



**ROBERT GORDON
UNIVERSITY ABERDEEN**

Guidance on the Safe Use of Display Screen Equipment

Guidance on the safe Operation of Display Screen Equipment

1. Introduction

Display Screen Equipment includes devices that have an alphanumeric or graphic display screen, such as desktop computers, laptops and tablets.

Prolonged use of these devices comes with potential risk to the user's health. The primary risks involve musculoskeletal disorders, which includes upper limb problems and back ache. Fatigue and eye strain are also factors to consider. Poorly designed workstations or work environments are potential hazards, however a combination of factors are often involved in discomfort and ill health.

The purpose of this guidance is to provide information on best practice.

2. Definitions

Neutral posture: are postures where the body is aligned and balanced whilst either sitting or standing.

Micro-breaks: are less than two minutes long and perfect to do between bouts of typing.

Musculoskeletal disorders (MSD) are injuries or disorders of the muscles, nerves, tendons, joints, cartilage, and spinal discs. Work-related musculoskeletal disorders (WMSD) are conditions in which:

- The work environment and performance of work contribute significantly to the condition; and/or
- The condition is made worse or persists longer due to work conditions

3. Guidance Summary

There are a few key steps that need to be considered to minimise the likelihood of developing a WMSD. The first of these is to select the right equipment for the task and its duration. There are now laptops, tablets and mobile phones with capabilities similar to desktop PCs, and the possibility to use a combination of these items.

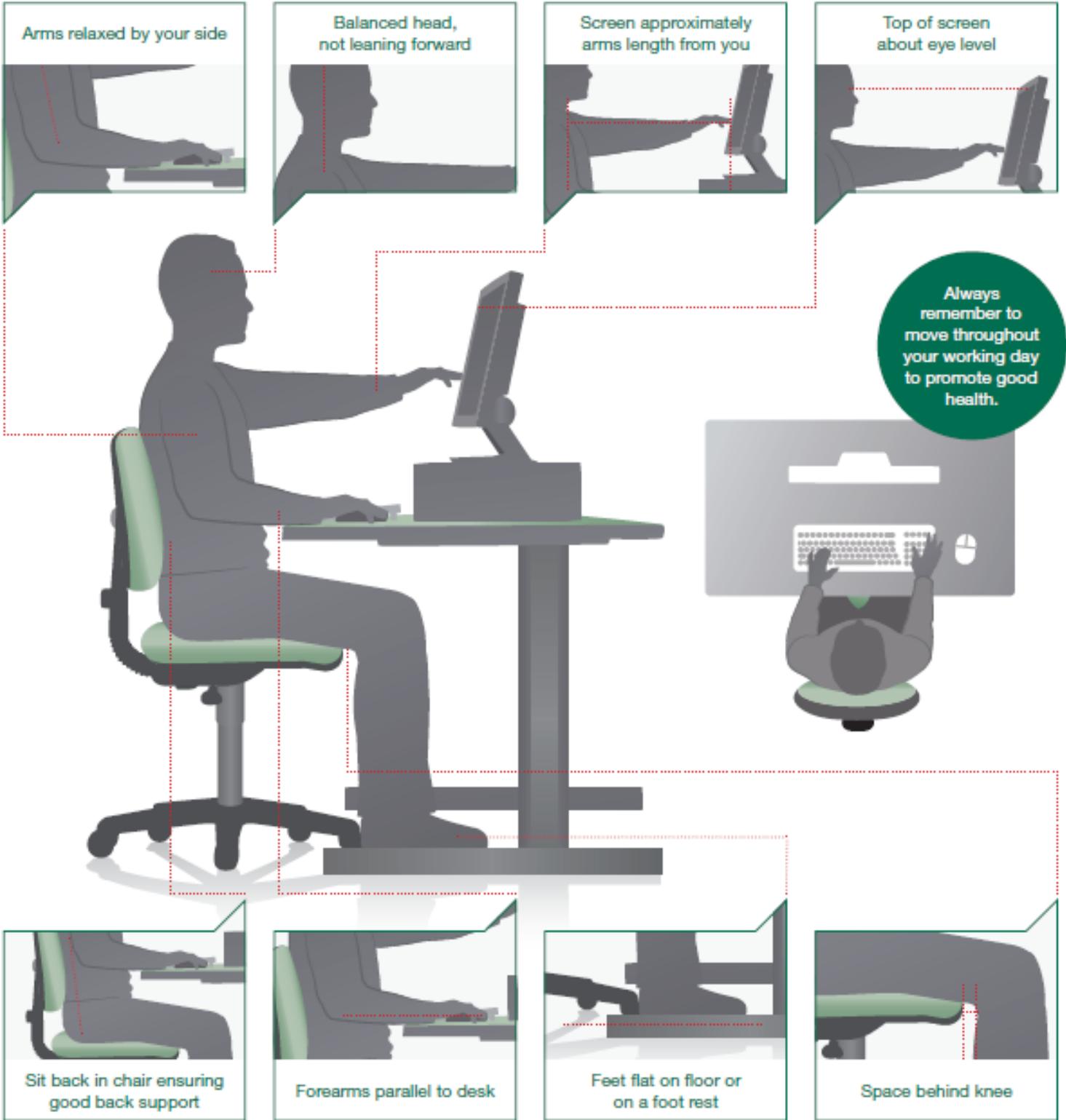
The second step is to ensure the equipment is set up correctly. For advice in the setting up of equipment please refer to the diagrams below.

