Healthy Workplaces LIGHTEN THE LOAD

European Agency for Safety and Health at Work

Healthy Workplaces

Psychosocial factors in the prevention of work-related musculoskeletal disorders (MSDs)

Key points

This info sheet takes as its starting point the information in the info sheet 'Supporting musculoskeletal health in the workplace' and should be read alongside it. This info sheet is available at: https://osha.europa.eu/en/publications/supporting-musculoskeletal-health-workplace/view

- Combined with physical risk factors, psychosocial factors can cause work-related musculoskeletal disorders (MSDs) and contribute to the persistence of existing (chronic) MSDs.

- Psychosocial factors can act as a barrier to returning to work for those absent due to an MSD.

- Having an MSD can have an adverse effect on psychological health and well-being.

- Addressing the risks associated with psychosocial factors should be part of a holistic approach to assessing workplace risks and preventing MSDs.

Healthy Workplaces Lighten the Load

The European Agency for Safety and Health at Work (EU-OSHA) is running a Europe-wide campaign from 2020 to 2022 to raise awareness of work-related musculoskeletal disorders (MSDs) and the importance of preventing them. The objective is to encourage employers, workers and other stakeholders to work together to prevent MSDs and to promote good musculoskeletal health among EU workers.

©iStockphoto / vadimguzhva

Psychosocial risk factors at work and MSDs

MSDs and psychological health problems (e.g. stress, anxiety and depression) are the two main causes of work-related sickness absence in the EU. MSDs affect millions of workers and cost employers billions of euros, while stress is thought to contribute to around half of all lost working days.

Although physical risk factors are usually the main work-related influence on MSD risk, workplace psychosocial factors can contribute significantly to the risk of developing an MSD and to exacerbating a pre-existing problem. Psychosocial factors can also act as a barrier to returning to work (or finding work) for those with chronic MSDs. Furthermore, having an MSD (especially one leading to chronic pain) can add to psychosocial problems such as depression and stress.

There are concerns that the growth of new ways of working (e.g. remote working, working from home) is leading to an increase in psychosocial problems. Workers in such situations can feel isolated without the support of their co-workers. Some people working from home find it difficult to maintain the distinction between home and work life (the work-life balance), creating conflict. By contrast, some workers find remote working beneficial, as it gives them a sense of control.

Psychosocial factors associated with MSDs

- excessive workloads
- conflicting demands and lack of clarity over role
- lack of involvement in making decisions that affect the worker and lack of influence over the way the job is done
- poorly managed organisational change
- job insecurity
- ineffective communication
- lack of support from management or colleagues
- psychological and sexual harassment, third-party violence
- low job satisfaction

Not all psychosocial factors are bad

By contrast, there is evidence that positive aspects of the psychosocial work environment can help to reduce the negative effects. For example, in some situations, high levels of mental job demands (that would lead to an expectation of a risk of MSDs) do not have the expected adverse effect, as their impact is counteracted by the benefits of strong personal control or social support.

©iStockphoto / AleksandarGeorgiev

Psychosocial risks and returning to work

Psychosocial factors can also influence the return to work of those who have an MSD.

First, as with physical factors, workplace psychosocial risk factors can increase the risk of a further episode. It is therefore important that any workplace physical or psychosocial risks that might have contributed to the initial development or worsening of the MSD are addressed to reduce the risk of recurrence.

Second, individual (non-work) psychological factors can have a significant impact on the return to work. These include attributing the health condition to work and the belief that work is harmful and that returning to work will do further damage. There is evidence that factors such as a 'somatising tendency' (a predisposition to be more aware of, and worry about, common somatic symptoms) and health beliefs, including fear avoidance, are associated with the persistence of MSD-related pain and can have a negative impact on the return-to-work process.

How do psychosocial risk factors cause MSDs?

Various theories based on the 'stress response' explain how psychosocial factors can lead to an increased risk of MSDs.

Exposure to adverse psychosocial factors leads to physiological changes in the body (the 'stress response'). These include changes in breathing patterns and an increase in heart rate.

When the 'stress' persists, hormonal changes, such as a release of catecholamines or corticosteroid hormones, can follow. An increase in muscle tone ('tension'), changes in tissue repair mechanisms, and enhanced pain perception are all ways in which psychosocial factors can adversely influence the development or exacerbation of MSDs.

Potential pathways from psychosocial risk factors to MSDs

- Increased **muscle tension** will have an impact on the biomechanical loading on muscles and tendons, increasing the risk of overload.

- Many MSDs disturb the balance between tissue damage and repair, leading to inflammation. Stress-related changes to repair mechanisms further disturb that balance and can overwhelm **tissue recovery processes**.

- Other mechanisms can act indirectly: e.g. perceived stress can lead to increased awareness of pain (**pain perception**) or reduced tolerance of pain.

In addition, high physical demands and a lack of support (from co-workers and others) can lead to workers trying to work faster (including perhaps not taking breaks). Consequently, they might not take care to adopt correct postures or might carry extra loads (both increasing the risk of muscle injury), or they might cut corners and take risks (increasing the risk of accidents).
Such loading also often leads to a lack of physical recovery time, adding further to the MSD risk. Concentrated demands can also lead to additional psychosocial pressures, e.g. because of concerns about not achieving targets or meeting deadlines.

