

## **Abstract**

**Title:** Physical activity in the primary prevention of type 2 diabetes

**Objectives:** The aim of the survey of this thesis is to focus on the incidence and type of risk factors which could have appeared before type 2 diabetes or prediabetes and how these risk factors have increased the diabetes risk score. If these factors were influenceable or not. Thirteen female patients of diabetological outpatient department of the Hospital in Teplice took part in the survey. They were further asked about the change in their lifestyles.

**Methods:** The research was based on an anonymous survey with 26 questions, which I created. Fifteen forms were distributed to female patients of diabetological outpatient department of the Hospital in Teplice. The average age of the patient was 62,5 years, SD = 6,8. The youngest patient was 42 years old, the oldest was 73. The average time of the disease, which the patient lived with, was 7,3 years, SD = 6,8. The shortest time was 2 years and the longest was 14 years. Thirteen forms were completed properly and completely and were used for the survey. I interviewed two women to make sure the questions were comprehensible. The data I collected were evaluated and commented.

**Results:** The results of my survey confirmed the incidence of leading risk factors for type 2 diabetes, containing overweight/obesity in 12 cases, risk waist circumference ( $\geq 88$  cm) in 10 cases, insufficient physical activity in 9 cases, age (over 40 years) in 13 cases, genetic factors in 10 cases and hypertension in 11 cases.

According to the answers in the survey most of the women have been trying to change their lifestyle with the aim of diabetes compensation and prevention of developing chronic complications. The lifestyle modification lies especially in physical activity increase confirmed by 8 women and dieting confirmed by 9 women. Only two women follow the physical activity recommendations in the week amount.

The survey finds out that the incidence of the influenceable risk factors increased the diabetes risk score in 11 cases by 7,7 points in average,  $SD = 2,6$ .

**Conclusions:** The survey reveals that the risk factors predicting the future illness of type 2 diabetes really appeared at thirteen female respondents. It is necessary for the individuals with raised type 2 diabetes risk to change their lifestyle and integrate physical activity into their lives to remove the influenceable risk factors and to prevent the disease, or at least, to delay the illness development.

**Keywords:** diabetes, noncommunicable disease, risk factors, prevention by physical activity, overweight, obesity, obesity complications, the diabetes risk score