

HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

hseni
CONTROLLING RISK TOGETHER



Guidance on the Prevention and Management of **Musculoskeletal Disorders (MSDs)** in the Workplace

This guide is designed for application in both Northern Ireland and the Republic of Ireland. The production of this guide is a joint initiative between the Health and Safety Executive for Northern Ireland (HSENI) and the Health and Safety Authority (HSA).



Contents



Introduction	2
Information to support the business case for the prevention and management of musculoskeletal Disorders (MSDs) in the workplace	4
Element 1: Policy on the prevention and management of musculoskeletal disorders (MSDs) in the workplace	7
Element 2: Risk Assessment and safe systems of work plans (SSWPs)	10
Element 3: Training	19
Element 4: Accident and near miss reporting and investigation	22
Element 5: Injury Management (Retention, rehabilitation and return to work)	24
Element 6: Internal Auditing	26
References	28
Appendices	32

Introduction

This guide is targeted at employers, health and safety professionals, safety representatives, occupational health professionals and anyone who works to reduce the risk of musculoskeletal disorders (MSDs) in the workplace.

This guide gives practical information on actions that can be taken to prevent and manage MSDs in the workplace. MSDs can be work-related, work exacerbated or non-work-related; however, this guide addresses MSDs at workplace level and not MSDs in the general population.

The areas covered in this guide are MSDs related to manual handling, use of display screen equipment (DSE) at computer workstations and work activities with increased risk of upper limb disorders (ULDs).

MSDs in the Workplace

MSDs are conditions affecting the musculoskeletal system and can present in the tendons, muscles, joints, blood vessels and/or nerves of the limbs and back. Symptoms may include pain, discomfort, numbness and tingling in the affected area and can differ in severity from mild and periodic to severe, chronic and debilitating conditions.

MSDs can be multifactorial in nature. The focus of this guide is on physical workplace risk factors which may contribute to or exacerbate an MSD. It is important to note that psychosocial factors (for example, the level of autonomy of staff and job dissatisfaction) should be considered and managed at an organisational level where appropriate, but these factors are outside the terms of reference for this guide.

The objectives of this guide are:

- To bring together information from different sources on the prevention and management of MSDs in the workplace;
- To explain the main elements which need to be considered as part of a structured process for preventing and managing MSDs in the workplace;
- To present information to support the business case for the prevention and management of MSDs in the workplace;
- To give examples of risk assessment tools, safe systems of work plans (SSWPs), policy statements and an audit tool which can help employers to meet regulatory requirements and reduce the risk of musculoskeletal injury; and
- To share useful resources and links to best practice and legislative requirements.

This guide sets out the main elements for the prevention and management of MSDs in the workplace.

These elements are:

1. Policy on the prevention and management of MSDs in the workplace;
2. Risk assessments and safe systems of work plans (SSWPs);
3. Training;
4. Accident and near miss reporting and investigation;
5. Injury management (retention, rehabilitation and return to work); and
6. Internal auditing.

Main elements for the Prevention and Management of MSDs in the workplace:



While employers should be aware of their legal duties pertaining to risk management of MSDs in the workplace, it is also important to present the business case for any actions taken. This will be outlined in the next section of the guide.

Information to support the business case for the prevention and management of musculoskeletal disorders (MSDs) in the workplace

MSDs have been cited as the leading cause of work disability in the European Union (EU). There are regulations in place which require employers to take a proactive approach to preventing the risk of MSDs in the workplace in relation to the manual handling of loads and the use of display screen equipment (DSE). The parent legislation in each jurisdiction also gives protection in relation to work activities with increased risk of upper limb disorders (ULDs), in that it places duties on the employer to conduct risk assessment of work activities and to provide safe systems of work. In the Republic of Ireland the parent legislation is the Safety, Health and Welfare at Work Act (2005) while in Northern Ireland (NI) the parent legislation is the Health and Safety at Work (Northern Ireland) Order 1978.

The regulations are prevention-orientated in that the main provisions are focused on risk management, which requires the employer to take proactive steps to manage and reduce risk of injury to their employees. Apart from legal responsibilities, there are good business reasons for an organisation to address MSDs in their workplace. While it is difficult to find well documented business case studies, the table below presents some accident, cost and absenteeism data relating to MSDs.

Republic of Ireland	Northern Ireland
For the period 2001–2010 there were 27,547 injuries (absence from work of 3 days or more) due to manual handling reported to the HSA, accounting for 33% of all accidents (HSA 2010).	21% (2063 injuries) of all 'over 3 day' injuries reported to HSENI for the period 2006–2011 related to sprains and strains associated with manual handling and lifting (HSENI 2011).
In 2011 the Department of Social Protection awarded 11,616 disability payment claims for insured persons who were injured in the course of their work, amounting to 506,403 days lost. 31% of these claims relate to back, neck, rib or spinal disc injuries (Health and Safety Review 2012).	29% (34,654 days) of all absences in Northern Ireland councils (local authorities) were due to musculoskeletal problems or back and neck problems. The average duration of these absences was nineteen and thirteen days respectively, with a loss of productivity estimated at £4.7 million (Northern Ireland Audit Office 2010).
According to the results of the Quarterly National Household Survey (2009) which accounts for self-reporting of work-related accidents, there were 13,099 reports related to injury to bone, joint or muscle, accounting for 42% of all reports (cited in HSA 2010).	In Northern Ireland an estimated 31,000 persons reported that they had suffered from a work-related illness at some stage during the previous twelve months. Back pain and muscle/joint pain accounted for 53% of all illnesses reported. (Labour Force Survey Quarterly Supplement: Jan–March 2010 DETI cited in HSENI 2010).

Information to support the business case for the prevention and management of musculoskeletal disorders (MSDs) in the workplace

MSDs are a massive drain on the resources of an employer, including costs such as sick pay, lost productivity, retraining, legal and injury benefit. However, they also represent a significant opportunity for cost reduction, since they are manageable and can be preventable.

A business case for adopting a risk management approach in tackling MSDs in the workplace may be supported by a study of civil judgements specifically related to injuries due to manual handling, where the judges identified the following systems failures when making rulings on compensation claims:

- No risk assessment of work activities;
- Lack of safe systems of work;
- Mechanical aids were not provided and maintained;
- Adequate training was not provided; and
- No evidence of work supervision.

By addressing these systems failures employers may improve their prevention and management of MSDs and reduce compensation claims.



Information to support the business case for the prevention and management of musculoskeletal disorders (MSDs) in the workplace

Case Study:

The case study below demonstrates how tangible improvements are possible if action is taken to address systems failures such as those outlined above. The interventions were introduced at a medium-sized Irish manufacturing company.

Problem Identification	<p>The production process required a significant level of manual handling. A number of risk factors were identified, including:</p> <ul style="list-style-type: none">- Repetitive bending during a packing operation; and- Large, awkward and heavy parts carried over long distances. <p>As a result there were high levels of reportable injuries due to unsafe manual handling practices and insurance costs of €60,000 a year (approx. £48,400).</p>
Management Interventions	<p>Management agreed to implement a risk reduction strategy which included:</p> <ul style="list-style-type: none">- Managers trained to conduct risk assessments; and- Manual handling risk assessments of all work activities completed and changes introduced to work practices to reduce risk factors. <p>Improvements included the introduction of variable height pallet trucks, hydraulic trollies, transportation of large parts on wheels, training of staff and the introduction of new housekeeping procedures.</p>
Results	<p>As a result of changes put in place, there were no reportable injuries, and insurance costs were reduced to €18,000 a year (approx. £14,500).</p>

While the drive to reduce financial costs is crucial, it should not be the sole motivation to drive improvements. It is also important to consider the human cost that can result from a musculoskeletal injury and to consider the ethical obligations to provide a healthy and safe place of work through effective prevention and management of MSDs.

The next section of this guide will outline the main elements to consider in the prevention and management of MSDs in the workplace.

Element 1: Policy on the prevention and management of musculoskeletal disorders (MSDs) in the workplace

A policy on the prevention and management of musculoskeletal disorders (MSDs) sets out how an organisation is going to implement measures to reduce or eliminate the prevalence of MSDs in their workplace. The policy should refer to the applicable areas including manual handling, display screen equipment (DSE) and work activities with increased risk of upper limb disorders (ULDs)

Below is a summary of areas that should be included in such policies. An example of a policy covering the applicable areas is included in **Appendix 1**.

Manual Handling Policy:

A policy should include the following:

- A statement explaining the main activities that take place in the workplace and highlighting the fact that manual handling is a core activity in some of these;
- An acknowledgement that there is a manual handling of loads regulation and a summary of the key requirements, including the need for task-specific risk assessments, training of staff and implementation of measures to avoid or reduce risk;
- An explanation of how the organisation will meet the requirements set out in the regulation. This should refer to the needs to understand the type of manual handling tasks that may involve risk, to conduct task-specific risk assessments and to implement the risk assessment outcomes or safe systems of work plans (SSWPs);
- An explanation that consultation with staff will take place during the risk assessment process;
- An explanation of the need for a manual handling training programme that is specific to the actual work tasks completed and takes account of the risk assessment outcomes or SSWPs;
- An explanation that manual handling training will be provided by a FETAC Level 6 Instructor who may be internal or external in the Republic of Ireland (or a competent instructor in Northern Ireland);
- Details of the arrangements for the supervision of handling practices in the workplace in order to facilitate the transfer of techniques taught in training into the workplace and to ensure compliance;
- Identification of useful resources; and
- An explanation that there will be a monitoring and review process in place to flag the need for new risk assessments where required.

Note: The policy should take account of the handling of people if applicable. Manual handling in the healthcare sector is not covered in this guidance, but further information on the management of such manual handling can be found in the reference and resource section of this guide.

