



## Reduced forced expiratory volume is associated with increased incidence of atrial fibrillation: the Malmo Preventive Project.

<https://arctichealth.org/en/permalink/ahliterature256991>

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Source: Europace. 2014 Feb;16(2):182-8

Date: Feb-2014

Language: English

Publication Type: Article

Keywords: Adult  
Age Factors  
Atrial Fibrillation - diagnosis - epidemiology - physiopathology  
Female  
Follow-Up Studies  
Forced expiratory volume  
Humans  
Incidence  
Kaplan-Meier Estimate  
Lung - physiopathology  
Male  
Middle Aged  
Proportional Hazards Models  
Risk factors  
Smoking - adverse effects - epidemiology  
Sweden - epidemiology  
Time Factors  
Vital Capacity

Abstract:

Reduced forced expiratory volume in one second (FEV1) and forced vital capacity (FVC) have been associated with increased incidence of cardiovascular diseases. However, whether reduced lung function is also a risk factor for incidence of atrial fibrillation (AF) is still unclear. We aimed to determine whether lung function predicted AF in the Malmö Preventive Project, a large population-based cohort with a long follow-up.

The study population consisted of 7674 women and 21 070 men, mean age 44.6 years. The cohort was followed on average for 24.8 years, during which time 2669 patients were hospitalized due to AF. The incidence of AF in relationship to quartiles of FEV1 and FVC and per litre decrease at baseline was determined using a Cox proportional hazards model adjusted for age, height, weight, current smoking status, systolic blood pressure, erythrocyte sedimentation rate, and fasting blood glucose. Forced expiratory volume in one second was inversely related to incidence of AF (per litre reduction in FEV1) hazard ratio (HR): 1.39 [95% confidence interval (CI): 1.16-1.68; P = 0.001] for women, and HR: 1.20 (95% CI: 1.13-1.29; P

PubMed ID:

23960091 [View in PubMed](#) 