

# Prevention of Musculoskeletal Disorders

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This document provides guidance to organisations on strategies and interventions to manage the risks associated with musculoskeletal disorders at work.



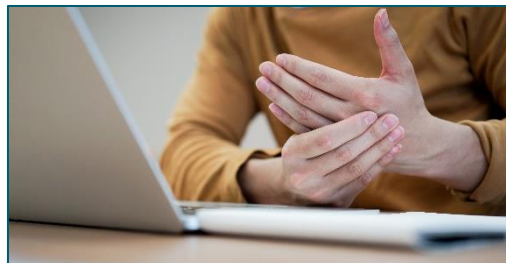
# Prevention of Musculoskeletal Disorders



## Introduction

Manual handling activities and musculoskeletal disorders (MSDs) cause a significant proportion of liability claims year in, year out across all sectors. How many of these could have been prevented with the right strategies and interventions in place? This is an area we are going to discuss within this document.

So, what is a musculoskeletal disorder? [EU-OSHA](#) define work-related MSDs as “*impairments of bodily structures such as muscles, joints, tendons, ligaments, nerves, bones or a localised blood circulation system that are caused or aggravated primarily by the performance of work and by the effects of the immediate environment where the work is carried out*” (ref: EU-OSHA, 2008).



Increasingly research is pointing to chronic disease and declining physical fitness as significant risk factors for such injuries and disorders. In the UK, data suggests that 40% of all UK sickness absence adding up to around 9.5 million working days are lost each year due to MSDs; [click here](#) for more information. It is estimated that the average cost per incident related to ill health where the individual is absent for 7 or more days is around £8300 ([workplace injury statistics UK](#)). [The Health and Safety at Work Summary Statistics for Great Britain 2020](#) state that there were 480,000 workers suffering from work-related musculoskeletal disorders (new or long-standing) in 2019-20.

From a claims defence perspective, **it is important to distinguish between “work related” injuries and chronic disorders** and those that may have occurred due to other factors. Managing MSDs risk is much more than just ensuring employees are trained in manual handling techniques. Here are some practical ways to improving your risk management practices within your organisation.

## Developing a Successful Strategy

The goal of an effective prevention strategy is to identify and eliminate or reduce as far as is reasonably practicable all causative factors related to MSDs at work.

Factors to consider when developing an MSDs prevention strategy include :

- The strategy should encompass the “Whole Person”, i.e. lifestyle factors, physical fitness, activities outside of work as well as exposures at work
- Workplace design goals – take account for all shapes and sizes of people and their capabilities and limitations. Look to eliminate risks wherever possible and build in ergonomic design criteria to all capital expenditure projects and organisational changes
- The strategy should provide a clear pathway to prevention, e.g. introducing a reporting mechanism for early reporting of symptoms, competency framework geared towards prevention, availability of specialist resources such as physiotherapists, process for identifying ergonomic improvement opportunities
- Assign responsibilities and accountabilities for the implementation of the strategy
- Create a culture of “partnership” between senior leaders, managers and supervisors and the workforce to help reinforce everyone’s responsibilities to themselves and others in respect of the prevention of MSDs
- Engage with trusted partners, e.g. your insurer, specialist ergonomists, occupational health providers, trade associations to help build your prevention strategy
- Incorporate education, awareness, and training programmes into the strategy. Ensure that the success of such programmes is evaluated and measured at regular intervals

## LOSS PREVENTION STANDARDS

## Assessing the Risk of MSDs

A detailed risk assessment helps you understand what sensible precautions are required to control the hazards in your workplace. The Health and Safety Executive (HSE) has developed several useful tools in respect of this and more information can be found at [HSE Toolkit for MSDs](#).

When undertaking manual handling related risk assessments, think about:

- The individuals undertaking those tasks. **Consider this.....why do some people develop MSDs and others don't when performing the same or similar work-related tasks?**
- Encompass all the tasks that an employee may undertake in a typical week to assess their overall exposure to MSDs risk whilst at work
- Other risk factors that may contribute to the development of MSDs such as lifestyle factors (high BMI, low levels of physical activity, smoking), psychosocial factors (high job demand, low level of job control), poor and awkward postures. Take a holistic view

When undertaking risk assessments, review the effectiveness of control measures already in place. The default position often seems to be a reliance on generic manual handling training, job rotation and the introduction of lifting aids. Whilst all these controls are a step in the right direction, they do not eliminate the hazards present and rely heavily on employee behaviour and consistency of application to minimise risk. Now is the time to move on from the assumption that such measures will adequately reduce risk. Start looking at the fundamentals of job or task design, recruitment practices and pre-employment screening for pre-existing MSDs. Obtain more engagement from employees when undertaking risk assessments or discussing potential solutions to minimise risk, to contribute to further risk reduction measures in the workplace.

