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# diabetes

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## WRAP IT UP

Easy, healthy  
(and delicious)  
ideas for lunch

**ALSO**

**5 LIFESTYLE TIPS  
EXERCISE SMARTS  
FINDING DR. RIGHT**

FALL 2016  
WIC: 912141

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Cover: Photography by Cedric Angeles  
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## MAKE MINE MEDITERRANEAN

Not all dietary fat is bad fat. Researchers put 7,447 older adults with type 2 diabetes or three other risk factors for heart disease on a diet, then kept track of them for five years. One-third of the adults simply had to reduce fat in their diet. The other two-thirds followed the Mediterranean diet, which is high in the healthy fats that come from some vegetables, nuts, and olive oil. While the researchers expected some weight gain for older adults over a five-year period, the Mediterranean dieters put on less weight and gained fewer inches around their waists than the others. *Source: The Lancet*



# 45%

## PERCENTAGE OF U.S. ADULTS

who eat what the American Heart Association considers a “poor” diet. That’s down from 56% in 1999.

*Source: JAMA*



# 165

## CALORIES

in one medium-sized baked sweet potato, including the peel.

*Source: USDA*



## GIVE YOURSELF A BREAK

Distressed or depressed about diabetes? These feelings can make blood sugar harder to control. But try showing yourself some love. In an experiment, 30 people with diabetes learned self-compassionate meditation. Another 30 were put on a wait list for the program. Before the training, all 60 had similar levels of depression, distress, and blood sugar. The people on the wait list saw no change in their symptoms over the next eight weeks. But those who learned self-compassionate meditation had lower blood sugar and felt less distressed and depressed. The benefits were still evident three months later.

*Source: Diabetes Care*



# 40%

PERCENTAGE OF WOMEN IN THE U.S. WHO ARE OBESE

The number has increased steadily over the last 10 years. Men have held fast at 35%.

Source: JAMA

# 250

Calories a 150-pound woman burns in 45 minutes of raking leaves.

Source: USDA

## TURN IN EARLY

Do you want to eat better and exercise more? Try going to bed a little earlier.

In a recent study of about 100 adults who got six-and-a-half hours sleep every night, those who turned in earlier ate more vegetables and less fast food and did more physical activity than their night-owl peers. Try bumping up that bedtime by half an hour or more and see what happens.

Source: American Academy of Sleep Medicine



PREVIOUS PAGE: CLOCKWISE FROM LEFT: GETTY IMAGES; THINKSTOCK. GREG SCHMIGEL/STOCKSY. THIS PAGE: FOLIO IMAGES/ALAMY; STOCK PHOTO. PHOTOALTO/ALAMY; STOCK PHOTO; BLEND IMAGES/ALAMY; STOCK PHOTO



# Know Your Numbers

The basics of monitoring your blood sugar

BY ERIN O'DONNELL

When you're diagnosed with type 2 diabetes, your health care provider may ask you to test your blood sugar levels, especially if you need daily insulin injections. "When you're on insulin, there's a risk of low blood sugar, which can be very dangerous," explains Cara Harris, CNP, certified diabetes educator for The Ohio State University Diabetes and Metabolism Research Center. Regular blood tests allow you to spot trends or problems, and alert your doctor or other provider to adjust your medication if necessary, she adds.

To check your blood sugar, you'll use a glucometer, a device that pricks your finger, generating a tiny blood sample to test. "Most glucometers are pretty similar nowadays," Harris says, but she notes that some brands offer different features, such as the ability to test on areas of your body other than your fingers, or a way to record information about what you ate. If you need help choosing a meter, ask your diabetes educator, Harris says. Before you choose, she recommends checking with

your insurance company; some insurers only cover certain models.

Many health care providers recommend that you check your blood sugar two to four times a day. Before you test, clean your skin with soap and water. "Sometimes patients will peel an orange and then test without washing their hands first, and it can alter the results," Harris says. If you don't have immediate access to soap and water, you can use hand sanitizer, but allow it to dry before testing.

