

## **ERGONOMICS** **(incl. Musculoskeletal Disorders)**

(See also: [Risk Assessment\(68\)](#); [Seating\(72\)](#); [Manual Handling\(52\)](#); [Work Related Upper Limb Disorders\(93\)](#); [Display Screen Equipment\(20\)](#))

### **INTRODUCTION**

Ergonomics is an approach to promoting occupational health, which also has benefits in terms of employee satisfaction and efficiency. In designing work systems the emphasis is on designing tools, equipment and workplaces so that the job fits the person rather than the reverse. Approaches to prevention may be based on work design or organisational arrangements. The former relate to tools, machines, workplaces and work methods whilst the latter are concerned with selection & training, skills matching and job rotation methods. Usually a combination of these approaches is needed when resolving ergonomic problems that may lead to musculoskeletal disorders.

### **MUSCULOSKELETAL DISORDERS**

Musculoskeletal disorders basically arise from damage to muscles and joints. They are not confined to particular industrial sectors or types of people. Recent estimates indicate that almost 900,000 cases are caused or made worse by work each year.

Work-related problems are often caused by poor workplace or job design. These can lead to:

- poor working positions
- too much bending, stretching or effort required
- high levels of repetition
- difficult manual handling tasks

The back, neck, shoulders and upper limbs are particularly at risk. You may be able to identify such health problems by any of the following:

- injuries to backs and limbs
- employee complaints and rest stops
- poor product quality or individual performance
- DIY improvements to workstations and tools or 'self-help' health aids such as copper bracelets.

Some musculoskeletal disorders develop slowly and it is therefore important to catch them early - reporting of such aches and pains should be encouraged so that appropriate action can be taken.

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**Ref: 25**

**February 2002**

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## **THE NEED FOR ACTION**

Several recent pieces of legislation require health & safety risks to be assessed (see element on Risk Assessment). In addition sickness absence, high staff turnover, retraining, loss of production, compensation costs etc. will undoubtedly cost businesses money.

By adapting jobs to suit the individuals doing them, fatigue can be reduced and motivation/satisfaction (and ultimately productivity) increased.

## **IMPLEMENTING SOLUTIONS**

Solutions can be achieved through changes to the design of workstations, tools and work organisation. Even simple solutions can make a significant improvement, and are often easier to implement & adjust to than more complex changes. In the HSE publication 'A pain in your workplace - ergonomic problems and solutions' (HSG 121) there are 77 case studies where useful solutions have been found to a variety of ergonomic problems throughout industry and the service sector. They include:

- VDU's - use/operation
- loading produce trays into a delivery van
- washing utensils in a sink
- accountancy & legal secretarial work
- work at a supermarket delicatessen counter
- cased beer distribution
- stillaging cask beer
- recovery of shopping trolleys from car parks
- intensive telephone and keyboard use

Each case study describes the body area affected, risk factors, type of solution and relevance of the case in other situations. The publication is commended to all those addressing ergonomic problems in the workplace.

## **CHECKLIST - ERGONOMICS**

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|---|-----|----|
| 1. Have you systems, procedures or 'attitudes' in place to help identify possible musculoskeletal disorders arising from work activities? | YES | NO |
| 2. Have you carried out appropriate risk assessments on hazardous activities?   | YES | NO |
| 3. In striving to find ergonomic solutions, do you involve employees and match the job to the individual and not vice versa?              | YES | NO |

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## **REFERENCES/FURTHER DETAILS**

- \*1. Booklet HSG 121. A pain in your workplace. Ergonomic problems and solutions. (HSE) ISBN 0 71765 0 668 6
- \*2. Booklet HSG 57 - Seating at work. (HSE). ISBN 0 7176 1231 7.
- \*3. Booklet HSG 60 - Work related upper limb disorders: a guide to prevention. (HSE). ISBN 0 7176 0475 6.
- \*4. Leaflet INDG 90- If the task fits - ergonomics at work. (HSE) ISBN 0 7176 1379 8.
- \*5. Booklet L23 - Manual handling - Guidance on Regulations. (HSE). ISBN 0 7176 2415 3.
- \*6. Booklet L26 - Display screen equipment work - guidance on Regulations. (HSE). ISBN 0 7176 0410 1.

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- \* Available to view by prior arrangement at Nuneaton and Bedworth Borough Council, Environmental Health Services, Council House, Coton Road, Nuneaton. CV11 5AA
  - \*\* Free copy available from Nuneaton and Bedworth Borough Council at the above address.

**Ref: 25**  
**February 2002**

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