©iStockphoto / Wavebreakmedia

Risk assessments, psychosocial factors and MSDs

We recommend a holistic, participatory approach, in which workers and managers are involved in assessing risks and identifying and developing preventive measures. Employers should keep their approach to risk assessment broad: both physical and psychosocial factors can influence the physical and mental well-being of workers and should be assessed together. This can not only help prevent MSDs but also support the return to work (or retention in work) of those with chronic MSDs (see Resources).

To identify the sources of problems and develop preventive measures it is important to understand

1. the contribution of individual physical risk factors (e.g. weight and frequency of loads or extent of awkward or repetitive movements) and

2. the extent to which individual psychosocial factors contribute to the overall burden on workers.

Risk assessments should also consider 'combinations' of psychosocial risks factors, as it has been shown that high demands are particularly detrimental when there is also a lack of autonomy, low social support and a lack of recognition.

Risk assessment tools

There are many guides and aids to assessing workplace risks, such as those in the Online interactive Risk Assessment (OiRA) tool (see Resources). No single approach is suitable for all workplaces and cultures. Although the primary focus of many of the tools for assessing psychosocial risks is on identifying and reducing the risks to psychological health and well-being, they are equally valid for risks influencing musculoskeletal health and physical well-being. One of the benefits of the holistic approach is that it addresses the overall health of the worker without focusing on any particular risk or adverse outcome.

Some employers find a 'body and hazard mapping' approach helpful in assessing risks and health outcomes, as it can help to focus attention on those aspects of the job workers find most problematic (see Resources). It is most applicable to physical workplace hazards, but it can also be used to flag psychosocial hazards.

Evidence suggests that cultural expectations can influence the impact of different psychosocial factors and, in workplaces where there are a number of migrant workers with differing cultural backgrounds, this should be considered in risk assessments. Those in 'precarious employment' (often migrant workers) are often more reluctant to complain or criticise for fear of negative repercussions.

Preventive measures

To reduce the burden of MSDs at both individual and organisational levels, it is important that the risk assessment is followed by positive action to manage physical and psychosocial risks. When planning preventive actions, consider the following:

- Identified risks of harassment or violence should be addressed as priorities. Work-related violence can be a serious safety and health issue with both physical and psychological consequences.

- Excessive or conflicting demands can also be a particular problem; clarifying priorities, roles and responsibilities, and chains of command can help to resolve them.

- Evidence that some psychosocial factors can have a positive effect points to further action. While a lack of support from co-workers or managers can have a negative effect, enhancing the availability and quality of support can be beneficial. It can also help to offset the potentially adverse impact of other negative factors. For example, consider developing worker-support systems (including training supervisors and managers) to offset the effect of excessive demands. However, always try to reduce the extent of those excessive demands first.
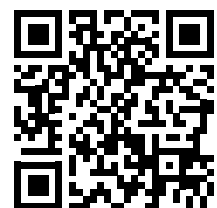
Such approaches can not only prevent the development of MSDs but also enable those with chronic MSDs to continue to work. A series of case studies of workers with chronic problems found that support from both managers and co-workers plays an important role in worker retention (see Resources).

Resources

- Working with chronic musculoskeletal disorders. Good practice advice report:
  https://osha.europa.eu/en/publications/working-chronic-msds-good-practice-advice/view

- Return to work after MSDs-related sick leave in the context of psychosocial risks at work:
  https://osha.europa.eu/en/publications/return-work-after-msd-related-sick-leave-context-psychosocial-risks-work/view

- Supporting musculoskeletal health in the workplace:
  https://osha.europa.eu/en/publications/supporting-musculoskeletal-health-workplace/view

- Body and hazard mapping in the prevention of musculoskeletal disorders:
  https://osha.europa.eu/en/publications/body-and-hazard-mapping-prevention-musculoskeletal-disorders-msds/view

- Prevention policy and practice. Approaches to tackling work-related musculoskeletal disorders:
  https://osha.europa.eu/en/publications/prevention-policy-and-practice-approaches-tackling-work-related-musculoskeletal/view

- Healthy workers, thriving companies — a practical guide to wellbeing at work:
  https://osha.europa.eu/en/publications/healthy-workers-thriving-companies-practical-guide-wellbeing-work/view

- OiRA: https://oiraproject.eu/en/oira-tools

- Healthy Workplaces for All Ages e-guide:
  https://osha.europa.eu/en/tools-and-resources/e-guides/e-guide-all-ages

Relevant OSHwiki articles

- https://oshwiki.eu/wiki/Psychosocial_issues

- https://oshwiki.eu/wiki/Psychosocial_risk_factors_for_musculoskeletal_disorders_(MSDs)

- https://oshwiki.eu/wiki/Return_to_work_strategies_to_prevent_disability_from_musculoskeletal_disorders

www.healthy-workplaces.eu