Each time you check your blood sugar, record your results. This allows you to review your numbers with your doctor or diabetes educator and spot any trends. "It's not so much the checking that's important, but what you do with the results," Harris stresses. "Be sure to talk with your provider about what those numbers mean." If your levels are too high or too low, it could be the result of your food choices, exercise, or medications, she says. Adjusting your routine may help you bring your numbers back into target range, usually between 80 and 130 mg/dL. (Your target may differ depending on factors such as your age, Harris notes.)

While some glucometers record test data, Harris recommends writing the information in a logbook or entering it in an app, which makes it easier to review and see potential problems. Harris says some of her patients have used free apps such as Glucose Buddy and mySugr (both are free on Android and Apple devices).

## ASK YOUR DIABETES EDUCATOR

What blood sugar target range should I aim for?

If I stop testing my blood sugar, what will happen?

Can I send you my blood sugar logbook to review?

Can you recommend any apps or websites to record my blood sugar levels?



Watch [How to Check Your Blood Sugar](#), a video at WebMD.com.

LEARN HOW ON PAGE 3

# Baby on Board

Type 1 diabetes and pregnancy do mix—provided you take the right precautions

BY BARBARA BRODY

Women with type 1 diabetes can (and do!) get pregnant and have healthy babies. But you need to be extra vigilant about controlling your glucose levels and working closely with your doctor. Here's what to anticipate when you have diabetes and are expecting, or hope to be.

## Start early

Before you conceive, begin taking prenatal vitamins and book a pre-conception checkup with your endocrinologist. "Most birth defects occur within the first four weeks, before many women even know that they're pregnant," says Florence Brown, MD, an endocrinologist and co-director of the Joslin-Beth Israel Pregnancy Program in Boston. Checking your A1c level is essential. "When A1c is under 6.5%, your risk for birth defects is no different than the general population," Brown says.

But if it's too high, the risk of birth defects goes way up—and so does the risk for preeclampsia (dangerously high blood pressure during pregnancy). Also, if you have complications such as retinopathy or kidney disease, your doctor may want to get these issues in check before giving the green light for you to become pregnant.

## Plan on tighter blood sugar control

When you're pregnant, you need to keep your blood sugar in a very tight range: 60 to 99 mg/dL fasting and 100 to 130 mg/dL an hour after meals. Eating high-fiber meals, keeping processed foods to a minimum, and pre-planning three meals and three snacks a day should help.

Meanwhile, you'll have to take insulin 10 minutes before a meal rather than with your first bite, and you should expect your insulin needs to change drastically. Your doctor or diabetes educator can guide you on dosing.

## Watch out for hypoglycemia

When your blood sugar starts to dip dangerously low, you probably get some warning signs, like dizziness or shakiness. But after you get used to keeping your levels in a very tight range, your body loses its normal response to fluctuations—which means you might not know, Brown says. The solution: More frequent blood sugar checks. If you still have trouble sensing that your sugar is dropping, you may need a continuous glucose monitor, which warns you with an alarm.

## Get the right tests

Expect to get an ultrasound at your first prenatal visit as well as a level 2 (in-depth) ultrasound later in your pregnancy to check the baby's spinal cord, heart, and other organs. You will also receive ultrasounds in the third trimester to measure the baby's growth and well-being.



## ASK YOUR DOCTOR

Am I healthy enough to get pregnant right now? If not, what do I need to do to prepare my body for pregnancy?

Who should provide my obstetrical care?

How should I plan to adjust my insulin while I'm pregnant? And what should I do if I need extra help between checkups?

Should I stop or change any medications I currently take?

How should I monitor my blood sugar during pregnancy?



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# Seven Super Foods

Keep your healthy meal plans on track with these nutritious choices

BY JENNIFER D'ANGELO FRIEDMAN



When you have type 2 diabetes, what you choose to eat not only helps stave off hunger, it can also prevent spikes in your blood sugar.

These seven foods can help keep your blood sugar in check and are smart choices for your overall health, too, explains Margaret Powers, PhD, a registered dietitian and president of health care and education at the American Diabetes Association.

## Raw, cooked, or roasted vegetables

These add color, flavor, and texture to a meal. Choose low-carb veggies like mushrooms, onions, eggplant, tomatoes, Brussels sprouts, and zucchini and other low-carb squashes. Try them with a dip, such as low-fat salad dressing, hummus, guacamole, and salsa, or roast them with seasonings such as rosemary, cayenne pepper, or garlic.

