



Occupational health hazards on shoe makers exposed to organic solvents

• Nisha Kumari • Nitu Kumari • Shruti Sinha
• Shobha Shrivastava

Received : November 2013
Accepted : March 2014
Corresponding Author : Shobha Shrivastava

Abstract : *In this study an attempt was made to identify the influence of occupation on the health of workers engaged in footwear industries. The Exposed Group, involved in various manufacturing processes and the Control Group of the same strength, involved only in stitching jobs from the same footwear industry, were selected. Workers of both groups belonged to the same range of age, weight and height. But the statistical evaluation of Peak Expiratory Flow Rate (PEFR) of the exposed and the control groups showed significant result, with the control groups exhibiting higher values. Liver function test of Exposed and Control Groups showed no significant difference.*

Key words : *Leather Industry, Respiratory Diseases, PEFR.*

Nisha Kumari

B.Sc. III year, Zoology (Hons.),
Session : 2011-2014, Patna Women's College,
Patna University, Patna, Bihar, India

Nitu Kumari

B.Sc. III year, Zoology (Hons.),
Session : 2011-2014, Patna Women's College,
Patna University, Patna, Bihar, India

Shruti Sinha

B.Sc. III year, Zoology (Hons.),
Session : 2011-2014, Patna Women's College,
Patna University, Patna, Bihar, India

Shobha Shrivastava

Assistant Professor, Deptt. of Zoology,
Patna Women's College, Bailey Road,
Patna – 800 001, Bihar, India.
E-mail : shrivastava.shobha07@gmail.com

Introduction :

The footwear industry is a significant segment of the leather industry in India, which ranks second among the footwear producing countries next to China (Szubert et. al., 2001). Shoemakers and their health however have attracted less attention than the shoes themselves. Employees in the shoe manufacturing unit are routinely exposed to a mixture of organic solvents used in cleaning and as solvents of glues, degreasers etc (Todd et. al., 2008), which have been reported to increase the risk for acute and chronic health problems among shoemakers (Nijem et. al., 2001). Acute poisoning of these adhesives may lead to respiratory and cardiovascular failure and death (Tiwari, 2005). The study by Paggiaro et. al., (1985) showed clinical and functional respiratory features of workers exposed to organic solvents from glue or other adhesives.

The study by Szadkowska et. al., (2003), on health effects of occupational exposure among shoemakers, provided evidence that workers in the shoe production and repair are associated with an enhanced risk for cancer by leather dust deposition in their lungs. An attempt was made in this study to assay the effect of organic solvents on shoemakers