



EAST RIDING
OF YORKSHIRE COUNCIL

Prevention and Management of Musculoskeletal Disorders Safety Guidance Document

Lead Directorate and Service:	Corporate Resources - Human Resources, Safety Services
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1. Background

This safety guidance document provides information on musculoskeletal disorders (MSD's) and the prevention and management of these conditions. Musculoskeletal disorders (MSDs) include problems such as lower back pain, joint injuries and repetitive strain injuries of various sorts. MSD's affect muscles, joints, tendons, and other parts of the musculoskeletal system, and although very common, MSDs can usually be eliminated or prevented by using a common sense approach and assessing the risks in the associated work activities.

This safety guidance document provides background information on MSD's and the expectations of managers, headteachers and employees in reducing the risks associated with MSD's. The following guidance notes support this safety guidance document and provide specific information on:

- Moving and handling of objects
- Moving and handling of people
- Management of vibration at work

2. Foreword

In accordance with the councils corporate safety policy, the council is committed to pursuing continual improvements in health and safety. This safety guidance document supports this commitment and forms part of the councils health and safety management system and supports the council's wellbeing at work policy.

3. Implementation

Directorates are responsible for the implementation of this safety guidance document, and communication of its content as appropriate.

This safety guidance document is available on the safety services intranet page and, where employees do not have access to the council's intranet, via their line manager/headteacher.

The council relies on the co-operation of all employees, and trade unions for the successful implementation of this safety guidance document.

A review of this safety guidance document and the supporting guidance notes will be undertaken 2 years after their implementation, and where significant changes in legislation or working practices deem this appropriate.

4. Roles and Responsibilities

4.1 Directors and Heads of Service

Directors and heads of service are ultimately responsible and accountable to the chief executive for ensuring this safety guidance document is issued to their management team.

4.2 Managers and Headteachers

Managers and headteachers are responsible for achieving the objectives of this safety guidance document where relevant to their area of service delivery and are responsible for ensuring that:

- The information contained within this safety guidance document is implemented and complied with;
- They identify whether musculoskeletal disorders may be developed from work activities;
- Safe working methods are developed from risk assessments which have been completed for all activities where the physical nature of the activity could give rise to an increased risk of MSD's. For example moving and handling of objects or people, physically demanding or repetitive processes, and activities which result in postural constraints etc.
- Safe working methods and risk assessments are completed by following the supporting guidance documents on moving and handling of objects (which incorporates the 'moving and handling assessment chart tool (MAC)' and 'pushing and pulling tool) and moving and handling of people;
- Safe systems of work are implemented to reduce any potential risks to a reasonable level;
- Relevant information, instruction and training is provided to staff to enable them to undertake their job safely and without risk;
- Adequate personal protective equipment is provided and staff are suitably trained in its use;
- All injuries/illnesses related to musculoskeletal disorders are investigated and recorded;
- All reasonable adjustments/modifications and adaptations are made for those employees who have a pre existing medical condition (such as a musculoskeletal disorder) falling under the criteria of the Equality Act;
- Health surveillance is introduced where employees are identified as being at specific risk.

4.3. Employees

Employees must ensure they carry out assigned tasks and duties in accordance with information, instruction, training and agreed safe systems of work. Specifically they must ensure:

- This safety guidance document is complied with;
- They participate in the completion and review of risk assessments;
- They co-operate to enable their manager/headteacher to formulate and implement effective management systems;
- They undertake training identified as part of their job specification or highlighted as a result of the risk assessment process;
- They follow safe systems of work;
- They report to their line manager any personal condition that may be related to musculoskeletal disorders;
- They attend health surveillance appointments, where necessary;
- Their own health and safety and that of others are not put at risk by their actions.

4.4 Safety Services

The primary function of safety services is to support the council and its employees by providing professional, authoritative, impartial advice on all aspects of health, safety and wellbeing.

Safety services can assist in carrying out risk assessments to identify if MSD's may be an issue and how to minimise the risk of these developing. Where managers/headteachers require further assistance, safety services will advise on achieving compliance with this safety guidance document.

4.5 Occupational Health

Occupational health will support this policy and procedure by providing managers, headteachers and employees with guidance on all work related health issues, including musculoskeletal disorders. Further information on the role of occupational health can be found on the occupational health page of the council's intranet.