## Greens

Give yourself a break from lettuce and try kale, spinach, and chard. They're healthy, delicious, and low-carb, Powers says.

And don't just stick to salads. Roast kale leaves in the oven with olive oil for quick, crunchy chips. Mix greens with roasted veggies to add texture and flavor, or serve them with a little protein such as grilled chicken.

## Flavorful, low-calorie drinks

Plain water is always good, but water infused with fruits and vegetables is more interesting. Cut up a lemon or cucumber and put it in your

water, or make ice cubes with pieces of fruit or veggies in them.

Or try cold or hot tea with lemon or a cinnamon stick. "Not only are these beverages low-carb, they can also help fill you up so you don't crave other foods," Powers says.

## Melon and berries

Did you know that one cup of either melon or berries has just 15 grams of carbs?

For a twist, mix the melon or berries with plain yogurt, or freeze chunks of fruit in ice cubes to flavor your water.

## Whole grain, high-fiber foods

Fill up on whole grains to keep from overeating or choosing the wrong foods. Besides breads, try legumes like dried beans, peas, and lentils. Or enjoy black bean-and-corn salsa with raw veggies.

## A little fat

Good fat choices include olive oil, avocado, and fatty fish—think salmon served on a bed of lettuce, for example. Bonus: The fat from the fish serves as a dressing for the salad, Powers says.

## Protein

Powers recommends Greek yogurt, cottage cheese, eggs, and lean meats. And don't forget treats. "Peanut butter on a celery stick is a good fat-and-protein mix for a healthy, satisfying snack," she says. You can also snack on a lower-fat cheese stick or a piece of beef jerky—but keep an eye on how much sodium each contains, she says.

## ASK YOUR DIABETES EDUCATOR

What are some nutritious snacks I can eat?

Which foods should I eat sparingly?

Can you help me create meal plans that incorporate my favorite healthy foods?

How often should I eat during the day?



Check out 13 Easy Ways to Eat More Greens, a slideshow at WebMD.com.

LEARN HOW ON PAGE 3



# Time Saver

Speed up your workouts with bursts of activity

BY KARA MAYER ROBINSON



If you're short on time, we've got a workout for you. High-intensity interval training mixes short bursts of intense exercise with periods of active rest. You can complete a workout in as little as 10 minutes. And with breaks built in, you won't feel winded for very long.

"Recent research has shown that HIIT can promote improvements in blood glucose control and cardiovascular health in individuals with type 2 diabetes," says Sheri R. Colberg, PhD, professor of exercise physiology and nutrition at Old Dominion University in Norfolk, Virginia. But it's not a match for everyone, so clear it with

your doctor first. Ready to try HIIT? Follow these guidelines:

### Mix it in

Think of HIIT as just one element of your exercise program. Try doing it on alternating days, when you don't have time for a long workout or when you crave variety. To keep your insulin working to lower your blood glucose, exercise at least every other day, Colberg says.

### Make it right for you

Tailor HIIT to your fitness level. If you're a beginner, start with a gentle activity, like walking. Simply pick up the pace for 40 to 60 seconds, then return to a more moderate speed for a couple of minutes

before your next interval. If you're a walking pro, go uphill at a fast pace for a minute or so.

### Be creative

You can use HIIT for almost any workout, like cycling, walking, swimming, circuit training, or resistance training. Even team sports are fair game.

### Start small

"If you're just starting out, doing shorter and less intense intervals is likely better," Colberg says. "Aim for an intensity that feels hard to you and you'll likely be in an intense range." If you can't finish an interval, scale back on the intensity. Instead, stretch it out so the burst lasts longer to get the same benefit.

### Dial it up as you get better

When you're used to HIIT, ratchet up the time or intensity level of each burst. "Try to get up to 60 seconds of near-maximal work, with a minute or two of active rest in between," Colberg says.

### Be safe

Add a warm-up and cool-down to every workout. Increase your intensity just a little at a time. "The last thing you want to do is get injured by progressing too fast," Colberg says.

## QUESTIONS FOR YOUR DOCTOR

Before you gear up, run these questions by your doctor or diabetes educator:

Is HIIT safe for me?

