

DSE Workstation Set-Up and Postural Advice

Outline

- **Health and Safety Law**
- **Musculoskeletal Disorders – MSDs**
- **Workstation Set-up**
- **Knowledge Quiz**

Aims and Objectives

- **To provide an understanding of the employee's duty in protecting their own health and safety**
- **To provide an understanding of the health risks associated with computer workstations (DSE – Display Screen Equipment)**
- **To explain the causes of musculoskeletal disorders and recognise their development**
- **To demonstrate neutral posture and limb positions**
- **To provide participants with the ability to effectively adjust their equipment**

Health and Safety Law Associated with DSE

Duties

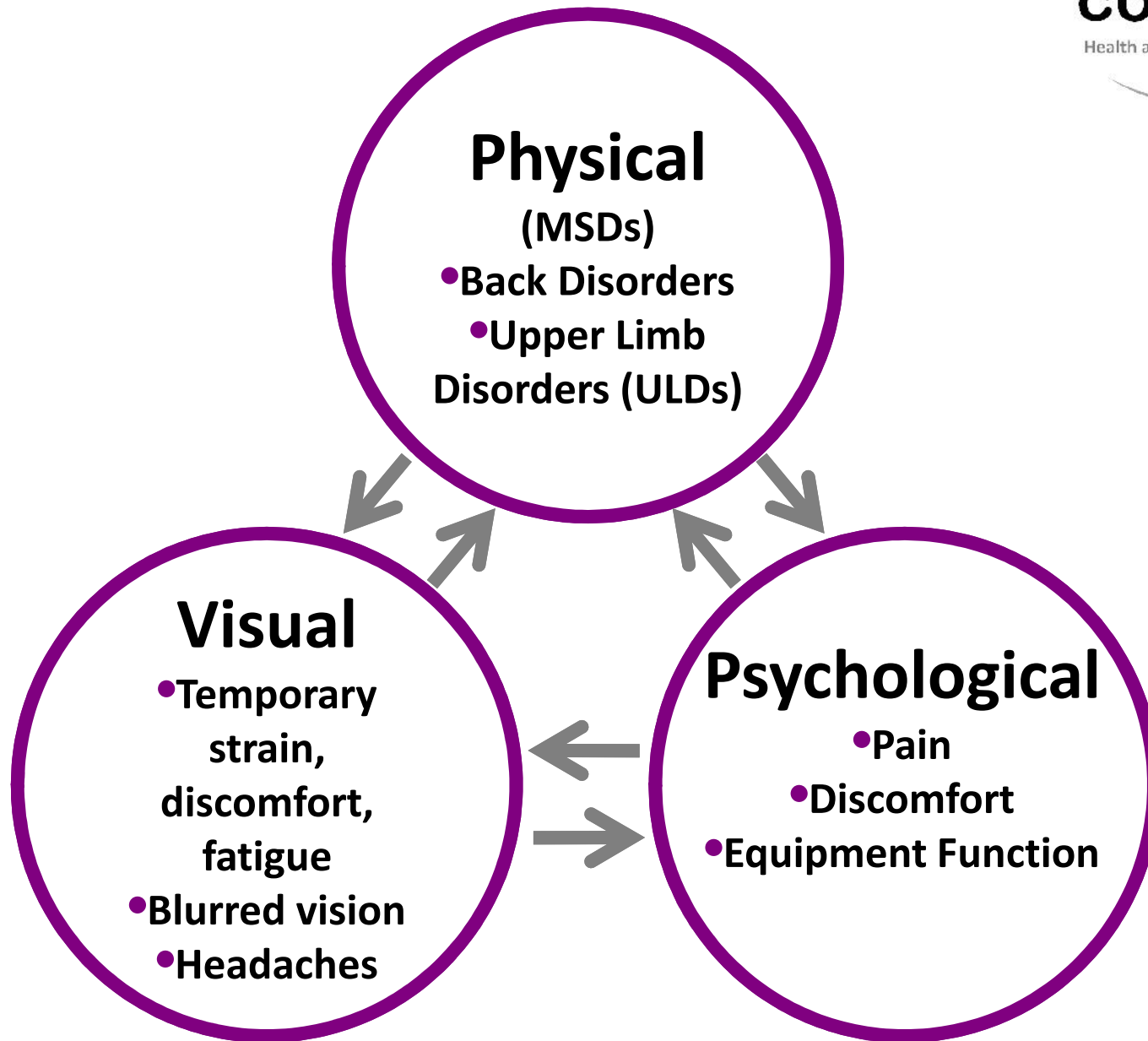
The Employer:

