

Importance of Exercise for Diabetic Patients

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Summary

Significant decrease in fasting blood glucose in diabetic patients due to continuous exercise is a new era to control the disease. Physical exercise has a reduced risk of developing diabetes, osteoporosis, obesity, hypertension, cardiovascular disease and stroke, depression, colon cancer, and complications.

Key words: Diabetes, Exercise

Introduction

Prevention of diabetes

Significant decrease in fasting blood glucose in diabetic patients due to continuous exercise is a new era to control the disease ¹. The poorest quality of life is one of the major factors among diabetic patients and is associated with depression, lack of exercise and obesity ². Alberta Diabetes and Physical Activity Trial (ADAPT) determined tailored but low cost intervention can lead to sustainable increases in physical activity behavior ³. Diabetes patients with geriatric symptoms should be treated by exercise therapy including muscle strengthening training, social support, good glycemic control and psychological support ⁴. Health care providers need to monitor carefully participants with this disease who are undertaking progressive resistance exercise ⁵. Self management educations works in relations to patients behavior self efficacy, modification skills improving their health outcomes ⁶.

Prevention of type II diabetes

The diabetes prevention programmed provide a life style weight loss intervention that has been explain to prevent type 2 diabetes in high risk individuals ⁷. Lower dietary and depressing quality can contribute to risk for type 2 diabetes ⁸. Alternative exercise intervention increase glucose control, quality of life and self care activities ⁹. Type 2 diabetes rehabilitation project provide a multidisciplinary non pharmacological programmed in a primary care setting and

provide information about non pharmacological care for type 2 diabetic patient¹⁰. Humoral immunity disturbances played important role in pathogenesis of post infarction dysfunction developing in type 2 diabetes¹¹. Changes in body weight were associated with changes in health utilities in diabetes prevention program¹². The program focus on enhancement of experience sharing among group members and participation in problem solving¹³. The benefits of yoga in type II diabetes were not confirmed. Possible explanation includes physical and motivational barriers in exercise, inadequate intensity or duration of yoga intervention¹⁴. Practice improving SR- skill of over weight diabetes patients may improve their glycemic control¹⁵. Potential to improve HRQOL may motivate patient with type 2 diabetes in physical activity aimed at increasing fitness¹⁶. People with elevated risk for type 2 diabetes have reduced HRQOL in general health and body pain dimensions but mental health and emotional role dimensions were better¹⁷. The potential of a low glycemic load diet to be more effective than a low fat diet in promoting change in the features associated with progression to diabetes is worthy of further investigation¹⁸. Conclusion can be made into the best dietary advice for the prevention of diabetes mellitus in adults¹⁹.

Effect of physical exercise on Type II diabetes

Increasing exercise combined with diet (COM) is able to reduce incidence of type 2 diabetes in high risk groups²⁰. COM had better effects on physical condition, cardiovascular risk, diabetes and gave a tendency towards better results²¹. Self management program led to improve hemoglobin A1C and quality of life that were sustained at one year²². Future exercise intervention program should perform the high rate due to over use injuries and motivation problems²³. Home based exercise interventions have potential to decrease BMI (body mass index) in patients with diabetes²⁴.

Prevention of type I diabetes

Daily ingestion of camel milk can boost insulin secretion and can add metabolic control in young type I diabetes²⁵.

Effect of physical exercise on type I diabetes

Physical training increase insulin resistance risk factors and reduction in cardiovascular risk factor in diabetic adolescent girls²⁶. Self reported exercise is associated with both of them that are better metabolic control and better quality of life²⁷.

Factors for gestational diabetes mellitus

Physical inactivity, diet quality and body fat percent are important risk factors for gestational diabetes mellitus²⁸.

Conclusion

Physical exercise control glucose level and prevent from diabetes.

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