

Department of  
**PHYSIOTHERAPY**

# Office Ergonomics



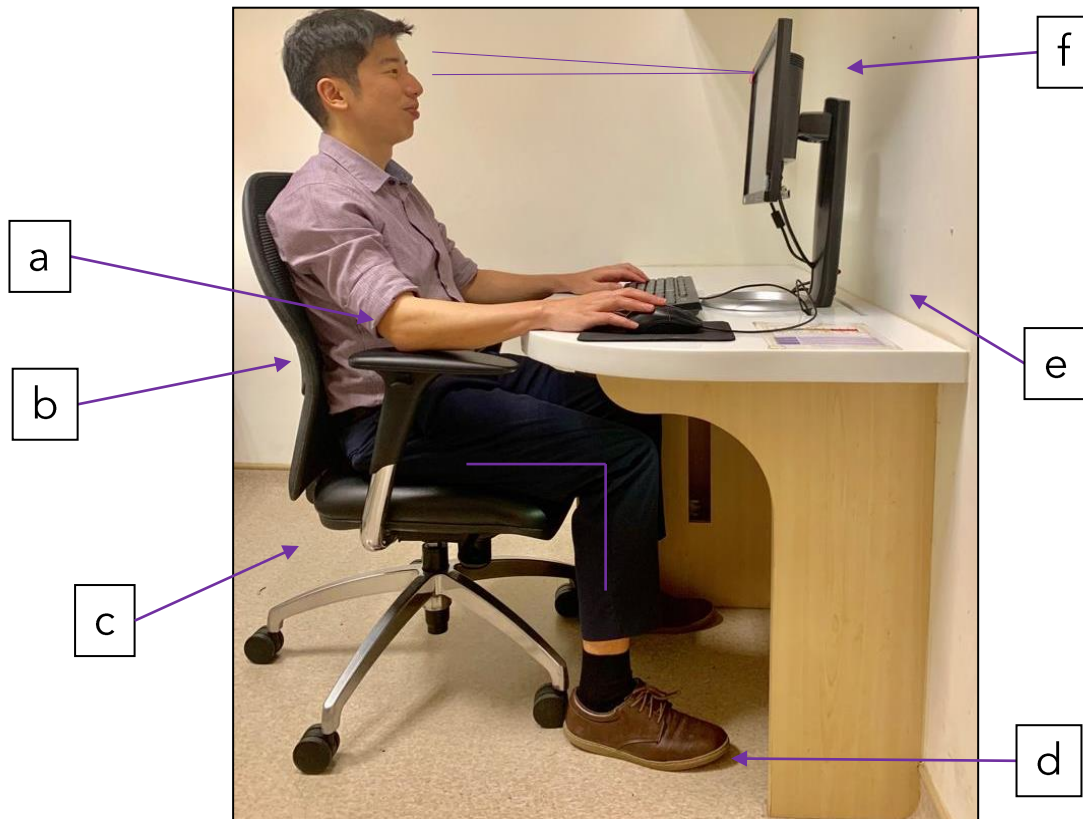
# What is Ergonomics?

Ergonomics is the study of human-machine and human-work environment interactions to prevent injuries and illnesses, and improve work performance (Ministry of Manpower, 2010). It involves designing the workstation, adjusting body posture and preventing computer-related injuries.

Most common strains for office workers are caused by repetitive motions and prolonged sitting positions. These can overstrain the musculoskeletal system. Poor sitting posture and poorly designed workplaces may also contribute to neck and back pain.

