



REDUCTION OF REPETITIVE WORK AT COLOPLAST (MANUFACTURER OF MEDICAL SUPPLIES)

Organisation

Coloplast

Introduction

In repetitive work, the same movements are carried out again and again straining the same groups of muscles over a longer period of time. Repetitive work is carried out standing or sitting with frequent repetitions of the same movements with the hands, arms, and shoulder and neck. To carry out repetitive work for more than half of the workday will contribute to attrition. The risk increases with the high frequency of repetitions and other aggravating factors, e.g., bad working postures, powerful work and limited influence on own work.

The management of Coloplast and the health and safety organisation wanted to get a total overview of the extent of the repetitive work problem (domestic and abroad) that would enable them to prioritise the resources needed to reduce the repetitive work. Coloplast wanted to develop a method, which to a considerable degree could differentiate between the different degrees of repetitive work, in order to enable Coloplast to solve the most severe repetitive work problems first. Furthermore, Coloplast wanted to develop a model, where the result was simple and easy to communicate to non-health and safety experts.

What was done, and how

The solution consists of three elements:

1) Development of methods

Development of method including development of a mapping and evaluation form, principles for design of workday and a form providing an overview. This form should be used for registering the results of the mappings of the units as well as flow- and process description of the repetitive work mapping.

Model for mapping and evaluation of repetitive work

A model was developed for the mapping of repetitive work. This model includes the registration of the duration of repetitive movements, pace and a number of aggravating factors connected with Coloplast's work processes. This involves inflexible working postures, visual requirements and precision work, static holding work, twisting postures, reach distance and twist /strength in fingers, elbows, wrists and arms. Definitions of the aggravating factors have been

developed to support the registration. Furthermore, the model includes a colour code to evaluate the strain based on whether the work is considered as high or low repetitive and how many aggravating factors the work function includes.



Figure 1 Manufacturing of care products at Coloplast facilities

Principles for workday design

Principles for design of the workday have been developed, aimed at organising the work in such a way that rotation between jobs with and without repetitive work are carried out as well as rotation between jobs with a variable degree of repetition.

Form providing an overview

A form has been developed, which on basis of mapping, evaluation and criteria for the workday design gives each production unit or area a total overview of the repetitive work results. The form shows the distribution of repetitive work according to colour codes, and the combination of the colour code of the individual repetitive work function and duration of this.

Flow chart and process description of repetitive work mapping process

A flow chart has been developed which describes the repetitive work mapping process as well as a manual of the process. Furthermore, the methods for mapping of an aggregated time during a workday are stated either from the production number, the machine's net production time or by long-time observation and registration.

2) Education programme, completed education and training

A programme of education for non-health and safety key persons on how to use the method and how to carry out the repetitive work mapping and evaluation has been developed.

This one week long programme of education has been developed and completed for selected key persons at Coloplast's production site in Tatabánya in Hungary. The programme includes:

- presentation on strain on the body and illnesses;
- explanation of the method;
- ergonomics in general;
- practical with guidance;
- final test, where the participants themselves completed mapping of two job functions and presented the results to one other.

3) Mapping and evaluation of repetitive work

Repetitive work has been mapped at all Coloplast's Danish production sites as well as the Hungarian production site.

The company now has:

- a uniform overview of the extent of the repetitive work and the individual production units' and departments' share;
- a basis for prioritising that shows where the repetitive work problems are most prevalent;
- repetitive work status, which is simple and easy to communicate to non-health and safety experts;
- a method for a uniform mapping and evaluation of repetitive work all over Coloplast;
- a process description for carrying out the repetitive work mapping and evaluation including minimum requirements and requirements for establishing improvements;

- education and training of essential key persons in Tatabánya, Hungary (production engineer, lean-engineer, doctor, nurse and internal health and safety consultants);
- a basis for developing a long-term repetitive work strategy;
- a described and approved procedure for the mapping and evaluation of repetitive work, which is available to all employees at Coloplast's intranet as an EHS (Environment Health Safety) instruction.

Coloplast's Danish sites and the Hungarian site are health and safety certified according to OHSAS18001 and the work with repetitive work according to the method is part of the system.

What was achieved

Coloplast is in the process of prioritising the solutions for the most severe repetitive work problems. To begin with focus will be on solving the most severe repetitive functions, including reducing the repetitiveness and number of aggravating factors as well as implementing rotation arrangements. Furthermore, solving of repetitive work problems is also part of planned renovation of machines, new purchases and lean-processes.

In connection with existing repetitive work, rotation has a high priority. Work is being carried out to improve the solutions for rotation, and at the same time increase the individual worker's joint responsibility for this.

Benefits for the individual are:

- less attrition;
- less pain;
- less absence due to sickness caused by MSDs;
- improved quality of life;
- longer time on the labour market.

Benefits for Coloplast are:

- less absence due to sickness, retain manpower, and contribute to maintain the image of Coloplast as a company, which attach importance to the workers' health and well-being.

Benefits for the community are:

- less lost manpower, less early retirement pension and less expenses to health services.

Further information

Project partners

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Transferability

Coloplast has a production site in Hungary. Coloplast wants to have the same health and safety level in Hungary as on the Danish sites also regarding repetitive work. In order to create a local commitment to the work with repetitive work and ergonomics Coloplast's corporate Health and Safety department wanted to increase the competence of key persons at the Hungarian site in order to enable them to carry out the mapping themselves. This method can be used to address similar risk factors in other companies and countries.