- **Identify and control risk**
- **Provide appropriate equipment**
- **Provide instructions on working safely when using work equipment**

The Employee (*source: HSE*):

- **Follow the instructions you have received when using any work equipment your employer has given you**
- **Take reasonable care of your own and other people's health and safety**
- **Co-operate with your employer on health and safety**

Health Risks Associated with DSE



Musculoskeletal Disorders

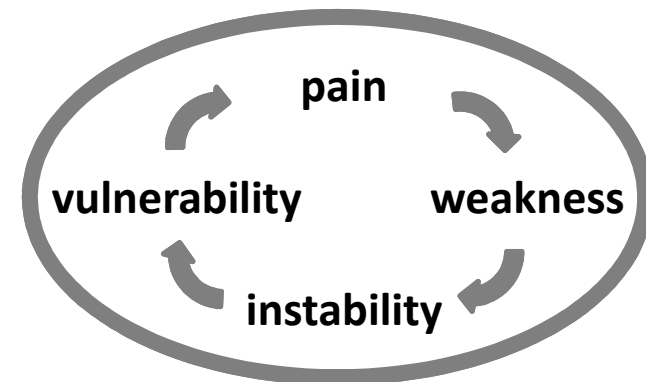
Musculoskeletal Disorders (MSDs)

- **Back and Upper Limb Disorders (ULDs), also, less common, Lower Limb Disorders (LLDs)**
- **At DSE workstation, damage caused gradually over time**
- **Individual's susceptibility increased by:**
 - **Genetics**
 - **Fitness**
 - **Health**
 - **Weight**
 - **Age**
- **The main 'controlled' risk factor is time of 'exposure'.**



Musculoskeletal Disorders (MSDs)

- Strain, ache and pain are the warning symptoms of developing MSDs
- Development of MSDs is gradual and symptoms often ignored at the start
- Once developed will be a chronic condition. Surgery only suitable in 3% of cases
- Difficult to diagnose – difficult to treat
- Condition worsens if no action is taken



Back pain

- **Affects most adults in their life time**
- **Common controlled, 'self-inflicted' causes:**
 - **Slouching, hunching and stooping when seated**
 - **Awkward standing positions**
 - **Awkward working positions**
 - **Lifting and handling incorrectly common in offices**



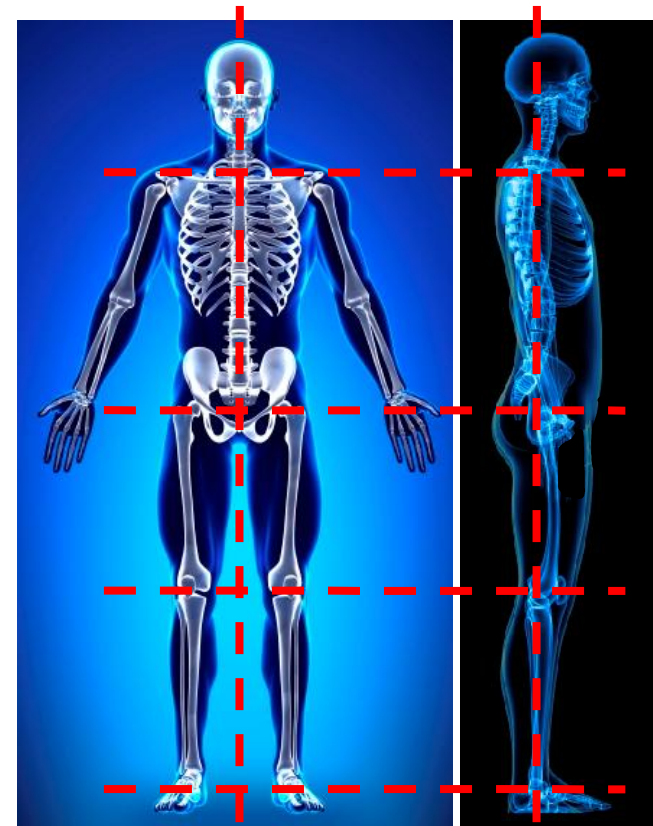
Upper Limb Disorders (ULDs)

