

# Meal Ticket

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DIABETES NOW

# HOT TOPICS!

WHAT YOU NEED TO KNOW ABOUT DIABETES



### **Power Up**

Eating a higher-protein breakfast can help control blood sugar throughout the day and keep you feeling full longer. In one study, women's peak blood sugar and insulin

levels were 10% to 15% lower for up to four hours after a 300-calorie breakfast of turkey sausage and eggs than after a 300-calorie breakfast of pancakes and syrup. The egg breakfasts contained either 30 or 39 grams of protein, compared with the pancakes' 3 grams.

Source: American Society for Nutrition Annual Meeting at Experimental Biology 2014

# App Time

CLOCKWISE FROM TOP LEFT: IJ KIM GOH/GETTY IMAGES; STOCKBYTE/GETTY IMAGES; GRAPHICOLA/GETTY IMAGES; MAARTJE VAN CASPEL/GETTY IMAGES

Your next prescription could be for a smartphone app. In a recent experiment, people with diabetes received daily text reminders through a nurse-monitored app. After six months, they followed a healthy diet, monitored their blood sugar, took their medications, and practiced foot care more frequently than

they had before using the app. This lowered their blood sugar, improved their health, and cut their doctor visits and health care costs.

## Take Heart

You know exercise is good for you. But did you know that running and walking could cut your risk of dying from heart disease in half? In a study of more than 2,060 people with diabetes, those who did the equivalent of 30 minutes of brisk walking daily (that's 210 minutes a week), or 14 minutes of running at 13 mph each day (100 minutes a week), cut their risk of heart-related death by 57%. That's not all—they also reduced their risk of kidney-related death by 40%.

Source: Medicine & Science in Sports & Exercise



68%

The drop in annual rate of diabetes-related heart attacks between 1990 and 2010

Source: New England Journal of Medicine



167

Number of calories a 155pound person burns in 30 minutes of car washing or window washing. If you weigh more, you burn more calories.

Source: Harvard Medical School







#### HEALTHY EATS

# **Food Clues**

IS YOUR BLOOD SUGAR UP AND DOWN? BEWARE OF HIDDEN SUGARS

By Sonya Collins

Just when you think you're making all the right food choices, your blood sugar takes a leap or dive. Foods and drinks can have an impact you might not expect, and these surprise blood sugar fluctuations can be harmful (potentially causing hypo- or hyperglycemia). Here are some things you should consider:

Don't let bagels betrav you. Counting carbs is a way of life when you have diabetes. Bread can really rack up those carbs, but not all bread is created equal. Think plate," says Pamela Allweiss, MD, MPH, medical officer in the division of diabetes translation at the CDC.

A fruit in any other form may be twice as sweet. All fruits contain sugar, but did you know that different forms of the same fruit have vastly different amounts?

Dried fruit packs a sugary punch compared with its fresh counterpart. Ten grapes, which weigh about 1.75 ounces, have 34 calories and 8 grams of sugar. They're also full of water, which helps fill you up. A



and no fiber.

Sports drinks may not be so sporty. Sports drinks may have a healthy image and they do help restore the fluids and electrolytes, such as sodium and potassium, that you can lose during intense exercise. But they contain 13 to 19 grams of carbohydrates per 8-ounce serving. This kind of energy tonight," says Linda M. Siminerio, RN, PhD, CDE, director of the University of Pittsburgh Diabetes Institute.

But alcohol can actually lower blood sugar, and an empty stomach can be dangerous. A single drink can increase the release of insulin in the body, bringing blood sugar down. When blood sugar drops, the body should release glucose to bring it back up. Alcohol can block the release of glucose and keep blood sugar too low, Siminerio says.

"People with diabetes, if they are drinking, need to drink healthy. There is a risk of low blood sugar. Make sure you eat something to counteract that alcohol," Siminerio says. "Use caloriefree mixers and drink in moderation."

Aim for balance. Speaking of moderation, having diabetes doesn't mean you can never have a beer at a ball game or a bagel at breakfast. "Most things can be on the health plan in moderation," Allweiss says.

# All fruits contain sugar, but did you know that different forms of the same fruit have vastly different amounts?

there's no difference between a bagel and an English muffin? One plain English muffin has 140 calories and 27 grams of carbohydrates. A bagel that's 4½ inches in diameter serves up 294 calories and 58 grams of carbs. That's about as many calories and even more carbs than a glazed donut.

"It's about portion size. Some bagels are the size of a

Reviewed by Brunilda Nazario, MD WebMD Lead Medical Editor 1.5-ounce, single-serving box of raisins packs 129 calories and 15 grams of sugar, but none of the water.

