



Healthy Workplaces Campaign 2020-22

LIGHTEN THE LOAD

Risk Assessment for Musculoskeletal Disorders (MSDs)

Overview

- **What are work-related MSDs?**
- **Factors contributing to work-related MSDs**
- **What is risk assessment?**
- **Risk assessment for MSDs**
 - Preparation
 - Identifying MSD risk factors and those at risk
 - Evaluating and prioritising risks
 - Deciding on preventive action
 - Taking action
 - Monitoring and reviewing
 - Recording the risk assessment



What are work-related MSDs?

- Impairments of bodily structures
- Caused or aggravated primarily by work
- MSDs that workers experience may include:
 - Back or neck pain
 - Muscle injuries
 - Joint conditions
 - Bone conditions



Factors contributing to work-related MSDs



Physical

Work postures and movements can be harmful as a result of repetition, duration or effort.



Organisational

The way work is organized in terms of number of consecutive working hours, opportunities for breaks, the pace of the work and the variation of tasks all affect how burdensome physical work tasks are.



Psychosocial

Lack of control over tasks or over how or the pace at which tasks are performed, as well as support from colleagues or management, can also increase the risk of MSDs.



Workers' characteristics

Such as age, gender, height, condition of health, lack of training, etc. can also be MSD risk factors if risks aren't managed properly.

What is Risk Assessment?

- **RA is a systematic examination of all aspects of work that considers:**
 - what could cause injury or harm
 - whether hazards can be eliminated and, if not,
 - what preventive or protective measures need to be in place to control the risks.
- **RA is the basis for successful MSDs prevention and management**

Risk assessment for MSDs

- RA for MSDs involves the same basic principles and processes as for other occupational risks



Preparation

Some issues to be addressed before starting the process



- **Decide on who will lead the process**
 - It could be the employer itself, a worker designated by the employer, a health and safety expert, ...
- **Review the available resources**
 - A list of description of work activities / tasks involving MSD risk
 - Any information: accident and ill-health records, complaints from workers, absenteeism statistics,
 - Guidance on MSDs from national competent bodies (ministries, national safety and health institutes, ...)
 - Guides, checklists or manuals produced by trade associations
- **Decide how and when workers will be involved and informed.**
- **Plan – decide what will happen when**

Identifying MSD risk factors in the workplace



- **Factors to look out for in relation to MSDs include:**
 - **Physical and environment factors** (e.g. work postures, repetitive work, heavy physical load, (poor) lighting, (low) temperature, etc.)
 - **Organisational** (e.g. long working hours, opportunities for breaks, pace of work, etc.)
 - **Psychosocial** (e.g. control over tasks, support from colleagues / management, etc.)
 - **Workers' characteristics** (e.g. age, gender, physical capacity, prior medical history, height, etc.)
- **The combination of / interaction between all these factors needs to be considered**

Identifying those at risk



- **Particular attention should be paid to groups of workers who may be at increased risk of suffering from MSDs**
- **These groups may be at greater risk because of:**
 - repeated or cumulative exposure to MSD risks factors, such as: repetitive hand or arm movements, vibrations, carrying or moving heavy loads, harassment and bullying, stress, etc.
 - the sectors they work in (e.g. construction, agriculture, health and social work)
 - the type of occupations they are more likely to be in, for instance typical examples of blue-collar or less skilled occupations (which have a higher prevalence of MSDs)
 - individual factors, e.g. lack of experience or training, health conditions

Evaluating and prioritising risks



- **Evaluate the risks arising from the hazards identified by considering:**
 - how likely it is that a hazard will cause harm
 - how serious that harm is likely to be
 - how often (and how many) workers are exposed to the risk
- **Set priorities based on the risk evaluations.**
- **It is essential to prioritise the actions to be taken to prevent or minimise MSDs.**

Deciding on preventive action



- **Agree what actions will be taken to eliminate or reduce the risks**

- **Set up an action plan. A good action plan includes:**
 - The description of the problem / risk
 - The priority given to this issue
 - Solutions (preventive / protective measures) – what will be done
 - Responsibility – who will lead the actions
 - Resources – in terms of money, time, etc.
 - Timeline – what will be done when
 - Evaluation – how will you know whether the implemented solutions were effective

Deciding on preventive action

Hierarchy of prevention



- **When discussing and agreeing actions, it is important to follow the general principles of prevention:**
 - avoid risks;
 - combat risks at source;
 - adapt work to the individual;
 - adapt to technological progress;
 - replace risky practices with safe or less risky practices;
 - develop a coherent prevention policy;
 - prioritise collective measures;
 - provide training and instruction for workers.

General principles (hierarchy) of prevention 1

▪ **Avoid the risks**

- automate lifting and transport operations

▪ **Combat risks at their source**

- reduce the height that loads need to be lifted to

▪ **Adapt the work to the individual**

- design the workplace to provide enough room for workers to adopt the correct postures
- choose adjustable chairs and desks (that allow workers to alternate between sitting and standing)
- allow breaks and variation in how tasks are performed



General principles (hierarchy) of prevention 2

- **Adapt to technological progress:**
 - keep up to date with new assistive devices and more ergonomic devices, tools and equipment
- **Replace the risky with the safe or less risky**
 - replace manual handling of (heavy) loads with mechanical handling
- **Develop a coherent policy that covers technology, work organisation, working conditions, social relationships and work environment**



Assistive devices



Workplace design



Ergonomic devices /
tools / equipment

General principles (hierarchy) of prevention 3

■ Implement collective measures first:

- Prioritise good-grip handles over anti-slip gloves, smaller loads per lift over back belts (lumbar support)

■ Provide good training and instructions for workers:

- Provide practical training on the correct use of work equipment (lifting devices, chairs, furniture) and safe working postures (sitting, standing).



Taking action



- **Implement the agreed actions**
- **Ensure that the responsible people implement the agreed preventive and protective measures. For this, it is important to:**
 - Ensure that responsibility for implementing the various agreed interventions and actions is clearly established
 - Hold regular meetings with the people involved or talk about the action plan during meetings that already take place regularly
 - Ensure that workers are involved and engaged, and that efforts are being made to make sure that the implementation of the measures is well received by the workers affected

Monitoring and reviewing



- **Monitor the implementation of the agreed actions**
- **Evaluate whether or not you have achieved what you wanted**
- **Review the whole cycle of assessing the risks and planning and implementing actions**

Recording the risk assessment



- **The risk assessment must be recorded**
- **Such a record can be used to:**
 - pass information to the persons concerned (workers, safety representatives, managers, etc.)
 - assess whether necessary measures have been introduced
 - produce evidence for supervisory authorities
 - revise measures if circumstances change.

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