

## **Abstract**

Type 2 diabetes mellitus (T2D) is a highly prevalent metabolic disorder, which substantially affects quality of patients' lives and simultaneously increases the risk of early death due to development of its specific complications. Current T2D therapy comprises mainly pharmacotherapy, however, lifestyle changes, particularly modification of dietary habits, also assume an important role in the process. While conventional dietotherapy of T2D primarily concerns reduction of dietary fat intake aiming to achieve caloric restriction, the low carbohydrate diet (LCD), recently often discussed in relation to T2D therapy, is based on the reduction of dietary carbohydrates, whereas fats and/or proteins are increased. The positive effects of LCD in T2D therapy and its comorbidities are summarized in the theoretical part of this thesis.

The aim of the practical part of the bachelor thesis was to assess the effect of LCD on health parameters associated with T2D as well as the subjective sense of respondents' satisfaction with this diet together with their adherence and compliance. The results of the survey showed that LCD led to weight loss, decreased waist circumference, glycaemia and levels of glycated haemoglobin and led, in a number of cases, to medication reduction. The level of satisfaction with LCD in the tested cohort was very high which in turn positively affected the adherence and compliance.

Based on findings mentioned above, the implementation of LCD in clinical practice could be a suitable alternative to the conventional dietotherapy primarily due to LCD ability to improve some of the health parameters associated with T2D and thus contribute to effective compensation of this disorder.