

An Occupational Health Study of the Footwear Manufacturing Workers of Kolkata, India

Somnath Gangopadhyay, Tarannum Ara, Samrat Dev, Goutam Ghoshal and Tamal Das

Occupational Ergonomics Laboratory, Department of Physiology, University College of Science and Technology, University of Calcutta, 92, A. P. C. Road, Kolkata 700 006, West Bengal, India

KEYWORDS Leather Industry. Respiratory Diseases. Peak Expiratory Flow Rate

ABSTRACT The footwear industry occupies a place of prominence in the Indian economy in view of its massive potential for employment, growth and exports. Footwear workers are exposed to a plethora of occupational hazards of which the most hazardous one is from industrial adhesives and glues. The adhesives and glues cause various respiratory diseases, neurotoxicity and cancer. Peak Expiratory Flow Rate (PEFR) values are helpful in identifying and assessing the degree of air flow limitations of individuals and it can be measured using relatively portable and inexpensive Peak Flow Meter. In this study an attempt was made to identify the influence of occupation on the health of workers engaged in footwear industries of Kolkata. For this purpose the Experimental Group involved in various manufacturing processes and the Control Group of the same strength involved only in stitching jobs from the same footwear manufacturing unit were randomly selected. The statistical analysis of physical parameters of both the groups showed no significant difference between these parameters, which established the fact that the subjects of both groups belong to the same range of age, weight, height and BSA. But the statistical evaluation of PEFR of experimental group and the control group showed significant result, with the control group exhibiting higher values. From the present observation it may be concluded that dust particles and adhesives affect the lung capacity and PEFR of the footwear manufacturing workers irrespective of their type of work.