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**Original article:**

**Effect of posture on vital capacity in both males and females phase I medical students**

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**Abstract:**

**Background:** Vital capacity (VC) is maximal volume of air forcefully expelled from the lungs after a maximal inspiration. Vital Capacity is a critical component of good health. Measurement of VC is useful diagnostically and is an important pulmonary function test. The aims and objectives of the present study constituted the effect of posture on vital capacity in both males and females.

**Material and methods:** 100 healthy medical students (50 males,50 females) of 2014-15 batch studying at the Vijayanagar Institute of Medical Sciences belonging to both the sexes volunteered for the study. The study was conducted at the department of Physiology during the month of July 2015. After informed consent, the volunteer students were asked to report to the department at afternoon (2.00 pm) during routine practical class by using Vitalography in standing and sitting posture. Anthropometry was conducted at the point of entry into the study using standard protocol.

**Results :** Effect of posture on vital capacity in both males and Females phase I medical students .BMI Male 20.6±3.4, VC (standing) 4±0.24, VC(sitting) 3.2±0.21, BMI Female 20±3.5, VC (standing) 3.1±0.45, VC(sitting) 2.2±0.42.showing males having high rate of VC than females.

**Conclusion:** Vital Capacity is dependent on other factors besides age, posture,sex and Body mass index. Therefore, the recorded values can be considered normal. Many of the differences observed in this study are due to the smaller lungs and presumably the smaller diameter airways in women. Several studies have reported that women may be susceptible to pulmonary system limitations during exercise including exercise-induced arterial hypoxaemia.