Element 1: Policy on the prevention and management of musculoskeletal disorders (MSDs) in the workplace

Display Screen Equipment (DSE) Policy:

A policy should include the following:

- A statement explaining the main activities that take place in the workplace that require staff to spend their working day at a DSE computer workstation;
- An acknowledgement that there is a DSE regulation;
- An explanation of how the organisation will meet the requirements set out in the regulation, including, for example, the need for assessors to conduct risk assessments of individual computer workstations, to provide training for staff in the use of computer workstations and to inform staff that they are entitled to an eye and eyesight test;
- An explanation that consultation with staff will take place during the risk assessment process and that risk assessments should be recorded and signed off by employees and the assessor;
- An explanation that the assessor who conducts the risk assessment of the employee's individual workstation understands the requirements set out in the DSE regulation;
- Identification of useful resources; and
- An explanation that there will be a monitoring and review process in place to flag the need for new risk assessments where required.



Work activities with increased risk of upper limb disorders (ULDs) policy:

A policy should include the following:

- A statement explaining the main workplace activities and highlighting the fact that the risk of ULDs has been recognised in some of these activities;
- An acknowledgement that there is a legislative framework around the risk management of work activities with an increased risk of ULDs, including the need for risk assessments, training of staff and implementation of measures to avoid or reduce risk;

Element 1: Policy on the prevention and management of musculoskeletal disorders (MSDs) in the workplace

- An explanation of how the organisation will meet the requirements set out in the legislation. This should refer to the needs to understand the type of tasks that may involve risk to the upper limb(s), to conduct task-specific risk assessments and to implement the risk assessment outcomes or safe systems of work plans (SSWPs);
- An explanation that consultation with staff will take place during the risk assessment process;
- An explanation that training and information which is specific to the actual work tasks completed and which takes account of the risk assessment outcomes or SSWPs will be provided to staff;
- Details of arrangements for the supervision of staff in order to facilitate the transfer of those skills learned during instruction into the workplace and to ensure compliance;
- Identification of useful resources; and
- An explanation that there will be a monitoring and review process in place to flag the need for new risk assessments where required.

Management of MSDs

A policy on the management of MSDs may expand on the following:

- Prompt reporting of an accident.
- Prompt investigation of an accident and implementation of corrective actions.
- Appropriate documentation of all accident investigations.
- Retention of staff at work.
- Communication between the employee and employer.
- Access to professional or other advice to help staff.
- Planning and undertaking workplace adjustments.
- Preparing a retention or early return to work plan.

Element 2: Risk assessments and safe systems of work plans (SSWPs)

The nature of musculoskeletal injury at work can vary from a back injury resulting from lifting heavy loads to neck and shoulder pain as a result of repetitive work at a poorly designed assembly process on a production line or use of Display Screen Equipment (DSE) at a computer workstation. The risk assessment process is at the heart of musculoskeletal injury and illness prevention, and this section of the guide will give direction on risk assessment for manual handling, DSE and work activities with increased risk of upper limb disorders (ULDs).

If the workplace is a nursing home or hospital where there may be a requirement to handle people, there are other specific requirements which may need to be considered. References to further guidance on the management of manual handling in healthcare can be found in the reference and resource section of this guide.

Manual Handling Risk Assessment







Introduction

It is important to have an understanding of the range of work activities that take place in the workplace. Consultation with staff is essential in order to identify work tasks where manual handling is a significant part of the work activity. In order to prioritise the manual handling risk assessments that may be required, it is important to have an understanding of the potential risk factors as they relate to specific tasks.



Element 2: Risk assessments and safe systems of work plans (SSWPs)

Below is a summary of some of these risk factors. A manual handling task may include one or all of the following:

Risk factor (unfavourable ergonomic condition)	Picture
The lifting of the load requires repeated manipulation of the load at a distance from the trunk	
The lifting of the load requires repeated bending of the trunk	
The load is very large and difficult to grasp	
The handling repeatedly takes place at floor level or above shoulder height	
The physical effort can only be achieved by a twisting of the trunk	
The load is carried over a long distance and there is poor housekeeping with unsafe access	

Note: This guide may help to flag the manual handling tasks that need priority risk assessment.

Element 2: Risk assessments and safe systems of work plans (SSWPs)

The Manual Handling Risk Assessment Process:

There are different tools available for conducting manual handling risk assessments, including the Manual Handling Assessment Charts (MAC Tool HSE 2008). Below is a brief summary of a five-step risk assessment process which can be used to assess manual handling tasks. An example of completed manual handling risk assessment form is detailed in **Appendix 2** along with a blank template in **Appendix 3**.

Step 1	Task description	In consultation with staff, collect information on how the task is carried out. Identify the key stages of the task and summarise all information collected.
Step 2	Collect technical information	The type of information to collect may include information on the weight of the load, the physical measurements of the load, the postures observed during the handling activity, the amount of space available, housekeeping, the duration of the task, the number of handling activities and staff instruction on safe lift techniques.
Step 3	Identify the risk factors	Examples of risk factors include: <ul style="list-style-type: none">• Load is too heavy• Employee is prevented from handling a load at a safe height• Handling is made with the body in an unstable posture Each risk factor identified must be supported by evidence.
Step 4	Identify the improvements to be put in place	This requires consultation with staff and an objective review of the information collected. The improvements put in place should avoid or reduce the risk of injury, and may be a combination of the following: <ul style="list-style-type: none">• Use of mechanical aids for all or part of the activity;• Reorganisation of work area or materials;• Instruction in training in safe lift techniques where handling will still take place;• Development of a safe system of work plan (SSWP);• Communication of the SSWP to staff.
Step 5	Review the effectiveness of the improvements	This is to ensure that the recommended improvements are implemented and that they have addressed the identified risk factors.

Element 2: Risk assessments and safe systems of work plans (SSWPs)

The outcomes of each manual handling risk assessment are the improvements that have been identified in the fourth step of the risk assessment process. A simple way to formally document the improvements or control measures is to develop a safe system of work plan (SSWP).

An SSWP is a set of instructions according to which something must be done, which takes account in advance of the foreseeable manual handling risk factors. The purpose of an SSWP is to give instruction on the new way of carrying out a particular work task which avoids or reduces manual handling and therefore reduces the risk of injury.

The SSWP should take account of the handling required from origin of lift to end point of lift and can include a combination of the following:

- o Use of handling equipment (how is it used);
- o Reorganisation of work area (what changes are made);
- o Instruction and training in safe handling techniques (how is it done).

Ideally SSWPs should be incorporated into a manual handling training programme.

While it is important to conduct individual manual handling risk assessments, it is equally important to communicate the improvements that are to be implemented. A short, detailed SSWP for each manual handling task assessed may be a suitable way to manage risk effectively. An example of an SSWP is included in **Appendix 4**.

Case Study

An employee suffered two injuries to his back because he was required to lift pallets onto a conveyor at an unsafe height. A High Court Judge rejected allegations of an exaggerated claim and awarded the employee €370,000 (approx. £290,000) in damages. The Judge stated that:

- The company failed to take appropriate measures to avoid the necessity for manual handling;
- There were three simple and inexpensive alternatives that the company could have adopted.

This case study illustrates the implications of not conducting a risk assessment of a manual handling task and not implementing risk reduction measures. It underlines the financial implications for an employer and the human cost to the employee of failing to effectively manage the hazard of manual handling in a workplace.

Element 2: Risk assessments and safe systems of work

Display Screen Equipment (DSE) Risk Assessment

Introduction

A DSE risk assessment may not be required in your workplace; it only applies if staff has no choice but to work at a computer workstation, if they work at a computer workstation for continuous periods of more than one hour, or if they generally use the computer during the work day. Below is a brief summary of a risk assessment process which can be used to assess the use of DSE at a computer workstation. Assessors must be trained to carry out workstation assessments. An example of a completed DSE risk assessment form is detailed in **Appendix 5** along with a blank template in **Appendix 6**.

The Risk Assessment Process:

Step 1	Initial consultation with the employee	The assessor should talk to the employee, explain the process and collect relevant information on the main tasks that the employee completes.
Step 2	Observation of the employee working at the computer workstation	The assessor should observe the employee working at the computer workstation and record whether the workstation meets the minimum requirements in the DSE Regulation. The assessor should also note the work practices because a person may have a good workstation but may not be using it properly. The assessor should note any issues identified and give reasons for their conclusions.
Step 3	Identify the issues that need to be addressed	When the assessment is completed, the assessor should summarise the issues that will need to be addressed.
Step 4	Implementation of corrective actions	The assessor should consult with management and the employee and decide what follow-up corrective actions are needed. It is the responsibility of the employer to ensure that corrective actions are completed. Copies of the risk assessments need to be filed and the assessor should return to the workstation to verify that all actions are completed.

Note: Where new work practices or changes in work activity are introduced; new risk assessments should be carried out to address potential hazards.

Element 2: Risk assessments and safe systems of work plans (SSWPs)

Case Study

A judge awarded a bank clerk damages of £243,792 (approx. €300,000) after the clerk developed Repetitive Strain Injury (RSI) as a result of working at a poorly designed computer workstation. The bank failed to carry out a suitable risk assessment of the workstation and failed to provide training to the employee.

This case study highlights the implications of not implementing a simple, practical risk management system for staff who work at computer workstations in order to prevent musculoskeletal injuries. This example further strengthens the business case for managing such risks.

