

ERGONOMICS, AN IMPORTANT ROLE IN THE SAFETY AND HEALTH AT WORK

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Abstract: The ergonomics in our days tries to solve a multitude of problems that appear in the field of occupational work. There are many factors which can improve the work performances. The author presents the result of his research made in trying to introduce the SOBANE Strategy for management of occupational risks. So, this study brings a correlation of the musculoskeletal hyper solicitation aspects of the employees related to age, working age and of the vicious positions earned with the goal of reducing the professional risk and of improving the health of the employees.

Key words: SOBANE, ergonomics, musculoskeletal solicitation, workplace, work organization.

Purpose of the research

The purpose of this research was to introduce the SOBANE STRATEGY for management of occupational risks.

SOBANE is the first step to prevention. SOBANE means: Screening-Observation-Analysis-Expertise. The SOBANE STRATEGY is a modern application in ergonomics. The ergonomics is often used as a synonym for preventing musculoskeletal diseases.

Material and methods:

The study has been done on 113 employees in a confection production unit and on 34 employees in a VDU Workstation for 3 years.

The analyzed factors were: the ergonomics of the work places, to prove the existence of a multidisciplinary teamwork, the solicitation of the musculoskeletal system through posture, during activity time, following the SOBANE STRATEGY- Screening-Observation-Analysis-Expertise. All of this is a result of a work of occupational health specialist, psychologist, social worker, safety engineers and human resource manager.

Discussion and results:

Ergonomics should be centered on the creation of comfort and safety for all workers.

For the employees in a VDU Workstation and in a textile unit a good posture is for preventing musculoskeletal disorders of the hand and wrist, of the elbow and shoulder of the back, neck and torso.

The 34 employees in a VDU Workstation are young with an age between 20-35 years. The fluctuation at this work place is high. Only 34 are stabile on the same workplace.

After three years 27% present symptoms of musculoskeletal disorders: discomfort, pain, redness, swelling, reduced range of motion.

Two persons developed spondylosis.

Considering training, 83% of the employees worked only as confectioners, obtaining an experience in this field over the years.

The age of the employees represents a stability factor but also a high risk considering the musculoskeletal disorders. 78% are aged between 35 and 45, and the rest between 45 and 58.

Generally they are working in only one shift but in certain situations, when the workload is bigger, they commute to a higher work. 86% of the employees have accepted this work regime.

70% of the employees have their residence in an urban environment, the rest are commuting from the surrounding areas.

11 employees were hired suffering from an extended form of spinal column spondylosis, following a periodic physiotherapeutic treatment.

2 employees had developed a disc hernia which has lead to the greatest time of working incapacity.

28% of the employees are known with clinical spinal column spondylosis signs, and have been put to record.

At the last medical checkup, an increase of 12% of the musculoskeletal disorders was observed.

Together with the decision factors from the production unit we have redesigned some of the working places on a new ergonomically reevaluation. We pledged the employees to change their stance every time they need to, and to take seriously into account every factor that determines musculoskeletal hyper solicitations, like the long orthostatic and the vicious positions.

Conclusion:

1. The main factors of high health risk due to ergonomic hazards are: wrong design of work places; machines or tools; deficient task organization; vicious posture; location lighting; type of activity; age; working age.
2. Main points for a good posture: adjustable seat back; good lumbar support; adjustable seat height; no excess pressure under things; space

under table; upper arms vertical, forearms horizontal; comfortable head position

The SOBANE STRATEGY supports the ergonomics intervention in a better functionary organization and better competitiveness.

Ergonomics draws on many disciplines such as psychology, sociology, social work, physics, engineering, and occupational health specialist. Ergonomics is a matter of multidisciplinary team work.

Ergonomics should be a tool of creation of comfort, safety and ability for all workers. Ergonomics is good for all business and can be applied to all human activities on and off the job.

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