



CHANGE YOUR LIFESTYLE, SAVE YOUR LIFE?

By Francis S. Collins, M.D., Ph.D.
Director, National Institutes of Health

Photo by Maggie Bartlett, NIH

Like many Americans, I used to eat too much and exercise too little. I couldn't resist a plate of fresh-baked goodies, and had lots of excuses about why there was never time to work out. But two years ago, I found both willpower and time upon learning that I was at risk for diabetes.

Diabetes is not something you want to get: It is a leading cause of heart attack, stroke, kidney failure, lower-limb amputations, and blindness. Nearly 2 million Americans over the age of 20 are diagnosed with diabetes each year, and that number is rising steadily. Sadly, many could have avoided or delayed getting the most common form of the disease, type 2 diabetes, by simply changing their lifestyles.

One major risk factor for diabetes is a family history of the disease. But you can still be at risk even if diabetes doesn't run in your family. In the spring of 2009,

shortly before I became director of the National Institutes of Health (NIH), I had my DNA scanned to look for hereditary risks of disease. I was familiar with the scanning technologies because they arose from the Human Genome Project, the effort I previously led to read out the 3 billion letters in the human DNA instruction book. But I wasn't expecting the scans to reveal that I had two copies of a specific genetic variant associated with increased risk of type 2 diabetes. My own lab is involved in the search for diabetes genes, so this was sobering news. It looked like diabetes might be in my future unless I changed my ways.

To determine what actions to take, I turned to science. When many people think of NIH—the nation's biomedical research agency—they picture researchers in high-tech labs exploring new ways to detect and treat disease. NIH does indeed do that. But we also support studies that look at how diet, exercise, and

other lifestyle factors may *prevent* disease and promote wellness.

The strategy that caught my attention came from the NIH-funded Diabetes Prevention Program trial, which found the combination of increased physical activity and modest weight loss is a highly effective way to lower risk of type 2 diabetes. Trial participants all had pre-diabetes, which is an elevation of glucose in the blood. But when they exercised 2½ hours a week and lost 7% of their weight on average, many were protected from developing diabetes, with the preventive benefits lasting at least a decade. Now, UnitedHealth Group is working with Walgreens and the YMCA to put these findings into practice in the real world by offering exercise and healthy eating programs in 13 communities across the nation.

While I hadn't yet developed signs of pre-diabetes, the principles of diabetes prevention were firmly laid down by this

NIH study. So, I decided to adopt that same approach. Out went my indulgences of honey buns, giant muffins, venti lattes, and other sweet treats. In came small, frequent snacks of almonds, yogurt, and other high-protein, nutritious foods. I also stepped up my physical activity, hiring a personal trainer and committing myself to working out three times a week. In the first six months of my new routine, I lost 25 pounds, about 12% of my weight. I've kept that off ever since. My percentage of body fat went from 24% to 14%, and I can chest press 135 pounds. I've never felt more fit.

But we need many more happy endings. Right now, more than one-third of U.S. adults have blood sugar levels indicating they're at serious risk of developing diabetes. If you're a bit overweight, ask your doctor if you should get a glucose tolerance test to find out if you're one of

them. Even if you're not, taking charge of your health by choosing the right foods and the right exercise program is among the most important investments you can make in your future. America, it's time to change your lifestyle—it just might save your life.



Photo by Ernie Branson, NIH

“... more than **1/3** of U.S. adults have blood sugar levels indicating they're at serious risk of developing diabetes.”

— Dr. Francis S. Collins



Get Real!

You don't have to eat like this to prevent type 2 diabetes.

A family history of type 2 diabetes? Talk to your doctor about how you can prevent the disease. For free information about preventing type 2 diabetes, visit

www.YourDiabetesInfo.org
or call **1-888-693-NDEP (6337)**;
TTY: 1-866-569-1162.



www.YourDiabetesInfo.org

A message from the National Diabetes Education Program, sponsored by the National Institutes of Health and the Centers for Disease Control and Prevention.



For more health and wellness resources from the National Institutes of Health

www.nih.gov/health/wellness



Who can help your family eat right to stay at a healthy weight?



We can!
Ways to Encourage Children's Activity & Nutrition
A Program of the National Institutes of Health

 First We Can! in your community <http://wecan.nhlbi.nih.gov> Toll Free: 1 (866) 359-3226