

Health and Safety Office

Topic:	Display Screen Equipment Policy
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1.0 Introduction

All employers are under a general duty to assess the risks to the health and safety of their employees and to anyone else who may be affected by their activity, so that necessary preventative measures can be identified and actioned. As part of this general assessment, work with display screen equipment (DSE) must be assessed against the requirements of the Health and Safety (Display Screen Equipment) Regulations 1992 (amended 2002).

The Health, and Safety at Work etc Act 1974 states that employees have a duty to take reasonable care for the health and safety of themselves and therefore as a result of this the employee should bring to the attention of their line manager any problems that they may be experiencing while working on DSE, the act also states that the employee is to cooperate with the employer and others to enable them to fulfill their legal obligations.

2. Policy

It is the policy of the University of Bristol to fully comply with the Health and Safety (Display Screen Equipment) Regulations 1992 (as amended 2002).

It is the responsibility of Heads of Departments to;

- Ensure that procedures are in place to assess workstations and reduce risks.
- Ensure that workstations meet specified minimum requirements.
- Ensure that staff are given adequate information and training including the importance of regular breaks for those working with DSE.
- Provide eye and eyesight tests on request and the provision of spectacles where they are solely required for DSE work.

This policy applies to all workstations used in the undertaking of University business and all users (see *definitions*).

2.1 Definitions

(a) Display Screen Equipment (DSE)

DSE is defined as 'any alphanumeric or graphic display screen, regardless of the display process'. A display screen usually forms part of a computer showing text, graphics or numbers (i.e., desktop, laptop, PDA). The definition also applies to display systems such as microfiche and CCTV.

(b) **User**

User means any employee who habitually uses display screen equipment as a significant part of their normal work. The Regulations apply to users whether they are employed to work at their own employer's workstation, a workstation at home or hot desking at another employee's workstation. The majority of University employee's (including post graduate students) will be classed as 'users'.

(c) **Workstations**

A workstation comprises of:

- The display screen
- Chair, work surface / desk, keyboard or other input device
- Telephone, document holder, printer etc
- Any optional accessories to the display screen equipment
- Immediate work environment around the display screen equipment

The workstation includes the furniture and equipment used by an individual to carry out their work and the environment where that work is carried out. Environmental considerations include space, heat, lighting, noise and humidity.

3.0 Procedures / Guidance

3.1 Analysis of Workstations to assess and reduce risks

Each Department must have one or more assessors who are trained in the principles and practices of workstation assessment.

The assessor should be familiar with the main requirements of the DSE Regulations and should have the ability to;

- Identify hazards (including less obvious ones) and assess risks from the workstation and the kind of DSE work being done;
- Draw valid and reliable conclusions from assessments and identify steps to reduce risks;
- Make a clear record of the assessment and communicate the findings to those who need to take appropriate action, and to the worker concerned;
- Call on further expertise if necessary. Assessors may seek advice from the Health & Safety Office or recommend referral of staff to the Occupational Health Service

When identifying assessors, Heads of Department must ensure that they have enough time and motivation to carry out the role effectively. The Health and Safety Office provides training and information for assessors.

Workstation self assessment must be carried out by all employees who use DSE using the form <https://www.bris.ac.uk/safety/policy/vduworkstation.doc>

Results of the form must then be reviewed by the department assessor and appropriate action taken to resolve any issues if required. Assessments should be repeated or reviewed if there are major changes to the equipment, environment, furniture, tasks or following an employee relocating workstations. Users should be encouraged to report any ill health that may be due to their DSE work to their line manager or Department Safety Advisor. Reports of ill health can also indicate that a reassessment of the workstation is required.

Departments must also repeat the assessment at a regular basis (1-3 years at the discretion of the individual department) to ensure good working practices that raises awareness of the avoidance of possible health effects. Reassessment should be carried out in the same way as the original assessment.

In some areas a workstation may be shared by more than one employee. Where this occurs the assessment of the workstation must be conducted for each person using it.

There is an increase of workers using mobile tools that are used for DSE type tasks e.g., lap top or PDA. These should be risk assessed and the user should be made aware of the risks from using the equipment and how to minimise them, further details on the prevention of health effects are contained in Appendix 2.

3.2 Minimum Requirements for Workstations

Workstations and equipment must comply with the minimum requirements outlined in the DSE regulations and reproduced in Appendix 1. The minimum requirements for workstations apply to all elements of the workstation including furniture, software and environmental factors.

