This bachelor project is focused on the issues of obesity, diabetes mellitus and its influence after the performed bariatric surgery, it is divided into two parts, theoretical and practical. Theoretical part deals with obesity and its treatment, consider the obesity complications, especially the accompanying metabolical complication so called diabetes mellitus of the second type. Moreover it introduces various types of bariatric surgery with positive influence on health status of second type diabetes patients. It also describes new trends in this field and takes into account activities before and after bariatric surgery such as preparation for the operation or post operational care. Practical part is dealing with the influence of bariatric surgery on body mass and metabolical parameters of the patients. For purpose of this study the research was conducted, representative sample of 162 patients was chosen, 68 people suffered from diabetes, the rest did not. Patients of both groups have reduced their weights significantly after the bariatric surgery of all kinds. The surgery with the biggest second type diabetes mellitus compensation is gastric bypass. The results confirmed the positive impact of bariatric surgery for the obesity treatment namely the weight reduction and metabolical parameters, especially the glykemy and glycated hemoglobin parameters. The outcome of this research provides the proof that bariatric surgery highly contributes to second type diabetes mellitus treatment.

Keywords: (bariatric surgery, diabetes mellitus, gastric bypass, obesity)