

## **ABSTRACT**

This bachelor thesis, which is called „Vliv chirurgické thorakoplastiky na funkci plic a hrudníku u dětí a dospívajících s deformitou hrudníku“, is a research of mainly foreign works about the two most frequent thorax deformities. These are pectus excavatum and pectus carinatum. The first part of this work summarizes general information about structure and function of thorax and about physiology and pathophysiology of breathing. It also contains description, etiology, main symptoms and ways of handling with deformities. The deformities can be treated by operation or by conservative means. The first part of the work also includes possibilities of rehabilitation either before or after surgical correction of pectoral wall.

The second part speaks about functional examination of lungs and about differences, which were measured in patients suffering of PC and PE or in healthy patients. The second part mentions the effect of deformities on the shape of thorax and breathing passages and on the stress tolerance, too. From the results of preoperative examination, the type of ventilation malfunction and the connection between the size of the deformity and the extent of lung function decrease is explored.

The study of changes in respiration parameters after operation is described in the last part of this work. These changes are discussed. This work contains case interpretation of one patient suffering of pectus excavatum.