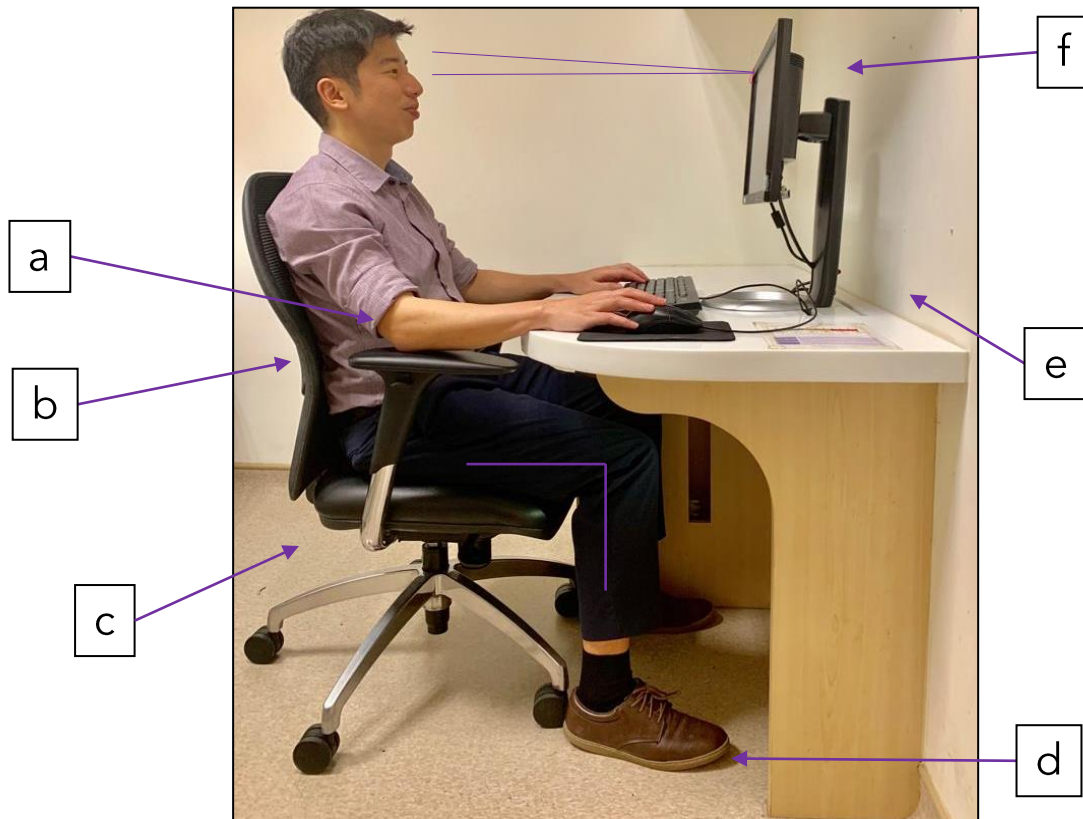
Applying principles of ergonomics in the workplace can reduce stress and eliminate potential injuries associated with poor posture, repetitive tasks and muscle overuse.

# What is a Recommended Workstation?



- a) Your forearms should be bent at about  $90^\circ$  to your arm, and your wrists should be in a neutral position
- b) Your chair should provide sufficient support for your lower back
- c) Adjust the height of your seat to allow your forearm to rest comfortably on the table with:
  - Your elbows bent at about  $90^\circ$
  - Your hips bent at about  $90^\circ$  with your thighs supported by the seat
  - Two to three fingers spacing between the back of your knee and edge of the seat

# What is a Recommended Workstation?



- d) Your feet should rest flat on the floor, and you should use a footrest if necessary
- e) Position any document holders at the same height and distance from you as the monitor screen
- f) The top of your monitor screen should be positioned slightly below or at eye level ( $\sim 10^\circ$ )

# Tips for Creating an Ideal Workplace Environment that Meets Your Needs

<b>A) Working Habits</b>	<ol style="list-style-type: none"><li>1. Do one to two neck and shoulder stretches every 30-60 minutes.</li><li>2. Take breaks from using your electronic devices.</li><li>3. Avoid prolonged static postures or repetitive movements.</li></ol>
<b>B) Seat</b>	<ol style="list-style-type: none"><li>1. Ensure that your back is supported when you sit in the office for long periods of time.</li><li>2. Adjust the seat depth to ensure there is adequate thigh support and allow for two to three fingers spacing between the back of your knee and the edge of the seat.</li><li>3. Add a cushion or lumbar roll behind your lower back if you do not have a back support or adequate space between the back of your knee and edge of the seat.</li><li>4. If you have an arm rest, ensure that it does not interfere with your arm movements.</li><li>5. Use a footrest if the chair is too high for your feet to rest flat on the floor.</li></ol>
<b>C) Work Surface</b>	<ol style="list-style-type: none"><li>1. Ensure there is sufficient space for your equipment (eg. monitor, keyboard and documents).</li><li>2. Keep items that you frequently use close to you.</li><li>3. Ensure there is sufficient room for your legs under the table.</li></ol>

# Tips for Creating an Ideal Workplace Environment that Meets Your Needs

<b>D) Monitor</b>	<ol style="list-style-type: none"><li>1. Position the top of the monitor screen slightly below or at eye level.</li><li>2. If you are bifocals, the monitor needs to be positioned slightly lower.</li><li>3. If you need a document holder, you can place it next to the monitor at the same angle and height as the screen.</li><li>4. Minimize eye strain by ensuring the screen has good contrast and sharp focus. Use anti-glare screens and fix any flickering issues on your monitor.</li></ol>
<b>E) Using Keyboards and Input Devices (Mouse or Trackball)</b>	<ol style="list-style-type: none"><li>1. Keep all devices close to you and position them at the same distance from you.</li><li>2. Use your whole forearm to move the mouse or any input device. Avoid only using your wrist.</li><li>3. Use keyboard shortcut keys if possible.</li><li>4. Type lightly.</li></ol>
<b>F) Environment</b>	<ol style="list-style-type: none"><li>1. Minimize glare by turning off some lights and using window shades or anti-glare screens.</li><li>2. Redirect air vents to avoid direct exposure to air blow.</li><li>3. Use a matte finish on work surfaces to reduce light reflection.</li></ol>

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