



10.0 Display Screen Equipment



Display screen equipment provided for use at work shall meet the relevant legal requirements.

Software shall be suitable for the task, easy to use and where appropriate adaptable to the abilities of the employee.

The company will ensure that workstations for use with display screen equipment are suitable for the persons using them and for the type of work being done.

Employees must be able to leave the workstations quickly in an emergency.

10.1 Workstation Set-up

The chair and display screen equipment should be adjusted to find the most comfortable position for the work. The forearms should be approximately horizontal to the work surface and the eyes should be at the same height as the top of the monitor, (see diagram above).

1. Seat back adjustability.
2. Good lumbar support.
3. Seat height adjustability.
4. No excess pressure on underside of thighs and backs of knees.
5. Foot rest if needed.
6. Space for postural change, no obstacles under desk.
7. Forearms approximately horizontal.
8. Minimal extension, flexion or deviation of wrists.
9. Screen height and angle to allow comfortable head position.
10. Space in front of keyboard to support hands/wrists during pauses in keying.

10.2 Workload

Managers shall plan the workload of employees to allow for breaks away from workstation. This does not mean breaks from work, but undertaking different types of work activities.

As a guide, employees should take a 5 to 10 minute break for every hour at the workstation. Frequent short breaks are more effective than longer, less frequent breaks. It is also important to refocus the eyes on a distant object away from the screen at regular intervals.



10.3 Workstation Assessments

Managers shall ensure that employees carry out an intranet based workstation assessment. Any residual risks identified by the workstation assessment are e-mailed to the safety co-ordinator who shall review the assessment, address any issues and record the actions taken in the 'comments' box to close out the assessment.

10.4 Eye Test

Display screen equipment users shall be entitled, (but not obliged) to have an appropriate eye and eyesight test. The company will pay for the cost of the eye test upon production of a valid receipt. Employees shall obtain authorisation from their manager before arranging an eye test. Repeat eye tests may be undertaken at regular intervals as specified by the optician.

10.4.1 Special Corrective Appliances

If special corrective appliances (normally spectacles) are prescribed specifically for work with display screen equipment, the company shall make a contribution towards the cost. If an employee wishes to choose more expensive appliances, e.g. designer frames, they will be responsible for the difference in cost. Further details are contained in the Human Resources 'Eye Care Policy'.

10.5 Health Risks

Only a small proportion of DSE users actually suffer ill health as a result of their work. Where problems do occur, they are generally caused by the way in which the equipment is being used rather than the equipment itself. Problems can be avoided by good workplace and job design and by the way people use the DSE and workstation.

10.5.1 Upper Limb Disorders

Some employees may get aches and pains in their hands, wrists, arms, neck, shoulders or back, especially after long periods of uninterrupted DSE work. Repetitive strain injury (RSI) has become a popular term for these pains and disorders but this can be misleading. A better medical name for the whole group is upper limb disorders. These disorders do not usually last, but in a few cases they become persistent or even disabling. Problems of this kind may have a physical cause, but may also be more likely if the user feels stressed.

Problems can be avoided by good workplace design that allows employees to work comfortably at their workstation and good working practices e.g. taking frequent short breaks away from the workstation. Prevention is easiest if action is taken early, before the problem has become serious. Employees should inform their manager or the safety, health and environmental co-ordinator if they start experiencing any pain.

Intensive use of a mouse, trackball, or similar pointing device may give rise to aches and pains in the fingers, hands, wrists, arms or shoulders. This can also happen with a keyboard, but mouse work concentrates activity on one hand and arm (and one or two fingers), and this may make problems more likely. Adopting a good posture and technique can help to reduce the risks. Learning keyboard shortcuts can also help by reducing the amount of time spent using the pointing device.

10.5.2 Eye Strain

Extensive research has found no evidence that using display screen equipment can cause disease or permanent damage to eyes, but long periods of work in front of a display screen can lead to tired



eyes and discomfort. The screen should be well positioned and properly adjusted and workplace lighting should be suitable for the tasks being carried out.

