

# Comparison of Peak Expiratory Flow Rate in Different Body Positions among Pregnant Women

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**Abstract:** Background: A vast amount of physical and physiological changes occurs during pregnancy in various systems of the body. Dyspnea is a common problem among the pregnant women due to growing size of fetus and alteration in respiratory system. During the course of normal and uncomplicated pregnancy as many as 60% to 70% of women experience sensation of Dyspnea as major discomfort. Dyspnea can be defined as difficulty in breathing or breathlessness. Clinically PEFR can be used to assess the lung function and can be taken as index for lung function. Various studies state that different body position influence PEFR value. hence this study is intended to compare the PEFR in different relaxation position among pregnant women in 2<sup>nd</sup> trimester. Objectives: To compare PEFR values obtained during the different relaxation position in pregnant women in 2<sup>nd</sup> trimester and to find optimal position in which maximal expiration is possible in pregnant women in 2<sup>nd</sup> trimester. Method: 72 subjects participated in the study after scrutinizing for inclusion and exclusion criteria, on voluntary basis with gestational age of 14 to 27 weeks. Patients were asked to assume different relaxation position and PEFR was measured and best of 3 values were taken for statistical analysis. One-way ANOVA was used to find the difference in PEFR value between the different relaxation positions. Post hoc analysis (Bonferroni test) used to find multiple comparisons between the position. P value was kept at <0.05 for statistical significant. Results: The mean PEFR values are as follows: high side lying was 312.50+27.87. Relaxed sitting was 340.14+27.03. Relaxed standing was 352.36+26.82. Forward lean sitting was 364.44+25.22. Forward lean standing was 379.44+29.25. when mean difference in scores of PEFR between different body positions forward lean standing has was found to have max PEFR value followed by forward lean sitting, relaxed standing, relaxed sitting and high side lying. Interpretation & Conclusion: Different body positions were found to have influence on PEFR values. Upright postures were better than recumbent position among upright posture, forward lean standing and sitting was found to have higher value when compared to relaxed sitting and standing which was due to fixation of upper extremity. Thus these position can be encouraged more to relieve the discomfort of Dyspnea.

**Keywords:** Pregnancy, 2nd trimester, Dyspnea, PEFR, Different body positions

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