

Corporate Health and Safety Policy

PART C

ARRANGEMENTS

Section 15 – Display Screen Equipment

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APPENDIX 1

Display Screen Equipment Toolkit

Document Tracker

Version	Reason for change	Date	Author
V1	New arrangement	1993	Peter Dempsey
V2	Changes to Legislation	2012	Ian Kimmitt
V3	Review	2015	John Kempster
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1. INTRODUCTION

Display Screen Equipment (DSE) is widely used in almost all workplaces. Although DSE is not harmful, the use of DSE has been known to cause or contribute to illnesses known as Musculoskeletal Disorders (MSDs), and can contribute to eye strain, headaches and unhealthy levels of stress. For this reason, it is important to make sure that equipment is suitable, and that people know how to use it properly.

The aim of this document is to provide guidance to ensure compliance with The Health and Safety (Display Screen Equipment) Regulations 1992 as amended by The Health and Safety (Miscellaneous Amendments) Regulations 2002, which require employers to carry out an assessment of all display screen equipment (workstations) where that equipment is used as part of the work activity. The guidance applies to all DSE used by the council as part of its work activity.

Remote workers such as home and mobile workers should read this document in association with the Corporate Health and Safety Policy Part C, Section 22 – Remote Working and Section 21 – Lone Working.

2. RESPONSIBILITIES

Directors are required to make sure that arrangements are in place to ensure that appropriate assessments are made of display screen equipment. Financial provision for any purchase of additional equipment identified as a result of the assessment must also be made.

They must ensure these arrangements include;

- staff who carry out assessments are competent to do so;
- workstation assessments are carried out before work commences, and recommendations implemented;
- eye tests and retests are provided at least every two years

Managers must ensure that sufficient time is provided for training and assessment of DSE, for staff to undertake eye tests and that work is flexible enough to enable staff to take breaks from DSE work. They must also ensure that;

- staff undertake the DSE E-learning course and on-line self-assessment and that any recommendations are implemented
- work is organised so that users can take regular breaks away from the screen and workstation (a break of ten minutes every sixty minutes is recommended although more regular breaks of one or two minutes every 15 minutes is just as effective).
NOTE: A break is defined as work activity other than use of the display screen.
- DSE arrangements are reviewed when the person, equipment or environmental factors change
- Managers inform staff of the Safe Working Procedure document (Appendix A) and

how to obtain a copy.

Employees are required to take reasonable care of themselves while they are at work. They must:

- complete the DSE eLearning course and self-assessment
- follow instructions for the safe use of their DSE, including setting up their workstation to minimise the risk of injury, and taking breaks away from the screen
- report to the line manager any issues they experience in the use of DSE or health conditions that may affect their safe use of DSE

3. DISPLAY SCREEN ASSESSMENTS

User's Self-Assessment – this first stage in the assessment is designed to involve users in the process, making them aware of the risks involved with using DSE and the reasons for the assessment.

The mandatory DSE eLearning training includes information on the risks associated with the use of DSE, how to properly set up a workstation and concludes with a self-assessment questionnaire that provides the basis of the assessment with any issues being highlighted.

Where a user works from more than one workstation an assessment will have to consider each of these workstations. Where the workstation is in the same building with the same equipment and conditions, then a single assessment is sufficient providing the workstation is set-up to that assessment; the height of the chair and monitor, the position of the mouse and keyboard are adjusted to the comfort of the user.

The 'Assessor' - The manager or person delegated to undertake reviews of self-assessments will have attended a DSE Assessors course. For further information and to arrange training, contact the CSG Safety Health and Wellbeing team: shaw@barnet.go.uk

Upon reviewing the employees' self-assessment, the assessor is responsible for ensuring any risks highlighted are managed. In some circumstances, for example some medical conditions, the issues recorded may be beyond the assessors' experience and additional guidance and advice may be required from an external source. For such occurrences contact the CSG Safety Health and Wellbeing team: shaw@barnet.go.uk

4. TRAINING AND INFORMATION

Training is provided to all DSE users and assessors. Managers must ensure that staff, who currently are about to use display screens complete the DSE eLearning course. The training informs users of the potential dangers in using display screen equipment and how to avoid them, the correct adjustment of equipment and furniture and the need to take regular breaks from the display screen.

DISPLAY SCREEN EQUIPMENT MANAGEMENT

TOOLKIT

PART:

1. Safe Working Procedures for Display Screen Equipment (including portable devices)
2. Guidance Flow Chart
3. Eye Exercises and Muscle Stretches

1. Safe Working Procedure

The Health and Safety (Display Screen Equipment) Regulations were introduced to enable employers and employees to minimise any risks arising from the use of Visual Display Units and other display screen equipment used for work.

