

عنوان مقاله:

Relationship between Lung Function and Flour Dust in Flour Factory Workers

محل انتشار:

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خلاصه مقاله:

Introduction: Exposure to flour dust is an important risk factor in occurrence of allergic airway disorders among mill workers. The purpose of this study was to determine the prevalence of respiratory symptoms and its relation with exposure to respirable dust. Materials and Methods: In this study, all of ۳۵ workers who worked in the flour producing section of three factories were chosen as case group and ۲۰ unexposed people were selected as the control group. Exposure to total and respirable dust were measured with standard methods. Spirometry was used for determining lung function disorders and the America Lung Society Questionnaire was used for assessment of prevalence of respiratory symptoms. The results were analyzed by t-test, correlation and linear regression. Results: The average total and respirable dust exposure in the exposed group was ۸.۰۶ and ۵.۰۹ mg/m^۳ and was higher than the threshold limit value recommended by American Conference of Governmental Industrial Hygienists(ACGIH). ۵۲% of workers had sputum in the morning and during waking up, ۴۴% felt tightness of breath or pressure in the chest, ۵۵% felt short of breath while walking fast and work and in ۵۲% cough during work was experienced. There was a significant and negative correlation between total and respirable dust with Forced Vital Capacity(FVC), Forced Vital Capacity Percent(%FVC) and Forced Expiratory Volume in one second(FEV₁). Conclusion: The results of this study indicate that exposure to respirable dust was more than ۱۰ times higher than the threshold limit and caused a high prevalence .of respiratory symptoms and lung function disorders among mills workers

کلمات کلیدی:

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