How might it affect my blood glucose?

Is it a good idea to exercise if my blood glucose level is high?

What's the best time of day to work out?

What should I do if my blood glucose goes too low?



Read [What Is HIIT?](#) an article at WebMD.com.

LEARN HOW ON PAGE 3

# WRAP IT UP

## Collard Green Curried Salmon Salad Wrap

Subbing collard greens for a flour wrap is a great way to sneak some dark green vegetables into your lunch. A wrap is low-calorie, making it a perfect stand-alone snack or addition to other lunch items. *Makes 2 servings*

### INGREDIENTS

1 5-oz can wild salmon, drained  
¼ cup 2% plain Greek yogurt  
2 tsp curry powder  
1 tsp lemon juice  
2 collard green leaves, stems removed

### DIRECTIONS

In a medium bowl, mix salmon, yogurt, curry powder, and lemon juice. Lay each collard green leaf flat and divide the salmon salad equally between them in the center of each leaf. Roll up the wrap burrito-style.

### PER SERVING (PER WRAP)

162 calories, 18 g protein, 5 g carbohydrate, 3 g fat (2 g saturated fat), 49 mg cholesterol, 1 g fiber, 1 g sugar, 329 mg sodium. Calories from fat: 17%



Save money and calories (and carbs). Plan to pack a lunch to bring with you instead

BY KERRI-ANN JENNINGS  
REVIEWED BY HANSA BHARGAVA, MD,  
WEBMD MEDICAL EDITOR

PHOTOGRAPHY BY CEDRIC ANGELES

You have plenty of good reasons to pack a lunch, whether you're heading to work or school, or just planning to be out of the house for a long stretch of the day.

For one thing, packing lunch can be a mega money saver. Why waste dollars on an overpriced salad when you can make one at home using better ingredients? Veggies and healthy proteins, in particular, can be more expensive and harder to find when you're out. Including these foods can prevent a daylong carb-fest. You'll also build a pause into your day. When you've taken the time to prepare a lunch, you may be more likely to take a break to sit and eat it.

Become a lunch-packing pro with these tips from New York City-based registered dietitian Lauren Slayton, MS, founder of Foodtrainers nutrition counseling center in New York City and author of *The Little Book of Thin*.



## INVEST IN THE RIGHT TO-GO CONTAINERS

Bento-style lunchboxes keep individual items separate and sealed and are perfect for at-work “picnic” lunches. Mason jars are also great—keep them in all sizes and you can use them for yogurt, berries, cut-up vegetables, or salads. If you like a hot lunch, either bring a container that heats up in the microwave or use thermos-style containers.

## PACK ENOUGH FOOD

“Don’t be cutesy—if they’re good ingredients, be generous so that the snack monster doesn’t descend on you in an hour,” Slayton says.



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recipe!**

## Avocado Egg Salad

This is a perfect salad to include in a “bento box” style lunch. Pack extra veggies and crispy rye crackers to round it out.

*Makes 1 serving*



Get Healthy Lunch Ideas in WebMD's Recipe Finder at WebMD.com.

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PAGE 3

### INGREDIENTS

½ medium avocado  
2 hard-boiled eggs, peeled and chopped  
1 tsp fresh lemon juice  
fresh basil, torn or minced  
dash of salt

### DIRECTIONS

Scoop avocado from its peel into a medium bowl and mash with a fork until fairly smooth. Add eggs, lemon juice, basil, and salt and mix until combined. If you prefer a smoother egg salad, you can continue to mash the egg and avocado together with a fork.

### PER SERVING

250 calories, 24 g protein, 10 g carbohydrate, 23 g fat (6 g saturated fat), 372 mg cholesterol, 8 g fiber, 2 g sugar, 152 mg sodium. Calories from fat: 48%

## USE LEFTOVERS

Most dinners make excellent lunch the next day. Either wrap up a portion of your dinner as is, or repurpose individual items. For instance, you can top a salad with roasted chicken or veggies from a previous meal.

## DON'T REINVENT THE WHEEL

Repetition is not a bad thing. Find a lunch plan that works, then stick with it. Slayton recommends a formula of “green-protein-treat” to her clients. The “treat” is a good fat, such as avocado, pepitas, hemp hearts, and walnut oil.

