

Occupational respiratory diseases

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Occupational exposure to rock wool- lung function.

Iwona Teul¹, Sylwia Baran², Krzysztof Świetlik³, Anna Stangret¹

¹Pomeranian Medical University in Szczecin, Department of Human and Clinical Anatomy, Szczecin, Poland

²Mieszko I School of Pedagogy and Administration in Poznan, Public Health, Poznań, Poland

³Clinic of Occupational Medicine, Poles, Occupational Medicine, Zielona Góra, Poland

Rock wool (RW) belongs to man-made organic fibers. RW is an amorphous silicate manufactured from rock. May contain a binder and oil for dust suppression. These products are potentially hazardous to human health because they release airborne respirable fibers during their production, use and removal. There is an ongoing debate about the actual fibrogenic effect of these man-made mineral fibers (MMMFs) in humans. Newly emerging man-made fiber industries appear to induce new types of occupational diseases. The combined evidence from the epidemiologic studies and experimental data indicates that causal associations between MMMF occupational exposure and lung cancer and chronic respiratory diseases cannot be excluded, neither does it offer clear support for such associations. Regulations laid down limits for the exposure at the workplace to rock wool dust. Occupational exposure of workers exposed to rock wool fibers have some degree of the mechanical irritation effects on the skin, eyes and respiratory system.

The aim of the study was to estimate lung function among the workers employed by rock wool production, who run the risk of being exposed to rock wool dust. The study concerns a group of 50 workers. All the workers underwent general and laryngological examination. The following parameters were measured: VC, IC, ERV, TV, BF, FEV1, FVC, PEF, MEF25-75, FEV1%FVC, FEV1%VC. The data are presented as mean \pm SD and the authors applied reference values according to ERS guidelines. These results suggest that rock wool dust exposure might not lead to significant pulmonary damage but future studies of respiratory health among workers exposed to rock wool dust are needed.