

Evaluation of pulmonary function tests in male bakers in Ardabil city in 1398

Abstract

Background and purpose: The respiratory system is one of the areas that are most vulnerable to unhealthy workplace injuries. One of the most common occupational diseases, are illnesses and respiratory complications in employees who are exposed to harmful pollutants in the workplace. Flour powder is a complex organic particle with different components. These ingredients include wheat bran, pollen, starch particles and a variety of bacteria. Given the importance of respiratory illness and the impact it has on the quality of life of these people, in this study we compared the pulmonary function of bakery workers with that of healthy people.

Materials and Methods: A total of 51 bakers who had been in working in bakeries in Ardabil for at least 5 years and 51 control individuals with the same age and gender and no confounding factors after informed consent and completing the questionnaire including demographic information etc. were studied and underwent spirometry. Finally, the raw data were extracted and processed by SPSS software. In addition to the mean and standard deviation, t-test was used for comparing the means and at all stages the error probability less than 5% was deemed to be significant.

Results: In the present study, there was a significant difference between the case group and the control group in pulmonary parameters. Also, there was no significant difference between the level of education, type of bakery, number of working hours per day and BMI of bakers. There was a significant relationship between work experience (year) and FVC, FEV1, FEV1% and FEF50%. There was also a significant relationship between the age of bakers and the all parameters above, except FVC, and there was a significant difference between different tasks in bakeries only in the case of FEF50%.

Conclusion: In healthy people, pulmonary parameters decrease with age, but in bakers this process is more severe and needs to be followed.

Keywords: Spirometry - Bakers - Flour - Occupational Pulmonary Diseases