## Mason Jar Asian Chicken Salad

Mason jars are handy for packed salads. This recipe calls for rotisserie chicken and bagged broccoli slaw, making assembly a snap.

*Makes 1 serving*

### INGREDIENTS

2 tbsp Japanese-style carrot ginger salad dressing  
½ cup chopped roasted chicken  
(you can use leftover rotisserie chicken, skin removed)  
1 cup broccoli slaw  
1 tbsp toasted sesame seeds

### DIRECTIONS

Layer ingredients in a Mason jar in the order listed and seal with a lid. When it's time for lunch, shake it up and dig in.

### PER SERVING

300 calories, 26 g protein, 17 g carbohydrate, 17 g fat (3 g saturated fat), 63 mg cholesterol, 6 g fiber, 3 g sugar, 281 mg sodium.  
Calories from fat: 49%



email  
this  
recipe!



# Be Heart Smart

Diabetes can strain your heart. Here's how to protect it

BY BARBARA BRODY



If you have type 2 diabetes, you should know that your heart is at risk, too. About 68% of people older than 65 who have diabetes will die from some form of heart disease, and another 16% will die from a stroke, according to the American Heart Association. That means you should worry about your ticker just as much as your blood sugar levels.

The connection between heart disease and diabetes is strong for two main reasons, says Stacey Rosen, MD, a cardiologist at Northwell Health in New Hyde Park, New York. For starters, chronic high blood sugar harms blood vessels and accelerates atherosclerosis. "Blood vessel damage is what leads to complications of diabetes, such as blindness and kidney failure as well as heart disease," says Rosen.

The second issue is that many risk factors for type 2 diabetes and heart disease overlap.

REVIEWED BY MICHAEL W. SMITH, MD, WEBMD CHIEF MEDICAL EDITOR

Being overweight, having high blood pressure, having low HDL ("good") cholesterol, and not getting enough physical activity all increase the chances of developing both conditions.

## Tipping the scales in your favor

You can, however, take steps to protect your heart. Losing weight if you need to and maintaining a healthy body mass index will help a lot. Even shedding 10 pounds can make a big difference for managing your blood sugar levels and reducing your risk of heart disease. Rosen recommends having a nutritionist or certified diabetes educator help you devise meal plans based on your needs and preferences.

Exercise is also extremely important for heart health and diabetes management. The American Heart Association recommends at least 150 minutes per week of moderate aerobic activity, plus strength training at least twice a week. That might sound like a lot but remember that smaller amounts of exercise can add up over the course of the day or week, Rosen says. "You don't have to do everything perfectly; anything you do right counts," she says. A 15-minute walk after lunch is a great start; so is lifting "weights" using soda bottles or cans of veggies.

Also, your doctor may prescribe a statin, a type of medication designed to lower cholesterol. Most people with diabetes benefit from these drugs even if their cholesterol levels seem OK, Rosen says. That's because the diabetes-heart disease connection is so strong, and statins do more than just lower LDL ("bad") cholesterol levels; they also stabilize plaque in the blood vessels, so it's less likely to break off and lead to a heart attack or stroke. Your doctor can help you weigh the risks and benefits.

## QUESTIONS FOR YOUR DOCTOR

What are my chances of developing heart disease?

What cardiovascular screening tests do I need?

Do I need to take a statin?

Is my blood sugar well-controlled?

What signs might indicate that I'm having a heart attack?



Check out 12 Clues You Might Have Heart Disease, a slideshow at WebMD.com.

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# Make It a Habit

Five steps for getting diabetes under control

BY AMANDA GARDNER

Controlling your diabetes is a daily, weekly, monthly, and yearly challenge—but the effort is worth it. Right away, you'll feel better and have more energy. The long-term payoff? You'll live better longer with a lower risk of heart attack, stroke, kidney failure, even blindness. Following these five steps will help you keep your blood sugar levels as close to normal as possible.

## Spot-check your sugar

You and your doctor will have set a schedule to test your blood sugar. It's a good idea to add an extra daily check on top of that. Maybe at breakfast one day, lunch the next, and so on. It's like popping in unannounced. "If you spot-check, you have a much better sense of how things are going," says Sethu Reddy, MD, chief of the adult diabetes section at Joslin Diabetes Center in Boston.

