

The aim of this study was focused on the adverse effects of the poly methyl methacrylate monomers on the physiological lung functions.

The total number of female students were 42 with range of age from 20-22 years. The lung function was measured by using a standard protocol and spirometry to measure (FVC), (FVC1), (FVC1/FVC), AND (PEF). The participants was exposed to monomer in prosthetic laboratory and immediately the test was repeated after exposure to the monomer, then the lung function test was repeated to measure the delayed post-work effect of monomer.

The largest differences in the mean and standard deviation of the FVC and PEF between the pre-work and the measurement after the inhalation of the monomer immediately. FVC was significantly lower ($p < 0.05$) in student after work with mean (2.3891 ± 0.60623) than pre-work mean (5.7577 ± 1.88277). FEV1 show significant decrease ($P < 0.05$) in student after work with mean (2.4782 ± 0.70515) than pre-work mean (4.5291 ± 1.39558). Ratio of FEV1/FVC was significantly lower ($P < 0.05$) in student after work with mean (65.7818 ± 8.26448) than pre-work mean (87.6864 ± 6.92760), but it will return after 4 days with mean (84.3759 ± 9.85705) and the result was non-significant between pre-work and after 4 days.

The effect of monomer in airway passage for the subject which exposed for one time causes obstruction and restriction but temporary effect and started to decrease or loss after 4 days but if continuous exposure to monomer that given obstruction or restriction to airway passage and may lead to any respiratory problem.