Risk assessment for work activities with increased risk of upper limb disorders (ULDs)

Introduction

It is important to have an understanding of the range of work activities that take place in the workplace. Consultation with staff is required to identify work tasks where the use of the upper limb(s) is a significant part of the work activity. Generally there is an increased risk of injury when there are a number of risk factors acting in combination. A summary of risk factors for the development of ULDs is summarised below:

Task	<ul style="list-style-type: none">• Frequency and repetition of movement• Force applied• Awkward postures (head/neck/back/arm/wrist/hand)• Duration of exposure
Environment	<ul style="list-style-type: none">• Working environment
Individual	<ul style="list-style-type: none">• Psychosocial Factors

Element 2: Risk assessments and safe systems of work plans (SSWPs)

The risk factors are described in more detail in the information that follows:

- **Frequency and repetition of movement** – includes rapid or prolonged movements of the upper limb(s). Work is repetitive when it requires the same muscle groups to be used repeatedly during the working day or movements are performed frequently for prolonged periods. Such repetition may not allow sufficient time for recovery and can cause muscle fatigue, which may result in increased risk of ULDs.
- **Force Applied** – includes the handling of heavy objects, fast movements when performing a task and the force of gripping products or tools. The level of force that is generated by the muscles is affected by a number of factors, including working postures, the size of objects handled and the speed of movement. Use of excessive force can lead to fatigue and, over a sustained period of time, to ULDs.
- **Awkward postures** – include awkward and prolonged postures of the head, neck, back, arms and wrists. Certain jobs may require an employee to assume a variety of awkward postures, including fixed or constrained body positions, that cause significant biomechanical stress to the joints of the upper limbs and surrounding soft tissues, for example, where an employee has their head bent forward for long periods of time to use a non-adjustable microscope. Such postures may restrict blood flow to the muscles and tendons and cause muscle fatigue, resulting in less opportunity for the muscle to recover.
- **Duration of exposure** – is the length of time for which the task is performed. It can refer to the number of hours over which the task is performed without a break or in a typical daily shift. It can also include the number of working days for which the task is performed (e.g. 4 hours per day, 5 days per week). Upper limb disorders are cumulative in nature. The length of time or duration of a task can increase the risk of ULD injury as the upper limb(s) may undertake work for long periods without rest and with insufficient time for muscle recovery, resulting in muscle fatigue.
- **Work Environment** – should be assessed for risk factors include poor lighting or temperature control. Poor or dim lighting may encourage an employee to adopt a bent neck or poor shoulder postures in order to see their work.
- **Psychosocial Factors** – may be present in the workplace, in which case they should be addressed with management at an organisational level. They can include:
 - o Little control over how the work is done;
 - o Monotonous work;
 - o High levels of attention and concentration required;
 - o Frequent tight deadlines;
 - o Lack of support from supervisors or co-employees.

Element 2: Risk assessments and safe systems of work plans (SSWPs)

The risk assessment process:

There are various tools available for conducting risk assessments on work activities with increased risk of upper limb disorders (ULDs); the Assessment of Repetitive Tasks (ART) tool (HSE 2010) is one example; other tools can be found in the resource section of this guide. Below is a brief summary of a five-step risk assessment process which can be used to assess individual work activities which may increase the risk of ULDs. An example of a completed risk assessment form is detailed in **Appendix 7** along with a blank template in **Appendix 8**.

Step 1	Task description	In consultation with staff, collect information on how the task is carried out, identify the key stages of the task and summarise all information collected. It is useful to take pictures or video footage of the operation to allow for effective analysis of the task.
Step 2	Collect technical information	Information to note could include the repetition of movements of the upper limb(s), working postures adopted during the task, sustained forces used and the duration of the task.
Step 3	Identify the risk factors	Risk factors identified as part of the risk assessment may include highly repetitive movements of arm and hand; awkward head, neck, back, arm and wrist postures or awkward hand/finger grip; moderate to very strong force of the arm, hand or fingers; employees having some difficulties keeping up with the work pace or a lack of training or supervision.
Step 4	Identify improvements to be put in place	<p>This requires consultation with staff and an objective review of the information collected. The improvements may be documented in a safe system of work plan (SSWP) and give instruction on how to avoid or reduce the risk of ULDs. The improvements may be a combination of better work organisation, changes in job design or ergonomic interventions and may include the following:</p> <ul style="list-style-type: none">• Reducing repetition by redesigning or modifying the work activity, for example by implementing job rotation to avoid repetitive work;• Optimising working posture by ensuring working heights are appropriate and items are within reach;• Reducing sustained forces by ensuring cutting tools are sharpened regularly;• Reducing the duration spent on a work task by introducing rest breaks;• Improving working environment by ensuring lighting is suitable.
Step 5	Review the effectiveness of the improvements	This is to ensure that the recommended improvements are implemented and that they have addressed the identified risk factors.

Element 2: Risk assessments and safe systems of work

Case Study

A stonemason was diagnosed with tendonitis (inflamed tendons) in their shoulder, associated with the repetitive nature of their work. Their employer was fined £40,000 (approx. €50,000) because they failed to carry out adequate risk assessments, implement safe systems of work or provide the employee with adequate rest breaks.

This case study highlights the implications of not implementing a simple, practical risk management system for staff who are engaged in work activities which can increase the risk of ULDs.



Introduction

To date there has been much focus on training as an intervention to address MSDs in the workplace. However, the evidence base would dispute the effectiveness of this without the implementation of other risk management interventions.

There is strong evidence that ergonomic interventions involving the participation of employees and managers and the tailoring of training to suit the person and task requirements along with task design are effective in reducing manual handling injuries. Training needs to be part of an overall risk management strategy which is managed and implemented effectively.

Training programmes need to be designed to make staff aware of the risks associated with manual handling, use of display screen equipment (DSE) and work activities which may increase the risk of upper limb disorders (ULDs). Training is most effective when supported by a risk management system that provides for risk assessment and the introduction of control measures which may take the form of safe systems of work plans (SSWPs).

These control measures or SSWPs need to be incorporated into training provided and reinforced with suitable materials and on-going support within the organisation. The emphasis should be on changing attitudes and behaviour, promoting risk awareness and ensuring that staff members have the skills and understanding to complete their work in a safe manner. Follow-up supervision is crucial after training to ensure that instruction is being followed by staff.

Manual handling training

Manual handling training programmes must be specific to the types of activities conducted in the work environment and need to be supported by follow-up supervision to ensure that techniques and practices learnt in training are continuously applied.

There must be a system in place to manage the training and education requirements of staff and to ensure that their training is kept up to date. A number of principles must be considered when designing manual handling training programmes:

- The implementation of the skills taught at training must be supported and supervised in the workplace.
- Staff will need to be instructed on the safe use of equipment through formal and on-the-job training.
- Training should include the communication of the results of the risk assessments and/or SSWPs.
- Training needs to be focused on problem-solving skills as well as practical handling skills.

Element 3: Training

- In the Republic of Ireland all new instructors must attain the appropriate FETAC Level 6 Manual Handling Instructor Award or People Handling Instructor Award through completion of a FETAC accredited training programme (not applicable in Northern Ireland).
- Training should be relevant and relate to site-specific hazards, and should provide participants with the knowledge and skills to allow them to carry out a manual handling activity in a manner which reduces the risk of injury.
- It is a good idea to keep a training record and get staff to sign off on the training they have received. These records should be kept within your health and safety documentation. The records should also indicate the content and the duration of the training.
- In the Republic of Ireland it is recommended that refresher training be at intervals of not more than every three years (in Northern Ireland, it is recommended that training be repeated periodically where appropriate).

DSE training

A DSE training programme should be designed to make staff aware of the risks associated with the use of computer workstations, and to explain the main requirements of the regulation and how these requirements will be fulfilled within the organisation. The areas covered by such training should include:

- Explanation of the key components of a computer workstation.
- Instruction on using the workstation appropriately, Explanation of ULDs, the associated risk factors, the potential symptoms and the systems in place to report suspected ULDs.
- Explanation of the how the risk assessment process will be conducted by a competent assessor and how any corrective actions will be implemented.
- Explanation that staff members are entitled to an eye and eyesight test.
- Explanation of how employees' daily work will be planned to allow for periodic interruptions by breaks or changes in work activity to reduce workload at a computer workstation.
- Explanation of how training will be reviewed and kept up to date.

Training for work activities with increased risk of ULDs

A training programme needs to be designed to make employees aware of the risks of ULDs associated with certain work activities. The following principles need to be considered when designing training programmes for work activities with increased risk of ULDs:

- Training should be relevant and site-specific. Efforts need to be made to ensure that training is based on reality and closely reflects the practicalities of the job. Training should also refer to the tools and equipment used on the job.
- Trainers need to have an in-depth understanding of working practices and methods and should develop training packages with the assistance of experienced staff members.
- Staff will need to be informed of the risk factors relating to ULDs, the potential symptoms and the systems in place to report suspected ULDs.
- There should be an explanation of the results of the risk assessments and the control measures and/or safe systems of work plans (SSWPs) which will be put in place to reduce risks.
- The implementation of the skills taught at training must be supported and supervised in the workplace. It is a good idea to keep a training record and get staff to sign off on the training they have received. These records should be kept within your health and safety documentation.
- Staff will need to be informed of how training will be reviewed and kept up to date.



Element 4: Accident and near miss reporting and investigation

Introduction

There should be a system in place to ensure that accidents and near misses are reported and investigated. Everyone should be aware of the system for reporting such occurrences. There should be timely reporting and investigation of accidents and near misses. It is important that accurate and comprehensive records are completed.

At the beginning of this guide it was stated that better linkage between the prevention and management of musculoskeletal disorders (MSDs) is necessary. It is known that people who suffer from a work-related MSD may have a prolonged absence: recent figures show that people who claim occupational injury benefit as a result of a musculoskeletal injury can be absent from work for up to forty-nine days (Department of Social Protection cited in Health and Safety Review 2012).

