# The impact of physical therapy interventions on different aspects of health related diabetic foot in patients with type 2 diabetes.

**Mokhtari I. [1] , Ezzaty K. [2] , Karimi N. [3], Esmaili K [4]**

[1] ( Physiatrist ) , Special Medical Centre , Diabetic foot & Rehabilitation Clinic , Tehran , Iran

[2] MS PT , [3] PHD PT , [4] BS PT , Physiotherapy Department of University of Social Welfare & Rehabilitation , Evin, Daneshjoo Blvd, Tehran, Iran

***Background*:** Exercise is one of the most important components of managing diabetic foot . However, Limited research has been conducted that investigates the effects of a physical therapy intervention (including pain modalities and combined strength and aerobic training programs) on health related quality of life , diabetic foot pain and numbness in people with type 2 diabetes.

***Objectives*:** The purpose of this Randomized Controlled Trial (RCT) study was to investigate the impact of a 3 month physical therapy interventions on different aspects of health related quality of life including physical and social functioning , foot pain and numbness , role limitation- emotional, and total scores using SF-36 scale in subjects with type 2 diabetes.

***Patients and Methods*:** All subjects met the American Diabetes Association diagnostic criteria for type 2 diabetes. Among 127 patients with type 2 diabetes, sixty subjects have the inclusion criteria for this study. They were randomized to control group (n=30, age=53±2/2 mass= 73± 3/1) and physical therapy interventions group (n=30, age= 52±1/7; mass=73±4/2). All patients in the latter group were given a training session and received 30 minute pain modalities (IF, IR and kneading massage) for lower extremity . Then stretching, strength and endurance exercises were trained to them during 3-4 sessions. The patients did the supervised exercises 3 times per week during 3 month. The control group did not receive any treatment. All subjects were given an SF-36 scale to fulfill pretest and posttest.

***Results*:** There were no significant differences in the main parameters of health related quality of life among groups at the baseline. At the end of the rehabilitation program, In a between group comparison, the results of independent sample t-test analysis showed significant changes in physical functioning , foot pain and numbness , general health , physical component summary and total scores of SF-36 scale ($P<0.001$). But social functioning, role limitation- emotional, mental component summary scores were not significance ($P>0.05$). Also, there were no significant changes in the control group.

***Conclusions*:** Regular supervised integrated exercise is a safe and effective intervention in diabetic foot patients , which significantly improves health related quality of life especially physical components in patients with type 2 diabetes, which may favorably influence their long-term prognosis.

***Keywords:*** Diabetic foot , Quality of life, Physical therapy.