

**TITLE**

**Lung function in  
saudi diabetic  
patients**

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**Objectives:** Diabetes mellitus is a leading cause of illness and death across the world and is responsible for a growing proportion of global health care expenditures. The aim of this study was to determine the effects of diabetes mellitus on lung function in Saudi diabetic patients.

**Methods:** 47 apparently healthy volunteer male Saudi patients with diabetes mellitus were randomly selected. Their ages ranged from 20-70 years. The patients were matched with another group of 50 healthy male control subjects in terms of age, height, weight, ethnicity, and socioeconomic status. Spirometry was performed with an electronic spirometer.

**Results:** Subjects with diabetes showed a significant reduction in Forced Vital Capacity (FVC) and Forced Expiratory Volume in the First Second (FEV(1)) relative to their matched controls. We observed a significantly negative correlation between duration of disease and pulmonary function, as measured by FEV(1) ( $r = 0.258$ ,  $p = 0.04$ ), FVC ( $r = 0.282$ ,  $p = 0.28$ ), and the middle half of the FVC (FEF(25-75%)) ( $r = 0.321$ ,  $p = 0.014$ ).

**Conclusion:** Lung functions in Saudi diabetic patients were impaired as evidenced by a decrease in FVC and FEV1 compared to lung function in matched controls. Stratification of results by years of disease revealed a significant correlation between duration of disease and a decline in pulmonary function.