Accident investigation

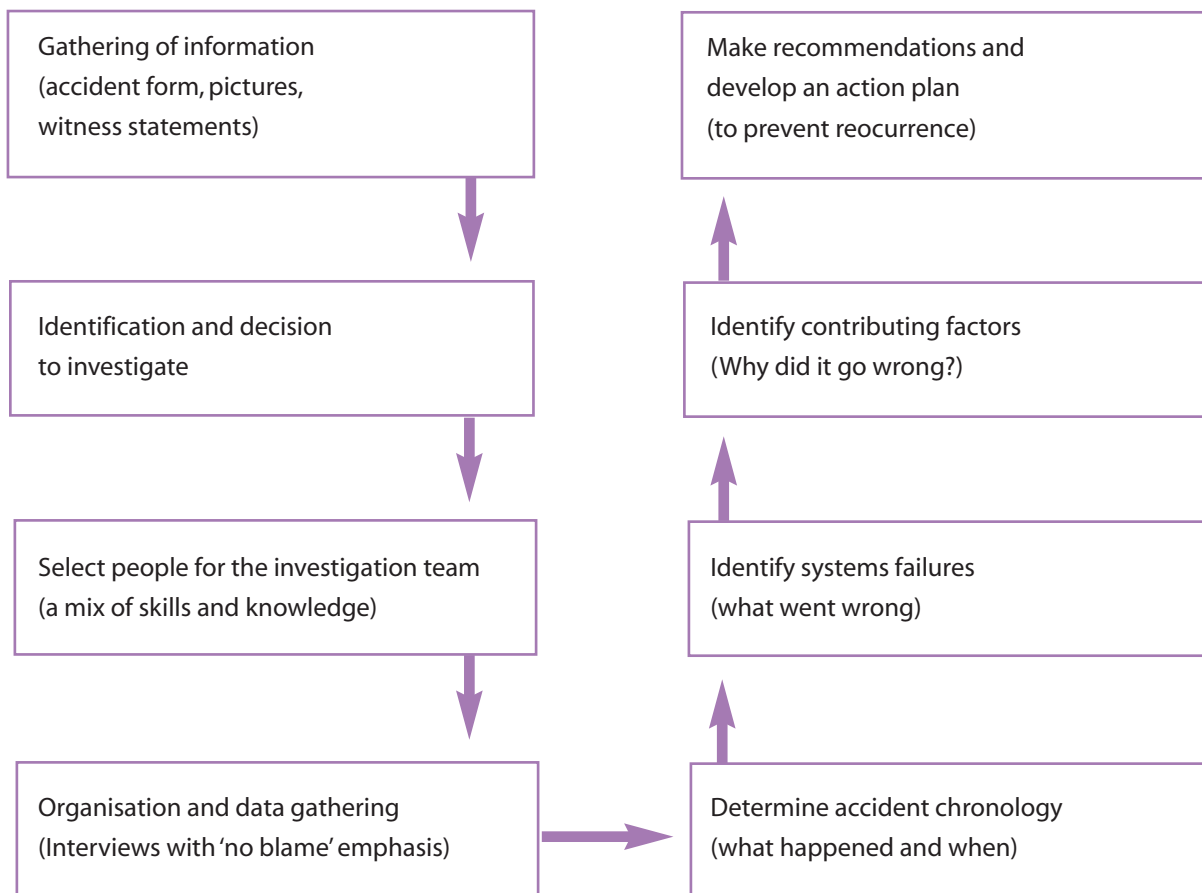
Efforts to manage accidents that result in a musculoskeletal injury should be effective in preventing reoccurrence. As part of a comprehensive risk management approach there should be a timely investigation of any accident that occurs in order to identify the systems failures that led to the accident. It is important that the investigation is carried out by a person who has the necessary skills and knowledge. They should ensure that the appropriate information is collected and that all relevant facts are documented. The person who completes the accident investigation should then be in a position to make an informed judgement about the contributing factors and to determine what corrective actions need to be put in place.



Element 4: Accident and near miss reporting and investigation

Below is a graphic which illustrates the main elements of an accident investigation management system.

Model of Accident Investigation



It is important that accident reports and investigations are documented and kept under review, as this information is useful in monitoring performance.

As previously stated, there should be a system in place to ensure that there is appropriate follow-up with any staff member who is absent from work due to a work-related accident. This will be discussed in more detail under the section on injury management (retention, rehabilitation and return to work).

Element 5: Injury Management (retention, rehabilitation and return to work)

Introduction

While the Health and Safety Authority (HSA) and the Health and Safety Executive for Northern Ireland (HSENI) do not have a specific remit for the management of injured employees in terms of retention, rehabilitation and return to work after suffering an musculoskeletal disorder (MSD), they do recognise that injury management has an important role to play in reducing lost time and absence from work.

For employers, there is a strong business case for having a healthy workforce: healthy staff members are more productive. Employers should not underestimate the influence that better management and engagement of staff can have on the well-being and ultimately the productivity of their workforce (Dame Carol Black).

Positive well-being and fitness can make a real and substantial difference to the health of staff as well as to the cost of staff to businesses and the economy as a whole. There are significant direct and indirect costs involved in losing staff and it makes good business sense to manage the retention, rehabilitation and return to work of staff who may be suffering from an MSD that is work-related or exacerbated by work.

Generally the longer that an employee is absent from work due to an MSD, the lower their chances are of getting back to work and the higher the economic costs to the business. Prolonged sickness absence can have devastating effects on the business as well as on the lives of staff and their families. With the right support, many people with an MSD can stay in work and progress in the workplace. After an employee suffers an MSD, work is often part of the rehabilitation process and staying in work or getting back to work early is part of the recovery process. There is evidence that the temporary provision of lighter or modified work duties facilitates return to work and reduces time off work.

A study which looked at workplace-based return to work interventions found evidence that the duration of work disability and absenteeism was reduced through the introduction of interventions including early contact with the employees by the employer, ergonomic risk assessments and the presence of a person to coordinate the return to work programme (Franché et al 2005). The adoption of a policy which refers to important principles in managing retention, rehabilitation and return to work of staff members who are suffering from an MSD can result in reduced time off work and improvements in the workplace.

Injury management (retention, rehabilitation and return to work) policy

An injury management policy can be very short and should outline how the retention, rehabilitation and return to work process will operate, who will be involved and what resources will be provided. The policy can expand on the following:

- **Early intervention:** Early intervention, in many cases, can prevent the symptoms of an MSD from getting worse and enable the employee to either stay in work or return to work as soon as possible, albeit in a partial or phased way.

Element 5: Injury Management (retention, rehabilitation and return to work)

- **Recording sickness absence:** A system should be put in place to record information on sickness absence. This system should flag to the appropriate people within the organisation the sickness absence of an employee who is off work with symptoms of an MSD in order to ensure that there is effective early communication and intervention to either retain the employee at work or manage their return to work as quickly as possible.
- **Access professional advice and treatment to help your staff:** It is important that an employee who is suffering from an MSD gets immediate medical support. Staff should be encouraged to seek advice from their general practitioner (GP), a physiotherapist or another appropriate medical professional. The employee may require medical rehabilitation as treatment for the MSD and it would be useful to have some form of communication between management, the staff member and the medical professional to determine the most appropriate options to keep the employee in work or get them back to work quickly, if appropriate.
- **Keeping in contact:** If an employee is absent from work as a result of an MSD, a process should be put in place to keep in contact with the injured or absent party. It is important to work with them to keep them in work or plan for their return to work if appropriate – this may keep the individual motivated and prepares them for gradual return to full activities or return to work. A return to work interview may be a useful way to consult with the employee and involve them in planning their return to work.
- **Planning and undertaking workplace adjustments:** Workplace adjustments serve the function of allowing an employee to remain at work or return to work. They can be used to retain valuable skills and remove any obstacles to the process of recovery and returning to work after an MSD. A risk assessment may need to be completed, or a review of an accident investigation report which may have detailed recommendations for changes to be put in place to reduce risk of injury or further injury to the employee or other members of staff. Medical advice may also be necessary to ensure proper accommodations are made in the workplace.
- **Preparing a retention or return to work plan:** A retention or return to work plan should be tailored to the individual and developed in consultation with the injured employee. Due to the multifactorial nature of MSDs, a combination of optimum medical management, a rehabilitation programme and organisational interventions designed to assist the employee with an MSD in their return to work may be more effective than the implementation of one single element.

Further information on retention, rehabilitation and return to work interventions is available from a number of sources, including those detailed in the reference and resource section of this guide. Retention, rehabilitation and return to work management complement the objective of this guide: promoting interventions to prevent and manage MSDs in the workplace.

The next section of the guide refers to the important role of internal auditing in order to determine if the appropriate interventions are in place at workplace level for the prevention and management of MSDs.

Element 6: Internal Auditing

An internal audit is a structured process of collecting independent information on the effectiveness of the systems in place for the prevention and management of musculoskeletal disorders (MSDs) in the workplace. It is a useful way to identify potential follow-up actions that may be required. The process must be simple and effective and should ensure that the necessary information is collected to allow the auditor to draw conclusions on what corrective actions may be needed.

There are some key steps in an audit process, including:

- **Planning:** This requires the auditor to identify the information they need to collect, the people that they may want to consult and the documentation that they may need to reference during the audit. The auditor should review the audit checklist and determine which sections are applicable to the specific workplace.
- **Performing:** The auditor should use the audit checklist to complete the audit. In order to maximise the effectiveness and quality of the audit; the auditor should consult with staff, collect relevant documentation and observe the type of work that takes place in the workplace.
- **Evaluating:** The auditor should review the findings and verify that they are correct before writing up the audit summary.
- **Reporting findings and recommendations:** The findings and the follow-up actions required should be documented. It is important that people are assigned responsibility and that completion dates are agreed.
- **Taking action:** There should be evidence that actions are completed so that the necessary improvements are put in place.
- **Reviewing:** The auditor must ensure that the actions and improvements are implemented. The audit report should be signed by the auditor and a member of the management team. The audit should be seen as a continuous improvement process and should be reviewed as appropriate.

The graphic below illustrates the audit process.



An audit of how MSDs are being prevented and managed should focus on the following areas:

- Policy on the prevention and management of musculoskeletal disorders (MSDs) to include manual handling, display screen equipment (DSE) and work activities with increased risk of upper limb disorders (ULDs);
- Risk assessments and safe systems of work plans (SSWPs);
- Training;
- Accident and near miss reporting and investigation; and
- Injury Management (Retention, rehabilitation and return to work).

