

Diabetes is a common, serious, and costly disease, but it is controllable. In many instances, it is also preventable.

OVERVIEW

Diabetes is a group of metabolic diseases marked by high blood glucose levels due to defects in insulin production, insulin action, or both.¹ It is also associated with an excess glucose production from the liver. Diabetes can cause serious complications and premature death, but people with diabetes can take steps to control the disease and lower the risk of complications.¹ Even though living with diabetes, they can still lead and fully enjoy a healthy, productive life.

TYPES OF DIABETES

Type 1 diabetes develops when the body's immune system destroys pancreatic beta cells—the only cells in the body that make the hormone insulin, which regulates blood glucose levels. To survive, people with type 1 diabetes must have insulin received via injection or a pump. Although disease onset can occur at any age, type 1 diabetes usually strikes children and young adults. Type 1 diabetes accounts for 5% to 10% of all diagnosed cases of diabetes.¹

Type 2 diabetes usually starts as **insulin resistance**, a disorder in which the body cells cannot use insulin properly. As the need for insulin rises over time, the pancreas gradually loses its ability to produce enough insulin. Type 2 diabetes is the most common form, accounting for 90% to 95% of all diagnosed cases of diabetes.¹

Gestational diabetes (GDM) is a form of glucose intolerance first recognized during pregnancy. It complicates about 4% to 7% of all pregnancies. Soon after childbirth, 5% to 10% of women with GDM continue to have diabetes. Women who have had GDM have a 40% to 60% chance of developing diabetes in the next 5 to 10 years.¹

Other types of diabetes result from specific genetic conditions, surgery, drugs, infections, malnutrition, and other illnesses, accounting for 1% to 5% of all diagnosed cases.¹

Pre-diabetes, the reversible state of impaired fasting glucose or impaired glucose tolerance, is a precursor of diabetes where the blood glucose level is higher than normal but not high enough to be called diabetes. At least 57 million adult Americans currently have pre-diabetes.¹

PREVALENCE

Diabetes is a common disease in Georgia.

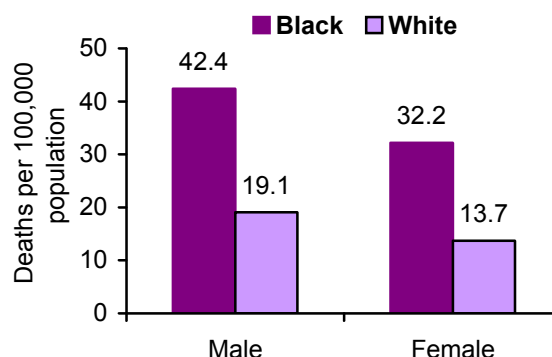
- In 2007, approximately **700,000** adults aged 18 years and older (**10.1%** of the Georgia adult population) had been diagnosed with diabetes.²
- For every two persons with diabetes who have been diagnosed, another has not yet been diagnosed. Thus, approximately **350,000** additional adult Georgians are estimated to have undiagnosed diabetes, either type 1 or type 2.
- Thousands more are at increased risk of getting diabetes because of advancing age, obesity, sedentary lifestyles, unhealthy eating habits, and insufficient physical activity; many of these behavioral risk factors are modifiable.

MORTALITY

Diabetes is a serious disease in Georgia.

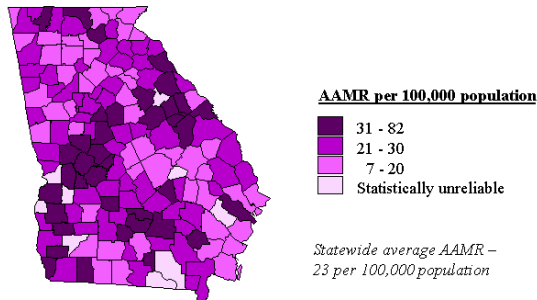
- In 2006, diabetes was the seventh leading cause of death, killing **1,626** Georgians, equivalent to about 5 deaths every day.
- For every death with diabetes as a primary cause, there are two other deaths in which diabetes is a contributing cause.
- In 2006, the overall age-adjusted death rate per 100,000 population was **20.2**. The rate was **1.3** times higher in men (**23.3**) than in women (**17.8**). It was also **2.3** times higher among blacks (**36.4**) than among whites (**16.1**).³

