

ERGONOMIC CONDITIONS IN THE MANUFACTURING OF INSOLES FOR HIGH HEEL SHOES

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Abstract

Introduction

The main industry in León, Guanajuato is shoe manufacturing. The majority of factory workers in the city work in industries related with footwear. The purpose of this study was to investigate working conditions in a small insole manufacturing enterprise in order to determine ways of improving ergonomics in the workplace.

Method

Voluntary subjects were randomly selected from a small insole manufacturing business. The instruments utilized to obtain information on work place conditions were the LEST and OCRA methods, a subjective fatigue symptoms check list method, and an open question survey. The open question survey consisted of items regarding lifestyles outside of the workplace. This was used to determine if habits outside of work hours contributed to any pain or fatigue experienced by the workers. An observational checklist was also used to investigate routines in the work place, the working environment, the types of protective equipment and tools being used.



Results

Survey information indicated the opportunity for improvement in several areas of the manufacturing process. Tools and other supplies could be better organized and stored. The sitting positions of workers were a potential cause of pain and possibly a result of inadequate chairs at work stations. Constant standing on concrete floors by some employees was also determined to be another factor of fatigue. Protective clothing, like gloves, could be used during certain manual tasks. Of those surveyed, 75 % declared discomfort due to body position during work and 37% reported having symptoms of fatigue at least one day per week.

Discussion

In order to improve the working environment in the insole manufacturing industry, a systematic method of investigation should be implemented. Proper assessment of routine tasks, endeavors and activities will identify risk factors and could help to reduce, prevent and even eliminate potential injuries and other health issues.

