12 Display Screen Equipment

Contents

Introduction

1.   This chapter provides guidance for the provision, management and use of Display Screen Equipment (DSE[1]) and to enable the assessment and mitigation of the risk of harm from the use of DSE (desktop, laptop, tablet or smart phone,) in the work environment (e.g. on the Defence estate or for work purposes; on contractor premises, working from home or working from hotel accommodation etc). This guidance is not limited to typical office situations or computer screens, but also includes laptops, CCTV control rooms, screens used to display line drawings; graphs, charts, radar screens, or computer-generated graphics, electronic display systems; personal data access (PDA), tablets and smart phones etc.

2.   The MOD complies with the Health and Safety (Display Screen Equipment) Regulations in its undertakings in Great Britain (GB) and extends the application of the principles so far as is reasonably practicable, to DSE fitted and used within to means of transport (ships and aircraft etc) as well as its undertakings overseas.

3.   Within MOD, the term "DSE User" is regarded as anyone who uses DSE for an hour or more on a daily basis. At the discretion of the unit / establishment, local policy may be set to designate any personnel who have access to DSE as a "user" for the purpose of assessment. In a standard office environment, a DSE workstation will comprise of a screen, keyboard, other parts of the computer and its accessories (mouse, or other input device), the work surface (desk), chair and other office furniture as well as the immediate work environment. However other environments may also be classed as DSE workstations e.g. radar operator stations.

4.   The main health risks of working with DSE are:

   a.   musculoskeletal disorders e.g. pains in neck, arms, shoulders, back, wrists, fingers, tendons, ligaments, or nerves;

   b.   visual fatigue e.g. eye strain, dry eyes; itching eyes; and

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[1] Any work equipment having a screen that displays alphanumeric or graphical information regardless of the display process involved (cathode ray tube, liquid crystal, plasma) or any other emerging technologies. This does not include calculators or measurement displays etc

c.   mental and / or physical fatigue e.g. reduced memory recall, loss of concentration, dizziness.

5.   Working with DSE may also contribute to stress related health conditions e.g. heart palpitations, shortness of breath, digestive problems, feeling out of control or insomnia.

Roles and Responsibilities

Top Level Budget (TLB) Holders

6.   TLB Holders must ensure that sufficient resources and a suitable strategy for preventive and reactive controls are in place to reduce risks to health from use of DSE in the workplace under their control.

7.   To ensure value for money, TLBs should introduce procedures for the use of the cross-government Corporate Eyecare Scheme (CES) (see Paragraph 29) for DSE eye and eyesight testing and the provision of corrective spectacles. The CES offers an average 80% cost saving over direct reimbursement.

Commanding Officer / Head of Establishment (CO / HoE)

8.   The CO / HoE is responsible for ensuring that the working environment, under their control, is suitably established and maintained for the use of DSE together with the provision of suitable workstations. JSP 384 (Management of Defence Accommodation Stores) should be used for the provision of DSE furniture on all MOD estate unless the establishment is subject to a service provision contract which includes furnished accommodation.

9.   The CO / HoE shall ensure that all DSE workstations are subject to suitable and sufficient DSE workstation assessments (MOD Form 5013) undertaken by competent persons (having any necessary training and experience appropriate to the workstation(s) being assessed); all required corrective actions implemented; and recorded.

10.   To provide consistency of assessment, a generic workstation assessment may be produced for all workstations of a uniform configuration (desk, monitor, keyboard, mouse, software, chair etc) or workstations (including docking stations) used for "hot desking"; this will remove the need for individual workstation assessments and save personnel time. These assessments should be available to all users.

Procurement and Acquisition (Supply Chain)

11.   Any procurement or acquisition of DSE, software, hardware and furniture where it will form part of a DSE workstation, must comply with the Schedule to the Health and Safety (Display Screen Equipment) Regulations which sets out the minimum legal requirements, this is also covered in HSE's Legal Guidance to the Regulations L26.

12.   Where DSE forms part of any new equipment, the acquisition or project team, or local purchase office should consider at an early stage the implications of the guidance in this Chapter together with the relevant legislation. This must include, but is not limited to;

a.   the type of device;

b.   the length of time used;

c.   the interface with the user;

d. the environment in which the equipment will be used e.g. vehicle, aircraft, boat, ship, or office; and

e. whether mobile or static.

13. Information that may help identify, assess or assist in the safe use of DSE workstations (e.g. safety case) should be passed down the supply chain to the customer (CO / HoE, end user etc.).

Managers

14. Managers should ensure that all DSE users for whom they have line management responsibility undertake appropriate DSE training for the equipment / workstation being used. For general office DSE, this training may be provided via the Defence Learning Environment (DLE) (Display Screen Equipment course). DSE refresher training should be undertaken at least every two years or when there is a significant change to the DSE, workstation or software.