## Count carbs

They can quickly send your blood sugar on a roller-coaster ride, so you'll want to keep track of the carbs you eat. Most women need 35–45 grams of carbs per meal while men need 45–60 grams, says dietitian Jessica Crandall, RDN, a certified diabetes educator with Denver Wellness and Nutrition. A cup of rice or pasta has about 45 grams.

To make the most of your carbs, opt for high-fiber options and pair them with a protein, like nuts to slow digestion so you feel full without a boost to your blood sugar. Good sources of fiber and carbs include whole wheat bread, sweet potatoes, and dried beans.

Be wary of "no-sugar" products. That doesn't always mean no carbs. Foods that have sugar alcohols—ingredients that usually end in "ol" like xylitol and mannitol—do contain carbs.

## Think of exercise as medicine

Try to get 150 minutes a week. Break that up into smaller chunks, like half an hour a day, five days a week. You don't have to become a gym rat, either. It's OK to walk, run, or bike. Physical activity also releases compounds called endorphins, which boost your mood.

## Know your numbers

Blood sugar readings aren't the only numbers you need to keep track of. Your doctor will also watch these: A1c, which measures blood sugar levels over time, tested at least twice a year; cholesterol levels, which should be tested at least every five years and more often if your levels are high; and blood pressure and weight, recorded every time you visit the doctor.

## Build a dream team

Diabetes is a whole-body, whole-person disease and is best treated by a team of experts, headed by you, of course. This can include your doctor along with a nutritionist, dentist, pharmacist, nurse, and others. And don't forget your friends and family.

## ASK YOUR DOCTOR OR DIABETES EDUCATOR

Who should be on my team of health care providers?

Is it safe for me to begin or increase an exercise regimen?

How can I learn more about carbs?

How can I enlist help and support from my friends and family?



Read *Diagnosed With Type 2? 8 Things to Do Now*, an article at [WebMD.com](http://WebMD.com).

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DAVE AND LES JACOBS/BLEND/GLOW IMAGES

REVIEWED BY MICHAEL DANSINGER, MD, WEBMD MEDICAL REVIEWER



# Finding Dr. Right

You and your health care provider are partners. Find the best one for you

BY MICHELE COHEN MARILL

Life with diabetes is a journey, and your diabetes specialist serves as your guide, connecting you with the tools and support you need to stay healthy.

When Christel Marchand Aprigliano, of Tampa, Florida, vice president of the Diabetes Patient Advocacy Coalition, has an appointment with a new provider, she observes his or her body language. Arms folded, eyes averted, hand on the doorknob? Those signs point to someone who isn't fully engaged.

A good encounter feels comfortable. "They'll look you in the eye when they talk to you. They will talk to you in layman's terms. They will assess your level of understanding with what's going on with your health care," says Aprigliano, 45, who was diagnosed with type 1 diabetes at age 12 and now writes a blog about it.

You want to seek a provider who is knowledgeable about diabetes and treats patients with similar medical needs. For

example, if you have type 1 diabetes and use a continuous glucose monitor and insulin pump, you want to see a provider who is familiar with the devices. That person might be an endocrinologist, but be aware that not all endocrinologists specialize in diabetes. Some treat mostly thyroid disease. You might find a good match with a primary care physician, nurse practitioner, or physician assistant who focuses on diabetes care.

It's also important to trust your instincts. A health care provider who makes you feel ashamed of your weight or guilty about your blood sugar levels isn't treating you as if you're in this together. Practitioners should seek to solve problems through shared decision-making, says Hope Warshaw, RD, a certified diabetes educator in Alexandria, Virginia. "They have the understanding that this is a very challenging disease," says Warshaw, author of five books on diabetes, including *Diabetes Meal Planning Made Easy*. "They say, 'Here are our choices. What do you think would work better?'"

Beyond the medical exam, your provider should connect you with a diabetes educator who will help you stay on track with your goals. You may need referrals to other specialists, such as a podiatrist or ophthalmologist.

Of course, you share responsibility, too. Come to your appointments with your blood glucose meter or blood sugar log, a list of questions, and prescription renewals you need. "We have an obligation to help make that relationship stronger," Aprigliano says.