The Council has obligations to assess all 'workstations' used by a 'user' to establish that it complies with the technical requirements the Regulations (see below for definitions of workstation and user).

The primary purposes of the Regulations are to ensure that you have equipment, furniture and surroundings that enable you to work in adequate comfort.

The assessment exercise cannot be effective without the input of you, the user. This Safe Working Procedure also gives some commonsense advice about how you can achieve comfort at your workstation and gives hints and tips on overcoming some of the problems that may arise.

OBJECTIVES

The objectives of this Safe Working Procedure are;

- to give guidance to users on procedures for the safe installation and operation of display screen equipment
- to assist the Council in meeting the overall legal duties
- to comply with any DU local procedures

THE TERM USER

The Display Screen Regulations refer to the 'user' of the equipment. A 'user' is defined as someone who habitually uses the equipment as a significant part of his or her normal work. **An employee is also deemed a 'user' if most or all of the following criteria are satisfied;**

- carrying out of the job depends on the display screen equipment
- there is no discretion as to the use of the display screen equipment
- significant training and particular skills in the use of the display screen are needed
- there is continuous use of display screen for spells of an hour or more
- use is more or less daily
- there is a fast transfer of information between the 'user' and screen
- a high level of concentration is required

THE WORKSTATION

The Regulations, whilst referring to display screen equipment, make reference to the assessment of a workstation. A workstation includes the following:

- Desk or Table
- Chair
- Assembly of display screen equipment including screen, keyboard, mouse, input device etc.
- Document holder
- Telephone
- Printer
- Desk lamp
- Immediate Work Area and Environment including temperature, humidity, lighting, glare etc.

This list is not exhaustive. If there is any doubt, assessors should include any piece of equipment rather than leave it out of the assessment.

HEALTH MANAGEMENT

Environmental Aspects

DSE operators can sometimes experience one or more of the following symptoms due to the work environment;

- Headache
- Fatigue and loss of concentration
- Stress
- Irritability
- Dry or sore eyes
- Nausea

Musculoskeletal problems in keyboard work.

Many of the aches and pains associated with display screen use arise because users sit in a fixed position for too long. Some of the symptoms might be aching and dull pain in the head, neck, lower back and between the shoulders. It is therefore suggested that 'users' take regular breaks away from the screen and workstation (a break of ten minutes every sixty minutes is recommended although more regular breaks of one or two minutes every 15 minutes is just as effective)

Taking a break from screen work does not mean that you must stop work altogether, but that you can turn your attention to another task away from the screen. The break away from the screen should benefit your eyes, arms, wrists and shoulders. As a rule, work should be planned to allow flexibility.

It is recommended that no user should work on a display screen for more than a total time of 7 hours per day. This figure does not include other work, breaks away from the screen or lunch.

Visual fatigue

Visual fatigue can be prevented by adopting a system of work that allows variation of the visual tasks within the overall job. Try to organise work so that the time spent at the screen is regularly broken by periods of non-screen activity.

Eye tests and spectacles

You can have an eye test as soon as you become a user of display screen equipment. After this, you will be offered re-tests at least every two years. If you experience visual difficulty which may reasonably be caused by work on DSE within this period, contact your line manager who may arrange for an Eye and Eyesight test as soon as possible.

Where the results of an eyesight test show that you need glasses **specifically** to work with DSE, the Council will meet the cost of supplying the basic frame and lenses. Details of this are available from Human Resources. Please follow the procedures laid down in this user guide. Payments cannot be made afterwards if you arrange and pay for your own eye test.

Please note, that only basic spectacles will be supplied. If you want to have more 'up-market' glasses or frames, or tinted lenses, then you will be responsible for the extra cost. If you need glasses for every day use then your employer does not have to pay towards the cost. It is only where the need is specific to using your screen that the entitlement arises.

Staff wishing to obtain eye tests should download the eye test voucher application form on 'barnetwork' or contact HR. The voucher entitles you to a free eye test at opticians who operate the scheme. A copy of the results of the test should be passed to Human Resources who will retain them on your personal record

Arrangements for Pregnant Employees

If an employee reports that she is pregnant, a re-assessment of any workstations she uses must be made and kept under review during the pregnancy, to ensure that no aspects of the pregnancy are made worse by the DSE work. More advice on the general issue of dealing with new and expectant mothers is available in [Corp Health, Safety, Welfare Arrangement Part C Section 1 Management of Health and Safety](#) the and the [HSE](#).