"Without the water, the sugar is more concentrated in dried fruit. And with the smaller size, you're likely to eat many more of them," Allweiss says.

Fruit juices are similarly deceptive. A 5-ounce Florida orange has 65 calories, 13 grams of sugar, and 3 grams of fiber. An 8-ounce glass of juice, however, has 112 calories, 24 grams of sugar,

replacement is necessary only for workouts lasting more than an hour.

"There are special formulations for people with diabetes who are running marathons or cycling long distances," Allweiss says, "but for most people [who are not doing those activities], water is best."

Have a happier happy **hour.** Alcohol is known for its calories and carbs. "Many people with diabetes think, 'I'm not going to eat since I'm drinking my calories





#### FITNESS & EXERCISE

# **Moving Day**

READY TO START YOUR FITNESS ROUTINE IN THE GREAT OUTDOORS?
TRY WALKING, SWIMMING, OR BIKING

By Kara Mayer Robinson



When you get moving, your body is better able to use insulin. This fall, get outside with a fun, flexible workout such as walking, swimming, or biking.

Jacqueline Shahar, MEd, RCEP, CDE, an exercise physiologist at Joslin Diabetes Center in Boston, suggests you talk to your health care provider before starting an exercise program, and always check your blood glucose before and after exercise. You may need to adjust your insulin or oral meds.

#### WALKING

It's easy, you can do it almost anywhere, and it's a snap to get started. Buy a pair of comfortable exercise shoes with thick, flexible soles. Wear clothes made from synthetic fabrics to keep you dry and comfortable.

Your goal is 30 minutes a day, at least five days a week. If a long walk feels like too much, break it up into small chunks. If you're new to exercise, start with 10 minutes, says Shahar.

Reviewed by **Michael W. Smith, MD**WebMD Chief Medical Editor

#### BIKING

Biking is a great choice if you have neuropathy in your feet. "Biking delivers lower levels of pressure to the feet and helps increase blood flow to your legs," Shahar says.

All you need is a bicycle (any kind will do), comfortable clothes, and a good pair of closed-toed shoes. A helmet is a good idea, too.

Get on your bike and ride 10 to 20 minutes at a low to moderate pace. A flat surface is best if you're just starting out. As you get more comfortable and feel stronger, gradually add more time, pick up your pace, and try some hills.

#### **SWIMMING**

It's an ideal cardio workout that doesn't put pressure on your joints. Wear pool shoes to avoid slipping or scraping your feet.

Try swimming laps for 10 minutes. Take breaks between laps if you need them. You can also try a water aerobics class.

As you get stronger, add more laps. Aim for small increases of 10% to 15% each week or two, Shahar says. So if you start with 10 minutes, bump it up to 11 minutes after a week.

#### THIS, NOT THAT

If you have proliferative retinopathy (an advanced eye problem related to diabetes), avoid weight-bearing activities such as walking. Try biking or swimming instead.

If you have kidney disease (nephropathy), light to moderate exercise is best. Walking, biking, and swimming are fine, but do each in short, 5- to 10-minute bouts.

If you have autonomic neuropathy, which can cause dizziness and affect your heart rate and your body's ability to detect low blood sugar, talk to your doctor about exercising at a safe level.

If you have a foot ulcer or deformity, choose an exercise that is not weightbearing such as biking. Avoid swimming or walking. Keep your feet clean and dry.



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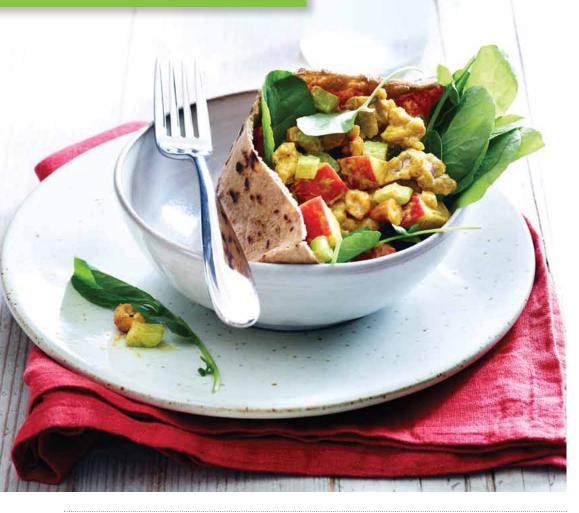


#### Lunch

Getting out of the two-slices-of-bread sandwich rut can be an easy way to control carbs. Stick to a small whole wheat pita for a satisfying midday meal.

