

**DISPLAY SCREEN EQUIPMENT (DSE)**

#### RISK ASSESSMENT

|  |  |  |  |
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| ASSESSMENT DETAILS | | | |
| **Name of DSE user** |  | **Date of self-assessment** |  |
| **Location of workstation** |  | **Desktop or laptop?** |  |
| **Name of Line Manger** |  | **Date of assessment** |  |
| **Line Manager signature** |  | **Review date** |  |

#### Introduction

**What is display screen equipment (DSE)?**

DSE are devices or equipment that have an alphanumeric or display screen and includes display screens, laptops, touch screens and other similar devices. A ‘workstation’ consists of:

* the screen, keyboard and software which the user interacts with on screen
* any accessories to the screen
* any disk drives, telephones, modems, chairs etc. used at the workstation
* the immediate work environment around the equipment

**What are the risks associated with DSE use?**

The health risks associated with DSE use fall under the following three categories:

* upper limb disorders (neck, arm, elbow, wrist, hand and finger pain)
* temporary eyestrain (but not eye damage) and headaches
* fatigue and stress

**Getting comfortable at your desk**

The following may help users:

* Forearms should be approximately horizontal and the user’s eyes should be the same height as the top of the screen
* Make sure there is enough work space to accommodate all documents or other equipment.
* Arrange the desk and screen to avoid glare, or bright reflections. This is often easiest if the screen is not directly facing windows or bright lights.
* Adjust curtains or blinds to prevent intrusive light
* Make sure there is space under the desk to move legs
* Avoid excess pressure from the edge of seats on the backs of legs and knees. A footrest may be helpful, particularly for smaller users

**What legislation covers DSE use?**

The *Health and Safety (Display Screen Equipment) Regulations 1992* lay down minimum Health & Safety requirements for work with DSE. The employer’s principal duty is to assess the risks to ‘users’ of DSE and to reduce the risks to the lowest level reasonably practicable. The employer is also under a duty to effectively manage four principal issues, namely:

* the design, set-up and use of the workstations, furniture etc.
* the work routine of operatives
* eye and eyesight care
* training and information provision

**Equipment**

**Chairs**

Chairs should support the worker in a position that allows required tasks to be done comfortably and efficiently. The chair should have a stable base, be height adjustable, comfortably support the buttocks and thighs and allow for changes in position.

**Tables and Work Surfaces**

As a general rule, the work surface area should allow space for all computer equipment, paperwork and equipment. It should also be non-reflective, height adjustable and allow the operator to work at an optimum position with suitable clearance for legs and changes in position. Table tops, if used, should be the size of a “standard” office desk - 30 by 60 inches wide.

**Monitors**

The top of the screen should be at eye level, or not more than 15 degrees below eye level, and the monitor should generally be positioned 18 - 24 inches away from the operator. Closer positioning magnifies possible eyestrain and dust and radiation exposures. DSE operators should also be made aware of the need to keep monitor screens dust free as they attract dust and repel it towards the face with the potential to cause allergic reactions.

**Computer Keyboard Placement**

Keyboards are best operated from elbow height, with a slight incline towards the elbows. They should be capable of being operated with a light touch. Typing with the wrists in a neutral position reduces this pressure and its possible consequences.

**Ergonomic Keyboards**

These types of keyboards are thought to facilitate a more natural position whilst typing. Opinion is divided on their effectiveness in preventing cumulative stress disorders.

**Mice**

Ideally, the mouse should be used with a neutral wrist position, without force. The whole arm should be used rather than the forearm alone, which can put strain on the hand and wrist muscles. The mouse should in the immediate reach zone on a platform slightly above the keyboard, for comfort and hand eye co-ordination. Mouse wrist rests are also useful as is occasionally changing the mouse to the other hand.

**Environment**

**Temperature and Humidity**

The workplace should be at least 16oC and a maximum of 24oC for work that is largely sedentary.

The level of humidity within the workplace should be between 30% and 50% relative humidity. It is important to maintain a good circulation of air (but not draughts), especially around machines such as copiers and printers.

**Lighting and Screen Glare**

Adequate illumination levels should be maintained, with an appropriate contrast between the screen and the background environment. Screen glare can be reduced by repositioning monitors, using indirect lighting, blinds and anti-glare screens.

**Human Factors**

**Exercise**

Exercise is one of the key elements in an ergonomics programme. Ideally, DSE users should move around the workplace once an hour if doing intensive computer work. Work routines should also be varied, i.e. mixing computer work with non-computer work.

**Eye Care**

Simple strategies can be used to prevent eyestrain, for example, minimising exposure to DSE screens, resting the eyes **before** they get tired and closing the eyes for a few seconds at regular intervals. Other measures include choosing a distant focal point and looking at that on a regular basis. Eye moisturising drops can also be used to help soothe strained or dry eyes. You may be eligible for financial help with the cost of an eye test and glasses, please discuss this with your manager.

**Radiation**

Electromagnetic radiation from computer screens is currently not believed to adversely affect users, including pregnant employees. Existing skin conditions may be aggravated in conditions of low humidity.