- Can cause life changing and debilitating injury
- Common ULDs:
 - Cramp of the hand
 - Carpal Tunnel Syndrome
 - Tendinitis
 - Frozen Shoulder
 - Trigger Finger/Thumb



Posture

- The position you hold your body against gravity while standing, sitting or lying
- To maintain any posture muscles must be constantly working
- Good posture is the most comfortable position where the least strain is placed on your muscles and joints – ‘NEUTRAL’ posture



The spine



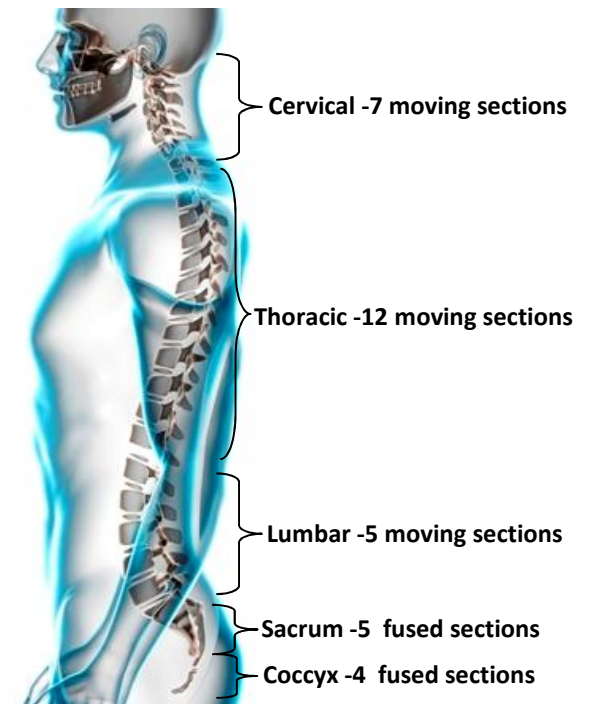
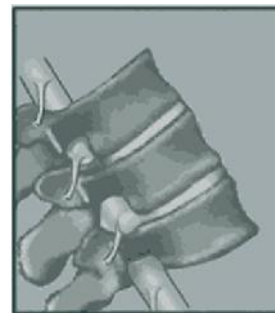
- The central structure of the body with the greatest effect on posture

- Is made up of 33 vertebrae split into 5 sections

- A healthy spine is an 'S' shape, and unhealthy spine is a 'C' shape

- Spine functions:

- Structure and support
- Movement and flexibility
- Protects the spinal cord
- Absorbs load stresses