## QUESTIONS FOR YOUR DOCTOR OR HEALTH CARE PROVIDER

Do you see more patients with type 1 or type 2 diabetes?

What information should I bring to my medical exams?

Can I have my lab work completed before my appointment so that we can discuss it?

What choices do I have for my treatment?

Where can I get diabetes education and peer support?

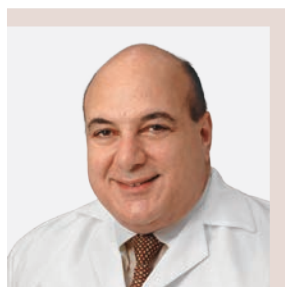
What other health professionals will be involved in my care?



Read [5 Traits to Look for in an Endocrinologist](#), an article at WebMD.com.

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# Q How can I lower my blood pressure?



**George Bakris, MD**  
professor of medicine  
and director of the  
Comprehensive  
Hypertension Center,  
The University of  
Chicago Medicine

When you have both high blood pressure and diabetes, diabetes is the fire and high blood pressure is the gasoline being added to the fire. It accentuates the harmful health effects that diabetes can cause by increasing inflammation and damage to the blood vessels. High blood pressure is a factor in the progression of kidney disease as well as in heart attack and stroke risk.

Research shows that the ideal blood pressure for preventing these and other diabetes complications is less than 140/90. However, talk to your doctor about the ideal range for you and how to achieve those numbers.

If your blood pressure level is slightly above the normal range, your doctor will likely recommend a low-salt diet and exercise. Limit sodium to 2,300 milligrams a day—about one level teaspoon of salt.

You can follow a diet similar to the Dietary Approaches to Stop Hypertension, or DASH, which is low in salt and includes a mix of nutrients such as potassium and magnesium that help bring down blood pressure (though you might have to limit potassium if you have late-stage kidney disease).

Sleep is also important. In fact, it's as important as limiting salt for controlling blood pressure and diabetes. You'll get amazing improvements in both blood pressure and blood

you'll almost certainly need to go on at least one blood pressure drug in addition to relying on diet and exercise. Some of these drugs are better than others for people with diabetes. Diuretics and many of the beta blockers can raise blood sugar. So instead, I'll start with a calcium blocker or angiotensin II receptor blocker (ARB), both of which have less of an effect on blood sugar.

If one drug doesn't lower your blood pressure, your doctor can add another one or two more medicines. Once

*If your blood pressure level is slightly above the normal range, your doctor will likely recommend a low-salt diet and exercise.*

sugar if you sleep at least six to seven hours a night.

You can avoid having to use blood pressure drugs for a while just by lowering your salt intake and losing weight, but you'll likely still need to take something down the road. Once your top (or systolic) blood pressure number is well above 140, you've had high blood pressure for four to six years, or you have signs of complications such as kidney or retina damage,

you start, you'll have to stay on them. If you decide that your blood pressure is well controlled and stop taking the medicine, all the heart and blood vessel protection you've built up will be gone within a few days.



Read 12 Lifestyle Tips to Avoid Diabetes Complications, a slideshow at WebMD.com.

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REVIEWED BY BRUNILDA NAZARIO, MD, WEDMD LEAD MEDICAL EDITOR



## pop quiz

# Truths & Myths

Considering that 29 million Americans have diabetes, and some 86 million more are at risk for it, you'd think we'd have a pretty good collective understanding of this disease. Yet a few myths still flourish—including beliefs about who gets diabetes and which foods are off limits once you're diagnosed. Test how much you know about diabetes with this quiz.



## QUIZ

1. If you're overweight, you'll eventually get diabetes.

True    False

2. Eating too much sugar causes diabetes.

True    False

3. If you have diabetes, you'll need to cut out all bread, potatoes, and sweets.

True    False

4. You can eat all the fruit you want, because it's natural.

True    False

### ANSWERS:

**1. False.** While being overweight does increase your risk for type 2 diabetes, it doesn't mean you are destined to have high blood sugar. Many overweight people never develop diabetes. Other factors play into your risk, like a family history of diabetes, high cholesterol levels, and too much time spent parked on the couch. If you're heavier than your doctor recommends, any weight you lose can increase your odds of avoiding this disease.