Departmental assessors must include in their assessment schedules, where necessary, any University workstations used by undergraduate students, for example in computer teaching spaces. These workstations should as far as is reasonably practicable meet the minimum ergonomic requirements set out in the Regulations in order to comply with the duty of care that the University owes to its students. Further advice can be obtained from the Health and Safety Office where necessary.

3.3 Daily Work Routines of Users

Whenever possible, jobs using DSE should be designed to consist of a mixture of screen-based and non-screen-based work to prevent fatigue, eyestrain, musculoskeletal conditions such as backache and mental demands. Breaks or changes of activity must be included in working time.

It is advisable to take short, frequent breaks rather than occasional longer breaks: for example a 5-10 minute break after 50-60 minutes continuous screen and/or keyboard use will be more beneficial than a 15-20 minute break every 2 hours. If possible breaks should be taken away from the DSE workstation, to allow the user to stand up, move about and change posture.

Most University employees have control over their own work and will be able to organise their time to ensure that they take sufficient breaks.

3.4 Eye Sight Tests

DSE Users are entitled to eye and eyesight tests by a registered practitioner (Optician or Doctor) on the following occasions:

- When they first become a User,
- When requested by the User,
- At regular intervals thereafter on the recommendation of the practitioner (usually every 2 years),
- When the User experiences visual difficulties attributed to display screen use,

The University of Bristol will pay for eye tests for all who are identified as users. The University will also pay (or contribute towards) a pair of corrective appliances (spectacle frame and lenses) where these are solely required for DSE use; this will be determined by the Optician at the time of the eye test. The University will not pay for spectacles which are used for other purposes such as reading or driving in addition to display screen equipment work.

Further information can be found in Appendix 3.

3.5 Provision of Training and Information

All users must have adequate information and training on the following that is aimed at reducing or minimising the main risks to health – stress and fatigue, musculoskeletal, eye and eyesight effects;

- Risks from display screen equipment and workstations
- Risk assessment and measures to reduce the risks (see Appendix 2)
- Breaks and activity changes
- Eye and eyesight tests
- Initial training
- Training when the workstation is modified, including situations where the user is hot desking

To achieve this all users are able to complete the online training course available at <http://www.learninglink.ac.uk/site.htm>

All users should confirm to their Department Safety Advisor when they have completed this course.

The Health and Safety Office run training courses specifically for DSE Assessors and for all members of staff advising them on how to set up their work stations safely. Additional drop-in sessions for Departments can be organised on request.

Details of courses can be found in the Personnel and Staff Development course diary;
<http://staffdev.ilt.bris.ac.uk/staffdevelopment/courses/directory/>

4.0 Prevention of Potential Health Effects

Guidance on minimising the principal health risks associated with DSE work (musculoskeletal problems, visual fatigue and mental stress) are outlined in Appendix 2. For further information please contact the Health and Safety Office or the Occupational Health Service.

APPENDIX 1

MINIMUM REQUIREMENTS FOR WORKSTATIONS

The minimum requirements for workstations are contained in the Annex to the Regulations and are in place to secure the health, safety and welfare of persons at work. For your information this has been reproduced as follows;

Equipment

2. (a) General comment

The use as such of the equipment must not be a source of risk for operators or users.

(b) Display screen

The characters on the screen shall be well-defined and clearly formed, of adequate size and with adequate spacing between the characters and lines.

The image on the screen should be stable, with no flickering or other forms of instability.

The brightness and contrast between the characters and the background shall be easily adjustable by the operator or user, and also be easily adjustable to ambient conditions.

The screen must swivel and tilt easily and freely to suit the needs of the operator or user.

It shall be possible to use a separate base for the screen or an adjustable table.

The screen shall be free of reflective glare and reflections liable to cause discomfort to the operator or user.

(c) Keyboard

The keyboard shall be tiltable and separate from the screen so as to allow the operator or user to find a comfortable working position avoiding fatigue in the arms or hands.

The space in front of the keyboard shall be sufficient to provide support for the hands and arms of the operator or user.

The keyboard shall have a matt surface to avoid reflective glare.

The arrangement of the keyboard and the characteristics of the keys shall be such as to facilitate the use of the keyboard.

The symbols on the keys shall be adequately contrasted and legible from the design working position.

(d) Work desk or work surface

The work desk or work surface shall have a sufficiently large, low-reflectant surface and allow a flexible arrangement of the screen, keyboard, documents and related equipment.

