Diabetes—A Major Health Problem

Diabetes is a serious, common, costly, yet manageable disease. It is one of the top 10 leading causes of death in the United States and affects almost 26 million Americans, with 18.8 million people diagnosed and an additional 7 million people still undiagnosed.[1]

People with diabetes face an array of health issues:

- It is the leading cause of lower-limb amputation not related to trauma, new cases of blindness, and kidney failure in the United States.
- It also is a major contributor to cardiovascular disease, the number one cause of death in this country. About 68% of people with diabetes die from cardiovascular disease.[1]

In 2012, diabetes cost the nation an estimated $245 billion in direct and indirect costs.[1] These current data tell an urgent story about the increasing rates of diabetes in the United States, reflecting the need to integrate pharmacy, podiatry, optometry, and dentistry (PPOD) providers into the health care team to deliver high-quality, integrated care.

Types of Diabetes

Type 1 diabetes was previously called insulin-dependent diabetes mellitus or juvenile-onset 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 that regulates blood glucose. To survive, people with type 1 diabetes must have insulin delivered by injection or a pump. This form of diabetes usually strikes children and young adults, although disease onset can occur at any age. In adults, type 1 diabetes accounts for approximately 5% of all

diagnosed cases of diabetes. Risk factors for type 1 diabetes may be autoimmune, genetic, or environmental. There is no known way to prevent type 1 diabetes. Several clinical trials for preventing type 1 diabetes are currently in progress or are being planned.[1]

Type 2 diabetes was previously called non-insulin-dependent diabetes mellitus or adult-onset diabetes. In adults, type 2 diabetes accounts for about 90% to 95% of all diagnosed cases of diabetes. It usually begins as insulin resistance, a disorder in which the cells do not use insulin properly. As the need for insulin rises, the pancreas gradually loses its ability to produce it. Type 2 diabetes is associated with older age, obesity, family history of diabetes, history of gestational diabetes, impaired glucose metabolism, physical inactivity, and race/ethnicity. African Americans, Hispanic/Latino Americans, American Indians, and some Asian Americans and Native Hawaiians or other Pacific Islanders are at particularly high risk for type 2 diabetes and its complications. Type 2 diabetes in children and adolescents, although still rare, is being diagnosed more frequently among American Indians, African Americans, Hispanic/Latino Americans, and Asians/Pacific Islanders.[1]

Gestational diabetes is a form of glucose intolerance diagnosed in some women during pregnancy. Gestational diabetes occurs more frequently among African Americans, Hispanic/Latino Americans, and American Indians. Like type 2 diabetes, gestational diabetes mellitus (GDM) is also more common among obese women and those with a family history of diabetes.[1]

During pregnancy, women with gestational diabetes require treatment to normalize maternal blood glucose levels and avoid complications for the infant. After pregnancy, the glucose metabolism problems of pregnancy may resolve in many women, but 5% to 10% of women with gestational diabetes will have diabetes, usually type 2. Women who have had gestational diabetes have a 20% to 50% chance of developing diabetes in the next 5 to 10 years.[1]

Other types of diabetes result from specific genetic conditions (such as maturity-onset diabetes of youth), surgery, drugs, malnutrition, infections, and other illnesses. These types of diabetes account for 1% to 5% of all diagnosed cases.[1]

Additional Resources

The Facts About Diabetes: A Leading Cause of Death in the U.S.
NDEP

This fact sheet includes general information and statistics on diabetes in the United States. Statistics are given on the prevalence of diabetes and prediabetes; prevalence by diabetes type, gender, age, and race; mortality rates; and cost to the nation.

National Diabetes Fact Sheet, 2011
NDEP

This comprehensive fact sheet provides national estimates and general information on diabetes and prediabetes in the United States, and also features complications of diabetes and information on preventing these complications.

Diabetes Data & Trends
CDC

Diabetes Data & Trends, which includes the National Diabetes Fact Sheet and the National Diabetes Surveillance System, provides resources documenting the public health burden of diabetes and its complications in the United States. The surveillance system also includes county-level estimates of diagnosed diabetes and selected risk factors for all U.S. counties to help target and optimize the resources for diabetes control and prevention.

Diabetes: The Numbers
NDEP

These slides contain the latest U.S. diabetes prevalence and incidence rates broken down by age, sex, and race/ethnicity.

Diabetes: The Science of Control
NDEP

These slides contain information about the science of diabetes control and highlight the National Diabetes Education Program's materials for consumers at risk for diabetes and health care professionals. Slides can be downloaded as an entire presentation or used individually.

Patient Case Example

A 30-year-old woman, recently diagnosed with gestational diabetes, is sent by her OB-GYN to her dentist and dental hygienist. She asks her dental health team, "What do my teeth have to do with my gestational diabetes?"

The dental hygienist reinforces the connection between oral health and a healthy pregnancy, especially in women with GDM.

The dental hygienist also talks about the increased risk of type 2 diabetes later in life in women with GDM and refers the patient to the free National Diabetes Education Program (NDEP) materials about GDM.

Reference

1. Centers for Disease Control and Prevention. National diabetes fact sheet, 2011. Fast facts on diabetes. Atlanta, GA: U.S. Department of Health and Human Services; 2011.