Working at a computer for long periods can be visually demanding and may cause the eyes to become tired. Employees should give their eyes frequent breaks by periodically looking away from the monitor and focussing on a distant point, remembering to blink often as this helps to keep the eyes naturally protected and prevents dryness and discomfort. If employees wear glasses or contact lenses, they should ensure they keep them clean.

People with bifocals may find them less than ideal for DSE work. It is important to be able to see the screen without having to raise or lower the head. If it is not possible to work comfortably with bifocals and a different type of spectacles may be required. If in doubt employees should consult their optician for further advice.

The heat generated from the equipment can make the air seem drier and some contact lens wearers may find this uncomfortable. If this is a problem but employees don't want to change to spectacles they may try blinking more often or use tear substitute drops. If the problems persist employees should speak to their manager or to the safety co-ordinator.

10.5.3 Headaches

Headaches may result from several things that can occur with DSE work such as screen glare, poor image quality, wrong screen resolution, a need for different spectacles, stress from the pace of work, reading the screen for long periods without a break, poor posture or a combination of these.

If any employee experiences problems it is important that they inform their manager or safety advisor. Many of these can easily be put right once the cause of the problem has been identified.

10.5.4 Radiation

Display screen equipment gives out both visible light and other forms of electromagnetic radiation which can be harmful above certain levels however, the levels of radiation emitted is well below the safe levels set out in international recommendations.

Employees do not need any special devices when using display screen equipment.

10.5.5 Skin Irritation

A few people have experienced skin irritation, rashes or other skin problems when working with display screen equipment but it seems possible that a combination of dry air, static electricity and individual susceptibility may be involved. If this is the case, increasing the humidity or allowing more fresh air into the room may help.

10.5.6 Epilepsy

Most people with epilepsy are completely unaffected by DSE however, in a few rare cases, people who suffer from photosensitive epilepsy and are susceptible to flickering lights and striped patterns may be affected in some circumstances, but even they can often work successfully with DSE without provoking an attack.

10.6 New and Expectant Mothers

New and expectant mothers do not need to stop working with display screen equipment.



Many scientific studies have been carried out and taken as a whole these do not show any link between miscarriages and birth defects and working with DSE. If an employee is anxious about their work generally during pregnancy, they are advised to talk to their doctor. The safety advisor shall carry out a risk assessment for new and expectant mothers and implement any additional control measures based on the findings.

10.7 Monitor

The monitor should be placed directly in front of the user when seated at the workstation with the front of the monitor placed at an arm's length away to ensure a comfortable viewing distance.

Employees should be able to clearly see the text on the screen.

The height of the monitor should be positioned to allow the screen to be viewed comfortably and not cause the neck to have to bend forward or backward to any degree.

The top of the monitor should be just below the height of the eye when seated at the workstation. The eyes should be looking slightly downwards when viewing the middle of the screen and the monitor tilted so that it faces the eyes.

The monitor screen and the face should be parallel to each other.

Monitors should not be positioned to one side so that the user has to turn their head to view the screen.

Brightness and contrast controls should be adjusted to suit the lighting conditions in the room.

Screen wipes shall be provided at each office to ensure the screen surface is kept clean.

10.8 Chair

The work chair should be stable and allow easy freedom of movement and a comfortable position. Managers shall ensure that employees have been shown how to adjust their chair.

- The seat should be adjustable in height.
- The seat back should be adjustable in both height and tilt.
- A footrest shall be made available to any user or operator who requires one.

The chair height should be adjusted so that with the shoulders relaxed the elbows hang comfortably at the sides in line with the height of the keyboard.

With the chair height adjusted to correct height for the keyboard the user's feet should rest firmly on the floor to avoid excessive pressure from the edge of the seat on the backs of the legs and knees.

Employees should distribute their weight evenly on the chair and use the entire seat and backrest to fully support the body making sure the lower back is well supported and matching the contours of the chair's backrest to the natural curve of the lower spine.

