

Prevention of low back pain in the construction industry

Low back pain is one of the major problems in the construction industry. According to a European investigation, 57% of the workers in the building industry handle heavy loads. About 50% of the workers are exposed to vibrations.

The number of repetitive strain injuries in the construction industry is larger than the European average. 48% of the construction workers suffer from back pain. The average number for the other branches is 33%. According to an investigation¹ of the France-based INRS, 34% of the total number of accidents at the workplace was related to manual materials handling.

These are only a few figures showing that low back pain is an important problem in the construction industry. That is why the CNAC/NAVB has chosen this subject as one of the themes of the 2005 safety and health campaign 'Building: our work, our life'.

The main goal of this campaign was to decrease the number of industrial accidents and occupational diseases and to improve the sector's image. The campaign was aimed at different target groups and included a wide variety of actions, such as trainings, lectures, consulting, fairs etc. During this campaign, employers and workers had the possibility to sign a written commitment (the 'charter'). The whole campaign was backed by a large media campaign to sensitize the different target groups as well as the general public on safety and health at construction sites.

Furthermore, this safety campaign aimed at achieving a double goal. On the one hand, the CNAC/NAVB wanted to reach the contractors to convince them to improve the work organisation and to use appropriate equipment. On the other hand, the campaign was also held for the workers, to make them understand the risks of lifting heavy loads and assuming inappropriate postures.

To achieve these goals, a set of tools for the prevention of low back pain was composed.

Informative brochure for employers and workers

In order to emphasize the collaboration between all persons in a company, a brochure was written for both employers and workers. First of all, the brochure explains the different risks that can cause low back pain:

- Frequent inappropriate lifting techniques
- Frequently assuming bad postures at work
- Whole-body vibrations

In the employer's part of the brochure, the cost for the company of a worker suffering from low back pain is discussed. Further on, a practical approach for the prevention of low back pain at the company level is proposed. First of all, a **risk evaluation** on the

¹ Accidents du travail et maladies professionnelles du BTP – statistiques 2002

basis of a checklist is explained. Anyone can use this checklist without training. It deals with the most important risks that are related to back problems, such as:

- Lifting loads
- Bad postures
- Vibrations
- Stress (working under time pressure...)
- Personal factors (i.e. the age and the experience of the worker)

The second step is the **choice of appropriate measures**.

Bending and lifting is quite common in the building industry. Nevertheless, a large number of unnecessary bends can be avoided if you choose the appropriate equipment. For example, if he uses scaffolding composed of two stages, the worker does not have to bend to take a brick.



Of course, not all of these measures are related to the choice of better equipment. For example, if it is impossible to avoid lifting heavy loads, a job rotation can reduce the complaints about low back pain.

The third step is to choose the best way to **introduce new techniques and measures**. In this stage, workers and foremen often have to abandon the work organization they are familiar with. Therefore, supervisors have an essential role to play.

An even more important aspect is the training of the workers to use new equipment or to adopt new organisational methods.



The last step is the **evaluation of the chosen measures**. It is obvious that the risk analysis has to be repeated when new equipment, a new schedule or different techniques are introduced.

Of course, it is a myth to think that low back pain is the exclusive result of lifting heavy loads. On the contrary, low back pain is often the result of picking up small objects like a screwdriver or a pencil dozens of times a day.

Therefore it is indispensable that workers are aware of the risks of improper lifting, assuming bad postures at work and whole-body vibrations. In other words, workers have to realize that they also have a responsibility for themselves.

To achieve this goal, a practical job-related training showing the right lifting techniques is only a first step. The message has to be repeated over and over again until workers are used to the working methods.

Again, it is a myth to think that there is an appropriate lifting technique in every situation. Therefore, it is imperative that people realise that it sometimes takes two or more persons to lift a load, in which case it is better to ask for help.

To conclude, this brochure gives a number of practical hints for the worker. Amongst other things, the negative aspects of a back supporting belt are discussed.

Slide show

Another tool to support employers during trainings or toolbox meetings is the slide show, containing practical solutions for the most common construction activities. This slide show, extended with videos showing correct lifting techniques in real workplaces, is divided into nine different parts for different professions in the construction industry.

How to use this set?

This set of tools is meant for anyone who is involved in training workers in the building industry: safety officers in companies, training centres that give specific trainings for roofers, drivers of earth moving machinery...

Because of the specific approach, this slide show is very useful for schools and training centres that organize in-depth trainings.