Age-adjusted diabetes death rates by race and sex, Georgia, 2006



- In 2006, more than one-third of diabetes deaths (**37.7%**) were in persons under the age of 65. The proportion of deaths before age 65 due to diabetes (premature deaths) was **highest** among black males (**53.7%**), followed by white males (**41.1%**), black females (**33.0%**), and white females (**26.6%**).
- Georgia counties in Southwest, South, Central, and Northeast regions tend to have higher age-adjusted diabetes mortality rates than the statewide average from 1999 through 2006.³

Age-adjusted mortality rates (AAMR) for diabetes by county
Georgia, 1999-2006



MORBIDITY AND ECONOMIC COSTS

Diabetes is a costly disease in Georgia.

- Diabetes can contribute to blindness, kidney failure, amputations, heart disease, stroke, hypertension, nerve damage, repeated infections, slow wound healing, sexual dysfunctions, skin disorders, periodontal disease, pregnancy complications, disability, and premature death.
- In 2006, there were **15,593** hospitalizations for which diabetes was the principal diagnosis, resulting in over **\$288 million** hospital charges and about **78,346 days** or **215 years** of hospital stay.⁴
- Also in 2006, **19,459** emergency room visits in Georgia were attributable to diabetes. They required urgent care and cost more than **\$3.2 million** in medical care charges.⁵
- In Georgia, the cost of diabetes due to medical care, lost productivity, and premature death is estimated to be over **\$5.1 billion** per year.⁶
- The health care cost for a person with diabetes is approximately **\$11,744** per year compared with **\$5,095** per year for a person of comparable age and sex without diabetes.⁷

PREVENTIVE CARE MEASURES

- Many complications of diabetes can be prevented with early detection, proper intervention, and comprehensive management.
- In 2007, adult Georgians with diabetes met only **one** national target (Healthy People 2010 Objective) for the recommended routine care for diabetes, i.e., the annual A1c testing rate.²

Status of recommended routine care for persons with diabetes, Georgia, 2007

Minimum Recommendation	HP 2010 Objectives	Achievement
Annual doctor visit	---	86%
Diabetes education	60%	55%
Daily self glucose monitoring	60%	59%
Annual Hemoglobin A1c testing	50%	85%
Annual dilated eye exam	75%	71%
Annual foot exam	75%	69%
Annual influenza vaccination	60%	55%
Pneumococcal vaccination	60%	46%

Data sources:

1. Centers for Disease Control and Prevention. National diabetes fact sheet, 2008.
2. Georgia Division of Public Health, BRFSS, 2006.
3. Georgia Division of Public Health, Death records file, 1999-2006.
4. Georgia hospital discharges data file, 2006.
5. Georgia emergency room visits data file, 2006.
6. American Diabetes Association. Diabetes cost calculator. www.diabetes.org/cost
7. American Diabetes Association. Economic costs of diabetes in the U.S. in 2007. Diabetes Care. 31:3, 2008.

Date updated: August 2008

Publication Number: DPH08.205HW

Visit <http://www.health.state.ga.us/epi/cdiee/diabetes.asp> for more information about diabetes in Georgia.

Have Diabetes? Know Your Diabetes ABCs.

A – Hemoglobin A1C:

Less than 7%

B – Blood Pressure:

Under 130/80 mmHg

C – Cholesterol:

LDL (bad cholesterol):

Below 100 mg/dL

HDL (good cholesterol):

Men – Over 40 mg/dL; Women – Over 50 mg/dL

Triglycerides:

Below 150 mg/dL