Display Screens and Health

Since the introduction of DSE, many studies have been carried out to determine whether there are risks of harmful radiation exposure from screen work. There is no conclusive evidence to support the fear that display screen radiation is responsible for miscarriages and birth defects to children born to operators.

In General

As with any item of equipment, misuse of display screens can result in a risk to the health and safety of the operator. It is necessary for line managers to ensure that users

under their control are aware of the operating parameters of this Safe Working Procedure.

DISPLAY SCREEN EQUIPMENT

Screen - *The screen should be an arm's length away from the user and the screen height at or just below eye level.*

The Screen position should have the ability to tilt and swivel allowing the user to avoid glare reflections and to adopt a comfortable position whilst reading the screen. There should be a contrast or brightness control, images on screen should be stable, without flicker and legible. Reflection or glare can be avoided by re-positioning the screen away from direct light. Use window blinds where reflected light is present. Screen filters may be provided to screens still affected if the above methods have not improved the situation.

There is an increasing tendency for employee's to use two monitor screens to carry out their work activities. In such instances it is recommended to place the two monitor screens centrally and side-by-side.

Keyboard - *must be suitable for the task, separate from the display screen unit and offer the user a choice in positioning, usually by small legs at the back of the keyboard.*

Desk - *The distance from front to back must allow at least 5cm (2 inches) between the front of the keyboard and the edge of the desk to enable you to rest your hands. You should be able to vary the position of the viewing distance of the screen.*

The Desk should be large enough to enable the screen and keyboard to be placed directly in front of you.

Where the desk has built-in drawers, do not place your screen or keyboard above them or you will have to assume an unsuitable posture when keying. Ensure that you have enough legroom under the desk - avoid storing materials beneath the desk. Older desks that have a drawer at the centre front are not suitable for users of display screen equipment. The surface of the desk should not cause disturbing reflection of overhead lights.

Try to organise work so that the desk is kept clear of unnecessary clutter and obstructions. If you identify a need for additional storage, discuss this with your line manager.

Chairs – *The height of the chair should be adjusted so that your forearms are more or less parallel with the work surface. The thigh should also be parallel to the floor and not slanted downwards at a steep angle. Where this is the case a footrest should be provided.*

The prime requirement of the chair is that it will enable the user to adopt a comfortable position. The minimum requirements are that it can be adjusted for height and the back rest, providing good support for the user. The chair should be stable and enable you to vary position without undue effort. Make sure you know how to adjust your chair. There is no requirement for chairs to have arms. If your chair has arms, ensure that they do not prevent you getting close to the work surface.

Document Holder - *It should enable you to position the document at the same height and angle as the screen and to reduce awkward neck movements.*

Footrest – *The footrest should be stable and should enable you to place your feet flat upon it.*

When seated the users feet should reach the floor or a suitable footrest should be supplied. Where you require the use of a footrest, you should be supplied with one.

Mouse – *This should be placed on your preferred side, and should be unobstructed. The mouse itself can be specified for use by either a right-handed or a left-handed user.*

Where your job requires the use of a mouse, or some other input device, there must be adequate space for safe use. With a mouse mat, it is usual for a template, about A5 size to be used.

Wrist Rest - *Some people may find the use of a wrist rest comfortable, although they are not suitable for all users and can worsen the situation for some.*

Software - *The software that you use should be understandable and should enable the best use of the keyboard.*

The Work Environment

Lighting - *Glare can be a cause for complaint, either by making information impossible or very difficult to see (disability glare), or by being sufficiently obtrusive, resulting in symptoms of discomfort and fatigue for the operator (discomfort glare). The following actions regarding positioning of equipment could be taken;*

- the screen should be arranged so that neither the user nor the screen face a window
- where window glare is excessive, blinds should be fitted so that they can be controlled by the user
- fluorescent light should be at right angles to the screen face. Diffusers are to be fitted
- try to avoid highly polished or glossy surfaces (work tops, walls ceilings, partitions etc.)
- where the general light level is low it may be helpful for you to have a desk lamp

Temperature - *It is sometimes impossible to agree on what is a comfortable working temperature, people often have different preferences. Several factors have a bearing on this, including work rate, clothing and individual health. There is no maximum temperature at work although here is a minimum of 16 Celsius. Further guidance on working temperatures can be found in the Corporate Health and Safety policy – Health and Safety in Offices.*

Humidity - *The humidity level should be maintained at an acceptable level for comfort. Very low or high humidity can cause discomfort. Between 40% and 60% relative humidity is recommended.*

Noise - *DSE emits very little noise, certain printers, however, may produce a level of*

noise that is a nuisance and unacceptable within the work environment. It may be possible to fit an acoustic cover, or move the printer away from local office environment.