15. Managers should ensure that the work activities of each DSE user (including remote workers – see JSP 375, Volume 1, Chapter 21) are assessed (see MOD Form 5016 ((DSE User Assessment)). These assessments should be agreed by the user and manager to confirm acceptance of the findings, the recommended actions, control measures and any reasonable adjustments required. DSE user assessments should be reviewed at least once every two years, or when there is a significant change e.g. personnel report illness or injury that could be exacerbated by current DSE working pattern, hardware; office moves; or complexity of software.

16. If during the DSE assessment complex issues are identified either with the equipment being used or due to personal circumstances of the user (e.g. a new or existing health condition) and specialist knowledge is required to complete the assessment, some TLBs have DSE assessors who have undertaken specific training for identifying user issues with DSE. They can provide basic advice and guidance which may resolve some problems and direct the manager to other resources as required. Alternatively, advice can be sought from the local safety adviser, and if further advice is needed, the TLB Safety Centre (SC); Chief Environment and Safety Officer (CESO); the local Medical Facility (for Service personnel) or DBS People Services (for civilian staff) for the provision of specialist occupational health advice. Assessments and equipment should be reviewed periodically or when there is a change to circumstances to ascertain suitability of workstation and aids in use.

17. All DSE workstations within the managers area of responsibility, which are not already subject to a generic workstation assessment should be individually assessed (see MOD Form 5013 ((DSE workstation assessment)). The assessment findings should be agreed by the users and manager. The completed workstation assessment should be readily available and brought to the attention of all users together with any information in support of control measures (e.g. chair adjustments).

18. For units or establishments with a uniform workstation configuration (used by personnel resident in the building or for "hot-desking" (desk, monitor, keyboard, mouse, software, chair etc) a single generic workstation assessment (MOD Form 5013) defining the platform / building that it relates to should be sufficient. However, unique DSE workstations (e.g. with orthopaedic furniture), workstations with unique software, or laptops (used for an hour or more per day) will require an individual assessment. DSE workstation

assessments should be reviewed no less than once every two years or when there is a significant change to the workstation (e.g. desk, software, lighting etc) that the recommended actions, control measures and reasonable adjustments identified in the DSE assessments are implemented in a timely manner and that the assessments are reviewed when required.

19.   If a workstation is provided by the MOD for personnel who are not directly employed by MOD but are undertaking MOD business (e.g. agency workers, work placement students), the manager supervising the work should ensure that they receive / have received adequate information (Annex A – DSE User Guide, and Annex B for portable DSE) and that the appropriate DSE assessments are completed.

20.   Short-term temporary or occasional[2] use workstations assessments may not need to be formally recorded unless risks are significant[3], e.g. an assessment for occasional work from home using suitable DSE may not need to be recorded. Where a DSE assessment is recorded the manager must ensure that the assessment is available at the workstation. Further advice can be sought from the local health and safety adviser or the TLB safety organisation.

21.   Managers should ensure that the demands of the workload on DSE users allow them to take regular and frequent breaks from using a screen; ideally breaks should allow the user the chance to move or change their posture. Where the nature of the DSE work prevents user's discretion about when to take a break, the manager should ensure that the task is designed to incorporate regular breaks; this can be a change of work activity where the use of a screen is not required. If a DSE user is not taking regular breaks, then the manager must explain the need for regular breaks and ensure that they are taken. In safety critical or emergency situations, the operational need shall take primacy over the need for strict adherence to taking breaks. A break of 5-10 minutes duration should be taken every hour; breaks should NOT be accumulated into one longer break (e.g. 30 minutes after 4 hours).

All Personnel (Users)

22.   DSE users should undertake DSE training appropriate to their role and the equipment used. The online DLE DSE course may be used to satisfy this requirement and refresher training should be undertaken and appropriately recorded at least every two years.

23.   All personnel should set up their own workstation to be comfortable for them and take the necessary breaks from using DSE (see Annexes A and B). Once the workstation has been set up all personnel should undertake a self-assessment using the MOD Form 5016 and take into consideration any DSE related conditions they may have and activities undertaken outside of the workplace (e.g. hobbies, domestic activities) that may exacerbate any such condition. The user and the manager must work together to ensure that the recommended actions are implemented and monitor the effects.

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[2] For this Chapter the guide is: Temporary - to work on a short project between 1 -2 weeks. Occasional use - 1- 3 days a month, but no more than 5. In addition, any Infectious Disease that may affect your work activities or environments should be reviewed in line with Defence Guidance e.g. Covid-19.
[3] Significant risk" in this context - development of any condition that affected the individual's ability to work

24.   If personnel know or suspect that they are suffering from a DSE related condition, even after their workstation has been assessed and any necessary corrective action taken, they should inform their manager.

