

DSE User Guide

1. This guide has been prepared for all Defence personnel who are DSE users (using DSE for more than an hour a day). It has been adapted from the Health and Safety Executive's guide "Working with Display Screens." This advice is primarily aimed at users of DSE on permanent workstations.

Why should I read this guide?

2. DSE has become one of the most common kinds of work equipment; working with DSE can lead to physical (musculoskeletal) problems, visual fatigue, and mental stress. These problems are not generally caused by the DSE itself but by how the DSE is used. It is important that you are aware of the risks, what you can do to avoid the risks and what the MOD is doing to reduce them.

Do I need training to use DSE?

3. All DSE users need some type of training prior to using DSE so they can avoid DSE related health problems. This can be achieved by military DSE users to undertake the training course 'Display Screen Equipment training course (V397)' on the Defence Learning Environment (DLE) portal, and for civilian DSE users to undertake the mandatory annual Health and Safety training course on the Civil Service Learning (CSL) portal which includes a module on DSE; you may also be required to undertake other training for example, touch-typing skills and so on.

Permanent workstations

What should I do if I have any problems associated with DSE Work?

4. If you think there is a problem with your DSE workstation or you have health problems, for example, back, shoulder and neck problems, eye problems (information about the specifics of your health condition can be kept confidential) connected with DSE work, then you **must** tell your manager. They can make the necessary arrangements through DBS-People Services / local Primary Care facility for further advice or a specialist assessment.

5. If your manager cannot assist you, you can ask your Representative of Employee Safety (Safety Rep) or Trade Union Representative for assistance.

How can I avoid DSE related health problems?

6. Using an analogy of driving a vehicle the driver **should** always adjust the seat, make sure the mirrors are right and move the steering wheel and so on to make sure they are not only safe, but comfortable before driving away. This analogy could also be applied to using DSE where long periods of time are spent sitting at the workstation; the following guidance below will help you to minimise the risk from the use of DSE.

Support your back

7. When seated at your workstation, your wrists and forearms **should** be approximately horizontal with the floor. This can help prevent repetitive strain injuries. Your elbows **should** be by the side of your body so that the arm forms a capital letter 'L' shape.

Adjust your chair

8. A correctly adjusted chair will reduce the strain on your back, shoulders, and neck, therefore:

- a. the chair **should** be easily adjustable so that you can change the height, the back adjustable for tilt and provide adequate lumbar support and seat pan with forward and backward adjustability;
- b. your knees **should** be level with your hips. Your feet **should** be flat on the floor. If they are not, ask if you can have a footrest, which lets you rest your feet at a level that is comfortable;
- c. try not to cross your legs or ankles, as this can cause posture-related problems. Leave a gap between the edge of your seat and the backs of your legs to avoid excess pressure on your legs and knees. A footrest may be helpful.

Adjust your screen

9. Your monitor screen **should** be positioned directly in front of you:

- a. the monitor **should** be about an arm's length away, with the top of the screen roughly at eye level;
- b. the brightness and contrast controls on the screen **should** be adjusted to suit lighting conditions in the room;
- c. your monitor screen **should** be arranged to avoid glare, or bright reflections on the screen. This will be easiest if neither you nor the screen is directly facing windows or bright lights, adjusting curtains or blinds (if fitted) can help prevent unwanted light falling on the screen. Make sure the screen surface is clean;
- d. select colours on the screen that are easy on the eye (avoid red text on a blue background, or vice-versa). Individual characters on the screen **should** be sharply focused and **should** not flicker or move. If they do, the display screen may need servicing or adjustment;
- e. you **should** avoid the tendency to lean in towards the screen as this can cause stress on the spine. If you notice yourself adopting this position you **should** either increase the text size on the monitor or move the monitor closer to you;
- f. in setting up software, where possible choose options giving text that is large enough to read easily on your screen, when you are sitting in a normal, comfortable working position; and
- g. you **should** not look continuously at the screen and **should** adopt the practice of increasing your rate of blinking and looking away from the screen to something about seven metres distance away for 20 seconds, every 20 minutes. As a result of frequently practicing this exercise, it gives the DSE user's eyes a chance to relax and to prevent them from visual fatigue.