The audit form detailed in **Appendix 9** can be used to determine what elements are not in place, summarise key findings and identify the corrective actions that may need to be introduced. In summary, the audit process can be used to test how robust and effective the existing interventions are in preventing and managing MSDs in the workplace.

Conclusion

The prevention and management of MSDs in the workplace is important from both the human and business perspectives. Information to support the business case has been underlined and the need for consultation with staff, management commitment and effective communication cannot be overstated. An integrated MSD risk management process that takes account of the main elements outlined in this guide should ensure that organisations are in a better position to address systems failures which may lead to an employee suffering from an MSD. The risk assessment, safe system of work plan (SSWP) and audit template in the appendices can be used to support the risk management process.

References

- Absenteeism in Northern Ireland Councils 2009–10. Northern Ireland Audit Office 2010.
- Aching arms (or RSI) in small businesses (2003, reprinted 2004) INDG171 (rev1). HSE Books ISBN 0717626008. Available online from: www.hse.gov.uk
- Analysis of the Cause and Costs of Manual Handling Injuries in the Health Care Sector 2007. HSA Publications. Available online from: www.hsa.ie
- An Introduction to Health and Safety 2010 INDG259 (HSWNI) V4. Health and Safety Works NI. Available online from: www.healthandsafetyworksni.gov.uk
- Annual Report and Statement of Accounts 2010–2011. HSENI 2011.
- Assessment of Repetitive Tasks of the Upper Limbs (the ART tool) 2010 (INDG438). HSE Books ISBN 9780717663934. Available online from: www.hse.gov.uk<http://www.hse.gov.uk/>
- Days Lost by OIB Claimants up 20% 2012. Health and Safety Review January 2012.
- Ergonomics in the Workplace 2006. HSA Publications ISBN 1844960366. Available online from: www.hsa.ie
- Fit for work? Musculoskeletal Disorders in the European Workforce 2009. The Work Foundation. Available online: www.theworkfoundation.com
- Franche RL, Cullen K, Clarke J, Irvin E, Sinclair S, Frank J, and The Institute for Work & Health (IWH) Workplace-Based Return to Work (RTW) Intervention Literature Review Research Team. Workplace-Based Return to Work Interventions: A Systematic Review of the Quantitative Literature 2005. Journal of Occupational Rehabilitation Vol 15 Number 4.
- Getting to Grips with Manual Handling: A Short Guide 2004. HSE books ISBN 0717628280. Available online from: www.hse.gov.uk
- Guide on Manual Handling Risk Assessment in the Hospitality Sector 2009). HSA Publications. ISBN 9781844961207. Available online from: www.hsa.ie
- Guide on Manual Handling Risk Assessment in the Retail Sector 2010 .HSA Publications ISBN 9781844961405. Available online from: www.hsa.ie
- Guide on the Prevention of Upper Limb Disorders (ULDs) in the Financial Services Sector 2012. HSA Publications ISBN 9781844961580. Available online from: www.hsa.ie
- Guide to the Safety, Health and Welfare at Work (General Application) Regulations 2007. Chapter 4 of Part 2: Manual Handling of Loads. HSA Publications ISBN 1844960692. Available online from: www.hsa.ie

- Guide to the Safety, Health and Welfare at Work (General Application) Regulations 2007. Chapter 5 of Part 2: Display Screen Equipment. HSA Publications ISBN 1844960692. Available online from: www.hsa.ie
- Guidance on the Management of Manual handling in the Workplace 2005. HSA Publications ISBN 1844960234. Available online from: www.hsa.ie
- Guide on the Manual Handling Training System – 2010 Revision. HSA Publications ISBN 9781844961412. Available from: www.hsa.ie
- Health and Safety at Work (Northern Ireland) Order 1978
- Involving your Workforce in Health and Safety 2008. HSE books ISBN 9780717662272. Available online from: www.hse.gov.uk
- Kroemer, Karl H, Fitting the task to the Human (Sixth Edition) 2009, CRC Press, ISBN 0-7484-0665-4
- L&M: Lifting/Manual Handling. Health and Safety Review December 2000
- Management of Manual Handling in Healthcare 2011. HSA Publications. ISBN 9781844961566. Available online from: www.hsa.ie
- Managing Sickness Absence and Return to Work: An Employers and Managers Guide 2004. HSE Books ISBN 0717628827. Available online from: www.hse.gov.uk
- Managing Sickness Absence and Return to Work in Small Businesses 2004 (INDG399). HSE Books ISBN 0717629147. Available online from: www.hse.gov.uk
- Manual Handling Training: Investigation of Current Practices and Development of Guidelines 2007 (RR583 Research Report). Work and Health Research Centre for the Health and Safety Executive. Available online from: www.hse.gov.uk
- Musculoskeletal Disorder Prevention Series 2007. Occupational Health and Safety Council of Ontario (OSHCO). Available online from: <http://www.esao.on.ca/downloads/msd.aspx>
- Pheasant, Stephen (2nd Edition), Taylor & Francis, Bodyspace, , ISBN 0-7484-0326-4
- Protect your Profit – Health and Safety Pays: Health and Safety for Small Businesses 2010. Health and Safety Works NI. Available online from: www.healthandsafetyworksni.gov.uk
- Return to Work: The Importance of Human Interactions and Organisational Structures 2001. IOS Press.
- Risk Assessment Simplified 2008 (HSENI 99 11-A). HSENI Publications. Available online from: www.hseni.gov.uk/

Resources/Videos

- Safety Health and Welfare at Work Act (2005), Government Publications, Dublin.
- Safe Systems of Work. Health and Safety Review, December 2002
- The Law of VDUs: An Easy Guide 2003. HSE books ISBN 9780717526021. Available online from www.hse.gov.uk
- Summary of Workplace Injury, Illness and Fatality Statistics 2010. HSA Publications.
- Unexpected Barriers in Return to Work. Lessons Learned from Injured Employee Peer Support Groups 2007. IOS Press.
- Upper Limb Disorders in the Workplace 2002 HSG60 (Second edition). HSE Books ISBN 9780717619788. Available online from: www.hse.gov.uk
- Working with VDUs 2011 INDG36 (rev3). HSE Books ISBN 0717662225. Available online from: www.hse.gov.uk
- Workplace Health Toolkit for Small Businesses 2010 (Sections 2, 3, 4, 13 and 16). HSA Publications. Available online from: www.hsa.ie

Resources

- Assessment of Repetitive Tasks of the Upper Limbs (the ART tool) 2010 (INDG438). HSE Books ISBN 9780717663934. Available online from: www.hse.gov.uk
- Guide on the Prevention of Upper Limb Disorders (ULDs) in the Financial Services Sector 2012 (HSA0375) HSA Publications. Available online from: www.hsa.ie
- Health Risks at Work Rapid Reference Cards 2009 (Section on MSDs). NHS Health Scotland ISBN 9781844854714. Available online from: www.healthyworkinglives.com
- Manual Handling Assessment Charts (MAC Tool) 2011 (INDG383). HSE Books ISBN 9780717627417 Available online from: www.hse.gov.uk
- Manual Handling of Loads: Assessment Checklist. Manual handling. Operations Regulations 1992 (as amended) Guidance on the regulations L23. HSE books 2009 ISBN 9780717628230. Available online from www.hse.gov.uk
- Manual Handling Risk Assessment in the Hospitality Sector, 2009 HSA Publications 2009. Available online from: www.hsa.ie
- Manual Handling Risk Assessment in the Retail Sector, 2010, HSA Publications 2010. Available online from: www.hsa.ie

- RULA – Rapid Upper Limb Assessment. Osmond Group Limited. Available online from www.rula.co.uk
- The ART Tool Task Rotation Workbook. Available online from www.hse.gov.uk
- ULD Risk Filter and Full Risk Assessment Worksheets. Upper Limb Disorders in the Workplace 2002 HSG60 (Second edition). HSE Books ISBN 9780717619788. Available online from: www.hse.gov.uk
- Upper Limb Disorders in the Workplace 2002 HSG60 (Second edition). HSE Books ISBN 9780717619788. Available online from: www.hse.gov.uk
- VDU Workstation Checklist 2003. HSE Books ISBN 9780717626175. Available online from: www.hse.gov.uk

Resources for Healthcare/ Handling of people

- Backs in Action: A guide for the Healthcare Sector 2010. Health and Safety Executive for Northern Ireland. Available online from www.hseni.gov.uk
- Management of Manual Handling in Healthcare 2011 (HSA0374). HSA Publications. ISBN 9781844961566. Available online from: www.hsa.ie

Videos

- Manual Handling Risk Assessment Video Series (Series one and two) 2011. HSA Publications 2011. Available online from: www.hsa.ie
- Manual Handling Videos 2011. HSENI Videos 2011. Available online from www.hseni.gov.uk

Note: Further information on MSDs and sector-specific guidance can be found on the HSA, HSENI and HSE websites:

www.hsa.ie

www.hseni.gov.uk

www.hse.gov.uk

Appendix 1: Example of Information to Include in a Policy on Prevention and Management of Musculoskeletal Disorders (MSDs)

Manual Handling Policy

Company A is a manufacturing organisation. The main activities that take place in this workplace include receipt of deliveries, placement of stock on the shop floor, production and packing finished product. We recognise that in completing these work tasks staff will be required to conduct manual handling activities, we recognise that manual handling can be a potential hazard and that there is a regulation governing the manual handling of loads in the workplace. We recognise the need for task-specific risk assessments, training and implementation of measures to avoid or reduce risk.

We are committed to implementing measures to comply with the regulatory requirements through:

- Consultation with staff during the risk assessment;
- Completion of task-specific manual handling risk assessments;
- Implementation of control measures;
- Providing safe systems of work plans (SSWPs) where they are needed to instruct staff on the control measures;
- Providing manual handling training to staff which is specific to the work tasks on site, which will incorporate the results of the risk assessment, and which is delivered by a recognised and competent instructor; and
- Ensuring that staff members follow instruction through regular supervision.