**Health and safety (display screen equipment) regulations 1992, as amended**

The *Health and Safety (Display Screen Equipment) Regulations 1992, as amended* (DSE Regulations) lay down minimum health and safety requirements for work with display screen equipment. The following definitions are given with respect to the Regulations:

* **display screen equipment:** any alphanumeric or graphic display screen, regardless of the display process involved
* **operator:** a self-employed person who habitually uses display screen equipment as a significant part of his normal work;
* **user:** an employee who habitually uses display screen equipment as a significant part of his normal work;
* **workstation**: an assembly comprising display screen equipment disk drive, telephone, modem, printer, document holder, work chair, work desk, work surface or other item peripheral to the display screen equipment; and the immediate work environment around the equipment

**ASSESSMENT METHODOLOGY**

The DSE User completes an initial self-assessment of health, safety and welfare factors associated with their workstation and DSE use.

Following completion of the self-assessment, the employees Line Manager will review the information completed by the User. Any problems identified will be assessed and any actions needed documented in the required section. This forms a **Safety Improvement Plan** to rectify problems identified during the assessment.

| **No.** | **Question** | | **Answer Yes or No** | **Things to consider** | **Further actions required** | **Actions completed (person and date)** |
| --- | --- | --- | --- | --- | --- | --- |
| **1** | **Keyboard** | |  |  |  |  |
| 1.1 | Is the keyboard separate from the screen? | |  | This is a requirement, unless the task makes it impracticable e.g. where there is a need to use a portable. |  |  |
| 1.2 | Does the keyboard tilt | |  | Tilt need not be built in |  |  |
| 1.3 | Is it possible to find a comfortable keying position?  [Image result for correct position for keyboard and mouse](https://www.bing.com/images/search?view=detailV2&ccid=iZrwJmxf&id=D3F8A8292A53E39CA38466F001A767963BA19CE0&thid=OIP.iZrwJmxfNPnP-mcmaPkbQwHaDG&mediaurl=http://www.theosteopaths.com.au/wp-content/uploads/2017/01/keyboard-mouse-.png&exph=360&expw=859&q=correct+position+for+keyboard+and+mouse&simid=608026914499462835&selectedIndex=0) | |  | Try pushing the display screen further back to create more room for the keyboard, hands and wrists. Users of thick, raised keyboards may need a wrist rest. |  |  |
| 1.4 | Do you have good keyboard technique | |  | Avoid: hands bent up at the wrist, hitting the keys too hard and overstretching the fingers. |  |  |
| 1.5 | Are the characters clear and readable | |  | Keyboard should be kept clean. If the characters can’t be read, the keyboard may need modifying or replacing.  Use a keyboard with a matt finish to reduce glare and/or reflection |  |  |
| **2** | **Mouse, trackball etc.** | |  |  |  |  |
| 2.1 | Is the device suitable for your needs? |  |  | If the user is having problems, try a different device. The mouse and trackball are general-purpose devices suitable for many tasks. |  |  |
| 2.2 | Is the mouse positioned close to the user  [Image result for correct position for keyboard and mouse](https://www.bing.com/images/search?view=detailV2&ccid=iZrwJmxf&id=D3F8A8292A53E39CA38466F001A767963BA19CE0&thid=OIP.iZrwJmxfNPnP-mcmaPkbQwHaDG&mediaurl=http://www.theosteopaths.com.au/wp-content/uploads/2017/01/keyboard-mouse-.png&exph=360&expw=859&q=correct+position+for+keyboard+and+mouse&simid=608026914499462835&selectedIndex=0) |  |  | Most devices are best placed as close as possible, e.g. right beside the keyboard.  Position needed to prevent arm overreaching  Do not leave your hand on the device when it is not being used.  Keep your arm relaxed and your wrist as straight as possible. |  |  |
| 2.3 | Is there support for your wrist and forearm? This can be gained from the desk surface. |  |  | You should be able to find a comfortable working position with the mouse |  |  |
| 2.4 | Does the mouse work smoothly at a speed that suits you |  |  | See if cleaning is required. Check the work surface is suitable. A mouse mat may be needed. |  |  |
| 2.5 | Can you easily adjust software settings for speed and accuracy or pointer |  |  | You may need advice on how to adjust the device settings. |  |  |
| **3** | **Display Screens** |  |  |  |  |  |
| 3.1 | Are the characters clear and readable/  [Image result for dsiplay screen clear and readable](https://www.bing.com/images/search?view=detailV2&ccid=1BGpwvl5&id=1033251FD06F08E2087C1D5C0226E5045CA7F75A&thid=OIP.1BGpwvl50KTBl4dKKBg3egHaHa&mediaurl=https://www.compushooter.com/wp-content/uploads/2014/08/clean-me.jpg&exph=294&expw=294&q=dsiplay+screen+clear+and+readable&simid=608011186381719380&selectedIndex=136) |  |  | Make sure the screen is clean.  Check that the text and background colours work well together |  |  |
| 3.2 | Is the text size comfortable to read? |  |  | Software settings may need adjusting to change text size. |  |  |
