

# COMPUTER RELATED HEALTH PROBLEMS

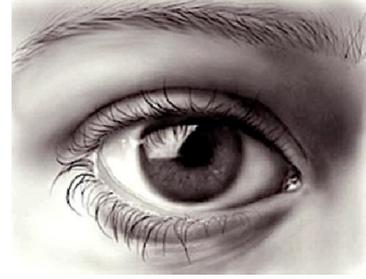
**Prolonged use of computers can lead to the following risks:**

- a) Eye defects
- b) Repetitive strain injury
- c) Techno-stress
- d) Body pains-back and wrists
- e) Headaches
- f) Fatigue
- g) Germs from the keyboard

# **There are three main notable health problems that can arise from using computers:**

- a) Carpal tunnel syndrome-repetitive strain injury
- b) Computer vision syndrome- eye strain, eye tiredness
- c) Musculoskeletal problems-pain the shoulders, lower and upper back, neck

# COMPUTER VISION SYNDROME



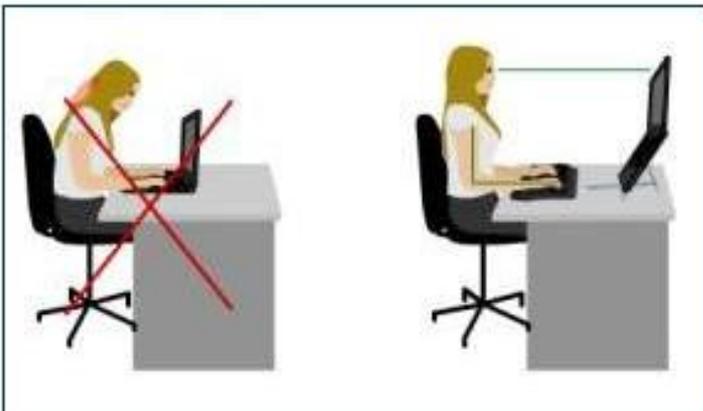
Frequent computer users suffer from computer vision syndrome.

Computer vision syndrome is a degenerative eye problem which can result in severely reduced eye sight, blurred (unclear) vision and overall eye tiredness.

Fortunately, eyestrain is usually a temporary problem.

# Causes of Computer vision syndrome

- a) Size and set of the monitor
- b) Elevated amount of monitor glare
- c) Poor display quality
- d) Insufficient picture display quality
- e) Poor sitting posture



# Symptoms of Computer vision syndrome

- a) Burning or itching eyes
- b) Blurring (unclear) or double vision
- c) Headache
- d) Fatigue (exhaustion, tiredness)

# Solutions to limit Computer vision syndrome

- a) Use monitors which don't flicker
- b) Use suitable lights on the screen
- c) and surrounding.
- d) Use a screen filter/anti glare screen
- e) Keep your eyes at least 18 inches from the screen
- f) Regularly look away from the screen and focus on something in the distance
- g) Take regular breaks - at least 5 minutes break every hour
- h) Have regular eye tests and wear glasses if prescribed



# Musculoskeletal problems

Musculoskeletal problems involve back and posture problems. Problems relate to musculoskeletal disorders caused by the need for the user to be crouched and hunched towards the monitors and computer components due to the design and positioning of these particular computer peripherals. Hunching forward of the user causes posture and back problems but is also a cause of severe and acute pain in the upper back, particularly pain in the neck and shoulders.



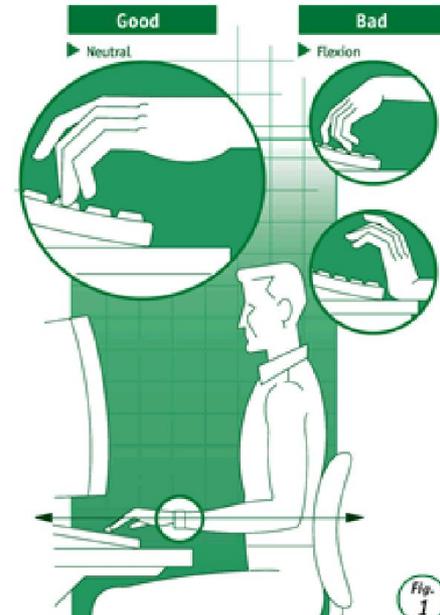
# Measures to help reduce musculoskeletal problems:

- a) Use a fully adjustable chair. The height of the chair and the seat position should be easy to change.
- b) Use footrests so that the legs are kept at a more natural angle
- c) Use a monitor which is adjustable. Position it so that the neck doesn't have to bend
- d) Take regular breaks and walk about.
- e) Sit with the back straight and the head up, don't slouch



# Carpal tunnel syndrome

Carpal tunnel syndrome is the biggest medical problem associated with computer related work. Carpal tunnel syndrome is stress related injury caused by repetitive movement of joints especially the wrist. Carpal tunnel syndrome becomes very common among computer professionals due to poorly placed computer components and extensive typing over a long period of time.



# Symptoms of Carpal tunnel syndrome

## In the arms and hands:

- a) Pain in arms/wrists even after rest
- b) Weakness
- c) Swelling
- d) Numbness/lack of feeling or sensation

## In the shoulders and neck:

- a) Stiffness
- b) Aching/pain

# Causes of Carpal tunnel syndrome

- a) Typing or using the mouse for long periods of time
- b) Using too much force on your fingers when typing
- c) Using a poorly designed keyboard
- d) Workstation or chair is the wrong height so arms are in an unnatural position



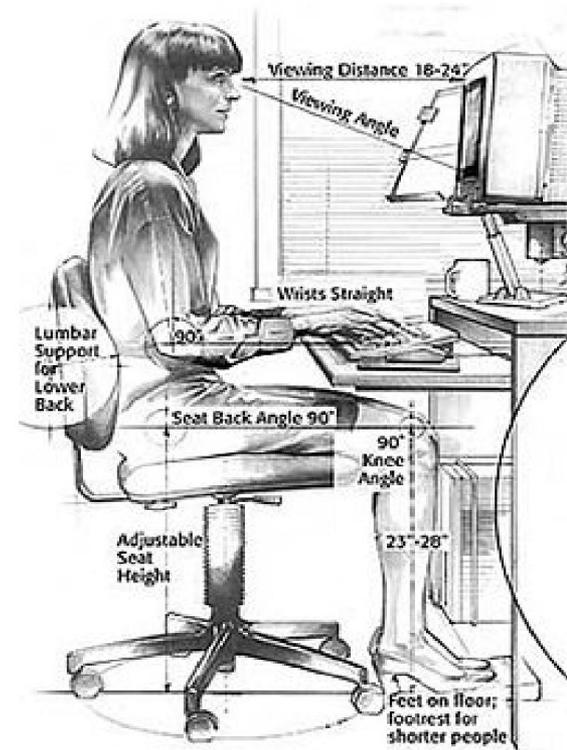
# Measures to limit Symptoms of Carpal tunnel syndrome

- a) Ensure the workstations and chairs are the correct height
- b) Support wrists by using wrist rests
- c) Keep elbows close to your sides
- d) Take frequent breaks from typing at least every hour



# ERGONOMICS

Ergonomics refers to incorporating comfort, efficiency and safety into the design of hardware in a work place. ***Five aspects of ergonomics: Safety, Comfort, Ease of use, performance and Aesthetics (beauty)***



# COMPUTER USE ETHICS

Computer use ethics refer to moral guidelines that govern the use of computers and information systems.

- a) Not to use a computer to harm other people.
- b) Not to interfere with other people's computer work.
- c) Not to snoop around in other people's files.
- d) Not to use a computer to steal.
- e) Not use a computer to bear false witness.
- f) Not to use or copy software for which you have not paid.
- g) Not to use other people's computer resources without authorization.
- h) Not to appropriate other people's intellectual output.
- i) Think about the social consequences of the program you write.
- j) Use a computer in ways that show consideration and respect.