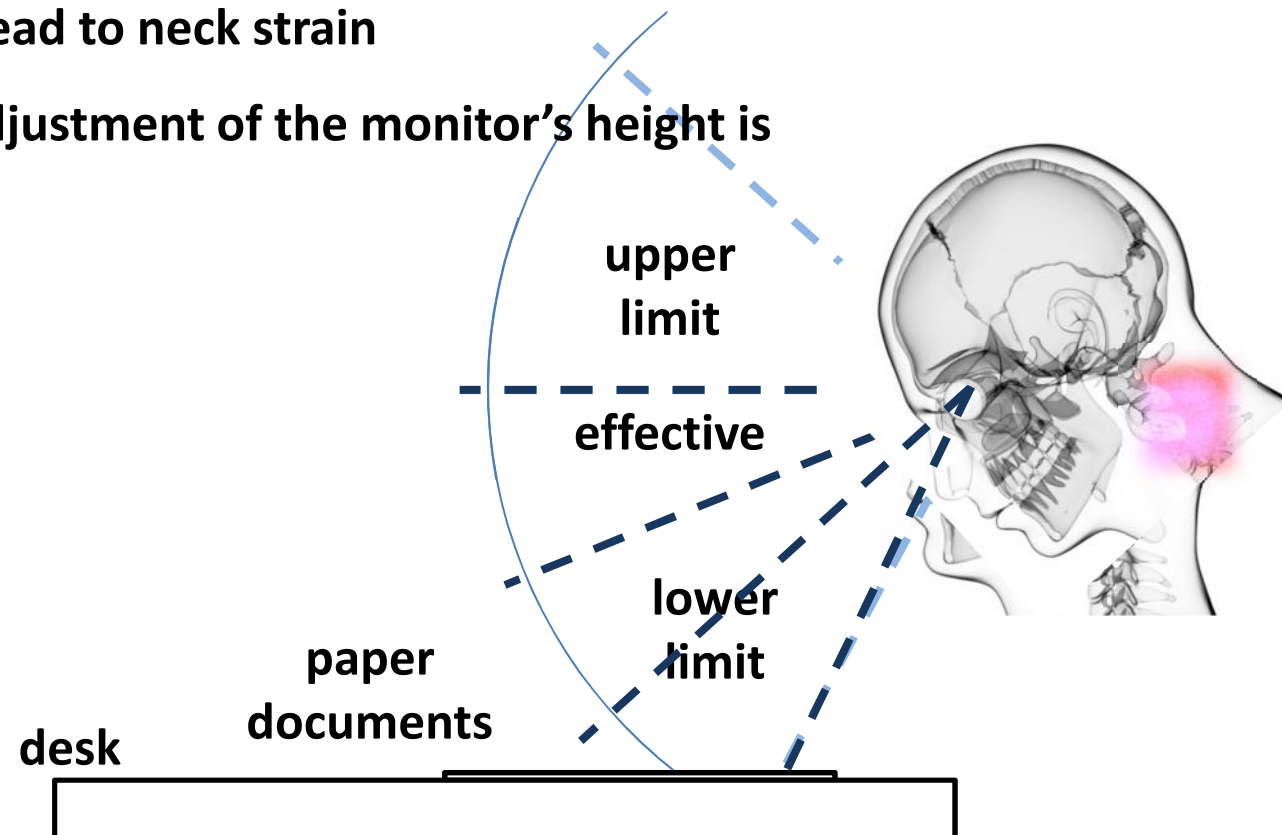
Head and Upper Body

- **Approximate weights:**
 - Average head is 4.5 to 5kg (11lb)
 - Upper body is 70% of total weight
 - Both arms are 10% of total weight
- **Physical load doubles for every 3-5cm leaning forward away from upright**



Vision and Head Tilt

- The head is tilted to place the 'effective' zone of vision
- This can lead to neck strain
- Careful adjustment of the monitor's height is essential



