



FDA Consumer magazine

[July-August 2004 Issue](#)

By Linda Bren

Diabetes Prevention, Treatment

Once seen only in adults, type 2 diabetes has been rising steadily in children and teens, especially black, Hispanic and American Indian adolescents, according to government reports from clinics nationwide. The longer a person has diabetes, the greater the chances of developing serious damage to the eyes, nerves, heart, kidneys, and blood vessels.

The Department of Health and Human Services (HHS), using revised American Diabetes Association guidelines, estimates that about 40 percent of Americans ages 40 to 74--or more than 41 million people--have "pre-diabetes," a condition in which people have higher than normal blood sugar levels but are not yet diagnosed as having diabetes.

The new estimate is more than double the previous estimate of 20.1 million people with pre-diabetes in this age group. Many people with pre-diabetes go on to develop type 2 diabetes within a decade.

HHS is working to reduce the health threat of diabetes that has already affected more than 18 million Americans--more than 6 percent of the U.S. population. Recent activities have focused on a new prevention campaign, a research symposium, and a study to identify the best treatment for type 2 diabetes in young people.

Targeting High-Risk Groups

In April 2004, HHS Secretary Tommy G. Thompson and the HHS-sponsored National Diabetes Education Program (NDEP) launched the first national multicultural diabetes prevention campaign, "Small Steps. Big Rewards. Prevent type 2 Diabetes."

"We need to act urgently to confront the epidemic of type 2 diabetes that is threatening Americans, especially minority populations," Thompson said in announcing the campaign. Blacks, Hispanics, American Indians and Alaska Natives, Asian-Americans and Pacific Islanders, and adults ages 60 and older are at particularly high risk for type 2 diabetes.

With type 2 diabetes, which accounts for up to 95 percent of all Americans with diabetes, either the body does not produce enough insulin, the hormone necessary to convert sugar and other food into energy, or the body's cells do not use insulin properly.

The campaign enlists the aid of community groups to help empower people at high risk to make modest lifestyle changes that can prevent or delay the onset of type 2 diabetes. Campaign materials, including consumer-friendly motivational tip sheets, are written in several languages specifically tailored for the high-risk groups.

"This campaign provides the tools to help those hardest hit by this growing epidemic to prevent the disease and its serious, deadly complications," said James R. Gavin III, M.D., Ph.D., chair of the NDEP and president of Morehouse School of Medicine in Atlanta. "If we are going to make a difference, we need to reach people where they live, work, and play, so we are partnering with community groups."

Targeting Prevention and Treatments

The exchange of ideas in scientific forums assists government regulators, researchers, and industry representatives in their efforts to prevent diabetes and improve the health of people with diabetes. One such forum, a two-day symposium sponsored by the Food and Drug Administration and the National Institutes of Health (NIH) in May 2004, included representatives from government, academia, research, industry, and diabetes patient advocacy groups.

"This conference will assist in generating ideas and identifying the kinds of problems we need to address if we're going to advance the development of innovative medical products," FDA Deputy Commissioner for Operations Janet Woodcock, M.D., said in her opening remarks at the symposium. "We need to translate scientific knowledge into new therapies to prevent and treat diabetes."

The rapid increase in the number of people with diabetes and those who are at risk for the disease is closely tracking the nation's escalating obesity rates. In March 2004, the Centers for Disease Control and Prevention (CDC) released a study that found that deaths due to obesity will soon overtake tobacco as the leading preventable cause of death. Overweight and obesity are key risk factors for developing type 2 diabetes.

"Research has clearly shown that losing 5 percent to 7 percent of body weight through diet and increased physical activity can prevent or delay pre-diabetes from progressing to type 2 diabetes," said Allen Spiegel, M.D., director of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK).

"Without intervention, 1 in 3 children born in the year 2000 will develop diabetes in their lifetime," said Frank Vinicor, M.D., M.P.H., director of the CDC's diabetes division. "For some of us, the risk is even higher. If that child is Hispanic and female, she has a 1 in 2 chance of developing diabetes in her lifetime. We need to get the word out that type 2 diabetes can be prevented."

The TODAY Study

The first clinical study sponsored by the NIDDK to focus on type 2 diabetes in young people has begun at 12 medical centers around the country. "Type 2 diabetes has increasingly become a problem in our young people," said NIH Director Elias A. Zerhouni, M.D. "This trial will give us the information we need to most effectively help these patients."

The five-year study, called Treatment Options for type 2 Diabetes in Adolescents and Youth (TODAY), will compare three treatments of type 2 diabetes in children and teens to determine how well and how long each treatment approach controls blood glucose levels. The treatments will involve FDA-approved diabetes drugs and lifestyle changes. Researchers plan to enroll 750 young people ages 10 to 17 who have been diagnosed with type 2 diabetes in the past two years.

TODAY is the first clinical study to look at the effects of intensive lifestyle change aimed at lowering weight by cutting calories and increasing physical activity in youths with type 2 diabetes. The American Diabetes Association is providing additional support for the study, which is also supported in part by LifeScan, GlaxoSmithKline, and Eli Lilly and Company.

"Obesity and type 2 diabetes are among the most serious health challenges facing America's youth today," said Thompson. "We need to do all we can to develop strategies that encourage healthy eating and active lifestyles in our children."

Get Tested

A national survey conducted by the American Diabetes Association revealed that 7 out of 10 Americans are not aware of their blood glucose level, which is critical information for determining if a person has diabetes or pre-diabetes.

According to the NDEP, everyone over age 45 should consult with his or her health care provider about testing for pre-diabetes or diabetes. Those who are over 45 and overweight are strongly recommended for testing. Those younger than 45 who are overweight and have one or more of the other risk factors also should consult their health care provider about testing.

For More Information

[American Diabetes Association](#)

(800) DIABETES (342-2383)

Food and Drug Administration

[Diabetes information page](#)

Office of Women's Health

[Take Time To Care ... About Diabetes](#)

[Información Rápida-Diabetes](#)

Easy-to-read Spanish brochure

National Institute of Diabetes and Digestive and Kidney Diseases

[National Diabetes Information Clearinghouse](#)

(800) 860-8747

[National Diabetes Education Program](#)

Small Steps. Big Rewards. Prevent type 2 Diabetes campaign
(800) 438-5383

[The TODAY study](#)

Risk Factors for Diabetes

- Age: Risk increases with age
- Overweight: Body mass index (BMI) of 25 or higher (23 or higher if Asian-American, 26 or higher if Pacific Islander)
- Blood pressure: 140 over 90 mm/Hg or higher
- Cholesterol: Abnormal lipid levels-HDL cholesterol less than 40 mg/dL for men and less than 50 mg/dL for women; triglyceride level 250 mg/dL or higher
- Family history of diabetes: Having a parent, brother, or sister with diabetes
- Ethnicity: Black, American Indian, Alaska Native, Asian-American, Pacific Islander, or Hispanic heritage
- History of diabetes in pregnancy or giving birth to a baby weighing more than 9 pounds
- Inactive lifestyle: Exercise less than three times a week
- Source: National Institute of Diabetes and Digestive and Kidney Diseases