

American diabetes association essay sample

[Health & Medicine](#), [Diabetes](#)



According to the American Diabetes Association, Diabetes Mellitus is a group of metabolic diseases characterized by elevated levels of glucose in the blood resulting from defects in insulin secretion, insulin action or both. It affects about 17 million people, 5.9 million of whom are undiagnosed (Smeltzer and Bare, 2004).

In the United States, approximately 800,000 new cases are diagnosed yearly. Minority groups share a disproportionate burden of diabetes compared to non-minority groups. The U. S. Public Health Service stated in 2002 that African-Americans and people of Hispanic origin are more likely than Caucasians to develop diabetes and are at greater risk for many of the complications and higher death rates due to diabetes than Caucasians.

The objective of this paper is the education of the general public especially the African-Americans about Diabetes Mellitus, including its prevention and treatment. It is of utmost importance to educate the people about this disease. In the United States alone, diabetes is the leading cause of non-traumatic amputations, blindness among working age-adults and end-stage renal disease.

With the appropriate knowledge and proper interventions, diabetes is highly controllable. Diabetes management varies individually because of the necessary changes in lifestyle, as well as the physical and emotional status of the person. The primary goals of diabetes management include controlling blood glucose levels and preventing acute and long-term complications, which is comprised of four components:

1. Nutrition

Nutrition, diet and weight control are the foundation of diabetes management. It is the most modifiable among the four components since eating is the single activity people cannot live without. The most important objective in the dietary and nutritional management of diabetes is control of total caloric intake to attain or maintain a reasonable body weight and control of blood glucose levels. A diabetic diet entails 50-60% Carbohydrates, 20% Protein, 30% Fats (which 90% should be unsaturated fats) and high soluble fiber which adds bulk and does not contribute to blood sugar. Meals must be properly spaced through out the day. Common myth states that a person with diabetes can't eat any sugar or sweets. This is false since it is the total amount of carbohydrate in meals or snacks that is eaten that raises blood sugar levels, not the specific type of carbohydrate. Thus, people can fit occasional sweets as long as they substitute them for other carbohydrate-containing foods to compensate (Grodner, M. et. al. 2005).

1. Exercise

Exercise is extremely crucial in managing diabetes because of its effects on lowering blood glucose and reducing cardiovascular risk factors. Exercise lowers the blood glucose level by increasing the uptake of glucose by the body muscles and by improving insulin utilization. It also enhances circulation and muscle tone. Resistance or strength training, such as weight lifting, can increase lean muscle mass, thereby increasing the resting metabolic rate. Exercise also alters blood lipid levels which decreases total cholesterol levels. (Grodner, M. et. al. 2005)

1. Pharmacologic therapy and Monitoring

Insulin is secreted by the beta cells of the islets of Langerhans and works to lower blood glucose level after meals by facilitating the uptake and the utilization of glucose by muscle, fat and liver cells. In the absence of adequate insulin, pharmacologic therapy is essential. Compliance to medication regimen is vitally important. In many cases, insulin injections are administered two or more times daily to control the blood glucose level. Accurate monitoring of blood glucose levels is essential because the insulin dose required by the individual is determined by the level of glucose in the blood. The type of regimen used by any particular person varies. Knowledge, willingness, goals, health status and finances all may affect the decision regarding insulin treatment. (Smeltzer and Bare, 2004)

1. Education

Diabetes Mellitus is a chronic illness requiring a lifetime of special self-management behaviors. A solid educational foundation is necessary for competent self-care. A person must learn to balance a multitude of factors because diet, physical and emotional stress can affect diabetic control. They must learn daily self-care skills to prevent acute fluctuations in blood glucose. They also incorporate into their lifestyle many preventive behaviors to avoid long-term diabetic complications and new activities into their daily routines. Diabetic people must become knowledgeable about nutrition, medication effects, exercise, disease progression, prevention strategies and blood glucose monitoring techniques. Although a health care team directs the course, it is the individual who must manage the complex therapeutic regimen. For this reason, patient and family education is an essential component of diabetes management. (Smeltzer and Bare, 2004)

Reference:

Smeltzer, Suzanne C. and Brenda G. Bare. 2004. *Textbook on Medical and Surgical*

Nursing . 10th edition. Philadelphia: Lippincott Williams and Wilkins. pp. 1150-1152.

Grodner, Michele et. al. 2005. *Foundations and Clinical Applications of Nutrition*. 3rd

Edition. Missouri: Mosby Publishing. pp. 547, 553.