A footrest will be provided if the feet can't be placed flat on the floor. People should stretch their legs and vary their posture throughout the day to avoid discomfort.



10.9 Keyboard

The keyboard should be adjusted to get a good position. A space in front of the keyboard is sometimes helpful for resting hands and wrists when not keying.

The forearms, wrists and hands should be aligned in a straight, neutral position and bending or angling of the wrists should be avoided while typing or using a mouse.

Good keyboard technique is important and the wrists should be kept straight when keying in, keeping a soft touch on the keys and not overstretching the fingers.

The wrists should not be rested on the work surface or a palm rest when typing. Resting palms while typing may be harmful because it can cause persons to bend their wrists back and apply pressure to the underside of the wrists. A palm rest is designed to provide support during pauses when not typing.

The wrists should never be rested on the edge of the desk.

10.10 Mouse

The mouse should be positioned within easy reach so that it can be used with the wrist straight, using the whole arm and shoulder to move the mouse, not just the wrist, sitting upright and close to the desk to avoid working with the mouse arm outstretched.

The keyboard should be moved out of the way if it is not being used. The forearm should be supported on the desk and the mouse should not be gripped too tightly. The fingers should be rested lightly on the buttons and the buttons should not be pressed too hard.

10.11 Work Surface

Work surfaces should be large enough to hold the computer equipment and any additional items that may be required for the work.

People should arrange frequently used papers, books and other items to minimise the distance they have to reach for them.

10.12 Glare and Reflections

The desk and monitor shall be arranged to avoid glare or bright reflections on the screen.

This should be easiest if neither the user nor the screen is directly facing windows or bright lights. People can adjust the blinds to prevent unwanted light.

10.13 Workspace

There should be enough workspace on the desk to accommodate whatever documents or other equipment is needed.

People should try different arrangements of the keyboard, screen, mouse and documents to find the arrangement that best suits them.

A document holder may need to be provided to avoid awkward neck and eye movements if the work involves inputting information from documents.



There should be clear unobstructed knee and leg room under the desk to allow the legs to move freely. Boxes and other equipment shall not be stored under desks.

10.14 Document Holder

If a document holder is used position it near the monitor at the same distance, height and angle as the monitor.

If the main task is typing from paper documents the user may find it more comfortable to place the document holder directly in front of them and the monitor slightly to one side.

Only consider this option if the user spends more time looking at the paper than at the monitor.

10.15 Telephone

The telephone should be placed within easy reach.

Employees should not cradle the telephone between the ear and shoulder as this may lead to neck and shoulder discomfort. If a person needs to use the telephone a lot while typing, a headset should be requested.

10.16 Posture

Rather than working in a single position, people are advised to find a range of positions that they find comfortable for the given work situation and change their posture throughout the day.

Sitting still for long periods can cause discomfort and muscle fatigue.

Changing the posture is good for many parts of the body, including the spine, joints, muscles and circulatory system.

People should not sit in the same position for long periods and are advised to change their posture as often as practicable.

Some movement is desirable, but people should avoid repeated stretching to reach things, e.g. the telephone. If this happens a lot the workstation should be rearranged.

10.17 Screen Breaks

Employees should take frequent short breaks away from the workstation, i.e. 5 to 10 minutes every hour switch to brief tasks that require getting up from the chair such as retrieving output from the printer, filing paperwork, photocopying or walking to other parts of the office is better than taking fewer, but longer breaks.

10.18 Software

In setting up software people should choose options giving text that is large enough to easily read on the screen, when the user is sitting in a normal comfortable position.

Select colours that are easy on the eye. Individual characters on the screen should be sharply focused and should not flicker or move. If they do, the equipment may need servicing or adjustment.



10.19 Notebook Computers

Notebook computers should be provided with a separate keyboard and mouse, a monitor stand, docking station, or other suitable means of raising the monitor height so that the top of the monitor is just below the height of the eye when correctly seated at the workstation.



A manual handling assessment should be carried out if people need to regularly carry a notebook computer around as part of their work.

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