25.   The user together with their manager should confirm acceptance of the assessment findings and the recommended actions of completing MOD Form 5016 (DSE user assessment). It is the responsibility of the user to comply with control measures put in place and make any necessary user adjustments to the workstation, taking regular breaks where practicable. Personnel who work from home (classed as 'Remote Workers' – see JSP 375 Volume 1 Chapter 21) will need to demonstrate that they know how to set up and assess their own workstation and complete both the workstation (MOD Form 5013) and (MOD Form 5016) the user DSE assessment.

26.   Defence personnel may request a regular eyesight test (recommended at two yearly intervals) or if they suspect that they may require spectacles specifically for use with DSE. This should be actioned in accordance with next section of this chapter.

DSE Eyesight Tests & Spectacles

27.   There is no reliable evidence that work with DSE causes deterioration and / or damage to eyes or eyesight. In the majority of cases DSE users will not need spectacles specifically to work with DSE. The DSE regulations require employers to have in place provision for eyesight testing and if required, spectacles specifically for DSE use; consisting of basic frame and single vision lenses, normally within the 50-60 cm focal range. MOD has no obligation to provide eye tests / corrective spectacles that are required for everyday use.

28.   Provision of multifocal lenses (bifocal or varifocal) may be appropriate if it would be impractical for an individual to keep changing their spectacles to perform their DSE related task e.g. where there is a high frequency of change (several times per minute) of focal length to read other text / media or when continually dealing with staff or public whilst using DSE.

Corporate Eyecare Scheme(s) (CES)

29.   The MOD has signed up to a cross-government Corporate Eyecare Scheme (CES) for the provision of DSE eye-sight tests and spectacles. TLB / business units should have in place procedures for the use of the CES for personnel wishing to take advantage of the MODs legal obligation to provide a free DSE eye-sight test and the provision of spectacles (if required). If personnel choose not to use the CES as a matter of preference, they will not be eligible to reclaim any costs for the DSE eyesight test or spectacles.

30.   The CES provides for eye-sight tests and single vision spectacles solely and specifically for DSE use. The CES is accessed through a pre-pay electronic online voucher system. To order the VDU vouchers an account must first be opened, by telephoning Specsavers on 0115 933 0800. Ordering of the vouchers is done online by accessing the account and entering the number (minimum order quantity is 5 vouchers) and type of vouchers (VDU vouchers) required and paid by GPC card or BACS transfer.

31.   The costs (£15 per VDU voucher) are to be met by individual BLB, unit or establishment budgets. Each VDU voucher covers the provision of:

     a.   a full DSE eye-sight examination, but does not include any additional

procedures (e.g. optomap, full field examination, tear assessment); and

b.   if needed, a pair of spectacles, solely and specifically for DSE use from the £45 range of Specsavers frames, fitted with standard single vision lenses.

32.   The use of the CES should result in a reduction of processing paperwork, and therefore, in significant cost savings to Defence over the system of individual reimbursement, whilst providing a wide range of styles and ability for personnel to contribute if they wish to upgrade to designer frames etc.

Direct Reimbursement

33.   If there is a strong business need for multifocal lenses, an appropriate business case will be required, and authorisation must be obtained using MOD Form 1003 prior to an eyesight test being carried out. A CES voucher should be used for the eyesight test and the direct reimbursement process used to reclaim the full receipted cost up to a maximum contribution of £80 for the spectacles.

34.   Where there is no access to a CES outlet (e.g. a Permanent Joint Operating Base overseas), personnel are entitled to use the direct reimbursement process to recover:

a.   the full cost of a basic DSE eye-sight test fee; and

b.   the full receipted cost of spectacles up to a maximum contribution of £45 for frames and single vision lenses; or

c.   the full receipted cost of spectacles up to a maximum contribution of £80 for frames and multifocal lenses (when supported by an appropriate business case).

35.   The MOD will not pay for:

a.   spectacles for sight defects which are worn to correct vision other than or in addition to the DSE 50-60 cm focal range;

b.   additional procedures (e.g. optomap, full field examination, tear assessment);

c.   the cost of tinted lenses or special coatings;

d.   designer frames;

e.   upgrade from bifocal to varifocal; or

f.   any fee raised by an optician for completing a MOD Form 1003.

36.   For reimbursement, personnel must complete parts 1 and 4 of MOD Form 1003 and the manager parts 2 and 5. The completed MOD Form 1003 and HR Form 1108 should be submitted together with the original receipt to the appropriate TLB Finance Branch.

37.   NOTE: Normal financial probity arrangements must be followed when completing a MOD Form 1003.

Retention of Records

38.   All records including the Unit / Establishment Register, Risk Assessments, etc. should be kept in accordance with JSP 375 Volume 1, Chapter 39.