The document holder shall be stable and adjustable and shall be positioned so as to minimize the need for uncomfortable head and eye movements.

There shall be adequate space for operators or users to find a comfortable position.

(e) Work chair

The work chair shall be stable and allow the operator or user easy freedom of movement and a comfortable position.

The seat shall be adjustable in height.

The seat back shall be adjustable in both height and tilt.

A footrest shall be made available to any operator or user who wishes one.

Environment

3. (a) Space requirements

The workstation shall be dimensioned and designed so as to provide sufficient space for the operator or user to change position and vary movements.

(b) Lighting

Any room lighting or task lighting provided shall ensure satisfactory lighting conditions and an appropriate contrast between the screen and the background environment, taking into account the type of work and the vision requirements of the operator or user.

Possible disturbing glare and reflections on the screen or other equipment shall be prevented by co-ordinating workplace and workstation layout with the positioning and technical characteristics of the artificial light sources.

(c) Reflections and glare

Workstations shall be so designed that sources of light, such as windows and other openings, transparent or translucent walls, and brightly coloured fixtures or walls cause no direct glare and no distracting reflections on the screen.

Windows shall be fitted with a suitable system of adjustable covering to attenuate the daylight that falls on the workstation.

(d) Noise

Noise emitted by equipment belonging to any workstation shall be taken into account when a workstation is being equipped, with a view in particular to ensuring that attention is not distracted and speech is not disturbed.

(e) Heat

Equipment belonging to any workstation shall not produce excess heat which could cause discomfort to operators or users.

(f) Radiation

All radiation with the exception of the visible part of the electromagnetic spectrum shall be reduced to negligible levels from the point of view of the protection of operators or users health and safety.

(g) Humidity

An adequate level of humidity shall be established and maintained.

Interface between computer and operator/user

4. In designing, selecting, commissioning and modifying software, and in designing tasks using display screen equipment, the employer shall take into account the following principles:
 - (a) software must be suitable for the task;
 - (b) software must be easy to use and, where appropriate, adaptable to the level of knowledge or experience of the operator or user; no quantitative or qualitative checking facility may be used without the knowledge of the operators or users;
 - (c) systems must provide feedback to operators or users on the performance of those systems;
 - (d) systems must display information in a format and at a pace which are adapted to operators or users;
 - (e) the principles of software ergonomics must be applied, in particular to human data processing.

APPENDIX 2

PREVENTION OF POTENTIAL HEALTH EFFECTS

1 Rest Breaks

Rest breaks of 5-10 minutes should be taken every 50-60 minutes of VDU work where possible, although for people with existing problems relating to VDU work, a 3-5 minute break every 30 minutes is recommended. This rest break must be used to carry out alternative work, provided it does not involve the same postures/actions as keyboard work. Photocopying and filing are suitable alternative tasks but work involving handwriting would not be. When taking a rest break it is important to move away from the VDU otherwise the rest break will not be of sufficient time to allow the muscles to recover.

In addition to rest breaks, frequent small postural changes are recommended. Individuals should not remain in fixed static postures but regularly stretch and adjust their position; this will help reduce the risk of work related upper limb disorders.

2 Posture / Chairs

Chairs must be comfortable in good order and fully adjustable to comply with DSE regulations. A suitable chair will allow the user to achieve different postures and reduce muscle effort when seated. An ideal chair should be height adjustable with back height and tilt adjustments, good lumbar support, sliding seat, rocking action and adjustable/removable arms so they do not get in the way.

3 Desking

The work desk should be of such size that it allows for flexible arrangement of the screen, keyboard, documents and related equipment. The height of the work surface for sitting postures should be between 705 – 735mm and the surface should be free from glare and reflection. Desk feet can be purchased to raise the height of the desk if necessary (for a particularly tall person). Another option is a height adjustable desk for the rare occasions where the user (maybe due to a back problem) is required to sit/stand.

4 Footrests

The objective of a footrest is to support the users lower limbs whose feet cannot touch the floor when sitting correctly in relation to the workstation. Ensure that knees are not touching the underside of the workstation. The rocking action footrest gently stretches the calf muscles and improves circulation and works well for users with lower limb conditions or sciatica.

5 Document Holders

The best position for a document holder is between the keyboard and monitor. A document holder will help eliminate repetitive head and neck movement as well as the need to twist. A document holder allows data to be positioned at the same focal length as the screen to minimize eye strain and improve productivity.

