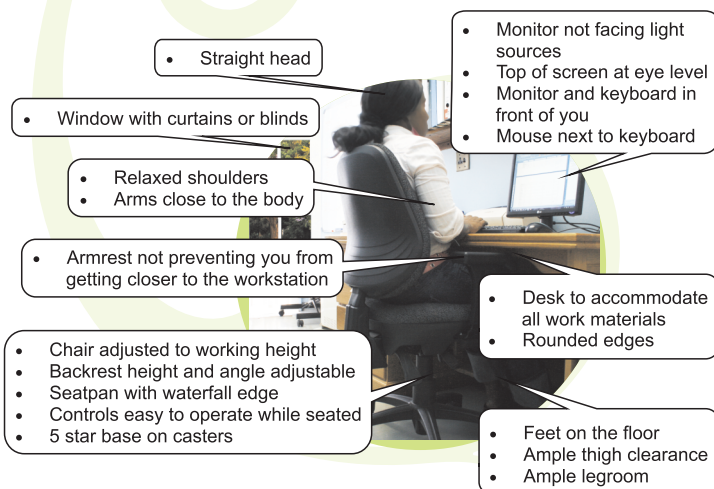


Computer Workstation for dynamic seating



The following sections contain information that will help you choose the appropriate components for your computer workstation and also assist you to arrange them properly.

1. Computer Workstation Components



a) Computer monitor

- Place monitor directly in front of you.
- Adjust monitor height so that the top of screen is at about eye level.
- Monitor distance should be one full arms length.
- Tilt the screen slightly backwards so that the angle is 10-20°.
- Screen surface should be matt and free from dust.
- Monitor should face away from light sources.



b) Keyboard & mouse

- Place keyboard directly in front of the monitor.
- Leave a space of at least 15 cm between desk edge and keyboard.
- Place mouse on the side next to the keyboard.



c) Desk

The desk should be big enough to accommodate all work materials.

- The width should be at least 60 cm* and length 120 cm*.
- If height is adjustable it should be 67-77 cm* if not it should be 72 ± 10 cm*.
- Edges should be rounded.
- The surface should be matt in order not to reflect light.
- A wooden desk is preferred to metal and glass.



d) Chair

The chair is the most important piece of equipment in a computer workstation.

- It must have a 5 star base and casters.
- The height must be adjustable.
- It must be able to swivel.
- The seat pan should have a rounded front edge.
- The seat pan depth should be 38-47 cm** while the width should be at least 40 cm**.
- The backrest should be at least 50 cm*** long.
- The backrest should have an adjustable inclination with a locking device.
- The backrest must be fitted with a well formed lumbar pad.
- If armrests are fitted, they should not prevent the operator from getting closer to the workstation.
- The material of the chair should be permeable.
- The controls of the chair should be easy to operate when seated.

* SANS 1528-2:2008, **SANS 1528-1:2008. ***KEH Kroemer and E Gralldjean 1997.

2. Computer Workstation Accessories

a) Document holder

Use a document holder that can be placed between the monitor and the keyboard.

b) Wristrest

Place a wristrest between the edge of the desk and the keyboard. It helps keep a straight line between the hand and forearm.

c) Footrest

The footrest is recommended for short people whose feet do not touch the floor when seated. Others can also use it as a means of varying posture.

d) Screen filter

The screen filter can be used to eliminate glare. (If using CRT monitor)

e) Task lamp

If lighting is sub-optimal, the task lamp will help in viewing the source document.

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Setting up a Computer Workstation

Having ergonomically designed components of a computer workstation is important but not sufficient. These components need to be organized in a manner that is not going to create awkward postures.

- While seated on the chair with the body relaxed, adjust the seat height so that the top of the desk is just below elbow height (working height).
- The chair must be as close as possible to the desk. Place feet flat on the floor or on a footrest. The knees, hips and elbows should be at about 90°. Rest the back on a backrest.
- Place the monitor in front of you one full arms length.
 - Place keyboard in front of the monitor about 15 cm from the edge of the desk. Place mouse on the side next to the keyboard.
 - Adjust angle of the monitor so that the top of the screen is just about eye level.
 - Position monitor at 90° to windows and light fixtures.
 - Nothing should be stored underneath the desk.
 - The space between the bottom of the desk and seat should be able to accommodate crossed legs.
 - The use of footrests and document holders will help in varying posture.

Exercises for Computer users

Change posture often, get up and do something different from your computer work. People who already have musculoskeletal problems should seek professional help. The following exercises are intended as a prophylactic measure to counteract deleterious effect of prolonged computer usage.

Neck



- Lower head towards shoulder. Hold 5 counts and release. Repeat 3 times each side.
- Turn head and look over shoulder. Hold 5 counts and release. Repeat 3 times each side.

Hands and wrists



- Spread fingers wide. Hold 5 counts and release. Repeat 3 times.
- Interlace fingers, palms outwards and straighten arms in front. Hold 5 counts and release. Repeat 3 times.

Shoulders



- Place arms above head. Pull elbow behind head with one hand. Repeat 10 times each side.
- Circle shoulders forward, then backward. Repeat 10 times each direction.

Lower back



- Bend to one side. Hold 10 counts and release. Repeat on the other side.
- Gently rotate body to one side. Hold 10 counts and release. Repeat each side.
- Stand with hands supporting lower back. Gently arch your back. Hold 5 counts and release. Repeat 3 times.

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Computer Workstation Ergonomics



Creating a better place for work