

Effect of Bhastrika Pranayama and Exercise on Lung Function Capacity of Athlete: A Pilot Study: 2192Board #69 June 2 2:00 PM - 3:30 PM

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In previous comparative study on athletes it was found that subjects who practiced pranayama could achieve higher work rates with reduced oxygen consumption per unit work and without increase in blood lactate levels.

PURPOSE: The present study was conducted to observe the effect of Bhastrika pranayama (i.e., inhalation and exhalation of long and deep breathe.) and exercise on lung function capacity of athlete. **METHOD:** The study was parallel-groups design. There were 30 healthy individuals, 15 in Yoga Group (YG) and 15 in Physical Exercise Group (PEG), their ages ranged between 18 and 30 (Group Mean \pm SD, 22.5 ± 1.9 years). Yoga group practiced Bhastrika pranayama 15 min. while PEG practiced running 15 min. 6 days a week for one month. The participants were assessed Maximum ventilation volume (MVV), Forced vital capacity (FVC), Forced expiratory volume in 1 sec. (FEV₁), and Peak expiration flow rate (PEFR) of lungs by using RMS MEDSPIROR (Recorder and Medicare Systems, Chandigarh, India) spirometer. **RESULT:** There was significant difference in the post mean value of all variables in YG (i.e., MVV (157.7 ± 7.2 vs 114.0 ± 7.9 L/min., $p < 0.001$), FVC (3.5 ± 0.3 vs 2.5 ± 0.2 L, $p < 0.001$), FEV₁ (3.0 ± 0.1 vs 2.4 ± 0.2 L/sec., $p < 0.001$), PEFR (5.8 ± 0.4 vs 5.1 ± 0.4 L/min., $p < 0.01$) as compared to PEG where there was no significant difference in post mean value except MVV (135 ± 7.2 vs 116.2 ± 7.9 L/min., $p < 0.01$).

CONCLUSION: These findings demonstrate that incorporating yoga in sports can enhance the efficiency of athletes by enhancing the lung function capacity. This suggests that the practice of yoga should be incorporated with sports and explored in enhancing the efficiency of sports personnel. Exercises with yogic breath or practice of some pranayama before any sports exercises; is best medicine ever founded in world. Such yogic exercises are not only beneficial for physical health of athlete but also helpful for increasing work efficiency as well as mental toughness of athlete and every individual.

Keywords: Bhastrika pranayama, Lung capacity, Running

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