5. Arrangements

5.1 What are Musculoskeletal Disorders?

MSDs can occur in any part of the body. The upper-limbs (from the shoulder to the tips of the fingers) and the lower-back are the two most common sites of injury resulting from physical activities. Work-related MSDs can also occur in the hips, the legs (particularly the knee), and the neck, taking the forms of:

- Acute MSD's, which are the health effects that occur rapidly due to short term exposure. For example undertaking a 'one off' task or normal day to day task which results in injury to part of the musculoskeletal system;
- Chronic MSDs are the result of cumulative damage to some part of the musculoskeletal system, either from excessive use, or use in an unnatural posture over a lengthy period of time;
- Lifestyle including hobbies and sporting activities can also have adverse effects on the body, similar to those attributed to work activities. Therefore it is important to remember that work activities are not always the sole contributory factor of MSD's.

Some occupations carry a greater risk of sustaining particular types of MSDs. This is because of human genetics, the nature of the activity and the strains placed on specific parts of the musculoskeletal system by the activity.

5.2 Upper limb disorders

Upper limb disorder is commonly referred to as a repetitive strain injury (RSI). However, RSI's are not medical conditions and it is usual practice to refer to these conditions collectively, as 'upper limb disorders' (ULDS).

5.3 Back Pain

The lower back (lumbar region) is particularly prone to injury because of the mechanical forces placed upon it during lifting, carrying or pushing and pulling of loads. In most cases, the damage is a soft tissue injury involving the tearing, strain or rupture of a muscle, tendon or ligament. Back pain can be acute, recurrent or chronic.

Acute (sudden onset) back pain is usually caused by a strained or torn muscle or ligament in or around the spine, caused by sudden forceful lifting or movement of the lower back whilst in an awkward posture. Physiotherapy or chiropractic treatment may bring about symptomatic relief and hasten the period of recovery, although most cases (90%) will recover within six weeks often without treatment other than anti-inflammatory or analgesic medication.

Acute back pain is sometimes caused by the rupture (herniation) of an intervertebral disc (slipped disc). These discs of cartilage act as “shock absorbers” between each vertebral bone. Severe force on the spine can cause a disc to rupture and bulge outwards causing compression of the nerve roots as they leave the spinal cord. This most commonly occurs in the lumbar region where the roots of the sciatic nerve leave the spine, causing referred pain (sciatica) down the leg.

Sometimes, herniation of a disc can occur in the neck, with referred pain down the arm. Most cases will recover without surgery although recovery may take up to six months. A herniated disc will often leave the sufferer vulnerable to further back injury which may result in chronic back pain.

5.4 Osteoarthritis

Osteoarthritis is a loss of the articular cartilage which covers the surfaces in joints, such as the hand, knee and hip. Loss of this lubricated surface causes bones to rub.

Osteoarthritis is often age-related and common in the population. It is difficult, therefore, to be certain that it is a work-related condition. However, there is evidence that it is more prevalent in some occupations, giving rise to the suspicion that jobs that put repeated impact on the knee and hip joint in particular, may either hasten the process of the condition developing.

6. Pre-Existing Medical Conditions

Pre-existing medical conditions should also be acknowledged as a risk factor with the potential to develop into MSD's and as such should be considered during the evaluation of individuals and work activities.

7. Assessing the Risks Of MSD's

The practical steps needed to manage the exposure to, and potential risk of, MSDs vary depending on the extent of the risk and the nature of the workplace.

Managers must assess the risks before deciding what to do. Risk assessments should show if there is a problem which needs to be addressed and should help identify precautions and set priorities.

The risk assessment needs to be based on good information about the work being undertaken and should cover all the foreseeable risks. The risk assessment process must involve all employees who are potentially exposed to MSDs.

8. Physical Risk Factors

There are a number of risk factors associated with MSDs:

