Type II Diabetes Prevention

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Abstract

If the Center for Disease Control (CDC) predictions are accurate then by the year 2050 between 40 to 50 million U.S. residents will have the debilitating disease known as type II diabetes. Type II diabetes is the most common form of diabetes. Type II diabetes occurs when the body cannot generate enough insulin. Insulin is important for our bodies to function because it is needed for the body to be able to use glucose, which is the basic fuel for the cells in the body. Insulin causes the cells to absorb glucose. With diabetes, the body has trouble using glucose for energy. As a result, the glucose level in the blood becomes too high. There are some underlying factors such as family and age that predispose one to developing type II diabetes. This does not mean that certain actions cannot be taken to prevent or live a healthy fulfilling life with diabetes. Moderate exercise and eating healthy are two lifestyle changes that greatly impact conquering this epidemic.

Introduction

Type II diabetes (adult or insulin-independent diabetes) is the most common form of diabetes, the other being type I diabetes (juvenile or insulin-dependent diabetes). Type I diabetes (formerly known as juvenile diabetes) is a disorder in which the body does not produce insulin. In order to prevent type II diabetes an understanding of the disease is needed. Type II diabetes is caused when the body does not produce enough insulin or the cells ignore the insulin (Centers for Disease Control and Prevention, 2007). Over the past decade diabetes continued to remain the seventh leading cause of death in the United States. There are various steps our society could take to reduce this disease and at the same time improve the quality of life for all people who have or are at risk for diabetes. There are several factors that accompany this epidemic such as behavioral elements and demographic changes. In Figure 3, one can see the prevalence of diabetes in the different ethnic backgrounds. If nothing is done to change the current trends of our population the toll of diabetes on our health is expected to get worse before it gets better.

Type II diabetes is a significant health challenge in the United States because 800,000 new cases are diagnosed each year, which comes out to 2,200 new cases per day (Diabetes, 2000). Some of the problems associated with type II diabetes are heart disease, blindness, nerve damage, and kidney damage. This is why it is important to receive treatment if you are living with diabetes (American Heart Association, 2007). Not only does diabetes affect the entire body, it is a very costly disease. It is estimated that the total cost of diabetes amounts to $100 billion per year, where hospitalizations for diabetes-associated cardiovascular creates the greatest cost (Diabetes, 2000).

Health Impact of Diabetes

One of the saddest aspects of this disease is that it can be prevented because Type II diabetes is largely caused by obesity and lack of exercise. One of the objectives the general public should address is preventing diabetes. Currently 17.9 million people have been diagnosed with diabetes, while 5.7 million persons are estimated to have the disease but are not diagnosed with it (Centers for Disease Control and Prevention, 2007). Over the past decade diabetes continued to remain the seventh leading cause of death in the United States. There are various steps our society could take to reduce this disease and at the same time improve the quality of life for all people who have or are at risk for diabetes. There are several factors that accompany this epidemic such as behavioral elements and demographic changes. In Figure 3, one can see the prevalence of diabetes in the different ethnic backgrounds. If nothing is done to change the current trends of our population the toll of diabetes on our health is expected to get worse before it gets better.

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By understanding whether you are at risk for developing this disease, one can take actions to prevent it. The risk factors for type II diabetes in adults include being 45 years of age or older; having at least one parent with diabetes; having gestational diabetes or the birth of child weighing over 9 pounds; obesity (even being as little as 10 pounds overweight)(Nicolaides, 2002). If one has any of these risk factors, it is recommended by the American Diabetes Association that you be tested for diabetes annually.

Conclusion:

Before any improvement can be noticed, people have to be provided with accurate information regarding type II diabetes, because without an appropriate understanding of this condition changes cannot be made in lifestyle to prevent it. Although type II diabetes is thought to be an adult onset condition, it is valuable to develop good habits when one is young. For example, if children become physically active and learn to eat a healthful diet, their chances of becoming obese and developing type II diabetes will be reduced. The members of our society must understand that type II diabetes is no joke. It affects every part of the body, so it is up to everyone to make changes in order to get a grip on this chronic condition.

Prevention


Diabetes: Management. New diabetes management data have been reported by researchers at Aston University, Birmingham, England (M. Brandenburg, S. Reusch, J. Bauer, T. Tebbe, B., Nicolaides, 2009). It is important to remember that if any of these symptoms are experienced one must not hesitate to contact their doctor for further evaluation (Diabetes Resource Coalition of Long Island, 2007). Before developing type II diabetes most individuals almost always have what is called “pre-diabetes,” which are blood glucose levels that are higher than normal but not high enough to be diagnosed as diabetes. There are two different tests you can take to determine whether you have pre-diabetes: the fasting plasma glucose test or the oral glucose tolerance test. These tests reveal whether you have a normal metabolism, or if one actually has pre-diabetes/diabetes (American Diabetes Association, 2007).

An action that can be taken to prevent diabetes is getting into the habit of exercising regularly and losing weight. This is easier said than done for most people, and can be made easier by consulting a dietician. They can help develop ways to decrease calorie intake by still consuming some of the foods one enjoys. Dieticians can also help rework their bad habits, and provide tips on replacing bad habits with better ones. Eating healthy is a key factor to losing weight. Some important eating tips one should try to follow are to eat plenty of vegetables, choose whole grain foods over processed grain products, include fish in the diet (such as 2-3 times a week), choose non-fat dairy, and remember to watch portion sizes (too much of anything is a bad thing). With exercise it is important to remember that anything that gets one moving is considered exercise, such as dancing, walking, or partaking in some sort of sport. Not only does exercise help prevent diabetes it makes one feel better physically and emotionally (American Diabetes Association, 2007). Besides weight loss, a well-balanced diet, and exercise other components of healthy living for type II diabetes management and prevention are blood glucose monitoring and management, taking medications if they are prescribed, avoidance of tobacco, moderate or no alcohol consumption, and stress management.

Figure 1: Type II Diabetes

Figure 2: Type I diabetes and the body

Figure 3: Prevalence of Diabetes in people aged 20 years or older by race