## Early Intervention

It is estimated that only around 20% of incidents are thought to be attributable to a single excessive force with chronic, cumulative exposures considered a more prevalent cause of MSDs and incidents. To effectively prevent MSDs, identify all potential risk factors and look to either eliminate them or reduce the risk to as low as reasonably practicable in accordance with the hierarchy of control advocated in the [Regulations](#). Good risk management practices make good business sense. Research carried out by PricewaterhouseCoopers LLP found that by introducing a workplace wellness initiative, for every £1 invested, around £4.17 benefit was gained – source [Building the Case for Wellness](#).

Cumulative daily wear and tear on our bodies is a normal part of the ageing process. Recognising when this can lead to the early signs and symptoms for potentially more serious physical injury is an important part of the prevention strategy. Early indicators include:

- Pain in the wrists, fingers or other parts of the body
- Tingling or numbness
- Swelling, inflammation or joint stiffness
- Loss of muscle function or weakness
- Discomfort or pain in the shoulders, neck, upper or lower back
- Feeling of muscle tightness, cramping or discomfort
- Discomfort when making certain movements

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**Don't just rely on accident reporting to determine the level of risk within the organisation.** Introduce a pro-active self-care health programme to support employees showing early signs of MSDs. Encourage employees to report early signs so that they can be referred to suitable support via occupational health providers such as physiotherapists. This level of report could also be included in your near miss or hazard reports to improve the data gathering of MSDs risk exposure. Make sure employee reports are dealt with in a timely fashion to maintain trust between employee and employer.

Develop MSDs employee champions, this may be an additional role of current first aiders who have received additional training in MSDs prevention. Alternatively, depending on your risk exposure to MSDs, consider developing the role of **"Injury Prevention Specialist"**. This could either be an internal or third-party resource who **has specific training in ergonomics and are able to act as the "first line of defence" in early interventions to prevent injury.**

Develop self-help tools; examples include information on preventative warm-up exercises, proper rest and sleep patterns to allow proper recovery, strengthening exercises, nutrition and exercise advice, and promotion of good health habits. Link this with your health and wellbeing policies to provide a holistic approach.

Develop early intervention metrics to measure the progress and the success of interventions.

Engage with injury prevention specialists where needed to support the development of an early intervention strategy.

## Human Machine Interface

Human machine interface (HMI) is leading to the increased automation of operator tasks, with the potential benefit of removing people from hazardous tasks and environments. However, the development of HMI technology generally enables the employee to do more, faster, i.e. enhances the productivity of the operator. The Internet of Things (IoT) is allowing HMIs to become more sophisticated, for example, a single touch display mounted on a machine and smart wearable devices or keypads. It is widely used in manufacturing, process industries such as oil and gas, call centres and enabling more remote working to take place. An EU-OSHA [report](#) on emerging risks suggested that the reduced physical activity, with more static postures may increase the MSDs related problems in the workforce.

This emerging risk needs to be considered carefully with good ergonomic design which takes into consideration both **the employee's physical and mental capabilities**. There are some standards and guides available, including ISO 9241 – *Ergonomics of Human-System Interaction* which deals with various aspects of human computer interaction.

## Effective Incident Investigation

When undertaking an incident investigation where the injured person is claiming that the cause was “manual handling”, all risk factors that may have contributed to the injury need to be assessed to determine if the injury was due to a single excessive force or is a cumulative injury that may have built up over time until the injured person feels a high degree of pain when performing a certain task.

When undertaking an investigation consider:

- The tasks performed over the last several days leading up to the reported accident occurring
- **The “Whole Person”** – have they had issues before, what activities were they doing when not at work that may have contributed to the injury?
- What training have they had and when was it undertaken last?
- Are they receiving rehabilitation and support following the reported incident?

## Homeworking, Sedentary Work and MSDs

The trend towards homeworking has significantly increased during the global Coronavirus (COVID-19) pandemic and it is anticipated that increased flexible working will become the “new norm” going forward. The increase in sedentary work, where it is estimated that an office worker can spend 80,000 hours of their working life sitting (Ref: EU-OSHA 2016), may lead to more instances of work related upper limb disorders occurring from sitting in front of a computer screen and long virtual meetings where movement is limited.

When looking to minimise the risk of MSDs, particularly upper limb disorders amongst sedentary workers, think about how to reduce the sitting time and increase movement within the workplace and for homeworkers.

When working at a desk, consider the Three Golden Rules, keep:

1. The top of your monitor at eye level and the screen at least 70cm away from your face
2. The keyboard at elbow level
3. Feet flat on the floor or on a footrest

## Education and Training

Manual handling training is often the default position that company’s take when seeking to comply with current regulations, with little thought given to the effectiveness of such training in preventing or minimising the risk of MSDs developing.

