

## **ABSTRACT**

### **Introduction:**

Steam bath though used extensively all over the world yet its physiological influence has to get explored. The aim of the present study was to examine the effects of steam bath on pulmonary function parameters in healthy volunteers. Among pulmonary function parameters, PEFR, being a long term indicator of morbidity and a marker of health was considered and compared. We compared PEFR pre and post values, to reveal steam bath`s influence over respiratory system.

### **Aim:**

To evaluate the effect of steam bath on pulmonary function in healthy volunteers.

### **Methods:**

Forty healthy volunteers of both the sexes (Mean±SD Age (Yr) 16.38±1.98, Height (cm) 151.2±8.27, Weight (Kg) 56.53±14.68, BMI (Kg/m<sup>2</sup>)19.2±2.89) were selected and underwent steam bath. Steam bath was given once a week, each session of fifteen minutes for twelve weeks. The pulmonary function parameters (PEFR, FVC, FEV<sub>1</sub>, SVC and MVV) were measured by spirometer and anthropometric measurements

such as BMI, height, weight and blood pressure were recorded before the steam bath at the beginning of the study as baseline value and at the end of the twelfth week at the end of the study and compared.

#### Results:

In this study the values of PEFr, SVC, MVV showed significant improvement ( $p < 0.05$ ), which reflects the improvement of lung function while the cardiovascular parameters also got significant ( $P < 0.05$ ) reduction reveals the parasympathetic dominance after steam bath intervention. Also the waist hip ratio got significant ( $p < 0.01$ ) reduction. R statistical software free version 3.2.0 and paired T test were used for data analysis.

#### Conclusion:

Steam bath is evidence based effective intervention in improving lung function as well as basal metabolic rate.

Keyword: Steam bath; heat stress; temperature regulation; parasympathetic nervous system; respiration; lung function