

**Abstract:**

This thesis focuses in its theoretical part onto description of human lipid functions, and on cholesterol mainly. It zooms on different types of dyslipidemia, which as a significant factor influence the risk of cardiovascular disease. There are introduced possibilities of pharmacology treatment, as well as regime changes, which should go along with every attempt of successful therapy of dyslipidemia. The emphasis is on diet, which can in high level influence the amount of fat intake. Low-cholesterol diet by itself is no longer recommended as it was proved that limitation of cholesterol only does not lead to hypocholesterolemia. Patients with dyslipidemia have to follow diet with reduced fat intake; the impact of this diet on lipid parameters is subject of this thesis. Shortly we also touch the topic of atherosclerosis as a consequence of increased levels of blood lipids.

Practical part is devoted to research that took place with control group of patients in Center of preventive cardiology of 3<sup>rd</sup> Medical Clinic of General University Hospital and 1<sup>st</sup> Faculty of Medicine of Charles University. Thanks to patients' observation before and after regime changes including diet we are able to evaluate by the end of this thesis whether diet with reduced fat intake has demonstrable effect on patient's lipid parameters.

**Key words:**

Cholesterol – lipid parameters – HDL – LDL – diet – hypercholesterolemia – dyslipidemia - diet with reduced fat intake – lipoproteins – nutrition – cardiovascular diseases – atherosclerosis