- **Repetition** — where the same movements are repeated frequently over a relatively long period of time (eg keyboard work);
- **Force** — the amount of force exerted on the musculoskeletal system by activities such as pulling, pushing or lifting. The greater the force, the greater the risk of subsequent injury;
- **Duration** — the longer someone is engaged in the same activity, the greater is the risk of cumulative damage;
- **Lack of rest** — lack of rest and time for recovery increases the risk of musculoskeletal damage;
- **Posture** — activity carried out in awkward postures greatly increases the risk. This is true of sedentary jobs such as typing or checkout work, or in manual jobs such as lifting;
- **Adverse conditions** — activities where the hands are cold, the floor uneven or slippery, or where loads are difficult to handle, increases the risk. Uncomfortable conditions at computer workstations for example may increase the risk of upper and lower limb disorders.
- **Vibration** - Vibrating tools and equipment can cause damage to blood vessels, nerves, bones and muscles leading to a potentially painful condition. The two most common are known as 'Whole Body' and 'Hand Arm Vibration Syndrome'.
- **Stress** — activities carried out whilst under pressures increases the risk of musculoskeletal disorders, especially in the upper limb area.
- **Individual factors** — factors such as age and gender, height, weight and strength, a history of such conditions (or a pre-existing condition), and pregnancy will have an influence on the risk of musculoskeletal injury.
- **Other Life Style Elements** – smoking, drinking, sporting activities (including extreme sports and hobbies) can also influence individuals predisposition to the onset of MSD's and equally can exacerbate any pre-existing conditions and lead to development of new conditions. Smoking in particular can affect the neurovascular system increasing susceptibility to developing certain types of MSD related conditions.

POSTURE, FORCE, FREQUENCY - MSDs



9. Psychosocial Risk Factors

Physical risk factors such as force, posture and repetition can be harmful to the body and can lead to people developing musculoskeletal disorders. However, HSE research has shown that **psychosocial** risk factors also need to be taken into account.

Psychosocial risk factors are things that may affect workers' psychological response to their work and workplace conditions (including working relationships with supervisors and colleagues). Examples are:-

- High workloads;
- Tight deadlines;
- Lack of control of the work and working methods.

As well as leading to stress, which is a hazard in its own right, psychosocial risk factors can lead to musculoskeletal disorders. For example, there can be stress-related changes in the body (such as increased muscle tension) that can make people more susceptible to musculoskeletal problems; or individuals may change their behaviour, for example doing without rest breaks to try and cope with deadlines.

Both the physical and psychosocial factors need to be identified and controlled in order to have the greatest benefit. The best way to achieve this is by using an ergonomic approach, which looks at achieving the best "fit" between the work, the working environment and the needs and capabilities of the workers.

Jobs which are not well designed and include some or all of the following undesirable features, may lead to psychosocial risks:

- Workers have little control over their work and work methods (including shift patterns);
- Workers are unable to make full use of their skills;
- Workers, as a rule, are not involved in making decisions that affect them;
- Workers are expected to only carry out repetitive, monotonous tasks;
- Work is machine or system paced (and may be monitored inappropriately);
- Work demands are perceived as excessive;
- Payment systems encourage working too quickly or without breaks;
- Work systems limit opportunities for social interaction;
- High levels of effort are not balanced by sufficient reward (resources, remuneration, self-esteem, status).

10. Reducing the Risks Of Psychosocial Factors

Consider the following control measures that can be applied to improve the working environment within your workplace:

- Reducing the monotony of tasks where appropriate, through the provision of variety or rotation of tasks;
- Ensuring that workloads are monitored, with deadlines, and demands in place;
- Ensuring good communication and reporting of problems;
- Encouraging teamwork;
- Monitoring and controlling shift work or overtime working;
- Providing appropriate training;

11. Health Surveillance

Health surveillance should be considered in the risk assessment process and may be one of the designated 'control measures' stemming from the assessment. Health surveillance can improve the health of employees by identifying a disease or a condition related to work or which may arise out of work activities.

The primary purpose of health surveillance is the early detection of adverse health risks associated with work activity. It allows staff at increased risk to be identified and additional precautions to be taken as necessary. It is also a means of checking the effectiveness of the existing control measures.

The following points should be considered by managers/supervisors to help determine if health surveillance is required:

- Are there any pre-existing conditions which require taking in to account?
- Is there an identifiable MSD related condition related to the activity?
- Is it possible the condition may occur in this particular working environment?
- Is surveillance likely to assist in the protection of the health of the employees concerned?
- Does any specific legislation requiring health surveillance apply?

Managers are responsible for ensuring that accurate records are retained for all employees who are monitored under a health surveillance programme. These should be retained for the duration of employment. Occupational health and safety services will support managers and headteachers where health surveillance programmes are identified as necessary.

11.1 Request for Health Surveillance

Requests for an occupational health referral for fast-track physiotherapy can be made via line managers.

The referral forms are accessible through the occupational health page on the council's intranet site.