Don’t just “tick the box”, look to develop a comprehensive education, awareness and training approach that includes:

- All levels of employees in the company from senior leaders, managers and supervisors, the workforce, engineering and technical staff, office staff, etc.
- Prevention is a shared responsibility, and this should be emphasised in the training sessions
- Consider introducing Early Intervention Training to encourage better reporting of early signs such as fatigue and muscle discomfort
- Introduce “micro” training sessions of short duration to reinforce key messages at regular intervals

Tailor the focus of education and training materials towards injury prevention, self-help, early signs, and the importance of early reporting of symptoms, rather than waiting for an accident, injury, or staff absence to happen.

## Checklist

A generic Prevention of MSDs Checklist is presented in Appendix 1 which can be tailored to your own organisation.

## Specialist Partner Solutions

Aviva Risk Management Solutions can offer access to a wide range of risk management products and services at preferential rates via our network of Specialist Partners.

For more information please visit:

[Aviva Risk Management Solutions – Specialist Partners](#)

## Sources and Useful Links

- [HSE: Musculoskeletal Disorders at Work](#)
- [HSE: Research Report - The Costs and Benefits of Active Case Management and Rehabilitation for Musculoskeletal Disorders](#)
- [HSE: Work related musculoskeletal disorder statistics in Great Britain 2020](#)
- [HSE: Foresight Report – The Future World of Work and Workplace Health](#)
- [NHS: Musculoskeletal Conditions](#)

## Additional Information

Relevant Aviva Loss Prevention Standards include:

- Homeworking
- Manual Handling in Nursing and Residential Homes
- Claims Defensibility

To find out more, please visit [Aviva Risk Management Solutions](#) or speak to one of our advisors.

Email us at [riskadvice@aviva.com](mailto:riskadvice@aviva.com) or call 0345 366 6666.\*

\*Calls may be recorded and/or monitored for our joint protection.

# Appendix 1: Prevention of Musculoskeletal Disorders Checklist



Location	
Date	
Completed by (name and signature)	

	Policies and Procedures	Y/N	Comments
1.	Is there a musculoskeletal prevention strategy and policy in place?		
2.	Are there adequate resources in place to implement the MSDs prevention strategy?		
3.	Are accountabilities and responsibilities allocated in the policy?		
4.	Have performance metrics been agreed and are these reviewed at regular intervals?		
5.	Have you communicated the strategy, policies and procedures to all employees and is this recorded?		
6.	Is the content of policies and procedures reviewed at least annually?		
7.	Does your MSDs prevention strategy link with your health and wellbeing strategy?		

	Risk Assessment	Y/N	Comments
8.	Are task based manual handling assessments carried out for all significant tasks as per the Manual Handling Operations Regulations?		
9.	Are assessments carried out by competent persons?		

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	Risk Assessment Contd.	Y/N	Comments
10.	Do you use HSE tools such as the <a href="#">manual handling assessment charts</a> (MAC tool)?		
11.	Do you involve employees who undertake the tasks in the risk assessment process?		
12.	When considering control measures, do you follow the hierarchy of control principles, e.g. eliminate the hazard as the first option?		

	Incident Investigation	Y/N	Comments
13.	Are designated incident investigators trained in good accident investigation techniques?		
14.	Do you consider the “Whole Person” when undertaking an Investigation, i.e. what tasks they had performed for several days before the incident occurred?		
15.	When checking whether an employee has received training, do you verify the content of the training material for adequacy?		
16.	What post-incident support to employees who have reported a manual handling or other related injury is available and is this adequate?		

	Education and Awareness	Y/N	Comments
17.	Does your manual handling training include preventative measures for MSDs?		
18.	Does your manual handling training include how to spot the early signs and how to report them?		
19.	Does the training signpost employees to where they can get help if they are experiencing symptoms of MSDs?		

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	Education and Awareness Contd.	Y/N	Comments
20.	Who receives training in MSDs? <ul style="list-style-type: none"> <li>• Managers?</li> <li>• Supervisors?</li> <li>• Employees?</li> </ul>		

	Early Intervention	Y/N	Comments
21.	Does your policies and procedures include early intervention?		
22.	Has provision from occupational health been put in place to support those who report symptoms, e.g. referral to a physiotherapist?		
23.	Are employees encouraged to report any issues which they consider to be unsafe?		
24.	Are employees educated in the early signs of MSDs and how to report them?		
25.	Do you employ or have access to Injury Prevention Specialists?		
26.	Additional comments:		

## Please Note

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