

## **Abstrakt**

**Background:** Energy expenditure in pregnancy of Czech women is a lowly explored part of energy metabolism.

**Objective:** The purpose of this study was to estimate total energy expenditure in Czech pregnant women in gravidity and to compare our values with values presented in foreign literature.

**Design:** Energy expenditure was estimated in 137 Czech women. Total energy expenditure was estimated from filling data each activities, which pregnant women filled to questionnaires and activities missed in questionnaires wrote to paper. Seven days activities was estimated in a specially designed program GraphPad Prism 4. As the values of total energy expenditure were considered program values calculated multiplication factors (1,035; 1,062; 1,177 for the first, second and third trimester of pregnancy. There is described also other energy characteristics – i.e. basal metabolic rate in the study

**Result:** In our study there was total energy expenditure  $2993 \pm 599,6$  kcal/day on average. There was seen a gradual increase total energy expenditure  $2415 \pm 533,9$  kcal/day for first trimester,  $2719 \pm 457,3$  kcal/day, for second trimester and  $3223 \pm 586,5$  kcal/day for third trimester. BMI group  $<19,9$  was  $2295 \pm 239,3$  kcal/day TEE, BMI group 20 – 26 was TEE  $2800 \pm 383,3$  kcal/day and BMI group  $> 26$  was TEE  $3554 \pm 532,6$  kcal/day.

**Conclusion:** Czech pregnant women increase total energy expenditure in gravidity for second trimester about 12,59% and for third trimester about 33,46%.