

## **ABSTRACT**

This diploma thesis deals with the nutrition of women during pregnancy. Many physiological changes occur during this period and these changes need to be adequately covered to ensure proper fetal development and maternal health. The study aimed to evaluate the nutrition of pregnant women with a focus on energy, protein, lipid, carbohydrate and fluid intake and to assess whether the intake of these nutrients changes during pregnancy.

The observation was performed at the Faculty of Pharmacy of Charles University in Hradec Králové from March to December 2020. The survey involved 10 women aged 25-39 years and took place during three separate periods of pregnancy. The NutriDan program was used to obtain nutritional data and statistical processing was performed using Microsoft Excel. The results of the study were compared with the recommendations in the Czech Republic.

The intake of individual nutrients and energy did not differ statistically significantly during pregnancy. The obtained results show that the recommended energy intake is not covered and that the proportions of some nutrients do not correspond to the Czech standard. The energy intake of pregnant women is lower than the recommended intake of 2200 kcal / day for non-pregnant and non-breastfeeding women. Women increase protein intake, but at the expense of slightly reduced carbohydrate intake. The daily protein intake was almost half the recommended dose. The proportion of carbohydrates in energy intake is less than 50% in all periods of pregnancy. The daily average carbohydrate intake was 46.0%, 49.0% and 44.0% CEP. Recommended daily doses of lipids are normal, however, their composition is not balanced in the diet, the ratio of saturated and unsaturated fatty acids is almost balanced, while the ratio of 1:2 should be maintained. Saturated fatty acid intake exceeded the recommended daily allowances by 18-43% and polyunsaturated fatty acids were 14-20% lower than recommended. From the intake of fiber 22 (17; 27) g, 23 (20; 29) g and 21 (17; 28) g, it follows that the daily fiber intake in the monitored group of women is lower than the recommended 30 g.

Pregnant women in the Czech Republic should focus more on the balance of food intake and the specific representation of macronutrients. It would be appropriate to focus on the prevention of cardiovascular diseases by lowering the intake of saturated fatty acids and increasing the intake of polyunsaturated MK.

**Key words:** pregnancy, nutrition, energy intake, macronutrients