## Abstract

The kidneys are a paired organ that has many functions in the body. They are responsible for the regulation of the internal surroundings, the excretion of metabolic products (nitrogen metabolites and foreign substances) and the secretion of certain hormones.

In the theoretical part of the diploma thesis I give a brief description of the anatomy and physiology of the kidneys and a description of some renal diseases, with emphasis on acute kidney injury and chronic kidney disease. I also discuss the possibilities of kidney function replacement and the adjustment of eating habits if a patient develops any of the kidney diseases.

The practical part of the diploma thesis deals with the issue of nutritional status of hospitalized patients who are indicated for dialysis therapy. The research took place at the Faculty Hospital in Královské Vinohrady, mainly at the 1st internal clinic. The research group consisted of 17 patients who completed a questionnaire and kept a prospective record of the food portions eaten. Based on the calculation of the meals list, it was found that most of the patients do not receive enough energy or basic components of nutrition. The intake of minerals, with the exception of calcium, averaged the recommended values. Blood levels of serum albumin and minerals correspond on average to reference values, serum levels of urea and creatinine are significantly above the limit.

## Keywords

Dialysis, kidney disease, nutrition, dialysis diet