

# Effects of Yoga and Pilates on Lung Function, Core Strength and Pelvic Tilt Angle in Overweight Individuals

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## Abstract

**Introduction:** Sedentary lifestyle has a risk of lifestyle disorders, obesity, stress disorders, respiratory diseases and other comorbidities. Increase in body fat deposition leads to increase in body mass index. This leads to changes in lordosis and core muscular imbalance/weakness. Maintenance of postural stability plays an important role in strengthening the core and respiratory muscles. Diaphragm is a part of core as well as respiratory muscle hence yoga and pilates may help to improve core muscle strength and lung capacity. Physical activities like yoga and pilates helps in achieving good health.

**Objective:** To compare the effect of yoga and pilates on lung function, core strength and pelvic tilt angle in young overweight individuals.

**Methods:** 42 participants aged 18-22 years were randomly categorized into two groups: Group A (Yoga) (n = 21) and Group B (Pilates) (n = 21). Duration of the study was 6 months. Readings of outcome measures were taken before and after 4 weeks (12 sessions) of intervention.

**Results:** Subjects showed significant results within the group in group A FEV1/FVC ( $P = 0.01$ ), core strength ( $p = 0.0002$ ), pelvic tilt ( $p = <0.00001$ ) Group B FEV1/FVC ( $p = 0.01$ ), core strength ( $p = 0.0001$ ), pelvic tilt ( $p = <0.00001$ ) but showed non-significant results when both the groups were compared to each other.

**Conclusion:** This study concluded that, in comparison between both the groups, there was no significant effect seen which means that both forms of exercises are effective.

**Keywords:** Lung Function; Pilates; Pelvic Tilt Angle; Pressure Biofeedback; Yoga