#### **MENU**

• Whole wheat pita stuffed with Curried Tempeh Waldorf Salad and watercress



#### **PACK A SNACK**

**USE SNACKS TO FILL** NUTRITIONAL GAPS IN YOUR MAIN MEALS (HINT FAVORITE SNACKS:

Cottage cheese with diced tomatoes, basil, and black pepper.

#### Portobello pizza:

Take a large mushroom, clean the gills, then fill with tomato sauce and low-fat cheese. Roast in the oven 20 minutes.

**Apple and peanut butter:** The classic combo delivers

fiber plus protein and fat—a winning combination to curb hunger.

#### **Edamame and nuts**

V-8 juice: It takes the edge off your hunger while prepping a meal. Make your own reduced-sodium V-8 by blending the regular juice with the nosalt-added variety.

#### **Curried Tempeh Waldorf Salad**

Tempeh stands in for chicken in this fruit- and nut-studded salad. Look for a 100% whole wheat pita that has between 70 and 90 calories per serving (either a mini pita or half of a large one).

Makes 3 servings

#### Ingredients

Meal planning depends on

your taste preferences, medication, and activity level.

- 8 oz tempeh
- ½ cup water
- % cup vegan mayonnaise or light mayo
- 1 tsp tamari
- 1 tbsp curry powder
- 1 apple, cored and diced
- 1/4 cup chopped cashews
- 2 stalks celery, diced
- 2 tbsp golden raisins
- 3 cups watercress
- 1½ 100% whole wheat pitas, cut in half

#### **Directions**

- 1. Place tempeh in a microwave-safe bowl and drizzle with water. Cover with a lid and microwave 5 minutes. Drain water and break apart tempeh with a fork. Tempeh should be chunky or crumbly.
- 2. In a separate bowl, mix mayo, tamari, and curry powder. Add tempeh. apple, cashews, celery, and raisins and mix. Pile into pita halves with watercress.

#### Per serving

433 calories, 21 g protein, 43 g carbohydrate, 22 g fat (3 g saturated fat), 6 g fiber, 11 g sugar, 453 mg sodium. Calories from fat: 45%



Find a few great one-Then cook a big batch and freeze it for a quick weeknight meal.

#### **MENU**

- Chicken Tortilla



Get cooking! Go to the Healthy Recipe Finder, a top tool in WebMD.com's Health

& Cooking center.

**LEARN MORE ON PAGE 11** 

perfect for chilly nights. It freezes well, too, so make a double batch or freeze half.

Makes 8 servings (2 cups per serving)

#### Ingredients

SCAN HERE FOR MORE

- 1 tbsp olive oil
- 1 medium onion, diced
- 1 green bell pepper, diced
- 4 cloves garlic, minced
- 11/4 lbs skinless, boneless chicken breasts
- 1 tbsp chili powder
- 2 tsp cumin
- ½ tsp salt
- 14.5 oz can crushed tomatoes
- 4 tbsp green chiles
- 32 oz reduced-sodium chicken stock
- 2 cups hot water
- 1 15 oz can no-sodium black beans. drained and rinsed
- 5 corn tortillas, sliced into strips ½ inch wide
- 2 avocados, cut into cubes
- 8 oz shredded light cheddar cheese
- 2 limes, cut in wedges
- 1 cup chopped cilantro

#### **Directions**

- 1. In a large pot or Dutch oven, heat oil over medium heat. Add onion, pepper, and garlic and cook until they start to soften. Add chicken breasts, chili powder, cumin, and salt and stir until all ingredients are coated in spices. Add tomatoes, chiles, stock, and hot water and simmer 20 minutes or until chicken is cooked through.
- 2. Remove chicken breasts to a plate until cool enough to handle. Meanwhile, use an immersion blender to purée part of the soup (just enough to thicken a bit). Shred chicken using a fork and return to the pot along with black beans. Simmer another 20 minutes.
- 3. To serve, divide tortilla strips, avocados, and cheese among bowls and ladle the soup over. Garnish with a squeeze of lime and cilantro.

#### Per serving

WebMD.COM

466 calories, 30 g protein, 43 g carbohydrate, 22 g fat (7 g saturated fat), 56 mg cholesterol, 14 g fiber, 2 g sugar, 432 mg sodium. Calories

Reviewed by Hansa Bhargava, MD WebMD Medical Editor

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#### HEALTHY HABITS

# Out of Line

#### FOOD ISN'T THE ONLY THING THAT AFFECTS YOUR BLOOD SUGAR

By Sonya Collins

Managing diabetes means being prepared for unexpected blood sugar fluctuations. Certain foods and beverages are to blame, but not always. Seemingly simple facts of everyday life can sometimes kick your sugar out of whack, too.