We will ensure that useful resources are identified and put in place.

We will ensure that where new work practices are introduced, new risk assessments will be carried out where required.

Display Screen Equipment (DSE) Policy

As part of our operations, some staff members spend a significant amount of time using DSE at a computer workstation. We recognise that there is a DSE Regulation.

We are committed to implementing measures to comply with the regulatory requirements through:

- Ensuring that trained assessors assess the computer workstations for relevant staff and that any issues identified as part of the risk assessments are addressed;
- Ensuring that consultation with staff takes place during the risk assessment process;

Appendix 1: Example of Information to Include in a Policy on Prevention and Management of Musculoskeletal Disorders (MSDs)

- Ensuring that the risk assessments are recorded and signed off;
- Ensuring that staff members are made aware that eye and eyesight tests are available to those staff working at computer workstations; and
- Providing training to staff in the use of their computer workstation and providing information on how their work activities can be planned to allow for periodic interruptions by breaks or changes of activity which reduce time spent using display screen equipment.

We will ensure that useful resources are identified and put in place.

We will ensure that where new computer workstations are introduced, risk assessments will be carried out.

Policy for Work Activities with Increased Risk of Upper Limb Disorders (ULDs)

We recognise that some production operations and packing tasks may include work activities which can increase the risk of ULDs.

We recognise that ULDs can be a potential hazard in the workplace and that there is legislation that requires the risk assessment of work activities.

We are committed to implementing measures to comply with regulatory requirements through:

- Consultation with staff during the risk assessment;
- Completion of task-specific risk assessments;
- Implementation of control measures;
- Providing safe systems of work plans (SSWPs) where required;
- Providing training to staff which is specific to the work tasks on site and which incorporates the results of the risk assessment; and
- Ensuring that staff members follow instruction through regular supervision.

We will ensure that resources are put in place to ensure that the measures above are implemented and we will consult with staff as part of the implementation.

We will ensure that where new work practices are introduced, risk assessments will be carried out to address potential hazards.

Appendix 1: Example of Information to Include in a Policy on Prevention and Management of Musculoskeletal Disorders (MSDs)

Information to refer to in a policy on management of MSDs in the workplace

A policy on the management of MSDs may expand on the following:

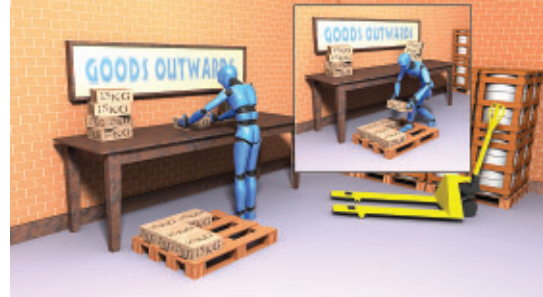
- Prompt reporting of an accident
- Prompt investigation of an accident and implementation of corrective actions
- Appropriate documentation of all accident investigations
- Retention of staff at work
- Communication between the employee and employer
- Access to professional or other advice to help staff
- Planning and undertaking workplace adjustments
- Preparing a retention at work or early return to work plan



APPENDIX 2: MANUAL HANDLING RISK ASSESSMENT WORKSHEET (COMPLETED)

STAGE 1: TASK DESCRIPTION

The employee is working at a packing station which is at the end of the production process. The employee is required to transfer boxes weighing 15 kg from the workbench to the pallet on the floor.



STAGE 2: COLLECT ALL TECHNICAL DETAILS

- The boxes weigh 15 kg
- The employee has to lift a number of boxes into position on a pallet
- The employee has to work below knee height when positioning some boxes on the pallet
- The pallet is very close to the employee, which results in the employee engaging in an upper body twist when transferring the boxes to the pallet

STAGE 3: IDENTIFY THE RISK FACTORS

- The physical effort can involve a twisting movement of the trunk
- The load is positioned in a manner requiring it to be held with a bending of the trunk
- The work environment prevents the handling of loads at a safe height
- The activity requires over-frequent or over-prolonged physical effort involving the spine

STAGE 4: IDENTIFY THE IMPROVEMENTS TO BE PUT IN PLACE

- A high lift or variable height pallet truck is used and can be adjusted to optimum height as the pallet is being packed
- The staff are trained in the correct use of the pallet truck, including the benefits of setting the equipment to optimum height
- A job rotation system is introduced so that staff are not involved in this activity for long periods of time
- A conveyor table which is adjustable in height is sourced to allow the boxes to be rolled along the conveyor



STAGE 5: REVIEW EFFECTIVENESS OF THE SOLUTION

APPENDIX 3: MANUAL HANDLING RISK ASSESSMENT WORKSHEET (BLANK)

Step 1: Task description: How is the task carried out?

Step 2: Collect technical information: What are the technical details of the task?

Step 3: Identify the risk factors: What are the problems/risks?

Step 4: Identify the improvements to be put in place: What improvements can be made (actions that can be taken to avoid/reduce handling)?

Step 5: Review the effectiveness of the improvements: Are the improvements effective?

APPENDIX 4: EXAMPLE OF A SAFE SYSTEM OF WORK PLAN (SSWP)

SSWP Number 1

Title:

Safe system of work for the handling of televisions on shop floor.

Scope:

This safe system of work summarises the instructions to be followed in order to move televisions on the shop floor in a safe manner.

Key Requirements:

Appropriate trolley available and staff instructed in safe use.

Staff received appropriate manual handling training and instruction.

Televisions assigned to new storage location to avoid having to lift above shoulder height.

Instructions:

- An employee sources the appropriate handling aid and proceeds to the shop floor area where the televisions are stored. A second employee comes to assist.
- The handling aid is aligned as close as possible to the storage racking and the brake mechanism is activated so the handling aid will not move.
- The employees transfer the television from the racking onto the handling aid using safe lifting principles.
- The employees ensure that the load is secured on the handling aid.
- The brake mechanism is released on the handling aid.
- One employee then pushes the handling aid to the checkout area and the product is scanned using a mobile scanner or through the use of a code system for heavy items. This is to ensure that the load does not have to be lifted from the handling aid at the checkout.



Prepared by: J Smith (Safety Officer)

August 2012

Appendix 5: Display Screen Equipment (DSE) Risk Assessment Worksheet (Completed)

Risk Assessment Form for Individual Computer Work Station

Name of the Employee

Date

John Smith

DD/MM/YY

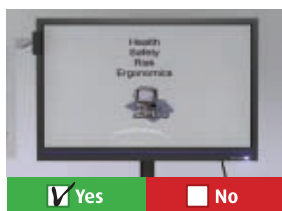
Employee Job Description (Key Work Tasks)

John spends 80% of his day completing data entry tasks at computer work station. Other duties include writing up and filing documentation and attending team meetings.

Name of the Assessor

Edel Jones

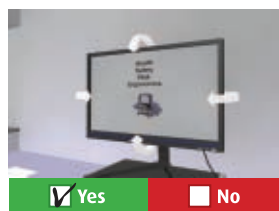
Assessment (Tick as Appropriate ✓)



Characters on screen well defined and clearly formed (adequate size/spacing)



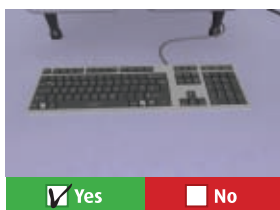
Screen image stable, no flickering/instability, contrast and brightness adjustable



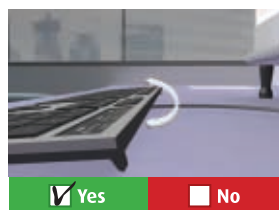
Screen can swivel and tilt easily and freely



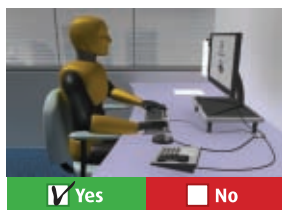
Separate base for screen or an adjustable table provided



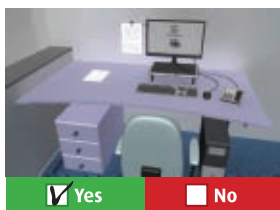
Keyboard with matt surface. keyboard arrangements and characteristics of the keys suitable symbols on keys are legible and contrasted



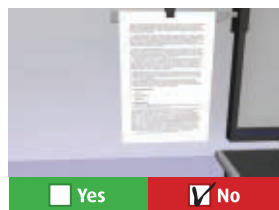
Keyboard tiltable and separate from the screen



Space in front of the keyboard sufficient to support hands/arms

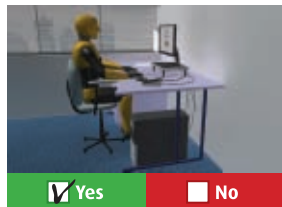


Work desk has sufficiently large low-reflectance surface and allows flexible arrangements

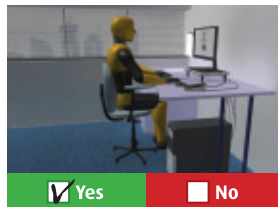


Document holder stable, adjustable and positioned appropriately

Appendix 5: Display Screen Equipment (DSE) Risk Assessment Worksheet (Completed)



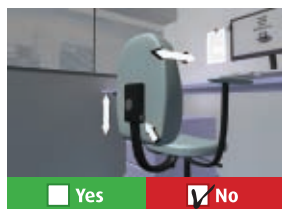
Adequate space for users to find comfortable position



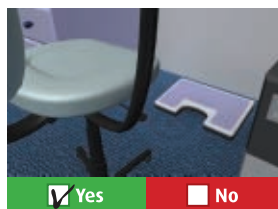
Work chair stable and allows freedom of movement



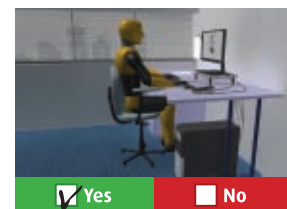
Seat adjustable in height



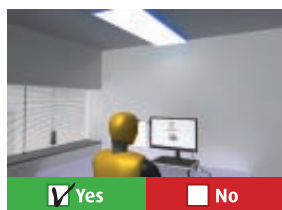
Seat back adjustable in both height and tilt



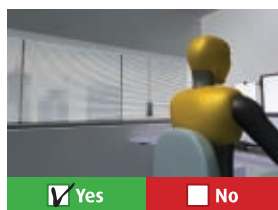
Footrest should be made available where required



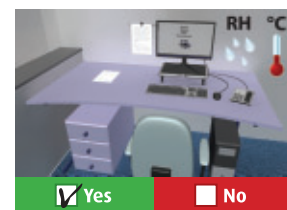
Workstation provides space for user to change position and vary movements



Satisfactory lighting conditions/contrast between screen and background/prevention of disturbing glare through correct position of light source



Sources of light at workstation managed to reduce direct glare/distracting reflection – use adjustable covering for windows



Adequate level of humidity/no excess heat at work station

Findings:

No separate base for screen available. No document holder provided. Seat not adjustable in height. Seat back not adjustable in both height and tilt.