Training and Information - Your manager will arrange to give you access to the DSE ELearning training which provides instruction and training on how best to use your display screen equipment. This includes;

- advice on how to properly adjust your furniture and equipment
- the importance of looking after your equipment
- how your system and the software should be used
- the duties of employers and employees under the Regulations
- your involvement in workstation assessments
- any risks that your employer has identified and the proposed action to remedy these risks
- the importance of regular breaks from display screen work

TABLET, LAPTOP AND NOTEBOOK PC'S

Equipment set up

If you are using a tablet, laptop or notebook at a table with a fixed height chair (e.g. at home, in a hotel room, coffee shop, etc) you are more likely to have poor posture and potential for discomfort if you don't make the right adjustments:

- Consider whether the chair is too low for you to be able to sit with your forearms horizontal. If this is the case, you may find sitting on a cushion to raise your seat height is helpful. You should 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.
- Use a cushion, or rolled up item of clothing to support the small of your back if the chair does not offer appropriate support.

If you are using this equipment on a table not designed for a working environment (e.g. coffee table):

- Ensure your forearms are not leaning on the edge of the table for long periods as this can lead to discomfort
- Take regular breaks as this will never be an ideal working position
- Position the equipment so you can reach it comfortably, without leaning forwards.

If possible, avoid using this type of equipment with this form of seating for long periods of time. Any time exceeding two hours **stop** and follow guidance below.

If you use portable DSE for periods exceeding **two hours** you must use suitable equipment to allow the computer to be used:

- at the correct viewing height e.g. a docking station, converter or stand.
- so that the screen can be adjusted to the correct position e.g. adjustable height, tilt, colour, brightness, contrast. If it is not suitable a full-sized screen should be used.

- with a full sized mouse, keyboard and any other equipment should be used e.g. document holder

Check and adjust your workstation (e.g. chair, keyboard, mouse, monitor screen, phone) to suit your requirements in accordance with this procedure.

Equipment Transportation

Use a suitable rucksack or trolley case to transport your computer and ancillary equipment e.g. mouse, keyboard, stand, to minimise the risk of manual handling:

- Regularly check condition of transportation case for signs of deterioration
- Transportation case to be free from any commercial branding to minimise risk of theft
- Safely place and store items in transportation case
- Valuable computer equipment is not to be stored or left in your car
- Keep transportation case containing computer equipment out of sight and in a secure location to minimise risk of theft
- Plan your route in advance to minimise manual handling issues and to select a visible and safe route

Electrical

Ensure that the equipment is in sound condition and safe to use:

- Ensure that the equipment is fully charged before leaving for your meeting appointment, etc
- Visually inspect cable/lead before you use it at a new location
- Check lead/cables for bulges, crushed, cuts, splits, charring/burning marks and no inner (coloured, brown blue green/yellow) insulation or no exposed bare metal conductor visible
- Check condition of plug for cracked/broken casing and cable, bent pins and signs of burning/charring
- Ensure trailing cables are secure or covered with a cable protector
- Do not remove plugs or handle electrical equipment with damp/wet hands
- Do not tamper with or modify work equipment
- Remove any defective equipment from service and report to your manager

Personal Safety/Security

Ensure that risk assessments have been carried out and local arrangements introduced for security and personal safety:

- If travelling alone have a procedure to check “in” and “out” with your line manager
- When travelling to an unfamiliar location, call ahead and check the location of the building and its car parking arrangements
- Consider carrying clothing that will keep you warm and dry if you breakdown or need to walk to a telephone
- On arrival at unfamiliar locations, drive to the front entrance or hotel lobby. Unload your car at this point and, if appropriate, request assistance or an escort

to the car park.

- Park in well-lit areas whenever possible and check the interior of your vehicle, especially the back seats, before entering.
- Try and avoid travelling with visible items which look expensive (e.g. handbags, briefcases, jewellery, cameras, computers, etc.).
- If you do get lost, use caution in asking for directions, e.g. call at a well-lit well-patronised service station. Drive to a suitable location and flash your lights/sound your horn to attract attention.
- If you see another driver in difficulty, drive to a safe location and report it by telephone as soon as possible.
- Never pick up hitchhikers.
- If you regularly travel alone by car, consider joining an established motor rescue organisation.
- Consider driving with all doors locked if local circumstances warrant it.

