.

So how can you tell a healthy carb from an unhealthy one? Researchers developed the *glycemic index* to help measure the effect of carbs on a person's blood sugar. Foods with a high glycemic index are quickly changed into sugar and absorbed in the body.

Refined foods – such as white bread and pasta, white rice, chips, and pastries – have a high glycemic index. That's because processing removes most of the fiber from a food. And fiber is what helps keep your blood sugar level in the healthy range. Some starchy foods like corn and potatoes quickly raise blood sugar levels after they are eaten. Unrefined foods – legumes, whole grains, fresh fruits, vegetables, nuts, and seeds – have lots of fiber and a low glycemic index.

What the glycemic index doesn't tell you is how many carbohydrates there are in each serving. That's where the *glycemic load* chart comes in. It takes into account both the type and amount of carbs in each food. Most likely, if you follow the **Eat More of These and Eat Less of These** food lists (on the next page), you can keep your blood sugar level on track.

If you're serious about lowering your blood sugar, take steps to change the way you eat. Then decide if there are other lifestyle changes you'll need to make. For more help, talk with your doctor or nutritionist.

Read more about Glycemic Index from the American Diabetes Association: www.diabetes.org/food-and-fitness/food/planning-meals/the-glycemic-index-of-foods.html



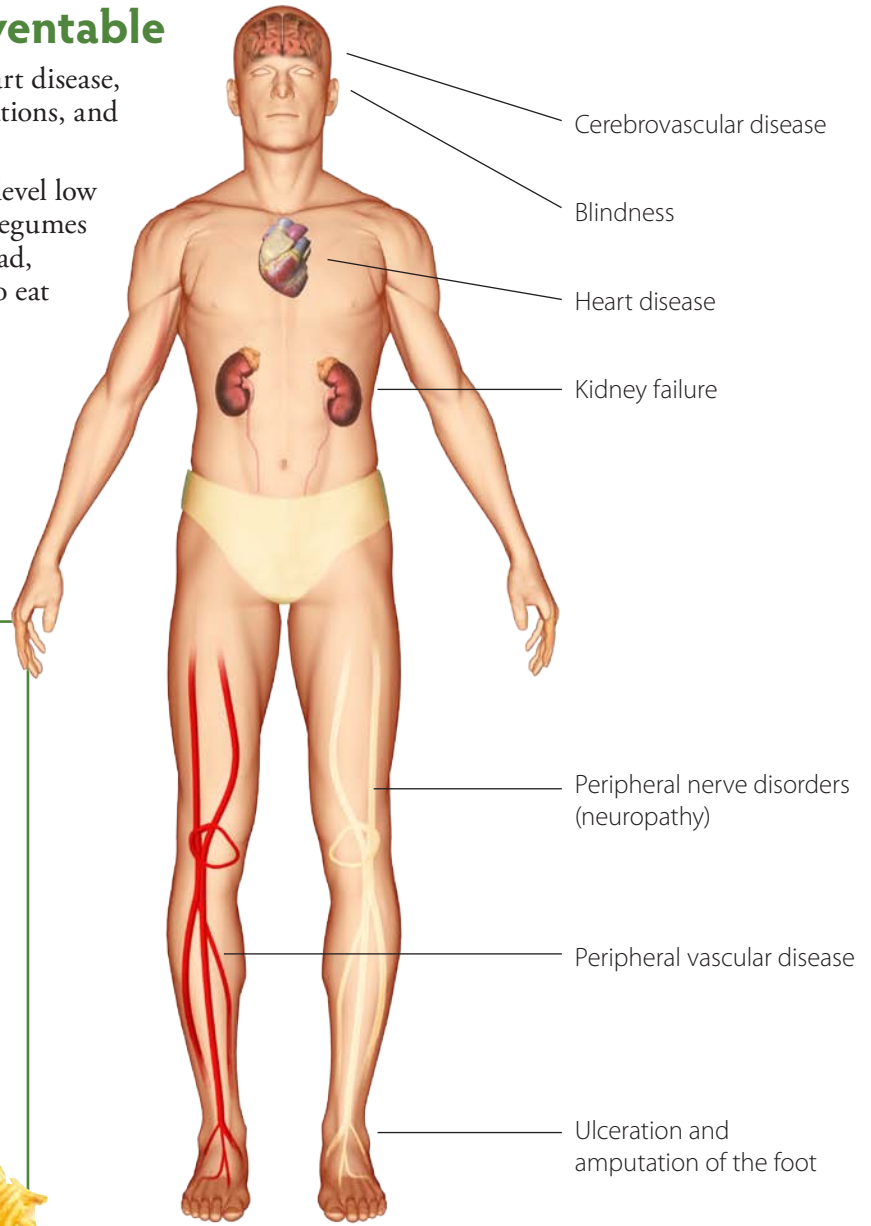
See the University of Sydney's comprehensive list of glycemic index foods. www.glycemicindex.com

Diabetes – Serious But Preventable

Diabetes is a serious disease that can lead to heart disease, blindness, kidney failure, nerve disease, amputations, and even death.

To lower your blood sugar level – or keep your level low – eat more whole-grain breads and cereals and legumes (e.g., beans, lentils, and peas) and less white bread, white pasta, white rice, and white potatoes. Also eat 5-9 servings of fruits and vegetables each day.

Start your day with oatmeal or granola topped with berries and chopped nuts. For lunch, make a sandwich using whole-grain pita bread stuffed with hummus, tomato, avocado, and cucumber. Try lentil stew on brown rice for dinner. If you get hungry for a snack, munch on carrot sticks, rye crisps, or orange wedges.



Eat More of These

- Fresh fruits
- Vegetables and salads
- Legumes: peas, beans, garbanzos, tofu, soy
- Nuts
- Whole-grain bread and cereals including oatmeal and brown rice
- Protein foods: eggs, fish, skinless poultry, lean meats, meat alternates, nonfat or low-fat milk
- Healthy fats including olives and avocado



Eat Less of These

- Snack foods
- Fast foods
- Pastry, cookies, cake
- Sweets
- Sugary drinks
- White bread and white rice
- Refined carbohydrates in general
- White potatoes and French fries



See what foods have a low glycemic load: www.ajcn.org/content/76/1/5.full.pdf+html

Sources:

American Diabetes Association; Harvard School of Public Health, International Diabetes Federation; National Institutes of Health.





Lower Your Blood Sugar Level

Instructions

1. Post the Health Challenge Calendar where you will see it daily (bathroom, kitchen, bedroom, etc.).
2. To complete the Challenge, you must eat healthy carbs in place of processed and high-starch foods. Use this calendar to keep track.
3. At the end of the month, total the number of days you replaced unhealthy carbs with healthy carbs. You must meet this goal on at least 22 days during the month to complete the Challenge. Then keep up this health practice for a lifetime of best health!
4. Keep this record for evidence of completion.

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MONTH:							HC = Health Challenge	ex. min. = exercise minutes
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	Weight & weekly summary	
HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>		
ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____		
HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>		
ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____		
HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>		
ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____		
HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>		
ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____		
HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>	HC <input type="checkbox"/>		
ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____	ex. min. _____		

_____ Number of days this month I ate low-glycemic foods to lower my blood sugar

_____ Number of days this month I got 30+ minutes of physical activity such as brisk walking



Other wellness projects completed this month:

Name _____ Date _____