

AEROBIC EXERCISE AND DIABETES



Diabetes is a metabolic disorder in which the body will not produce enough insulin (type 1) or the body cannot respond normally to the insulin that is made (type 2). An estimated 23.6 million of our children and adults in America, (7,8% of the population) have diabetes, and 1.6 million new cases are diagnosed each year. Diabetes is the seventh leading cause of death in the United States, and is associated with a greater risk for heart disease, hypertension, and adult-onset blindness. It has been shown that individuals who develop diabetes before the age of 30 are 20 times more likely to die by the age of 40 than those who do not have diabetes.



There are two primary forms of diabetes: (type 1, insulin-dependent diabetes) and (type 2, non-insulin-dependent diabetes). Although type 2 is always referred to as non-insulin-dependent diabetes, some individuals with type 2 diabetes cannot manage their blood glucose levels and do require additional insulin. Type 2 diabetes has been strongly associated with an increase in childhood and also adult-onset obesity. Type 1 diabetes is typically diagnosed in young adults, teenagers, and children. With type 1 diabetes, specialized cell in the pancreas which is called beta cells stop producing insulin, causing blood sugar levels to rise,

resulting in hyperglycemia (high levels of blood sugar). For the individual to control this high level of blood sugar, This individual with type 1 diabetes must inject insulin to compensate for what the pancreas cannot produce. Exercise my friends, will increase the rate at which cells utilize glucose, which can mean that insulin levels may need to be adjusted with exercise. If the individual with type 1 diabetes do not control his or her blood glucose levels ((via insulin injections and dietary carbohydrates) before, during, and after exercise, blood sugar levels may drop rapidly and cause a condition called hypoglycemia (low blood sugar), leading to weakness, and or dizziness, and fainting. Although insulin, exercise, and proper diet are the primary components prescribed for individuals with type 1 diabetes, the individuals must still be monitored throughout exercise to ensure safety.



Type 2 diabetes is associated with obesity, particularly abdominal obesity. The incidence and prevalence of adult type 2 diabetes in America has increased sharply in recent years. There is a significant public health concern about the rising incidence of type 2 diabetes in our children, associated with both the increase in abdominal obesity and the decrease in voluntary physical activity. The individuals with type 2 diabetes usually produce adequate amounts of insulin; however, their cell are resistant to the insulin (the insulin present cannot transfer adequate amounts of blood sugar into the cell). This condition my friends can lead to hyperglycemia (high blood sugar). Chronic hyperglycemia is associated with a number of diseases that are associated with damage to the

kidneys, heart, eyes, nerves, and circulatory system. Although individuals with type 2 diabetes do not experience the same fluctuations in blood sugar as those with type 1, it is still very important to be aware of the symptoms, particularly for anyone with type 2 diabetes who use insulin medications.



The most important goals of exercise for anyone with either type of diabetes are glucose control and for those with type 2 diabetes, is weight loss. Exercise training is effective with both goals because it has a similar action to insulin by enhancing the uptake of circulating glucose by exercising skeletal muscle. Research has taught us that exercise improves a variety of glucose measures, including tissue sensitivity, improved glucose tolerance, and even a decrease in insulin requirements.



There are specific exercise guidelines and also recommendations when working with a person with diabetic, including strategies to prevent hypoglycemic and hyperglycemic events during or after exercise as well as when to defer exercise based on resting blood glucose levels or symptoms. In most cases, excluding other health-related problems, the exercise management goals for individuals with diabetes should be similar to those for physical inactivity and excess body

weight. In contrast to walking being a highly preferred form of exercise for obese clients, care must be taken when recommending are made for walking to a person with diabetes to prevent blisters and foot microtrauma that may result in foot infection.

May your health always be good, humbly your Paul Earl

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META TITLE AEROBIC EXERCISE AND DIABETES

META Description The good and the bad with EXERCISING AND DIABETES