#### Stress

When you're under stress, stress hormones send nutrients, including sugar, into the bloodstream to prepare your body for action. For people with diabetes, that stress response can equal a spike in blood sugar. Stress can also trigger poor eating habits, whether it's eating too little or eating too much.

Do you suspect stress raises your blood sugar? Every time you check your sugar for the next two weeks, rate your stress on a scale from one to 10 and write down both your stress rating and your blood sugar. If you see a connection between the two, it's time to manage your stress.

"Find some time that's just yours. Take a walk, ride a bike, or take regular breaks to unwind," says Linda M. Siminerio, RN. PhD, CDE, director of the University of Pittsburgh Diabetes Institute.

> Reviewed by Brunilda Nazario, MD WebMD Lead Medical Editor



#### **Tossing and Turning**

"Sleep disorders, lack of sleep, and interrupted sleep can raise blood sugars," says Pamela Allweiss, MD, MPH, medical officer in the division of diabetes translation at the CDC. People with diabetes who have trouble falling asleep or who wake up in the night several times a week have higher fasting blood sugar than those who get a better night's sleep. If you have insomnia, get it treated.

#### **Sick Days**

Cold, flu, or any infection is a physical stress that can hike blood sugar just like mental stress. To top it off, the sugar and alcohol in some cold medicines can boost blood sugar, while the

illness itself can kill your appetite and bring your levels down.

When you're sick, check your blood sugar every two to four hours, and test your blood or urine for ketones (substances that are made when the body breaks down fat for energy). Stay hydrated with lots of clear fluids, and follow your usual meal plan and medications. If you can't keep food down, drink plenty of fluids and get 15 grams of carbohydrates every hour and call your doctor.

Take every chance to prevent illness in the first place, Allweiss says. "Get vaccines for as many vaccinepreventable conditions as possible—flu, pneumonia, hepatitis B, shingles."

#### **Medications for Other Conditions**

Some medications for nondiabetes conditions can step up your sugar. For example, certain diuretics prescribed for high blood pressure cause you to lose potassium when you urinate, which in turn can raise blood sugar. Antidepressants and antihistamines can cause weight gain and may spike blood sugar. Corticosteroids, such as prednisone and cortisone, treat inflammatory conditions including vasculitis, myositis, and rheumatoid arthritis. But they can also raise blood sugar. Discuss all your medications with your doctor to make sure they won't affect your blood sugar levels.

# MIKE HARRINGTON/GETTY IMAGES

## **Diabetes**

Reviewed by Brunilda Nazario, MD, WebMD Lead Medical Editor



#### HEALTH CHECK

#### WHAT'S YOUR DIABETES IQ?

Diabetes isn't just a disorder of the pancreas. It also can cause serious complications in other parts of your body. "The eye blurriness is a problem for me," one community member wrote to the WebMD Diabetes community board. "I am very afraid of losing my vision." Do you know how diabetes can affect more than your blood sugar? Take our quiz to find out.

#### QUIZ

- **1.** People with diabetes can develop blurry vision and even blindness.
  - O True
- O False
- 2. High blood sugar can lead to tooth and gum disease.
  - O True
- O False
- **3.** People with diabetes catch the flu more than other people.
  - O True
- O False
- 4. Diabetes can hurt your feet.
  - O True
- O False
- 5. Diabetes causes acne.
  - O True
- O False

Answers: 1. True. Diabetes can affect the vision in several ways. The disease can damage small blood vessels in the eye, for instance, which can lead to blurry vision and possibly blindness. People with diabetes can also develop cataracts and glaucoma. Be sure to get a dilated eye exam from an optometrist or ophthalmologist every year. 2. True. People with poorly controlled diabetes are at a higher risk for gum disease because high blood sugar makes them more vulnerable to infections. In turn, gum disease, like other infections, can make diabetes worse. 3. False. People with diabetes are not at increased risk of getting the flu. However, the flu can make your diabetes more difficult to manage. It also increases your risk of complications from the flu, so it's a good idea to get vaccinated every year. 4. True. Chronically elevated blood sugars can cause nerve damage and circulation problems, which in turn can lead to serious foot problems, such as pain or loss of sensation in the foot, sores that are slow to heal, and, in extreme cases, gangrene and amputation. Monitor your blood sugar and maintain normal control, and check your feet every day for cuts, cracks, redness, swelling, sores, blisters, calluses, splinters, and other injuries. Never go barefoot. Instead, wear comfortable, well-fitting shoes. Visit a podiatrist once a year for foot and nail care. 5. False. Diabetes does not cause acne. But it can cause your skin to become dry, itchy, cracked, and thin. People with diabetes may also be more vulnerable to fungal skin infections.