Corrective Actions:

*Source appropriate separate base for screen. Source document holder. Provide seating which is adjustable in height and which allows both height and tilt adjustability.
Note: Actions to be completed by assessor in consultation with line manager before date DD/MM/YY*

Sign-off:

Edel Jnr
Assessor's Signature

DD/MM/YY
Date

[Signature]
Employee's Signature

DD/MM/YY
Date

Appendix 6: Display Screen Equipment (DSE) Risk Assessment Worksheet (Blank)

Risk Assessment Form for Individual Computer Work Station

Name of the Employee

Date

--	--

Employee Job Description (Key Work Tasks)

--

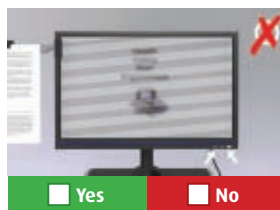
Name of the Assessor

--

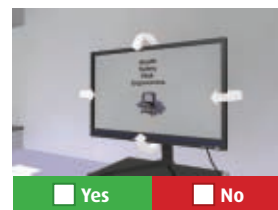
Assessment (Tick as Appropriate ✓)



Characters on screen well defined and clearly formed (adequate size/spacing)



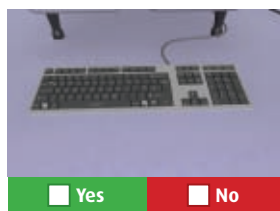
Screen image stable, no flickering/instability, contrast and brightness adjustable



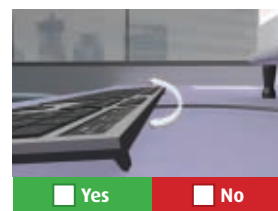
Screen can swivel and tilt easily and freely



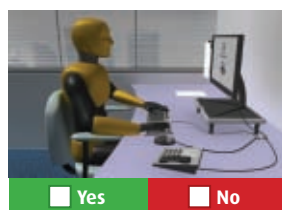
Separate base for screen or an adjustable table provided



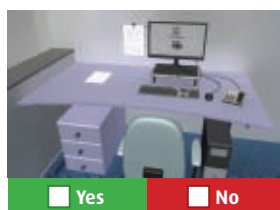
Keyboard with matt surface. keyboard arrangements and characteristics of the keys suitable symbols on keys are legible and contrasted



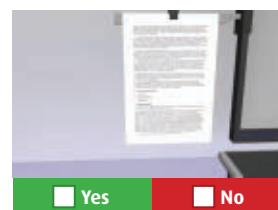
Keyboard tiltable and separate from the screen



Space in front of the keyboard sufficient to support hands/arms

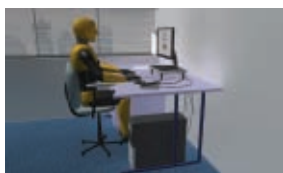


Work desk has sufficiently large low-reflectance surface and allows flexible arrangements



Document holder stable, adjustable and positioned appropriately

Appendix 6: Display Screen Equipment (DSE) Risk Assessment Worksheet (Blank)



☐ Yes ☐ No

Adequate space for users to find comfortable position



☐ Yes ☐ No

Work chair stable and allows freedom of movement



☐ Yes ☐ No

Seat adjustable in height



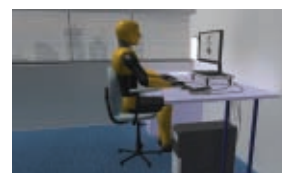
☐ Yes ☐ No

Seat back adjustable in both height and tilt



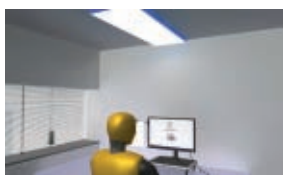
☐ Yes ☐ No

Footrest should be made available where required



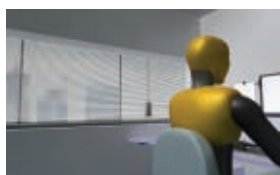
☐ Yes ☐ No

Workstation provides space for user to change position and vary movements



☐ Yes ☐ No

Satisfactory lighting conditions/contrast between screen and background/prevention of disturbing glare through correct position of light source



☐ Yes ☐ No

Sources of light at workstation managed to reduce direct glare/distracting reflection – use adjustable covering for windows



☐ Yes ☐ No

Adequate level of humidity/no excess heat at work station

Findings:

Corrective Actions:

Sign-off:

Assessor's Signature

Date

Employee's Signature

Date

Appendix 7: Risk Assessment for Work Activities which may increase the Risk of Upper Limb Disorders (ULDs) (Completed)

STAGE 1: TASK DESCRIPTION



The employee has to package wrapped biscuits into cardboard sleeves as they arrive off a conveyor.

(Used with kind permission from the Health and Safety Executive UK)

STAGE 2: COLLECT ALL TECHNICAL DETAILS

- The employee has to open a cardboard sleeve with her left hand, slide the package into the sleeve and then move the package across the table with her right hand. The items handled weigh less than 1 kg.
- Both sides of the body are involved and the production rate is 1008 units per hour.
- The task is repeated every 3 seconds.
- The employee performs the task without a break for 1 hour, and for 3.7 hours in a typical day or shift (excluding breaks).
- The employee performs the task daily and no hand tools are used.

STAGE 3: IDENTIFY THE RISK FACTORS

- Due to the continuous delivery of product from the conveyor the employee's arms are moving almost continually.
- The average production rate is 17 times per minute (medium risk as per the ART tool, HSE 2010).
- The sleeves and packages are light, and no particular force is required.
- The employee adopts awkward/poor working postures of the head/neck during the task.
- The employee's back is in a neutral, straight position with no significant leaning, twisting or stooping. However, the chair provides little back support.
- There are 60 minutes of continuous work before taking a break.
- The employee expresses that they sometimes have difficulty keeping up with the pace of the task.

Appendix 7: Risk Assessment for Work Activities which may increase the Risk of Upper Limb Disorders (ULDs) (Completed)

STAGE 4: IDENTIFY THE IMPROVEMENTS TO BE PUT IN PLACE

- Implement job rotation to non-repetitive tasks to minimise the employee's exposure to the risks involved with this task.
- Improve staff posture:
 - o One of the key issues with this task is the employee's hand posture. The design of the products and the cardboard sleeve should be considered.
 - o The use of a jig fitted to the bench could be explored as this may allow the employee to maintain a more neutral posture of the left wrist and hand.
 - o A more appropriate seat design which will provide back support could be considered.
 - o Training the operators in postural awareness and providing a system for early reporting of any ULD symptoms could also be considered.
- Consider the cost-benefit option of other systems of work for part of the process.

STAGE 5: REVIEW EFFECTIVENESS OF THE SOLUTION

All improvements implemented in full



Appendix 8 Risk Assessment for Work Activities which may increase the Risk of Upper Limb Disorders (ULDs) (Blank)

STEP 1: TASK DESCRIPTION

STEP 2: COLLECT ALL TECHNICAL DETAILS

STEP 3: IDENTIFY THE RISK FACTORS

STEP 4: IDENTIFY THE IMPROVEMENTS TO BE PUT IN PLACE

STEP 5: REVIEW THE EFFECTIVENESS OF THE SOLUTION

APPENDIX 9: An example of an internal audit form for musculoskeletal disorder (MSD) prevention and management in the workplace

Internal Audit Form

Name of Organisation:

Area being audited (if applicable):

Name(s) of Auditor:

Date:

Element 1: Policy on prevention and management of musculoskeletal disorders (MSDs) in the workplace	YES	NO	COMMENT
Manual Handling			
Do you have a policy on manual handling?			
IF ANSWER IS YES			
Does it explain the main manual handling operations that take place in the workplace?			
Does it refer to the manual handling of loads regulation and summarise the key requirements?			
Does it outline how the organisation will meet the requirements set out in the regulation?			
Does it explain that staff will be consulted during the risk assessment process?			
Does it refer to the need for manual handling training programs to be specific to the work tasks completed, and take account of the risk assessment outcomes and/or Safe System of Work Plans (SSWPs)? Note: This training should be provided by a competent instructor.			
Does it refer to the arrangements required for supervision of handling practices?			