6 Mouse

An ideal mouse should be comfortable for the user with smooth, precise easy controls. Ergonomic mice may be more suitable than a standard mouse. A vertical mouse supports the hand in a natural relaxed position. Left handed users would most likely benefit from a left handed mouse. If changing a mouse check out the USB or PS/2 fitting.

7 Keyboards

Keyboard design must allow workers to locate and activate keys quickly, accurately and without discomfort. The choice of keyboard will be dictated by the nature of the task and determined in relation to other elements of the work system. The user should align the 'H' key with the centre part of the body. Compact keyboards with complementary number pads encourage positioning of the mouse close to the body thereby avoiding forearm extension and excess wrist movement. Natural 'split' keyboards allow further adjustments reducing reliance on the same tendon and muscle groups. Check USB or PS/2 fitting.

8 Wrist Support

Working for long periods with arm and hand extended together with poor posture can lead to specific complaints of the wrist, elbow and shoulder. There are a number of aids to encourage correction and provide relief such as gel filled wrist rests and articulating arm supports. Special wrist rests are not a requirement. If used, they must be chosen with care to ensure they do not increase rather than decrease the risks.

9 Task Lighting

A task light will allow the user to focus light on a desired surface, and avoid the need to bend forward to peer at copy and is the best way of obtaining individual adaptable lighting.

10 Monitor Risers

The monitor needs to be positioned directly in front of the user. The height will vary according to the users comfort. Too high or too low will cause unnecessary repetitive neck and head movements.

11 Telephone Headsets

Heavy telephone users may consider using a headset, especially if they are inclined to cradle the telephone when multi-tasking. As there are many different telephone systems, exercise care when choosing by obtaining as much information about the user's telephone.

12 Ergonomic Equipment

The Health & Safety Office has a range of ergonomic equipment that can be borrowed by departments for up to two weeks. These items include alternative keyboards, mice and chair supports. Details are available at; <http://www.bristol.ac.uk/safety/guidance/gn08-05.pdf>

13 Glare and Reflection

The correct positioning of the display screen in relation to lights and windows helps to avoid glare and reflections on the screen. Both of these can lead to eyestrain and headaches.

Ideally display screens should not be placed with a window immediately in front or behind them. In some cases it may be necessary to provide window coverings e.g., blinds to shield windows.

APPENDIX 3

University Eye testing procedures: Guidance for Heads of Department/School and Department Safety Advisers (DSAs)

Introduction

Under The Health and safety (Display Screen Equipment) Regulations 1992 (as amended 2002), employers must provide display screen equipment (DSE) users with eye and eyesight tests on request, and corrective appliances specifically for use with DSE (e.g. glasses) if needed. This guidance had been produced for Heads of Department/School and DSAs and outlines options available to schools and departments to manage eye testing for DSE users.

A DSE user can be defined as any employee who habitually uses display screen equipment as a significant part of their normal work (for more detail on the definition of a DSE user please see section 1 of the DSE assessors' handbook:

<http://www.bristol.ac.uk/safety/policy/responsibilities/advisors/guidance/dsehandbook.doc>). The Regulations apply to all DSE users whether they are working at an office-based workstation, a workstation at home or hot desking. At the University, most employees are classed as DSE users as they have access to and use a computer. Post Graduate students who are paid by the University and are DSE users are subject to the Regulations in the same way as University employees.

Legal requirements and responsibilities

DSE users are entitled to receive an eyesight test:

- When they first become a user
- At the request of a user
- At regular intervals thereafter (as recommended by the optician)
- When the user experiences visual difficulties that may be attributed to display screen use

DSE users are currently entitled to receive the following financial contributions towards eye tests and corrective appliances:

- Up to £20 towards the cost of an eye test
- Up to £35 towards the cost of glasses prescribed solely for DSE use.