Once set up, workstations should be assessed in conjunction with the eLearning training provided.

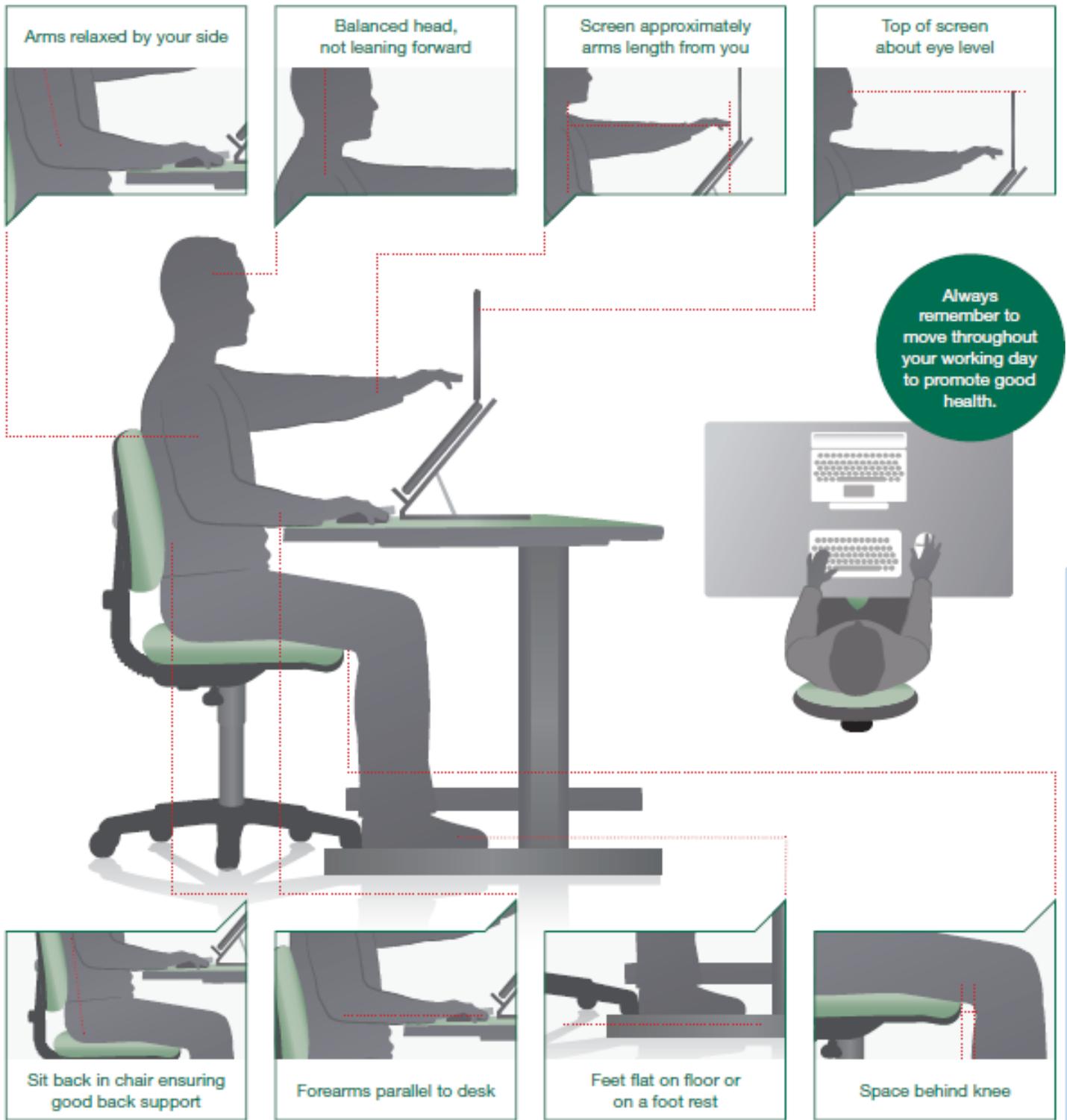
Finally, frequent and regular breaks should be considered. Normally this would be a minimum of a 5-minute postural break every 2 hours, though this will vary depending on personal health and physical comfort.