TABLETS, SMART PHONES AND OTHER HANDHELD DEVICES

Hand held devices allow you to undertake familiar desktop applications while on the move, but obviously they have small screens and keyboards. For these reasons they should not normally be used as your sole computing equipment and should not be used for periods of longer than an hour in any work period.

- Avoid using these devices for long periods (more than an hour continuously); take regular breaks; stretch and relax your fingers and hands often.
- Write short messages; be succinct, and use acceptable abbreviations. You may be able to program the software to autocorrect an abbreviation to the full word (e.g. 'bw' to 'best wishes'). Set up an auto-signature containing contact detail, to save typing them repeatedly.
- Keep the screen clean and free of finger marks to reduce visual fatigue.
- Investigate what changes you can make to the display size and colours, so that you can adjust it to suit your needs.
- Protect the device in a case, or select one where the screen is covered so that it doesn't get scratched and become more difficult to read.
- A separate keyboard may be helpful if you are using the device for a significant amount of data input.
- Try to keep your wrists straight and relaxed when holding and using the device

Devices with keyboard input

- Users often use the keyboard with one thumb, but repeated use of the thumb with the range of movement required can pose the risk of discomfort. To reduce this risk, alternate between your thumbs or, better still, try to use your fingers.
- If using it for a length of time, rest the device on a work surface so that the bases of your hands are supported. This will also allow you to use fingers from both hands rather than your thumb, however, make sure that you don't lean forward over the device in order to see the screen.
- If you cannot rest the device on a work surface, hold it so that your inputting hand is

supported.

- If you find the keys are small for your fingers, you may find using the rubber end of a pencil is a good way of pressing the keys. This allows larger muscles to be involved with activating the keys, and they are better able to withstand repeated movements and force.
- Avoid pressing the keys too heavily, and don't grip the device with too much force. Muscle tension increases the risk of discomfort.
- Consider whether a larger, external keyboard may be useful for you.