Seated posture

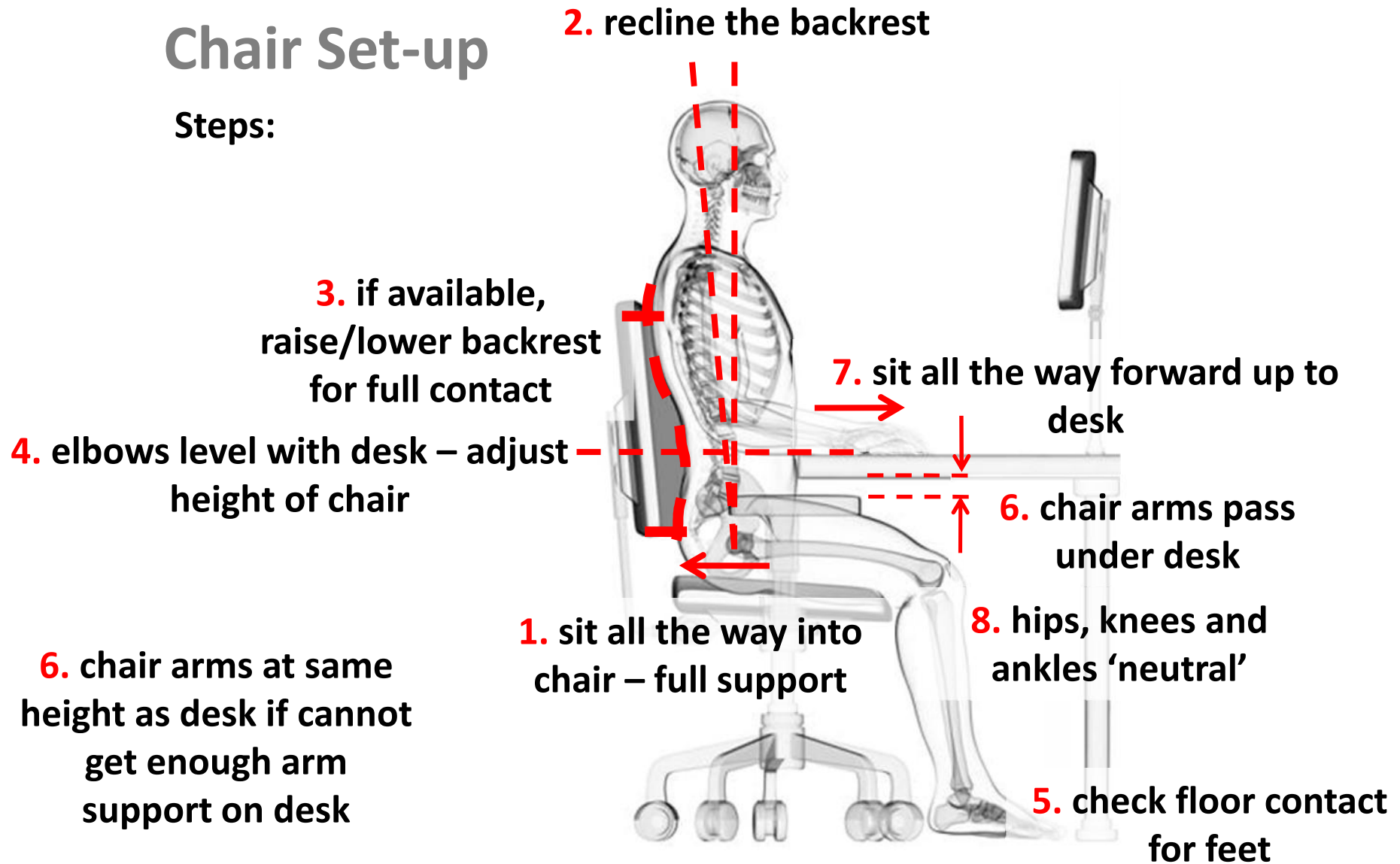
- **More of the upper body weight carried by core muscles**
- **Not as strong as leg muscles so strained quicker**
- **Prolonged sitting increases muscular fatigue**
- **Worsened if in awkward sitting posture and repetitive stretching**
- **Reclining into the chair's backrest reduces loads to the core muscles**



