

## **ABSTRACT**

The subject of the bachelor thesis is eating habits of type 1 diabetes patients. Diabetes mellitus type 1 is an autoimmune disease which can be improved vastly by improving dietary habits, mental health and regular sport activities. This thesis focuses principally on low-carbohydrate diet and how it compares to the traditionally recommended diet for the patients. The aim is to determine which of the two above diets is more beneficial for the patients with type 1 diabetes. The paper is divided into two parts – theoretical and practical.

Theoretical part briefly describes the disease, the advantages and disadvantages of the traditionally recommended diet for type 1 diabetes patients, in their daily life and during performing sport activities. Following is the description of the low- carbohydrate diet and its advantages and disadvantages.

Practical part presents a compilation of data collected via anonymous questionnaire. The questionnaire was filled in by diabetes type 1 patients following the traditional and low-carbohydrate diets. Included in the data is the record of continuous measurements of glucose by Dexcom G5 and Enlite sensors.

The aim of the practical part was to discover how the low-carbohydrate diet is effecting the quality of lives of diabetics, whether helps to reduce the number of instances of hypoglycaemia during their daily life, during sport activities and if it improves their general level of glycated haemoglobin.

The collected data and graph samples (of the measurements of glucose) show that following the low-carbohydrate diet for the type 1 diabetes patients may be overall beneficial.

**keywords:** diabetes mellitus type 1, recommended diet, low-carbohydrate diet, sport of diabetes, insulin, glycemia