Adjust your keyboard and mouse

10. Adjust your keyboard to get a comfortable keying position. A space in front of the keyboard is helpful for resting the hands and wrists when not keying. Try different arrangements of keyboard (for example a curved keyboard, wide screen, vertical mouse, and document holder) to find the best arrangement for you:

- a. try to keep your wrists straight when keying; not bent up or down at the wrists;
- b. do not overstretch your fingers;

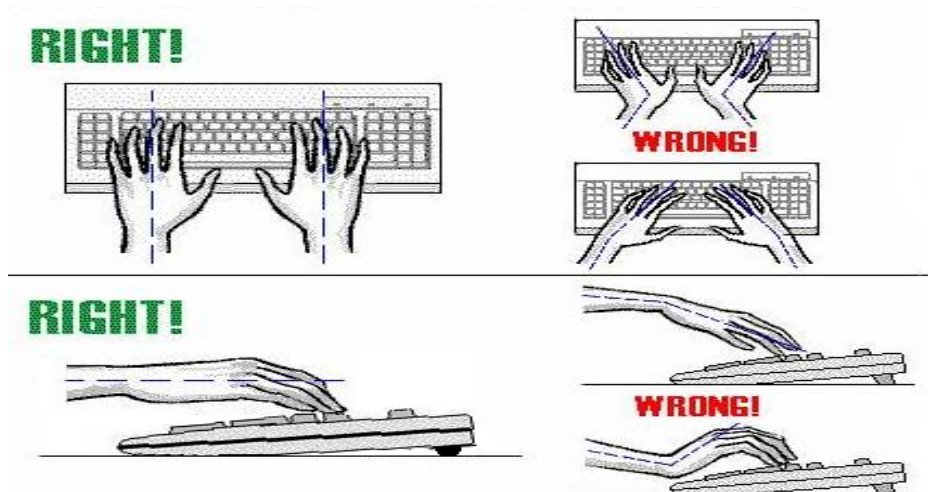


Figure 1. Using a Keyboard

- c. good keyboard technique is important in minimising strain; you may find a keyboard wrist support can assist with maintaining good keyboard technique;



Figure 2 – keyboard wrist support

- d. position the mouse within easy reach, so you do not have to work with your mouse arm stretched - ideally the mouse **should** be used with the wrist straight. The forearm **should** be supported on the desk (use of a mouse mat with a wrist support may be more comfortable), rest your hand on the mouse. Apply gentle pressure to operate the mouse buttons; and

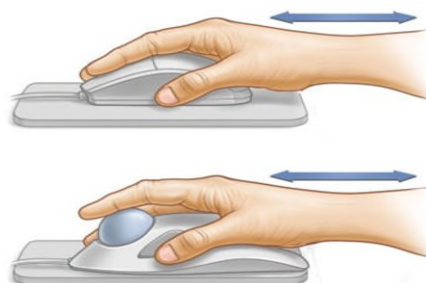


Figure 3. Using a Mouse

- e. sit upright and sit in close to the desk.

Make objects accessible

11. Frequently used items for example, telephone or mouse **should** be nearby to avoid over-stretching or twisting to reach things - move or rotate your chair or relocate the equipment to within easy reach.

12. If you spend a lot of time on the phone, try exchanging your handset for a headset; repeatedly cradling the phone between your ear and shoulder can strain the muscles in your neck.

Working with spectacles

13. People with bifocal spectacles may find them less than ideal for computer work. It is important to be able to see the screen easily without having to raise or lower your head. If you cannot work comfortably with bifocals, you may need a different type of lens, and you **should** consult your optician if in doubt.

Workstation

14. You **should** not sit in the same position for lengthy periods. Make sure you change your posture as often as practicable. Some movement is desirable but avoid repeated stretching to reach things you need (if this happens a lot, rearrange your workstation). Consider using a sit-stand desk or a height adjustable desk:

- a. you **should** allow yourself short natural breaks (ten minutes in every hour) away from the DSE for example, photocopying, making a drink. If you have no opportunity for natural breaks, you **should** speak to your manager. Short, frequent breaks are better than longer, infrequent ones;
- b. make sure there is space under your desk to move your legs freely. Move any obstacles such as boxes or equipment; and
- c. make sure you have enough workspace to take whatever documents or other equipment you need.