#### SOURCES:

American Diabetes Association; National Institute of Diabetes and Digestive and Kidney Diseases; WebMD Diabetes Health Center

# ASK YOUR DOCTOR

- 1. Should I see a diabetes educator to learn more about body care?
- 2. What kinds of things can I prevent? What steps should I take?
- 3. When I examine my body, what warning signs should I look for?
- 4. What tests do I need to check for diabetes complications? How often?



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#### HEALTHY HABITS

# Check Marks

WHAT'S YOUR CALENDAR LOOK LIKE? HERE'S HOW TO KEEP TABS ON DAILY. MONTHLY, AND ANNUAL HEALTH TASKS

By Katherine Kam

In addition to the tasks you do every day-checking your blood glucose levels, brushing and flossing your teeth, inspecting your feet, exercising, and eating healthy foods others need to be done monthly and yearly, says Nora Saul, MS, RD, LDN, CDE, a diabetes educator and manager for nutrition services at Joslin Diabetes Center in Boston. Here's her checklist.

#### **MONTHLY**

#### **Download blood glucose** numbers from your meter and check for patterns.

You're looking for trends of high and low blood sugars, Saul says. If your blood sugar is always high at bedtime, maybe you're eating too much after dinner or you need a higher insulin dose at dinnertime. If your blood sugar is low before lunchtime for several days, you might be eating too few carbohydrates at breakfast or you need to adjust your medication. Bring this to your doctor's appointments.



#### Keep track of how well you're eating.

Once a month, keep a threeday food record to see how closely you're following your meal plan, Saul suggests. Keeping a food record not only alerts you to whether you're consuming too many calories, but also points out your triggers for overeating and whether you're eating too many carbohydrates.

Besides writing down everything you eat or

drink, note whether you ate because you were hungry or overindulged out of boredom, anger, or sadness.

## TWICE A YEAR

#### **Get your A1C levels** checked.

This laboratory blood test shows you and your doctor your average blood glucose level over the past two or three months and offers a measure of how well you're managing your blood sugar. If your diabetes is under good control, a test every six months is "a good rule of thumb," Saul says.

But if blood sugar is poorly controlled, every three months is better, she says. That enables your doctor to keep a closer eye on your control and progress with your treatment options. If you change your diabetes treatment, perhaps by starting a new medication, your doctor might want testing every three months as well.

#### Visit your dentist for a checkup and professional cleaning.

Seeing your dentist every six months is fine for most





"Set goals and enlist your doctor to help you achieve them. Are you trying to lose weight? Are you trying to get your A1C to a better level? Are you trying to exercise three to five times a week? Whatever it is, review it at least once a year."—Nora Saul, MS, RD, LDN, CDE





#### **DID YOU KNOW?**

YOUR GOAL SHOULD BE TO GET AT LEAST 15-20 GRAMS OF SUGAR OR CARBS.

people with diabetes, unless you have gum disease or other dental problems that require more visits. "One thing you should do is always tell your dentist that you have diabetes," Saul says.

#### ONCE A YEAR

# Go for an annual checkup.

"That's the absolute minimum," Saul says. Your doctor may want you to come in more often. Be sure to bring

a list of questions. "When people come in to see the doctor, a lot of times they forget what they wanted to ask," she says. Some good questions: Should I lose weight? How can I prevent foot problems? Your annual visit should include a check of your cholesterol levels.

# Schedule a microalbumin urine test.

Type 2 diabetes puts you at higher risk for kidney disease. Each year, you should have a microalbumin urine test to check your kidney function. Normally, urine won't have any of the protein albumin; if it's detected, it may signal early kidney damage. High blood pressure also damages your kidneys and eyes, so make sure you have your blood pressure checked at every doctor's visit.

#### Get a dilated eye exam.

Retinopathy is a type of diabetes-related eye disease that can damage the blood vessels in your eyes and harm your vision. Get a comprehensive eye exam at least once a year by an eye doctor to check on the health of your eyes. Make sure your eye doctor knows about your diabetes.

# Have a complete foot exam.

A thorough foot exam done by a doctor at least once a year can check for problems related to diabetes, such as reduced blood flow or nerve damage that alters sensation in the feet, as well as infections. Have your doctor check your feet at every visit.

#### Get a flu shot.

"People with diabetes are at higher risk of developing a secondary infection if they get the flu," such as pneumonia, Saul says, so don't skip the shot.



Reviewed by **Michael Dansinger, MD** WebMD Diabetes Expert