The workstation exercises below may also assist physical comfort:

3.1 Desktop

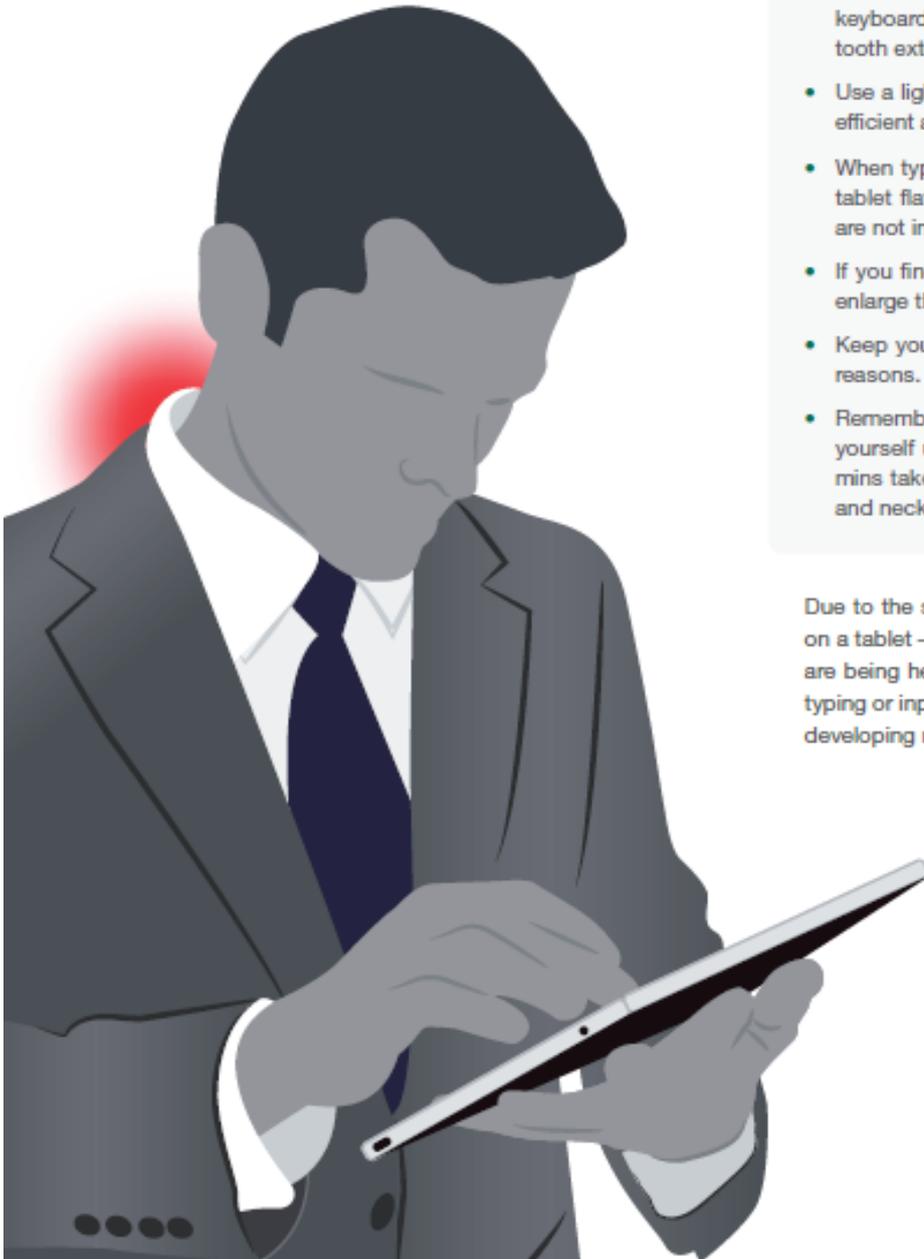


3.2 Laptop



3.3 Tablet

Remember a tablet is a great portable device to use for short periods of time but for longer periods or for work requiring the input of information, a correctly set up workstation is the best option. Make sure you use the right tool for the job to ensure you are productive and working without compromising your health.