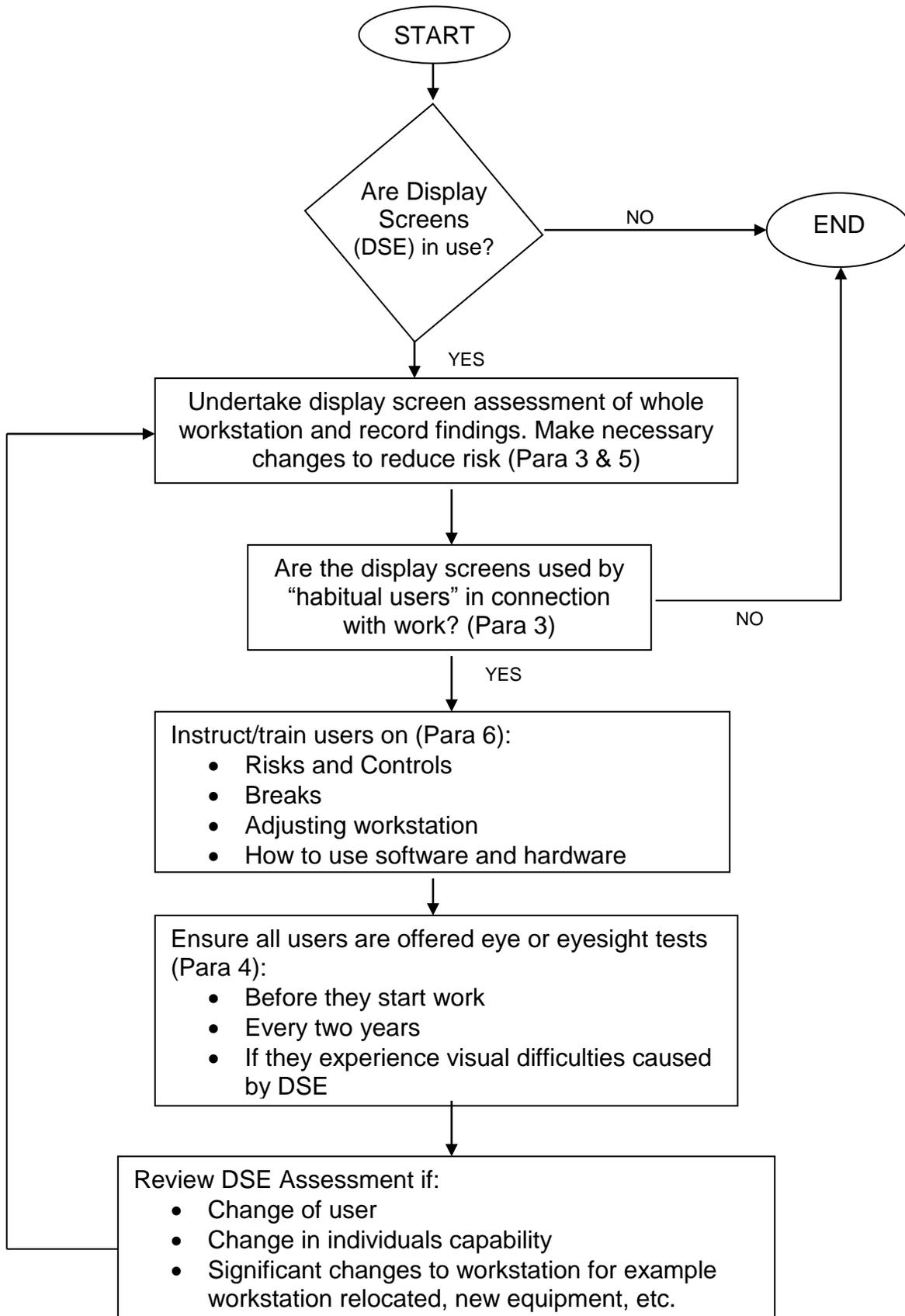
Touch Screens

Touch screens allow the user to interact with images on the display, and can be useful for navigating through software. This can be done using either the finger or a stylus.

Repeated or prolonged use of the fingers or stylus on a touch screen may cause discomfort, and there is potential for altered sensation on the finger-tips with prolonged use.

- Support the hand that is interacting with the screen (e.g. rest the hand on the base of the device), so that fine movements can be made by the finger.
- Investigate whether you can adjust the size of the icons or menus so that they are easier to select accurately.
- It can be useful to have a keyboard as an alternative to the touch screen, if using it for any length of time, or entering data.
- Configure the whole screen to accept stylus input, rather than just one small area; larger hand movements reduce the physical stress on the hand.
- Writing higher up the screen may allow your hand to be supported while writing if you are not able to rest the device on a work surface.
- Train the device to read your handwriting; if it expects input in particular format, take the time to learn these.
- Consider whether you find keyboard input (using the stylus on a display-based keyboard) better than writing for some tasks, and change between them as appropriate.

2. DISPLAY SCREEN EQUIPMENT ARRANGEMENT- FLOW CHART



3. Eye Exercises and Muscle Stretches

Eye Movements

- A. close eyes
- B. slowly and gently move eyes up to the ceiling, then slowly down to the floor
- C. repeat 3 times
- D. close eyes
- E. slowly and gently move eyes to the left, then slowly to the right
- F. repeat 3 times

Focus Change

- A. Look at an object a few inches away from the eye
- B. focus on the object
- C. focus far into the distance and then back to the object
- D. focus on something more than 8 feet away
- E. repeat 3 times

Cable Stretch

- A. while sitting with chin in, stomach in, shoulders relaxed, hands relaxed in lap, and feet flat on the floor, imagine a cable pulling the head upward
- B. hold for 3 seconds and relax
- C. repeat 3 times

Sidebend: Neck Stretch

- A. tilt head to one side (ear towards shoulder)
- B. hold for 15 seconds
- C. relax
- D. repeat 3 times on each side

Diagonal Neck Stretch

- A. turn head slightly and then look down as if looking in your pocket
- B. hold for 15 seconds
- C. relax
- D. repeat 3 times on each side



Shoulder Shrug

- A. slowly bring shoulders up to the ears and hold for approx 3 seconds
- B. rotate shoulders back and down
- C. repeat 10 times



Executive Stretch

- A. while sitting, lock hands behind head
- B. bring elbows back as far as possible
- C. inhale deeply while leaning back and stretching
- D. hold for 20 seconds
- E. exhale and relax
- F. repeat 1 time

Foot Rotation

- A. while sitting, slowly rotate each foot from the ankle
- B. rotate 3 times in one direction, then 3 times in the opposite direction
- C. relax
- D. repeat 1 time



Hand Shake

- A. while sitting, drop arms to the side
- B. shake hands downward gently
- C. repeat frequently

Wrist Stretch

- A. hold arm straight out in front of you
- B. pull the hand backwards with the other hand, then pull downward
- C. hold for 20 seconds
- D. relax
- E. repeat 3 times each