For more details on financial contributions available please see [the Finance Office's website: http://www.bristol.ac.uk/finance/regs/regsindex/annexd/annexd2-15.html](http://www.bristol.ac.uk/finance/regs/regsindex/annexd/annexd2-15.html)

Each school or department is responsible for:

- Managing the eye testing of DSE users within their school or department
- Providing information to staff on the arrangements for eye testing (for example by providing details in the Local Rules)
- Ensuring DSE users are reimbursed for eye sight tests and glasses as appropriate

Potential solutions to managing eye testing within a school or department

Two main options are available to schools or departments to manage eye testing:

1. Allow DSE users to visit an optician of their choice: with this option the employee can visit an optician of their choice and claim back costs (within the limits specified at the start of this guidance) through expenses.
 - a. The employee must obtain authorisation using the authorisation form: https://www.bristol.ac.uk/safety/uobonly/forms/health/eyetest_form.pdf
 - b. Once authorised, the employee should arrange their own appointment with the optician
 - c. The employee should pay for the test and any glasses issued for DSE use
 - d. After the eye test, the employee must provide the authorisation form with the section 2 completed by the optician. If corrective appliances have been issued specifically for DSE use this must be indicated by the optician on the form.
 - e. The employee can then claim costs back through the school or department expenses as appropriate (within the limits specified above). Receipts must be provided.

- f. Any costs incurred above the limits specified above for eye tests and corrective appliances must be met by the employee
 - g. The completed authorisation form should be kept by the school/department as evidence that the relevant legislation is being complied with
2. Use a prepaid voucher scheme: voucher schemes are currently available though many opticians include for example Boots and Specsavers). This involves ordering books of vouchers in advance which can be issued to employees who request an eye test. This type of scheme may be preferred by some schools/departments as it is easy to manage, however some scheme's vouchers may have an expiry date. Some voucher schemes may include the cost of basic corrective appliances in the voucher, other schemes may require an additional voucher. Details of the scheme should be explained to the DSE user requesting an eye test and covered in the Local Rules.
- a. The employee must obtain authorisation using the authorisation form: https://www.bristol.ac.uk/safety/uobonly/forms/health/eyetest_form.pdf
 - b. Once authorised, the employee will be issued with a voucher for an eye test and should arrange an appointment with the optician
 - c. The employee must take the voucher and the authorisation form with them to the appointment. The voucher should be provided to the optician as payment and the section 2 on the authorisation form completed by the optician.
 - d. Any costs incurred above the limits specified above for eye tests and corrective appliances must be met by the employee
 - e. After the eye test, the employee must provide the relevant person within the school/department with the completed authorisation form.
 - f. The complete authorisation form should be kept by the school/department as evidence that the relevant legislation is being complied with

Authorisation form

All staff who are DSE Users and request an eye test must complete the relevant sections of the authorisation form (https://www.bristol.ac.uk/safety/uobonly/forms/health/eyetest_form.pdf) prior to attending an eye test and submit it for approval to the nominated person within their school/department. Section 2 of the form should be completed by the optician. If the optician determines that glasses are needed specifically for DSE use, they must indicate this on the authorisation form. The relevant person in the school/department (with the authority to approve eye test requests) must check this section has been completed prior to agreeing payment for any glasses issued. As a rough guide, only around 4% of the population need glasses specifically for DSE work. Any DSE glasses issued to a user remain the property of the University.

Whichever approach is chosen, records should be kept by the school or department (for example completed authorisation forms) to demonstrate compliance with the relevant legislation and University procedures. These records may be checked during Health and Safety audits. Records should be kept for 5 years.

*Please note: from the 1st January 2011 the Health and Safety Office will no longer accept or pay any invoices from Specsavers and will direct these back to the relevant school or department for payment.

Useful Information

- Finance Office information on allowances for eye tests and glasses: <http://www.bristol.ac.uk/finance/regs/regsindex/annexd/annexd2-15.html>
- Authorisation form for eye test: https://www.bristol.ac.uk/safety/uobonly/forms/health/eyetest_form.pdf
- Revised section 15 of DSE assessors handbook (to be included in the full handbook from January 2011): https://www.bristol.ac.uk/safety/uobonly/forms/health/eyetest_section15.pdf
- DSE policy: <https://www.bris.ac.uk/safety/policy/cop/dsecop.doc>
- Local Rules template for eye testing arrangements: https://www.bristol.ac.uk/safety/uobonly/forms/health/eyetest_localrules.pdf

APPENDIX 4

LINKS

Possible health effects of DSE work

For further information on the possible health effects associated with DSE follow the link

<http://www.hse.gov.uk/pubns/indg36.pdf>

VDU Assessment Form

Link to DSE checklist

<https://www.bris.ac.uk/safety/policy/cop/vduworkstation.doc>

Eye Test Authorisation Form

<http://www.bristol.ac.uk/safety/safe/forms/#health>

Occupational Health Workstation Referral Process

<http://www.bristol.ac.uk/safety/health/wsassessment/>