

The purpose of this thesis is to define norms for inspiratory (P<sub>imax</sub>) and expiratory (P<sub>emax</sub>) pressures and mouth occlusion pressure (P<sub>0.1</sub>) in healthy white population of the 16-17 age group in the Czech Republic, specifically the capital city of Prague and its close vicinity. Furthermore, this work aspires to ascertain whether there is a correlation between the respiratory pressures, P<sub>0.1</sub> and selected anthropometric and pulmonary values. In order to define the norms, 79 children were tested, including 41 boys and 38 girls 16 to 17 years old. After establishing the subjects' case histories, anthropometric, spirometric inspiratory, expiratory and forced vital capacity measurements were made. The study defined the norms of respiratory pressures and P<sub>0.1</sub> in 16 to 17-year-old boys and girls, thus achieving its main goal. Furthermore, a difference was found between the average measured P<sub>imax</sub> and P<sub>emax</sub> values for boys and girls, with the boys showing higher values comparing with the girls. The study did not ascertain a correlation between respiratory pressures, P<sub>0.1</sub> and selected anthropometric values (age, height, weight, BMI, BSA). No correlation was found between respiratory pressures and static pulmonary volumes.