



# Effect of Cannabis Smoking on Lung Function and Respiratory Symptoms in Adolescents

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## Abstract

**Background:** Cannabis is the second most smoked substance, after tobacco. Still know very little about the effects of smoking cannabis on the respiratory system and on health in general. The aim of this study was to investigate the effect of cannabis smoking on lung function and respiratory symptoms.

**Methods:** Male adolescents with cannabis smoking admitted to Alcohol and Substance Treatment Center at Bakirkoy Research and Training Hospital for Psychiatry, were evaluated. For control group, healthy male subjects were recruited from students in high school. Respiratory symptoms were questioned and pulmonary function tests were performed by spirometry MIR Spirobank II for every subject.

**Results:** The mean ages of adolescents with cannabis smoking (n=42) and healthy subjects (n=36) were  $16.6 \pm 0.2$ , and  $16.1 \pm 1.1$  years, respectively. The duration of cannabis use was  $48.1 \pm 19.7$  months. The most common respiratory symptoms in cannabis smoking were nasal congestion (56.2%), sputum (76.7%), exercise intolerance (75.3%), dispnoea (51.7%) and chronic cough (57.6%). FVC, FEV<sub>1</sub>, PEF and FEF<sub>25-75%</sub> values were statistically significant slower in adolescents cannabis smoking compared to the healthy subjects (p=0.021, p=0.002, p=0.002 and p=0.000, respectively).

**Conclusion:** This study clearly shows that cannabis smoking is associated with respiratory symptoms and decrease in spirometric parameters, but more comprehensive studies are needed for more precise conclusions.

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