| 3.3 | Is the image stable, i.e. free from flicker and jitter? |  |  | Try using different screen colours to reduce flicker, e.g. darker background and lighter text. If there are still problems, get the  set-up checked by the IT Team. |  |  |
| 3.4 | Are the brightness and / or contrast adjustable |  |  | Separate adjustment controls are not necessary, provided you can read the screen easily at all times. |  |  |
| 3.5 | Does your screen: Swivel and tilt?    [Image result for swivel and tilt computer screen](https://www.bing.com/images/search?view=detailV2&ccid=J8qtRK4Q&id=0E0A4E455ECAB2B4564A103C31D7D2C7A5DA3A48&thid=OIP.J8qtRK4Q6GtdLkJAQS8KtwHaFj&mediaurl=https://c1.neweggimages.com/NeweggImage/ProductImage/24-176-142-02.jpg&exph=480&expw=640&q=swivel+and+tilt+computer+screen&simid=608002072427562257&selectedIndex=33) |  |  | Swivel and tilt need not be built in; you can add a swivel and tilt mechanism.  If the screen/tilt is absent or unsatisfactory, please let your manager know. |  |  |
|  |  |  |  |  |
| 3.6 | Is the screen free from glare and reflections? | |  | You might need to move the screen or even the desk and/or shield the screen from the source of the reflections. Screens that use dark characters on a light background are less prone to glare and reflections. |  |  |
| 3.7 | Are adjustable window blinds or coverings provided and in adequate condition? | |  | Check that blinds work.  If these measures do not work, consider anti-glare screen filters as a last resort and seek specialist help. |  |  |
| **4** | **Software** | |  |  |  |  |
| 4.1 | Is the software suitable for the task | |  | Software should help the user carry out the task, minimise stress and be user-friendly. |  |  |
| **5** | **Furniture** | |  |  |  |  |
| 5.1 | Is the work surface large enough for all the necessary equipment papers etc.?  See the source image | |  | Create more room by moving documents, reference materials elsewhere. Keep your desk as clear as possible. |  |  |
| 5.2 | Can you comfortably reach all the equipment and papers you need to use | |  | Rearrange equipment, papers etc. to bring frequently used things within easy reach. |  |  |
| 5.3 | Is your work surface free from reflections? (For example from windows or lights) | |  |  |  |  |
| 5.4 | Is your chair suitable?  Is the chair stable?  Does the chair have a working:   * Seat back height and tilt adjustment * Seat height adjustment * Castors or gliders | |  |  |  |  |
| 5.6 | Is your chair adjusted correctly?  [Image result for correctly adjusted chair](https://www.bing.com/images/search?view=detailV2&ccid=4s9UsKxq&id=0D6AAE90C0BEF10003B05A940F28ACC9F4CAA470&thid=OIP.4s9UsKxqa_jdadwv0docIAHaHa&mediaurl=https://www.corpdesign.com/image/cache/data/Chair%20functions/2-%20CHAIR%20TILT%20LOCK-800x800.jpg&exph=800&expw=800&q=correctly+adjusted+chair&simid=607990308523933951&selectedIndex=75) | |  | You should be able to carry out your work sitting comfortably. |  |  |
| 5.7 | Is the small of your back supported by the chair’s backrest? | |  | You should have a straight back, supported by the chair, with relaxed shoulders |  |  |
| 5.8 | Are your forearms horizontal and eyes roughly the same height as the top of the display screen equipment (DSE)? | |  | Adjust the chair height to get your arms in the right position, and then adjust the DSE height, if necessary. |  |  |
| 5.9 | Do you have enough room under your desk to move your legs and change position? | |  | Move any obstructions from under the desk |  |  |
| 5.10 | Are your feet flat on the floor, without too much pressure from the seat on the backs of the legs? | |  | If not, a footrest may be needed. |  |  |
| **6** | **Environment** | |  |  |  |  |
| 6.1 | Is there enough room to change position and vary movement? | |  | Space is needed to move, stretch and fidget.  Consider the layout of the work area and check for obstructions  Cables should be tidy and not a trip hazard. |  |  |
| 6.2 | Is the lighting suitable, e.g. not too bright or too dim to work comfortably | |  | You can control light levels by adjusting window blinds or light switches. |  |  |
| 6.3 | Does the air feel comfortable? | |  | DSE and other equipment may dry the air.  Circulate fresh air if possible.  Plants may help.  Consider a humidifier if discomfort is severe |  |  |
| 6.4 | Are levels of heat comfortable | |  | More ventilation or air conditioning may be required if there is a lot of electronic equipment in the room. Or, can users be moved away from the heat source or open a window? |  |  |
| 6.5 | Are noise levels comfortable? | |  | Consider moving sources of noise |  |  |
| **7** | **General Questions** | |  |  |  |  |
| 7.1 | Do you take regular breaks from your desk? | |  |  |  |  |
| 7.2 | How often do you have an eyesight test? | |  |  |  |  |
| 7.3 | When was your last eyesight test? | |  |  |  |  |
| 7.4 | Do you wear glasses **only** when you are working with IT equipment? | |  |  |  |  |
| 7.5 | Do you have any other concerns or comments regarding your workstation or DSE use? | |  |  |  |  |

**HEALTH AND SAFETY FACTORS IN DSE USE**