Related Documents

39.   The following documents should be consulted in conjunction with this chapter.

    a.   JSP 375 Volume1;

        (1)   Chapter 02 – Office and General Workplace Safety;

        (2)   Chapter 14 – Health Surveillance and Health Monitoring;

        (3)   Chapter 20 – New and Expectant Mothers;

        (4)   Chapter 21 – Managing Staff Remotely; and

        (5)   Chapter 39 – Retention of Records.

    b.   Forms;

        (1)   MOD Form 5013; and

        (2)   MOD Form 5016.

    c.   Other MOD Publications;

        (1)   DSA01.1 – Defence Policy for Health, Safety and Environmental Protection;

        (2)   DSA01.2 Chapter 2 – Requirement for Safety and Environmental Management Systems in Defence; and

        (3)   DSA01.2 Chapter 4 – Risk Management in Health, Safety & Environmental Protection.

    d.   Legislation and Guidance;

        (1)   [HSE L26: Work with Display Screen Equipment](#);

        (2)   [HSE INDG36: Working with VDUs](#);

        (3)   [HSE L24: Workplace Health, Safety and Welfare](#);

        (4)   [Gov.uk: Access to Work](#).

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 for users of DSE on permanent workstations.

Why Should I Read This Guide?

2.   Display Screen Equipment (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. For general office DSE work the "Display Screen Equipment" course available through the Defence learning environment (DLE) should suffice; you may also be required to undertake other training e.g. touch-typing skills, and software training.

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 e.g. 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 Medical 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.   The guidance below will help you minimise the risk from 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 an L-shape.

Adjust Your Chair

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

 a.   the chair should be easily adjustable so that you can change the height, the back adjustable for tilt and provide adequate lumbar support;

 b.   your knees should be level with your hips. Your feet should be flat on the floor. If they're not, ask if you can have a footrest, which lets you rest your feet at a level that's 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 the middle distance for a few seconds to avoid 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, screen, mouse and documents to find the best arrangement for you:

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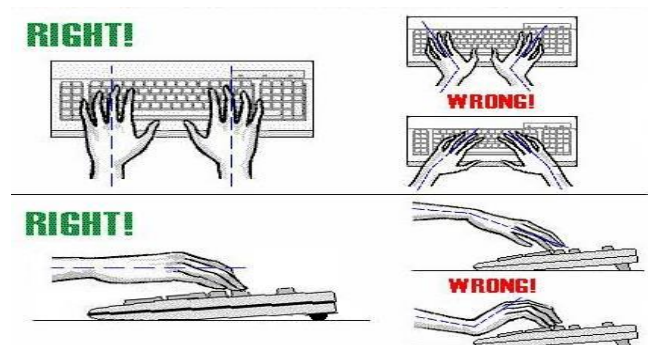
b.   don't overstretch your fingers;

Fig 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;

Fig 2 – keyboard wrist support

d.   position the mouse within easy reach, so you don't 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
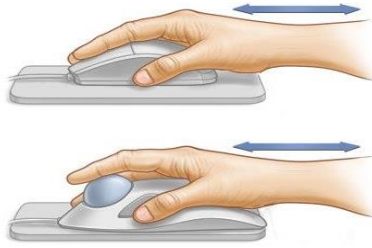
Fig 3. Using a Mouse

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

Make Objects Accessible

11.   Frequently used items e.g. telephone or mouse should be close at hand 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 can't 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 long 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):

    a.   you should allow yourself short natural breaks (ten minutes in every hour) away from the DSE e.g. 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.

Use of Portable DSE

1.   Portable DSE are electronic devices which can be used to compose, read and edit text, view images and / or connect to the internet e.g. 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.

2.   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

3.   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 small of your 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 (e.g. 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)   hold your head so that your ears are above your shoulders and keep your shoulders relaxed to avoid leaning forward. If you find yourself leaning in towards the screen enlarge the font text size;

Fig 1. 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.   don't hold a phone between your ear and shoulder while writing or keying – you're likely to get a sore neck.

Comfortable Use of Handheld DSE Devices (PDAs, Smart Phones, Tablets)

4.   Portable DSE devices 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;

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

5.   The use of portable DSE equipment can increase your personal safety risk (e.g. theft). The following can help you reduce this risk:

a.   don't leave equipment visible e.g. in a pocket, or in your car (even if you are in it);

b.   assess your environment before using equipment, and don't use it if you don't feel comfortable doing so;

c.   use non-branded bags or carry cases so it is less obvious;

d.   use a backpack rather than a shoulder bag if carrying a laptop – so it is better secured to your body; and

e.   do not use handheld equipment while walking (especially when ascending or descending stairs), to reduce your risks of slips, trips and falls.

Reducing Stress

6.   Some people can find new 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.