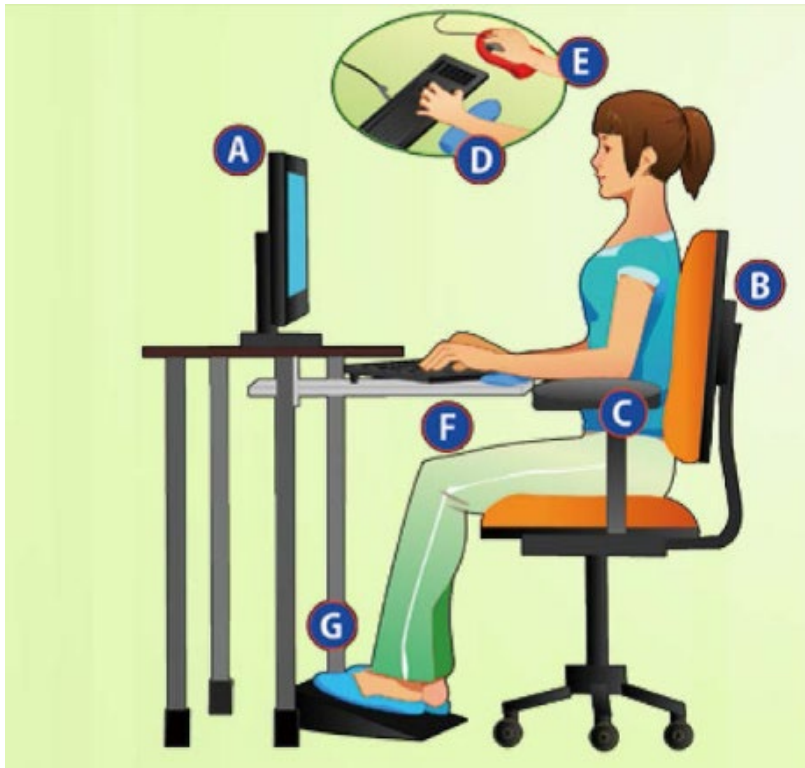




# Computer Use and Eye Care

Eye problems	Causes	Improvement measures
<ul style="list-style-type: none"><li>✧ Eye strain</li><li>✧ Blurred vision</li><li>✧ Slow in focus</li><li>✧ Double vision</li><li>✧ Headache</li></ul>	<ol style="list-style-type: none"><li>1. Blurred letters on the screen</li><li>2. Reflection of ceiling light, or glare from windows</li><li>3. Ciliary muscle strain caused by looking at a near screen for too long</li><li>4. Frequent change of focus as eyes move to and fro between screen and document causes ciliary muscle strain</li><li>5. Frequent adjustment and accommodation is needed as eyes move to and fro between document with 'black letters on white background' and screen with 'white letters on dark background'</li><li>6. Symptoms such as eye strain, blurred vision, slow in focus, double vision, headaches appear when the ciliary muscles are tired and cannot focus properly</li><li>7. Improper lighting</li><li>8. Uncorrected vision problems (myopia, hyperopia or astigmatism)</li></ol>	<ol style="list-style-type: none"><li>1. Use lampshade to divert ceiling light downwards to avoid glare</li><li>2. To avoid reflection and glare from the screen, do not place the screen by the window, do not sit with your back facing the window. Consider using curtains to block the strong light from outside</li><li>3. To avoid reflection and glare from the table, use table and countertops with non-reflective matt surfaces</li><li>4. Choose dark letters and light background on the screen to enhance contrast, and use a polarized filter or anti-glare filter to reduce the brightness</li><li>5. Keep the screen clean and avoid dust that affect the clarity</li><li>6. Place the screen slightly below eye level so that the eyes are looking slightly downwards (15-20 degrees)</li><li>7. Document and the screen should be put at the same distance from the eyes, so that eye adjustment and accommodation are minimized</li><li>8. Use accessory light for the document if needed</li><li>9. Take at least 20 seconds rest to view something at least 20 feet away after using the computer every 20 minutes</li><li>10. Illumination of working area should be 300-500 lux (maximum illuminance level not exceed 750 lux)</li><li>11. Regular eye check</li></ol>
<ul style="list-style-type: none"><li>✧ Itchy eyes</li><li>✧ Red eyes</li><li>✧ Watery eyes</li></ul>	<ol style="list-style-type: none"><li>1. Heat generated and dispersed from the back of the computer monitor accelerates tear evaporation</li><li>2. Air-conditioning in computer room dries up the air and accelerates tear evaporation</li><li>3. Over concentration on near screen reduces blinking frequency, which leads to inadequate tear replacement and makes the eyes itchy and red</li><li>4. Dryness and itchiness of eyes can also stimulate excessive tear production, causing watery eyes</li></ol>	<ol style="list-style-type: none"><li>1. Avoid placing the back of the monitor too close to wall, otherwise the heat will be reflected towards your eyes</li><li>2. Avoid air-conditioning or setting the temperature too low, as long as the computer is not damaged</li><li>3. Intentionally increase the frequency of blinking so that tears can be swept over the eyes for lubrication and moisture</li><li>4. Use artificial tear to lubricate the eyes if needed</li></ol>

## Correct posture and setup for computer use



- A. Computer screen should be 15-20 degrees below eye level as measured from the centre of screen around 500 mm from the eyes
- B. Sit upright and close to the desk
- C. Forearms should be approximately horizontal and supported by the desk. A space in front of the keyboard is needed to allow hands and wrists to rest when not typing
- D. Keep wrists straight when typing
- E. Position a mouse within easy reach area so it can be used with a straight wrist
- F. There should be enough space under the desk for legs to move
- G. A chair with round edge or a curved cushion seat can avoid excess pressure on legs and knees. A footrest may be helpful

### Smart tips:

1. Proper lighting and reduce glare on the device screen
2. Keep proper working distance and posture for screen viewing
3. Take rest: follow 20-20-20 rule (take a 20-second break to view something at least 20 feet away every 20 minutes)
4. Blink frequently
5. Regular eye check and good viewing habits