Current Issue
Browse Issues
Search
About this Journal
Instruction to Authors
Online Submission
Subscription
Contact Us
RSS Feed

Acta Medica Iranica
2009;47(4) : 347-354

"RISK ASSESSMENT OF DEVELOPING DISTAL UPPER EXTREMITY DISORDERS BY STRAIN INDEX METHOD IN AN ASSEMBLING ELECTRONIC INDUSTRY"

M. Pourmahabadian, J.N. Saraji, M. Aghabeighi H. Saddeghi-Naeeni

Abstract:

The strain index (SI) is a substantial advancement and has been devised to analyze ergonomic risks for distal upper extremity (DUE) disorders. This semi-quantitative tool allows for the measurement of hazards and does not require unduly lengthy training to begin to use it accurately. Uses of the strain index include analysis of a current job to assess whether it is safe or hazardous, quantification of the risks, and assistance in the initial design of a job or in the redesign of a job. The aim of this study was to assess and analyze risk of developing DUE disorders in different jobs as well as hazard classification in an assembling electronic industry through SI method. Also, DUE disorders prevalence, work-related absenteeism and turnover extracted from SI results were compared and assessed by those obtained by Nordic musculoskeletal questionnaire (NMQ). The findings of this study showed that more than 50% of investigated jobs are categorized as "hazardous" and there is a significant difference between SI mean in hazardous and safe jobs ($P < 0.0001$). In addition, significant difference was found between prevalence of DUE disorders in "safe" and "hazardous" jobs ($P < 0.049$). But, no significant difference ($P = 0.3$) was obtained between mean absenteeism in "safe" and hazardous jobs. Also, no significant difference statistically was found between turnover in "safe" and hazardous jobs ($X2 = 0.133$, $P = 1$) and high prevalence of DUE disorders is due to low turnover rate of workers.

Keywords:

risk analysis ergonomics ، distal upper extremity ، strain index method

TUMS ID: 2077

Full Text HTML Full Text PDF 117 KB

top

TUMS E. Journals 2004-2009
Central Library & Documents Center
Tehran University of Medical Sciences

Best view with Internet Explorer 6 or Later at 1024*768 Resolutions