

Impact of Stone Dust on Physiological Function and Body Size: Data from Malis of Rajasthan

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ABSTRACT Cross-sectional data on lung functions, body measurements, pulse rate, hand grip strength and blood pressure were collected from 250 exposed and 250 control workers from Malis, an endogamous caste groups of Rajasthan. The study aims at investigating the effect of stone dust on lung functions (FVC, FEV₁, PEF_R), blood pressure, pulse rate and body measurements. In both the sexes, control subjects have significantly higher FVC, FEV₁ and PEF_R than exposed group. Mean values of hand grip strength, pulse rate and blood pressure were significantly higher in control group. Although the two groups have similar linear dimensions, the control subjects (both males and females) are significantly heavier, possess greater breadths, circumferences, skinfolds than exposed group. Higher pulse rate and blood pressure, a sign of cardiovascular stress on one hand and lower respiratory volume in the exposed group, on the other hand, demonstrates definite effect of stone dust on physiology of man.