

EAT TO BEAT DIABETES

Uncover the hidden power of what you put on your plate and you can outsmart a condition that strikes nearly one in 10 Americans.

By Leslie Goldman

The numbers are shocking. At the rate our country is going, more than half of us will be diabetic or pre-diabetic by the year 2020. But the good news is that help may be as close as your kitchen. "Food is an extremely effective tool for preventing and managing diabetes," says Barbara Allan, R.D., a Vancouver-based certified diabetes educator and co-author of *The Diabetes Prevention & Management Cookbook*. From high-fiber beans for supporting weight control to sugar-purging buckwheat, we've created the ultimate shopping list with delicious recipe suggestions to boot!

PHOTOGRAPHY
BY LISA SHIN



TIP #1
WALK THIS WAY
A brisk 15-minute walk after each meal helps control blood sugar and might reduce your risk of developing type 2 diabetes, says a new study.





TIP #2
DOWN, DIABETES
Use your break time to do a quick yoga pose. The mind-body practice may help type 2 diabetics manage their blood sugar.

ALMOND OIL

GET SIMILAR BENEFITS FROM \ Olive, avocado and peanut oil.

SCIENCE BEHIND IT \ A little oil a day can keep diabetes away—so long as it's the unsaturated kind. Monounsaturated oils like those pressed from almonds, olives and avocados help lower total and LDL ("bad") cholesterol levels without negatively impacting your HDL ("good") levels. "Two out of three people with diabetes will die from a heart attack or stroke," says Allan. "So it's smart to choose oils that support a healthy heart." Since these oils are bursting with flavor, a little goes a long way; aim for a 2-teaspoon serving.

YOU'LL WANT TO AVOID \ Saturated and trans fats and anything with "hydrogenated" or "partially hydrogenated" oil on the label.

GET COOKING Prepare homemade salad dressing by combining 3 tablespoons **almond oil** with 1 tablespoon citrus-flavored vinegar or juice. Stir in ¼ to ½ teaspoon Dijon mustard, and add a pinch of minced onion.



BLACK BEANS

GET SIMILAR BENEFITS FROM \ Chickpeas, lentils, peas.

SCIENCE BEHIND IT \ In a recent study, type 2 diabetics who added a cup of beans, lentils or chickpeas to their diet daily saw improvements in their blood sugar levels and blood pressure. The theory is that fiber slows your body's absorption of sugar, improving your insulin sensitivity and keeping you fuller longer. One cup of black beans contains nearly 5 grams of soluble fiber, which reduces the absorption of cholesterol and fats into your blood.

YOU'LL WANT TO AVOID \ Overcooking. "Too much heat destroys the fiber," says Rasa Kazlauskaitė, M.D., an endocrinologist at Rush University Medical Center in Chicago. Shoot for an al dente texture.

GET COOKING In a covered pot, soak dried **beans** overnight in fridge. Then simmer about an hour with garlic, onion, celery and veggie broth. Serve with brown rice. This dish is full of magnesium, which fuels several enzymes necessary for processing glucose and which diabetics are often deficient in.



TYPE 2 DIABETES 101

Your pancreas churns out a hormone called insulin, which helps cells turn glucose (the digested and broken-down carbs you eat) into energy. But excess weight, inactivity and a host of other factors can cause insulin resistance, where cells are unable to properly respond to the hormone. The result: Your pancreas pumps out more and more insulin. Eventually, as the insulin-producing cells fail to keep pace and glucose builds up in the bloodstream, this leads to type 2 diabetes. Improving your insulin sensitivity's a good thing. It means blood sugar levels are decreasing and insulin resistance is being reversed.



BUCKWHEAT

SCIENCE BEHIND IT \ Often associated with pancakes, this nutty whole grain has a “secret diabetes weapon” called D-chiro-inositol (DCI), a chemical compound that enhances insulin’s sugar-lowering effects, Kazlauskaitė says. Buckwheat also has fiber and magnesium and is low in calories. DCI is rarely found in other foods, but whole grains like amaranth and farro are diabetes-friendly carbohydrate alternatives.

YOU’LL WANT TO AVOID \ Buckwheat pancakes doused in butter and syrup. Sorry!

GET COOKING Substitute Japanese **soba noodles** for your regular pasta; they’re made with buckwheat. When baking muffins or bread, replace half of your recipe’s white flour with buckwheat flour, or use it instead of bread crumbs to coat chicken or fish.

SWEET POTATOES

GET SIMILAR BENEFITS FROM \ Broccoli, whole-grain cereals and breads, nuts, whole eggs.

SCIENCE BEHIND IT \ “Sweet potatoes contain chromium, which stabilizes blood sugar,” explains Cleveland Clinic endocrinologist Betul Hatipoglu, M.D. “It may also improve diabetes by helping your pancreas regulate the amount of insulin it releases.” Hatipoglu says the majority of overweight Americans are chromium-deficient, leaving them prone to high blood sugar and elevated cholesterol and triglyceride levels, increasing their risk for diabetes and heart disease. Low chromium levels are also often behind sugar cravings, so you can satisfy your sweet tooth while doing some good for your body.