**2. True and False.** This issue is a little more complicated than a straightforward "true or false" answer. You get type 2 diabetes when your body doesn't produce enough insulin or your cells can't use it effectively. Insulin is the hormone that moves sugar from foods you've eaten into your cells to either be used for energy or stored. Eating too much of anything can lead to weight gain, which contributes to diabetes risk.

**3. False.** You don't have to pass on the potatoes or avoid other starchy vegetables. You can have bread, crackers, and even the occasional cookie. The key is to eat the right types—and amounts—of these foods to avoid blood sugar spikes. Whole grains like oatmeal, quinoa, and brown rice keep blood sugar steadier than processed carbs like white flour and rice.

**4. False.** Fruit is natural, and it's full of healthy nutrients and antioxidants. Yet fruit is also high in carbs, which you'll need to limit. Check that any canned fruits you buy aren't packed in syrup, which has lots of added sugar. With fresh fruits, limit your serving size to one small whole fruit (like an apple or banana) or 3/4 to 1 cup of berries or melon.

Sources: American Diabetes Association, Joslin Diabetes Center, National Institute of Diabetes and Digestive and Kidney Diseases, WebMD Diabetes Health Center

## ASK YOUR DOCTOR

1. Am I at risk for diabetes?

2. Which foods should I eat more of and which ones should I limit?

3. How much weight do I need to lose?

4. What's the healthiest way for me to lose weight?



## My Secret Recipe

A chef shares his secrets for reversing type 2 diabetes

BY ERNEST QUANSAH

I'm a chef and pastry chef by trade. I would bake desserts, cookies, and cakes and eat them for breakfast, lunch, and dinner. Overworked and stressed, I didn't have time to take proper care of myself.

All of a sudden, I noticed I was having an intense craving for sugar. I'd buy massive jugs of lemonade and drink it all day long. I began to lose weight very rapidly. In one month, I lost about 20 pounds. I noticed a sticky, whitish

substance covering my tongue and the corners of my eyes each morning.

In a panic, I went to my doctor. He said, "We need to get a blood test right now, because I suspect you have diabetes." The test results showed my blood sugar was 394. (For most people without diabetes, blood sugar levels before meals hover around 70 to 80 mg/dL.) My doctor said, "Do you realize you're steps away from going into cardiac arrest?"

He put me on heavy doses of medication. Then my eyes shut down. I couldn't see, though after four weeks, my eyesight came back. I was 46 and felt overwhelmed.

Finally after two years of struggling, I asked my doctor, "Can my diabetes be cured?" He asked me if it ran in my family. I said no. He then said, "Yes. The best way to cure it is by using several approaches all working together."

I put together a diet and exercise program with my doctor. Basically, I ate no simple carbohydrates. I'd make my favorite soup—tofu and cabbage with lots of vegetables. Or I'd cut up raw vegetables and eat them with hummus. For breakfast, I'd make steel-cut oats with a little cream and egg whites. I stopped drinking anything sweet.

Every morning, I'd go to the gym and exercise properly. When I first started, I couldn't lift very much, and was only able to do seven minutes of cardio. Then slowly, I was able to stay on the machine for 10 minutes, then 15, and then up to 45. My doctor started reducing my medication.

At nighttime, I went back to the gym, and did only cardio. I worked out seven days a week. I began to feel a surge of energy. Further tests showed that I was healed. "Congratulations! You no longer have diabetes. Your blood pressure is perfect and your cholesterol level is down," my doctor said.

That was four years ago. Today, I'm full of energy. I'm still a chef, and occasionally I'll have something sweet on the weekend—ice cream or a cookie. But eating healthy and exercising—that's the secret.

### ERNEST'S LIFE LESSONS

"Take up exercise. Start with five minutes and build up slowly. Your energy will come back."

"Take control of your diet. You don't have to be a chef to eat healthy, delicious meals."

"One of the simplest meals is to cut up vegetables, toss with greens and a little dressing, and put a can of water-packed tuna on top. That's a complete meal."



Read *Diabetes Diet Dos and Don'ts*, an article at [WebMD.com](http://WebMD.com).

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