

## Public Health Emergency: Stop Diabetes Now

### *Preventable lifestyle factors solution, per study*

November 2009 is American Diabetes Month—but this year the American Diabetes Association has gone well beyond the typical "raising awareness" approach.

What's behind their new **Stop Diabetes™** campaign? The chilling fact that diabetes is no longer a mere condition, but an epidemic disease that needs "drastic action" to "confront, fight and stop" it.

**And stop it, we can. Research has shown the key to preventing or even reversing type 2 diabetes is promoting healthier lifestyle factors.**

Dariusz Mozaffarian—assistant professor of epidemiology at Harvard School of Public Health and assistant professor of medicine in the Division of Cardiovascular Medicine, Brigham and Women's Hospital and Harvard Medical School—led research that demonstrated how the combination of five lifestyle factors impact diabetes risk in individuals age 65 and over: physical activity, body fat percentage, nutrition, smoking and alcohol use.

It's believed this lifestyle amalgamation may be the catalyst for 9 out of 10 new type 2 diabetes incidents in the 65+ crowd.

**Mozaffarian warns Americans that we're "entering a public health emergency in obesity and diabetes" even though we know how to prevent "nearly all cases of type 2 diabetes."**

**The crisis up close.** For the past two decades, the diabetes-related death rate climbed by **45%** in contrast to declining death rates for cancer, heart disease and stroke. An estimated **57 million of us Americans are at risk** for diabetes with another 24 million adults and children already living with the disease. And if trends continue, one in three children born will face a diabetic future.

It goes without saying that the diabetes epidemic impacts our healthcare wallet: \$174 billion for diagnosed diabetes in the U.S.—with \$116 billion in direct medical costs and a 2.3 times higher average medical expenditure for those with the disease than those without.

Meanwhile indirect costs run approximately \$58 billion, which include work loss, disability and premature mortality.

#### High levy on health for diabetics:

- 60% to 70% have nerve damage, leading to other health concerns: slowed digestion, feet/hand pain, sexual dysfunction
- 2 out of 3 die from heart disease/stroke
- 10 times higher rate of amputations
- Additional complications potentially leading to blindness and kidney failure

The disease occurs when your body either doesn't produce sufficient amounts of insulin or ignores the insulin currently there (insulin resistance). Normally, insulin promotes transport of glucose across cell membranes into the cells where it can then be used for energy production.

However, if insulin levels are chronically elevated, the insulin receptors eventually become less responsive to its effects—leading to insulin resistance. This in turn causes glucose levels in the blood to rise, until ultimately the blood glucose (sugar) levels reach a critical point i.e. the diagnosis of diabetes is made.

Over time, those elevated blood glucose levels lead to the health risks mentioned earlier. Unfortunately, while there is a glucose build-up in the blood, your cells no longer have the glucose needed for energy production and become undernourished.

#### Staying Active: Smart Choice

**The American Diabetes Association says to stay physically active because it can "help prevent serious diabetes complications and type 2 diabetes."**

#### Physical activity . . .

- Improves blood glucose management, causing your body to respond better to the insulin present
- Burns glucose, helping lower blood glucose levels
- Can lead to needing less insulin or diabetes pills since physical activity reduces blood glucose and weight
- Better heart health, causing it to pump stronger/slower
- Lowers bad cholesterol, raises higher cholesterol
- More energy, better sleep
- Stronger bones/muscles
- Increased flexibility





Type 2 diabetes is the most common form of the disease. It was previously known as “Adult Onset Diabetes,” but the rising obesity epidemic and declines in physical activity result in diagnoses in increasingly younger individuals.

The disease is not restricted to any particular race or gender and may be more prevalent in certain groups because of genetic predisposition and/or behavioral choices.

Your physician can perform either a Fasting Plasma Glucose Test (FPG) or Oral Glucose Tolerance Test (OGTT) to determine if you're diabetes-free, pre-diabetic or diabetic.

- FPG test: fasting blood glucose levels between 100 and 125 mg/dl = prediabetes. A diagnosis of diabetes requires a fasting blood glucose level of only 126 mg/dl on two or more occasions.
- OGTT test: two-hour blood glucose level between 140 and 199 mg/dl = prediabetes, but levels over that = diabetes

**Good news from the Harvard study.** Along with his team, Mozaffarian conducted a ten-year study, tracking 4,883 men/women, age 65 and older.

The research was part of the Cardiovascular Health Study sponsored by the National Heart, Lung and Blood Institute, focused on cardiovascular risk factors in older individuals.

Yearly questionnaires and physical exams provided the study content; investigators grouped study subjects into either a low-risk or a high-risk sector for each of the lifestyle factors.

The low-risk group:

- Above average consumption of dietary fiber, polyunsaturated fat; reduced consumption of trans fat, starchy and sugary foods
- Never smoked
- Modest alcohol consumption (two drinks or less daily)
- Not overweight (body mass index below 25, man's waist less than 36 inches and woman's waist less than 34.6)
- Physical activity, such as walking regularly, engaging in leisure activities

The diabetes **rate dropped 35% for every lifestyle factor added** to this low-risk sector.

**Highly preventable.** The study shows you can lower your diabetes risk even with "modest differences in lifestyle." Just positively adjusting a combination of two, three or four of the five factors can result in a "substantially lower risk."

- 82% lower risk for diabetes - in combined low-risk groups for physical activity level, dietary habits, smoking habits and alcohol
- 89% lower risk for diabetes - when not being overweight or no having a large waist circumference was added
- 4 out of 5 new diabetic cases that appeared in the study were linked to "not having low-risk lifestyle factors"

**Path to health: Cenegenics.** The global leader in age management medicine, Cenegenics helps you take immediate action on optimized health. Our expert medical team guides you in a straightforward, established approach to confront, fight and stop your diabetes risks.

You'll find the science behind our medical specialty will help identify and meet criteria, which places you in the lowest possible risk category for disease—particularly diabetes, metabolic syndrome, heart disease, cancer, stroke and Alzheimer's disease.

A highly intensive evaluation process exposes your weakest and strongest health links, which later forms the foundation for your customized, healthy aging program. Four synergistic components help transform your health: low-glycemic nutrition, exercise, nutraceuticals, hormone optimization (when clinically indicated).

We start with sound nutrition: A low-glycemic diet is high in nutrient-dense foods (fruits, vegetables, lean meats and essential fats) and low in refined, overly processed foods, fats and simple carbohydrates—a vital component to keep insulin levels in control.

Our synergistic protocols are based on solid science and help you manage your aging process—from reducing body fat and having leaner muscle mass to improving libido, having sharper thinking and a stronger immune system, regaining youthful vitality and handling stress better.

**Regain your health now.** Discover medical excellence with personalized Cenegenics programs and the science behind age management medicine.

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**Discussions are always confidential and without obligation.**