## Effect of Halotherapy on Peak Expiratory Flow (PEF) and Forced Expiratory Volume in 1-second (FEV1) in recreational athletes above the age of 40 - Pilot Study

## ABSTRACT

**Objectives**: The purpose of this study is to evaluate the effect of Halotherapy on Peak Expiratory Flow (PEF) and Forced Expiratory Volume in 1-second (FEV1) in recreational athletes above the age of 40.

Study design: This was a pilot open-label before-and-after-study.

**Setting and Participants**: The study was performed at a Spa and Wellness facility in East Lansing, MI. Participants were recreational athletes over 40 years of age, and were enrolled in the study between February and July, 2019. Participants included in the study exercise at least 3 days a week, are non smokers and currently not using halotherapy.

**Materials and methods**: Composite endpoints include: FEV1 and PEF and were measured using a peak flow meter at inclusion and termination of study. Participants received 12 sessions of halotherapy (dry aerosols of salt less than 5 µm), 25 minutes each, completed twice a week over a 6-week period.

**Results**: In this group FEV1 increased in all study participants. Quality of Life Questionnaire showed improvement in sleep, increased energy during athletic activity and decreased feeling of stress. The other parameters were unchanged. The dropout rate was 8.3% due to not following study guidelines

Conclusion: Halotherapy may be associated with improvement in FEV1



## Effect of FEV1 Following 12 Sessions of Halotherapy