

A Simple Tool for Preliminary Hazard Identification and Quick Assessment: Applicative Experiences

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ABSTRACT

Physical activity at work is often characterized by time pressure, repeatability and levels of effort and gestural constraints, or the inverse of a "physical activity health." Therefore, they will be called physical workloads. Indeed, despite technological advances that alleviate the toughest tasks, physical burden remains a major source of industrial accidents and occupational diseases. It is still often causes fatigue, pain that degrade the professional gesture and perception of the task, leading not only to errors that affect the work quality, but also to accidents (traumatic cardiovascular...), damage to the musculoskeletal system and work incapacity. Factors that influence these risks are related to the individual, his work (content and organization), its physical and human environment...

Keywords: physical workload, risk assessment, work situation, workstation

INTRODUCTION

The analysis of the physical workload method has been developed by experts in health and safety at work to be used flexibly. It is a participatory and iterative method. Developed in the form of closed questions, it allows for quick responses and encourages consensus. It allows anyone in the business, responsible for the SST, but also the managers or employees, and small business owners to make their risks assessment related to physical activity, without the need for external intervention. It identifies risks and prioritizes the analysis of the work situation by five indicators (physical efforts, sizing, temporal characteristics, characteristics of the work environment, organization). It guides to prevention tracks and evaluates its effectiveness as a development in four phases. This method makes use of ergonomic principles and how to apply them to the design and improvement of work situations. It is based on reference texts (standards, guidelines, literature...) in the field of physical workload. The method is part of a project approach of musculoskeletal diseases work related.

THE FOUR PHASES OF THE METHODE

SCOPE

The analysis method described in this paper was designed to be used in enterprises of all sizes and for activity of an adult population to work without restriction of ability. It applies to a workstation, a workshop, a service or a enterprise sector. It is intended for continuous or intermittent activity, even of very short duration and high intensity.

IMPLEMENTATION

Phase 1 Identification and prioritization of physical workload in the company: two steps

It allows the identification and prioritization of physically demanding work situations.

Step A: Identification of risk to physical load in the company

This step is based on four key issues in the areas of health, physical workload, job content and the physical environment to identify work situations to remember to step B.

Step B: Prioritization of work situations with physical load

This step aims to collect more accurate data on the physical load of each situation by work unit (workshop, service, department) with an identification schedule includes health, human resources and 5 indicators. This table is filled in a "crossing of the company" and a conversation meeting.

Phase 2 Analysis of the physical workload

The analysis of physical workload is made from five indicators measured using a list of items rated on four levels. It is expected from these 5 indicators synthesis and prioritization of actions to engage.

The five indicators concern :

- Physical Effort
- Dimensioning
- Temporal characteristics
- Characteristics of the environment
- Organization

The four levels are : not concerned, yes, but not critical, yes but critical.

Phase 3 Search of "track" of prevention

Tracks prevention are proposed for the 5 indicators concern both the phases of design and use. The key points are also proposed to support the dynamic transformation of work situations.

Phase 4 Assessment of actions

The evaluation analyzes prevention efforts and results by comparing the initial situation to the final situation. It has 3 steps and measure the impact of the action on the overall operation of the company in order to argue the continuation or modification of the action plan.

CONCLUSION

It is proposed to present the method through its implementation in a production of electrical components by the analysis of two work situations: one that requires the manipulation and assembly of components with a high repeatability, the second with manual handling of substantial loads. It has been a training session a day, part of which took place on the field.

The most significant result is a rapid appropriation of the method by the operators, the development of professional exchanges around agreed measures and collective search for possible prevention implemented rapidly and effectively. The method is now part of tools used for works situations analysis.

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