Workstation Set-up

Chair Set-up

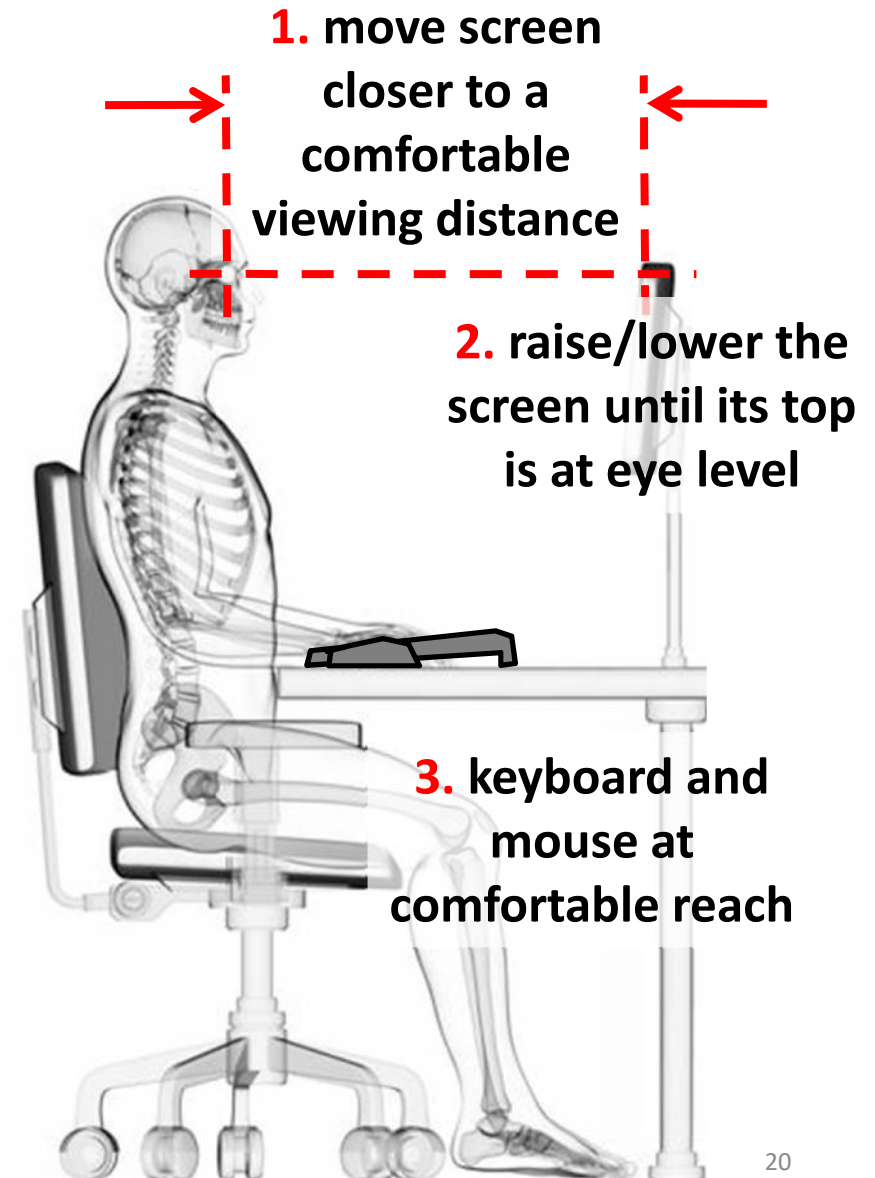
Steps:



Workstation Set-up

Steps:

5. yours and the screen's centre the same

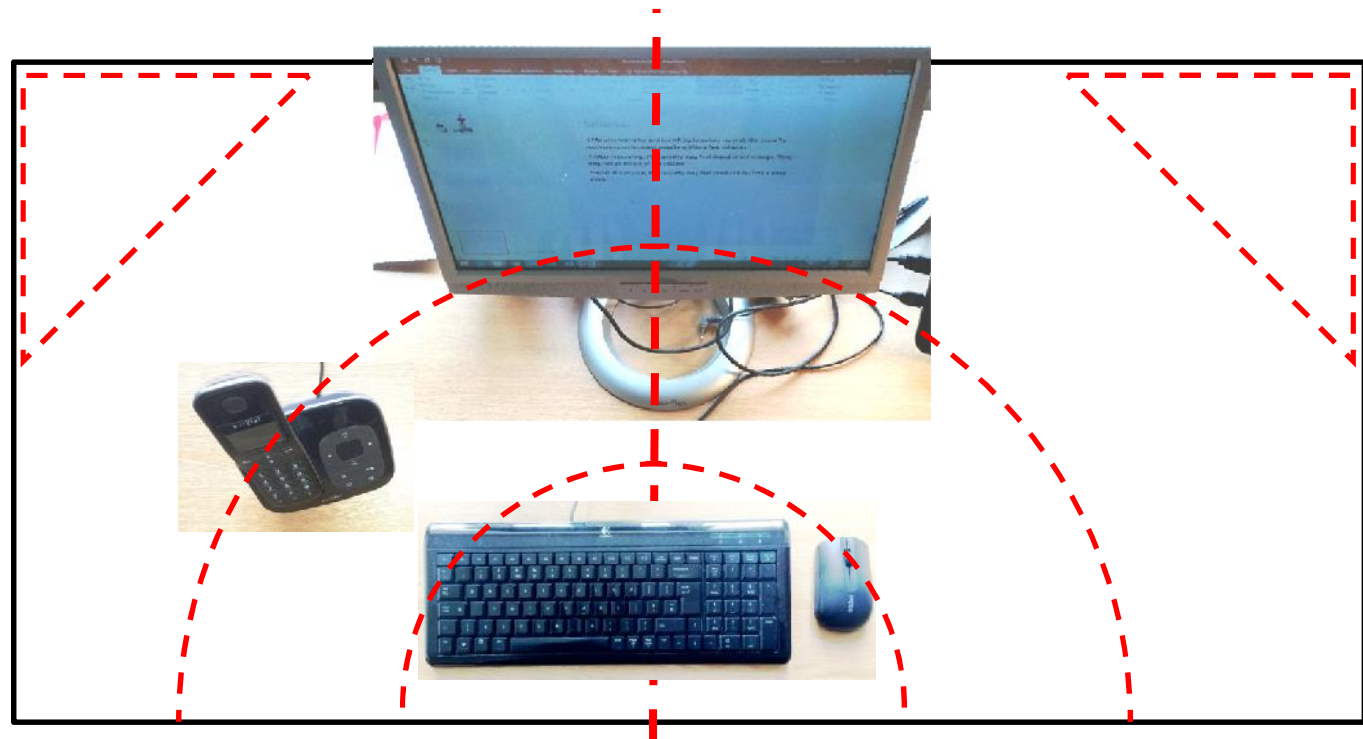


Desk Layout

Continued use - keyboard and mouse

Regular use - telephone, documents

Occasional use - filing





Knowledge Quiz

Quiz

Question 1: What is the name of the limb position and posture with the least amount on strain on the body?

Answer 1: **Neutral**

Question 2: Out of all of the controlled factors that increase the risk of MSDs, which is the one with the most effect?

Answer 2: **Time**

Question 3: What is the normal recommended height position of a monitor?

Answer 3: **Eye level**

Quiz

Question 4: Name the three main factors in achieving neutral sitting posture at a DSE workstation

Answer 4: Sit all the way into chair, sit all the way forward up to desk, screen at a comfortable viewing distance

Question 5: What happens to the rear group of back muscles when leaning forward?

Answer 5: They are stretched and weakened

Question 6: What is the main consideration for achieving the optimum seated height (adjusting the height of the chair)?

Answer 6: Relax the shoulders and adjust the chair until the elbows are level with the desk



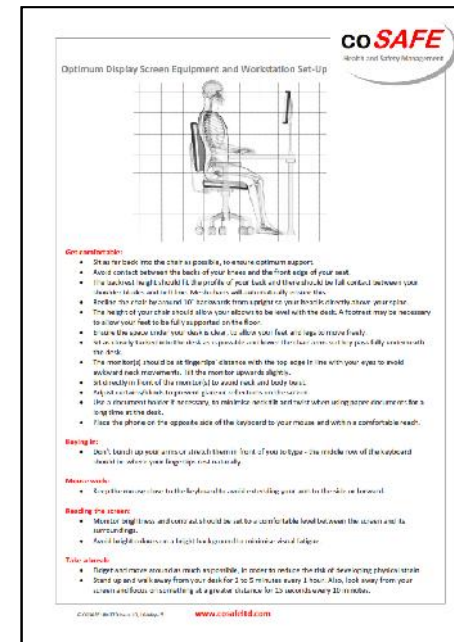
Further Information

Free information from:

www.hse.gov.uk



www.cosafeltd.com



Summary

Summary

- **Employees also have a duty to protect their own health and safety and use equipment safely – optimum adjustment**
- **The risk of developing musculoskeletal disorders (MSDs) is increased by prolonged use of equipment in awkward postures**
- **It is important to adjust equipment before each use, to achieve ‘neutral’ postures and positions, for minimising the risk of MSDs**
- **Critical equipment adjustments:**
 - **Raise/lower the chair to line-up the elbows with the desk**
 - **Lower the chair arms (if fitted) to allow them to pass under the desk**
 - **Move the monitor to a comfortable distance to avoid stooping**
 - **Raise/lower the monitor so that its top edge is level with the eyes**
- **Critical sitting posture:**
 - **Sit all the way into the chair and sit all the way forward up to the desk**