Environment

15. There are other general work environment factors to consider when setting up your workstation and assessing your work area for example, the space, lighting (including glare and reflection), temperature, humidity, ventilation, noise and so on.

Use of portable DSE

16. Portable DSE are electronic devices which can be used to compose, read, and edit text, view images and / or connect to the internet for example, laptops, notebook computers, tablets, smart phones, and PDAs. Any prolonged use of such devices for an hour or more on a daily basis for work purposes will be subject to the DSE Regulations and the circumstances of such use will need to be individually assessed.

17. Portable DSE systems not in prolonged use are excluded from the regulations. However, some personnel may use such devices intermittently and in support of their main tasks. The degree and intensity of use of the portable device may vary as result. These tasks **should** still be considered in the risk assessment process and steps taken to reduce any residual DSE risks.

Good posture

18. Poor posture, adopting awkward postures where you stretch, twist, slouch or lean, all contribute to placing a strain on the body, and is the biggest cause of discomfort when using portable DSE:

- a. whenever possible, if using a laptop, use a docking station / stand or firm surface and a full-sized keyboard and mouse instead of using the touchpad or trackball built into the laptop;
- b. if you are working at a desk, make sure you have adjusted your chair, so it supports you. Consider using a cushion, or rolled up item of clothing to support the lumbar of your lower back if the chair does not offer appropriate support;
- c. you **should** avoid using a laptop, tablet or notebook at a table with a fixed height chair (for example, in a hotel room, coffee shop etc) for extended periods of time without a break as you are more likely to have poor posture and potential for discomfort:

- (1) try and keep your head upright, not lean forward and keep your shoulders relaxed. If you find yourself leaning in towards the screen you may need to raise the screen or enlarge the font text size;



Figure 4. adopting a good sitting posture

- d. be careful about resting your arms on the edge of the desk, particularly if it has a 90° edge, as high pressure on your forearm can cause discomfort; and
- e. do not hold a phone between your ear and shoulder while writing or keying – you are likely to get a sore neck.

Comfortable use of portable electronic devices (PEDs)

19. The use of PEDs (PDAs, smart phones, tablets and so on) allow you to undertake familiar desktop applications while on the move but often have small screens and keyboards which can lead to visual discomfort, fatigue, headaches and postural problems. They **should** not normally be used as your sole computing equipment. You **should**:

- a. look away from the screen regularly to give your eyes a break;
- b. avoid using these devices intensively for more than 10-20 minutes and take regular breaks;
- c. write short messages; be succinct and use acceptable abbreviations or emojis where appropriate;

- d. try to keep your wrists straight and relaxed when holding and using the device;
- e. keep the screen clean; smudges from fingers can make viewing it more difficult;
- f. ensure your laptop / notebook / tablet screen is the right distance away (roughly an arm's length away from you); and
- g. if glare on the screen is a problem, close any window blinds and try adjusting the angle of your screen to compensate.

Staying safe and security conscious

20. The use of Defence-managed PEDs can increase your personal safety and security risk (for example, theft), therefore when using Defence-managed PEDs in a public place you **should** also consider the security implications of doing so. Further advice on the use of PEDs refer to [JSP 440, Part 2, Leaflet 5B - Portable Electronic Devices](#)

21. The following can help you reduce this risk:

- a. do not leave any Defence-managed PEDs visible in public places for example, in a pocket, or in your car (even if you are in it);
- b. do not leave Defence-managed PEDs unattended in public places, including a public storage locker or out of sight in an unattended private or MT vehicle;
- c. assess your environment before using equipment, and do not use it if you do not feel comfortable doing so;
- d. use non-branded bags or carry cases so it is less obvious;
- e. use a backpack rather than a shoulder bag if carrying a laptop – so it is better secured to your body; and
- f. do not use handheld equipment while walking (especially when ascending or descending stairs), to reduce your risks of slips, trips, and falls.

Reducing stress

22. Some people can find that modern technology, unfamiliar software, or system crashes contribute to their stress:

- a. take regular breaks from computer work;
- b. separate your home and work life; turn off the equipment when you are not working or consider using settings to determine how often you get email updates at intervals to avoid constant interruption; and
- c. think about how your work is organised, and whether you can change this to reduce peaks of work or other causes of stress.