APPENDIX 9: An example of an internal audit form for musculoskeletal disorder (MSD) prevention and management in the workplace

Element 1: Policy on prevention and management of musculoskeletal disorders (MSDs) in the workplace	YES	NO	COMMENT
Does it identify useful resources that may be required to manage the risk(s) of manual handling?			
Does it refer to the monitoring and review processes in place to flag the need for new risk assessments?			
Display Screen Equipment (DSE)			
Do you have a policy on DSE?			
IF ANSWER IS YES			
Does it explain the main DSE operations that take place in the workplace?			
Does it refer to the DSE regulation?			
Does it outline how the organisation will meet the requirements set out the regulation?			
Does it outline that consultation with staff will take place, and that risk assessments will be recorded and signed off by employees and assessor?			
Does it state that the assessor who conducts the DSE risk assessments of employees' workstations must understand the requirements set out in the DSE regulation?			
Does it identify useful resources that may be required to manage the risk(s) of DSE?			

APPENDIX 9: An example of an internal audit form for musculoskeletal disorder (MSD) prevention and management in the workplace

Element 1: Policy on prevention and management of musculoskeletal disorders (MSDs) in the workplace	YES	NO	COMMENT
Does it refer to the monitoring and review processes in place?			
Work activities which may increase the risk of upper limb disorders (ULDs)			
Do you have a policy to address work activities which may increase the risk of ULDs?			
IF ANSWER IS YES			
Does it explain the main activities that take place in the workplace, and the fact that some of these activities may increase the risk of ULDs?			
Does it refer to the legislative framework around the management of work activities which may increase the risk of ULDs?			
Does it outline how the organisation will meet the requirements set out in legislation?			
Does it refer to the need for a training programme to be specific to the actual work tasks completed, and to take account of the risk assessment outcomes and/or SSWPs?			
Does it refer to the arrangements required for supervision of staff in order to facilitate the transfer of instruction into the workplace and ensure compliance?			

APPENDIX 9: An example of an internal audit form for musculoskeletal disorder (MSD) prevention and management in the workplace

Element 1: Policy on prevention and management of musculoskeletal disorders (MSDs) in the workplace	YES	NO	COMMENT
Does it identify useful resources which may be required to manage the risk(s) of ULDs?			
Does it refer to the monitoring and review processes in place?			
Management of musculoskeletal disorders (MSDs)			
Do you have a policy to address the management of musculoskeletal disorders (MSDs)?			
IF ANSWER IS YES			
Does it refer to the need for prompt reporting of an accident?			
Does it refer to the need for prompt investigation of an accident?			
Does it refer to the need for appropriate documentation of all accident investigations?			
Does it refer to the need for retention of staff at work?			
Does it refer to the need for communication between the employee and employer?			
Does it refer to the need for planning and undertaking workplace adjustments?			
Does it refer to the need to prepare retention at work or early return to work plan?			

APPENDIX 9: An example of an internal audit form for musculoskeletal disorder (MSD) prevention and management in the workplace

Element 2: Risk Assessments and Safe Systems of Work Plans (SSWPs)	YES	NO	COMMENT
Manual Handling			
Is there a system in place to identify and prioritise the key manual handling tasks that need to be assessed?			
Is there evidence that a manual handling risk assessment process is being used to assess tasks?			
Is there evidence that staff members are consulted as part of the risk assessment process?			
Is there evidence that technical information on tasks is being collected?			
Is there evidence that risk factors for a particular task are identified with supporting evidence?			
Is there evidence that control measures for a particular task are identified?			
Is there evidence that the control measures are formalised appropriately through the use of SSWPs or other means?			
Do the SSWPs give clear instruction on how tasks should be performed to avoid or reduce the risk of injury?			
Is there evidence of a review process in place to update and revise risk assessments as necessary?			
Display Screen Equipment (DSE)			
Is there evidence that assessors have been trained to be able to carry out workstation assessments?			

APPENDIX 9: An example of an internal audit form for musculoskeletal disorder (MSD) prevention and management in the workplace

Element 2: Risk Assessments and Safe Systems of Work Plans (SSWPs)	YES	NO	COMMENT
Is there evidence that there is a risk assessment process in place to assess DSE workstations?			
Is there evidence that assessors are assessing individual DSE workstations?			
Is there evidence that staff members are consulted as part of the risk assessment process?			
Is there evidence that the risk assessments are being completed correctly (i.e. detailed observation of employee at the computer workstation and documentation of issues that may need to be addressed)?			
Is there evidence that control measures are identified, recorded and implemented?			
Work activities which may increase the risk of upper limb disorders (ULDs)			
Is there a system in place to identify and prioritise the key activities which may increase the risk of ULDs?			
Is there evidence that there is a ULD risk assessment process being used to assess tasks?			
Is there evidence that staff members are consulted as part of the risk assessment process?			
Is there evidence that technical information on tasks is being collected?			

APPENDIX 9: An example of an internal audit form for musculoskeletal disorder (MSD) prevention and management in the workplace

Element 2: Risk Assessments and Safe Systems of Work Plans (SSWPs)	YES	NO	COMMENT
Is there evidence that risk factors for a particular task are identified with supporting evidence?			
Is there evidence that control measures are formalised appropriately through the use of SSWPs or other means?			
Do the SSWPs give clear instruction on how tasks should be performed to avoid or reduce the risk of injury?			
Is there evidence of a review process in place to update and revise risk assessments as necessary?			

Element 3: Training	YES	NO	COMMENT
Manual Handling			
Is there evidence that training is being provided for staff by an Instructor with a FETAC Level 6 Award? (Republic of Ireland)			
Is there evidence that training is provided by a competent instructor? (Northern Ireland)			
Is there evidence that training relates to site specific work activities?			
Is there evidence that training includes the communication of the results of risk assessments and instruction in the resulting control measures and/or SSWPs that are to be followed?			

APPENDIX 9: An example of an internal audit form for musculoskeletal disorder (MSD) prevention and management in the workplace

Element 3: Training	YES	NO	COMMENT
Is there evidence that training includes instruction in the safe use of equipment?			
Is there evidence that skills taught in training are supported and supervised in the workplace?			
Is there a system in place to ensure that training is kept up to date and reviewed?			
Display Screen Equipment (DSE)			
Is there evidence that training is provided to staff on the requirements under the DSE regulation?			
IF ANSWER IS YES			
Is there an explanation given on the key components that make up a DSE computer workstation? And is there evidence that the training gives instruction on using a workstation appropriately?			
Is there evidence that training gives instruction on the risk assessment process?			
Is there evidence that the training gives instruction on upper limb disorders and other associated MSD risk factors?			
Is there evidence that training gives instruction on planning work activity to allow for periodic interruptions by breaks or changes in work activity?			
Is there evidence that training gives advice on the availability of eye/eyesight tests?			

APPENDIX 9: An example of an internal audit form for musculoskeletal disorder (MSD) prevention and management in the workplace

Element 3: Training	YES	NO	COMMENT
Is there a system in place to ensure that training is kept up to date and reviewed?			
Work activities which may increase the risk of upper limb disorders (ULDs)			
Is there evidence that training is provided to staff on the legislative requirements of work activities which may increase the risk of ULDs?			
IF ANSWER IS YES			
Is there evidence that the training provided to staff is relevant to the site-specific ULD hazards in the work environment?			
Is there evidence that training includes instruction in the safe use of equipment?			
Is there evidence that training is provided to staff on ULD risk factors and the potential symptoms?			
Is there evidence that training provided to staff explains the system for early reporting of symptoms?			
Is there evidence that training provided to staff gives clear instruction on the control measures and/or SSHPs that are to be followed?			
Is there evidence that training is supported and supervised in the workplace?			
Is there a system in place to ensure that training is kept up to date and reviewed?			

APPENDIX 9: An example of an internal audit form for musculoskeletal disorder (MSD) prevention and management in the workplace

Element 4: Accident and near miss reporting and investigation	YES	NO	COMMENT
Is there a system in place to ensure that accidents/near misses are reported in a timely manner?			
Is there a system in place to ensure that accidents/near misses are investigated by a person with the necessary skills and experience?			
Is there a system in place to ensure that appropriate information is collected during the accident/near miss investigation?			
Is there a system in place to ensure that the contributing factors and systems failures are identified as part of an investigation?			
Is there a system in place to ensure that the contributing factors and corrective actions are identified in the investigation report?			
Is there evidence that accident/near miss reports are documented?			
Is there evidence that accident/near miss investigations are documented and reviewed as necessary?			

APPENDIX 9: An example of an internal audit form for musculoskeletal disorder (MSD) prevention and management in the workplace

Element 5: Injury Management (Retention, rehabilitation and return to work)	YES	NO	COMMENT
Is there evidence of an injury management (retention, rehabilitation and return to work) policy?			
Is there a system in place to record sickness absence and flag when a person is off work as a result of musculoskeletal injury or illness?			
Is a service provided to staff to allow them to access medical advice or treatment when they are off work due to a musculoskeletal injury or illness?			
Is there a system in place to allow early contact and on-going communication with an employee when they are off work?			
Is there a system in place to allow for planning and undertaking workplace adjustments to allow for an early return to work?			
Is there a system in place to ensure that a retention or return to work plan is put into place?			

APPENDIX 9: An example of an internal audit form for musculoskeletal disorder (MSD) prevention and management in the workplace

Summary of Findings	Action	Date of Completion

Auditor(s) Signature:

Management Signature:

Date:

This booklet contains notes on good practice. Not all actions are compulsory but you may find them helpful in considering what you need to do in order to prevent and manage musculoskeletal disorders (MSDs) in the workplace.





Health and Safety Executive
for Northern Ireland
83 Ladas Drive
Belfast
BT6 9FR
Northern Ireland
Tel: 028 9024 3249
Facsimile: 028 9023 5383
Email: mail@hse ni.gov.uk
Web: www.hse ni.gov.uk



An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

*Working to
create a
National Culture
where All Commit to
Safe and Healthy
Workplaces and the Safe
and Sustainable
Management of
Chemicals*

**HEALTH AND SAFETY
AUTHORITY**

Tel: 0818 289 389

International
Callers

00353 1 6147000

Fax (01) 6147020

www.hsa.ie