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How To Reverse Diabetes And Prediabetes

The New Way To Reverse Your Diabetes Risk

An innovative program that's saving lives

By [Sari Harrar](#)



February 14, 2013, was "the sweetest day ever" for Kristina Clark, 38 (pictured above)—and not in a good way. Petite and health conscious, this mother of two is a medical-equipment underwriter and a leader on the wellness committee at her workplace. She thought her health was under control, but a checkup last Valentine's Day turned up a sour surprise: She had prediabetes. "I thought it was a mistake," Clark says. "I exercise, and my diet was pretty healthy. There's no diabetes in my family. But my A1C"—a check of long-term blood sugar levels—"was 5.7%, just high enough for a prediabetes diagnosis. And at 153 pounds and 5 feet tall, I was about 25 pounds overweight, too."

It was time to act. Prediabetes, a condition that now affects a staggering 79 million Americans, isn't just a "touch of sugar;" that higher-than-healthy blood sugar is a significant health threat that

can balloon your risk of developing full-blown type 2 diabetes by anywhere from 5 to 15 times. Even before that happens, though, prediabetes increases the odds of [heart attack](#), stroke, [dementia](#), kidney and eye damage, and leg pain due to circulation problems. In other words, it's a diagnosis to take seriously.

Clark knew it was time for a blood sugar rewind. The best part? Her numbers qualified her for a local, yearlong Diabetes Prevention Program (DPP), an innovative, research-proven plan involving smart, doable lifestyle changes that reverse prediabetes. This intensive program is now offered by YMCAs, hospitals, churches, community centers, and workplaces across the nation. In 4 months of weekly classes, plus 6 to 8 months of motivational follow-up meetings, people learn how to make essential diet and exercise changes. And the results happen fast.

"It's all about making small, sustainable tweaks. Research suggests that losing even 5% of your weight is the tipping point for seeing results. That's lifesaving news," says Matt Longjohn, MD, MPH, national health officer at the YMCA of the USA.

The drug-free plan

One in three American adults has prediabetes. Yet just one in nine knows it, according to the CDC. That means millions are missing out on the opportunity to become the boss of their own blood sugar—naturally. The DPP works better than a drug. In fact, in 2002, the National Institutes of Health stopped the original DPP study early because healthy lifestyle changes worked so much better than the participants' drugs that the researchers wanted everyone to switch over. In 2011, National Heart, Lung, and Blood Institute scientists who tracked just over 200,000 people for 11 years found that five factors—nutritious food, regular activity, a healthy weight, minimal-to-moderate alcohol consumption, and no smoking—cut diabetes risk by 84% for women and 72% for men. (It's true. Check out [12 Ways To Never Get Diabetes](#).)

"It's powerful," says Osama Hamdy, MD, PhD, medical director of the [obesity](#) clinical program and director of the inpatient diabetes program at Joslin Diabetes Center in Boston.

"Losing just 7% of your body weight improves your body's ability to respond to insulin—the hormone that tells cells to use blood sugar—by around 57%. If you had diabetes, it would take two drugs at their maximum doses to get that huge effect."

Dr. Hamdy says these easy strategies can reverse prediabetes: controlling portions (fewer calories leads to weight loss); cutting saturated fat—found in dairy products and fatty meats—to reduce the risk of [coronary artery disease](#); getting more fiber from fruits, vegetables, and whole grains (you'll feel full longer and avoid blood sugar swings); and engaging in regular activity and exercise (at least 30 minutes a day helps muscles use more blood sugar). The payoff is huge: You'll sidestep a long list of health concerns. The complications of diabetes include [heart attack](#) and stroke, vision loss, kidney failure, nerve damage, sexual problems, impaired circulation, and—in the extreme—foot and leg amputation.

You could also give your bank account a break: The lifetime out-of-pocket cost of diabetes care is now approximately \$85,000, according to a CDC study released in September.

And, as women like Clark have discovered, you can boost the health of your entire family while improving your own. Now on her fourth month of follow-up meetings, Clark has lost 5% of her weight. "My husband has lost even more weight than I have," she says. "He's making changes to bring his cholesterol down. And our sons, ages 6 and 4, now love apples and strawberries for dessert—and they love fruit smoothies." (So do we! Get our favorite smoothie recipes, [here](#).)

How it worked for her

Once a week, Clark brings home a week's worth of healthy ingredients for her husband, who does most of the cooking for the family. "He figures out what to do with them," she says. "It's fun." They replaced sausage-eggs-and-biscuit breakfasts with steel-cut oats and blueberries, and they try new foods like quinoa and kale. On weekend mornings, they keep two blenders whirring on the kitchen counter for smoothies. "I'm thrilled with the results for me and our entire family," she says. "It's a whole new way of living." (For more diabetes-friendly foods, download out [5-week meal plan](#).)

Screening for prediabetes

One in three American adults has prediabetes, including 50% of all people over the age of 65. Yet only about 11% are aware of it, according to the CDC. Two ways to tell:

Get a blood sugar check

Your doctor or a walk-in clinic can do this. You're prediabetic if your reading is between 100 and 125 mg/dl on two fasting blood sugar tests or is 5.7 to 6.4% on an A1C check (a test that reveals average blood sugar over the past 2 to 3 months).