YOU’LL WANT TO AVOID \ Corn and cheese. Both are rich in chromium, but corn is high in sugar and cheese has too much saturated fat and cholesterol. (Cheese is the number one source of saturated fat in most Americans’ diets.)

GET COOKING Try Allan’s **Sweet Potato Oven Fries**: Slice peeled potatoes into strips, toss with olive oil and rosemary or sage, arrange in a single layer on a cookie sheet and bake at 425° for 30 to 35 minutes or until golden and crispy.





KALE

GET SIMILAR BENEFITS FROM \ Spinach, collard greens, Swiss chard, berries.

SCIENCE BEHIND IT \ We know, we know: What can't kale do? In this case, the ruffle-edged rock star helps your body use insulin efficiently, keeping blood sugar under control. "Leafy greens are nutrient-packed while being low in calories, plus they are rich in anti-inflammatories," Hatipoglu says. Anti-inflammatory diets are heavy on dark, colorful produce, beans, oily fish and nuts, and steer clear of dairy, red meat and sugar. Greens promote insulin sensitivity and may offset chronic low-level inflammation in the body, which might otherwise pave the way toward type 2 diabetes, as well as diabetes complications.

YOU'LL WANT TO AVOID \ Sautéing them in pools of butter or walnut oil, which negate some of their benefits. Try canola, olive or almond oil instead.

GET COOKING Ditch the potato chips for our delicious **kale** chip recipe instead: In a large bowl, toss 10 cups kale leaves (stems removed, torn into small pieces) with 1 tablespoon olive oil and $\frac{1}{8}$ teaspoon salt. Place on baking sheets in a single layer and bake at 300° for 25 minutes or until crispy. Remove from baking sheets with a metal spatula, toss with 2 tablespoons Parmesan (optional) and serve.



WILD SALMON

GET SIMILAR BENEFITS

FROM \ Wild mackerel, sea bass and halibut.

SCIENCE BEHIND IT \ Not only is wild-caught fish an excellent source of protein, but its unsaturated, anti-inflammatory oils fight insulin resistance. Wild fish also contain more omega-3s than farm-raised fish. The former eat sea plants and smaller fish; the latter are fed corn, which adversely affects the ratio of omega-3s to omega-6s. Some experts believe this imbalance causes inflammation, opening the door for heart disease and diabetes.

YOU'LL WANT TO AVOID \ Atlantic salmon; most is farmed. Some chinook and coho salmon are farm-raised too.

GET COOKING Celebrity chef Art Smith, who recently lost more than 100 pounds after being diagnosed with type 2 diabetes, seasons **wild salmon** with "a little pepper, a pinch of salt and a spray of olive oil. Place in a very hot skillet and sear for 6 or 7 minutes per side." He then drizzles on fig or cherry balsamic vinegar and lemon juice and serves on top of raw spinach. (The heat wilts it.) Find more of his recipes at TakingDiabetes.toHeart.com.

TIP #3

LIFT TO LOWER

“A single session of resistance exercise like lifting weights improves insulin sensitivity for 24 hours,” Hatipoglu says. “It’s the single best thing you can do.”



KEFIR

GET SIMILAR BENEFITS FROM \ Greek yogurt, sunflower seeds, edamame.

SCIENCE BEHIND IT \ Whether you pronounce it “KEE-fer” or “keh-FEER,” 8 ounces of this tangy, cultured, yogurt-like drink are brimming with more than one-third of your daily requirement of phosphorus, a mineral that helps the body convert food into energy rather than store it as fat. “Loss of phosphate inhibits your cells’ ability to turn glucose into energy,” says Kazlauskaitė. “The phosphate in kefir can protect against that.” Kefir pulls double duty as a major source of probiotics—the “good” bacteria that line your gut. Research suggests they may enhance your ability to regulate blood sugar and reduce your risk of diabetes.

YOU’LL WANT TO AVOID \ Flavored versions of kefir and Greek yogurt (they can be high in sugar) and full-fat versions (which contain too much artery-clogging saturated fat and cholesterol).

GET COOKING Substitute **kefir** for buttermilk, or blend with fruit for a smoothie.

CABBAGE

GET SIMILAR BENEFITS FROM \ Brussels sprouts, broccoli.

SCIENCE BEHIND IT \ Cruciferous veggies contain diabetes-fighting vitamins B, A, C and K, so Kazlauskaitė teaches her patients the acronym BACK. All four are needed for proper hormonal functioning, and they work similarly to phosphorus, helping manage your metabolism. In addition, vitamin C is anti-inflammatory and vitamin K reduces blood clotting—a common complication.

YOU’LL WANT TO AVOID \ Boiling or stir-frying these vegetables. Vitamins B and C are water-soluble, meaning they leach out into cooking water. Boiling broccoli actually slashes its vitamin C content by 33%; stir-frying by 24%. Instead, steam, blanch, roast, quickly sauté or enjoy those greens raw.

GET COOKING Combine shredded **cabbage** with grated carrot, sliced green onions, thin strips of red pepper and bean sprouts, then toss with a little peanut sauce. Allan recommends adding this filling to sandwiches, wraps, burgers and spring rolls, or having as a side salad.



TIP #4 GET UP!

People who sit for more than six hours per day are significantly more likely to report having diabetes. Set an hourly alarm on your phone, reminding you to stroll around the office.