Advice points

- When reading, use a stand or tilt the tablet to reduce the need for you to bend your head forward to read.
- Whenever possible try to place the tablet on a surface rather than holding it. If you are using the on-screen keyboard for extended periods consider using a blue tooth external keyboard.
- Use a light touch when using the screen it will be more efficient as well as preventing problems.
- When typing or touching the screen regularly have the tablet flat or only slightly angled to ensure your wrists are not in awkward positions.
- If you find you are leaning forwards to view the tablet, enlarge the image or text.
- Keep your screen clean for good visibility and hygiene reasons.
- Remember movement is really important, if you find yourself using a tablet intensively for more than 10-20 mins take a short break, stretch your hands, shoulders and neck and look into the distance to relax your eyes.

Due to the screen and keyboard being in the same place on a tablet – either your head is angled down or your arms are being held up – if extended periods of time are spent typing or inputting information, you will increase the risk of developing neck and upper limb conditions.



4. Workstation Exercises

Why Stretch?

No matter how well the workstation is designed, problems may arise where work organisation is poor or disrupted. Working at a computer often involves few changes in body position. This lack of movement can lead to muscular aches and pains.

Recommendations to reduce aches and pains:

- Regularly vary work tasks, looking at organisation of the working day.
- Break up 'on-screen' activities with micro-breaks – tasks which involve movement, stretching and changes to body position.
- Trying standing during some tasks and moving away from the workstation, for short periods, where possible.

Stretches for Wrist, Hand and Forearm

1.

Make a fist; ensuring thumb is straight, not tucked under fingers (1a). Slide fingertips up palm, tips of fingers moving towards base of fingers, until stretch is felt (1b). Hold for slow count of 10. Repeat 3 – 5 times.



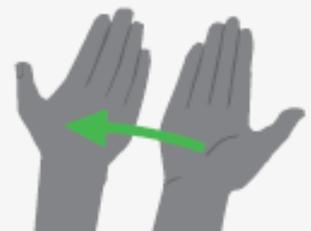
2.

With hand open and facing down, move wrist from side to side, until stretch is felt at each extreme. Hold each for slow count of 10. Repeat 3 – 5 times.



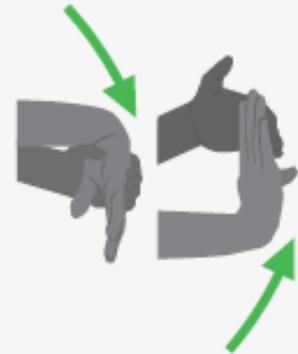
3.

With elbow held close in to side of body, slowly rotate palm upwards and then downwards until stretch is felt at each extreme. Hold each for slow count of 10. Repeat 3 – 5 times.



4.

Holding upper part of hand with other hand, slowly bend wrist down and then upwards until stretch is felt at each extreme. Hold each for slow count of 10. Repeat 3 – 5 times.



5.

Sitting with elbows out and palms together, slowly rotate palms down until stretch is felt. Hold for slow count of 10. Repeat 3 – 5 times.



Stretches for Neck and Shoulders

1.

Sit or stand upright. Without lifting chin, glide head straight back until a stretch is felt. Hold for slow count of 10. Repeat 3 – 5 times.



2.

Drop head slowly to one side, taking ear towards shoulder until stretch is felt. Hold for slow count of 10. Repeat 3 – 5 times to each side.



3.

Raise shoulders towards ears until slight tension felt across tops of shoulders. Hold for slow count of 10.
Release and repeat 3 – 5 times.



4.

Sitting with back supported, slowly roll shoulders up and backwards in circular motion. Repeat 10 times.



Stretches for Back

1.

Interlace fingers and lift arms above head, keeping elbows straight. Pressing arms back, slowly stretch to one side. Hold for slow count of 10.
Repeat 3 – 5 times to each side.



2.

Hold right arm with left hand just above elbow. Gently push elbow towards left shoulder until stretch is felt. Hold for slow count of 10.
Repeat 3 – 5 times to each side.



3.

Interlace fingers and lift arms above head. Slowly lean backwards until stretch is felt. Hold for slow count of 10. Repeat 3 – 5 times.



Stretches for Leg and Ankle

1.

Slowly lift one leg, straightening knee. Hold for slow count of 10. Repeat 3 – 5 times with each leg.



2.

Lift ankle clear of floor. Alternately flex and extend ankle in a pumping action. Repeat 10 times with each ankle.





Robert Gordon University,
Garthdee Rd,
Aberdeen AB10 7AQ