Talk with your doctor about these risk factors:

- Being 45 years of age or older
- Being overweight
- Having a parent or sibling with diabetes
- Having a family background that is African American, Hispanic/Latino, American Indian, Asian American, or Pacific Islander
- Having a history of pregnancy (gestational) diabetes or giving birth to a baby weighing 9 pounds or more
- Being physically active less than three times a week

Here's how three more women became the boss of their blood sugar:

Wendy Wiernik



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- **Her story:** Wiernik, 43, is a day care provider and nursing student. She lives in Junction City, WI, with her husband, her two teenage daughters, and her son, who is 21. Wiernik found out she had prediabetes in 2012. Her father has diabetes, and having a parent with diabetes triples your risk. She changed family meals, adding more salads and subtracting fried food. "We kept eating familiar foods—my husband hunts, so we kept venison on the menu," she says. And she invited her daughters to exercise with her: "I wanted my children to develop healthier habits, so I modeled the behavior."
- **How she succeeded:** Small, slow changes. "You start out by learning what and how much you eat," she says. "Then you curb calories and fat. Then you add more fruit and vegetables."
- **Her results:** Her A1C fell from 6.1% to 5.3%. She lost 40 pounds—and four sizes. Wiernik was so inspired by her success that she's studying to become a nurse. "I developed so much confidence that I decided to go for it," she says.
- **Her biggest challenge:** Tracking fat and calories. "I use an app, MyFitnessPal, that tracks what I'm eating," she says.
- **Her winning move:** "I get up at 4:15 AM to walk outside or on the treadmill, so it doesn't interfere with anyone else's schedule," Wiernik says.
- **How her family won, too:** "My son thinks about what he eats," she says, "and my older daughter says going to the gym with me got her into a regular exercise routine."

Evelyn Metcalf



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- **Her story:** Metcalf, 49, is an environmental technology specialist who lives in St. Paul, MN, with her 18-year-old son. She sings alto in the choir of the Greater Friendship Missionary Baptist Church, which began a Diabetes Prevention Program. "It was the answer to my prayers," she says. "My doctor wanted me to make changes, but I needed motivation. I believe that if you truly reach out, God sends a solution. I got mine that day."
- **How she succeeded:** Faith and prayer.
- **Her results:** Metcalf lost 30 pounds; her A1C dropped from 6.3% to 5.6%. "I'm wearing outfits that were too small. Friends are noticing!" she says.
- **Her biggest challenge:** Accountability. "We weighed in at every class," she says. "Just having one person see it makes a difference."
- Metcalf found that she also had a lot to learn about portion control, saturated fat, and fruits and vegetables: "One week our leader brought in various foods, and we served ourselves. I had fruit, fried chicken, a roll, and cake. I needed to work harder on my diet."
- **Her winning move:** Varying exercise. "I'll walk 3 miles around Lake Como," she says. "When I can't, I'll do a DVD." While watching TV, she's up and moving. That's brilliant—2 immobile hours of TV time a day raises diabetes risk by 14%.
- How her family won, too: Her son eats more vegetables. "Paul will surprise me by eating all the vegetables I've prepared for myself, so I just make more," she says.

Ann Marie Gargiulo



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- **Her story:** Gargiulo, 43, is a medical social worker who lives with her 78-year-old father in the Bronx, NY. "When I found out I had prediabetes, I wanted to avoid the complications I see in the people I visit as a social worker," Gargiulo says. "I'm busy. I need lots of support."
- **How she succeeded:** Online classes. Gargiulo joined Prevent, an online version of the Diabetes Prevention Program, and was assigned a health coach. She received a scale that transmitted her daily weigh-ins to the Prevent Web site. For the first 16 weeks, Gargiulo logged in weekly for lessons and chatted with teammates and a coach. Now she's in a maintenance phase; she and an online buddy keep in touch to stay motivated. "The best part was learning about nutrition and working with the coach and a nutritionist," she says. She joined Weight Watchers for support, too.
- **Her results:** Gargiulo's blood sugar level fell from 134 mg/dl to 100 mg/dl. She lost 54 pounds and five sizes: "I'm wearing size 4 skinny jeans for the first time."
- **Her biggest challenge:** "I'm Italian, raised to love pasta and bread," she says. "Then I learned what refined carbs do to my blood sugar. When I eat out, I order chicken or fish with vegetables."
- **Her winning move:** Pacing her workouts to pop music. Short bursts of intense activity boost insulin sensitivity. "I walk and run on my treadmill and slow down or speed up to the beat," she says. "My favorite artists are Pitbull and Christina Aguilera."
- **How her family won, too:** Her dad's cholesterol and blood pressure levels have dropped.
- **Your turn**
Diabetes Prevention Program classes, modeled after the landmark study described in this story, are popping up across America. At press time, there were CDC-recognized programs in 45 states and the District of Columbia. Some insurance companies cover part or all of the cost if you qualify. Find a DPP near you by using the [online locator tool](#).