

Workplace Instruction –  
Workplaces



## Workplaces with visual display units (VDUs)

Guidance for company instruction

# Using computers without strain

## Facts

Although the design of computer stations has improved during the last years, only ergonomic design and sensible actions on the part of the user lead to trouble-free working.

Typical consequences are:

- Tension in shoulders, neck and back
- Pain in arms and hands
- Burning or watering of eyes (dry eye syndrome), impaired sight
- Headaches

## Tip

The preventive check-up with the company doctor, offered by the company management, should, in your own interest, be used.

## Setting up a workstation with VDUs correctly

### Position of the screen

The most comfortable head posture for reading and manual tasks is when the head is slightly bent forward, with the main viewing direction perpendicular to the computer workstation. The monitor should be positioned in such a way to avoid constant and painful supporting effort of the neck and shoulder muscles.

### Distance to screen and keyboard

Both the position of work equipment and the size of the screen depend on the work task (e.g. client contact, CAD workstations). The screen (19 – 27 inch) should be placed at a distance of approx. 50 – 80 cm from the employee. The keyboard should be placed 10 – 15 cm from the edge of the desk. Documents can be placed between the keyboard and the monitor or fixed in a document holder next to the monitor. By adjusting the distance, the inclination of the screen and the font size, a sharp visual image can be achieved in order to avoid errors and discomfort.

### Avoid reflections on the screen

In order to avoid glare from daylight, the viewing direction should be mostly aligned parallel to the window front. If this is not possible, install curtains, roller or vertical blinds or mobile walls. Disturbing reflections, e.g. caused by other light sources, disturb the natural visual impression and can be interrupted by room dividers. If the screen is located directly in front of a window, too much incident light can cause eye problems and headaches when the user concentrates on a comparatively dark screen.

### Adjusting the office chair and desk

Use the adjustment options available to adapt the chair to the user's individual body dimensions. The backrest should be lockable or freely adjustable to allow dynamic sitting. The resistance of the backrest should be adjusted to the body weight. The individual adjustment is facilitated by a professional instruction. The desk height should be adjustable to the sitting position and



If the screen is placed diagonally in front of the user, the user has to sit in a twisted position, which causes strain on the spine and joints.

## Tip

For frequent use, the screen must be arranged directly in front of the user.



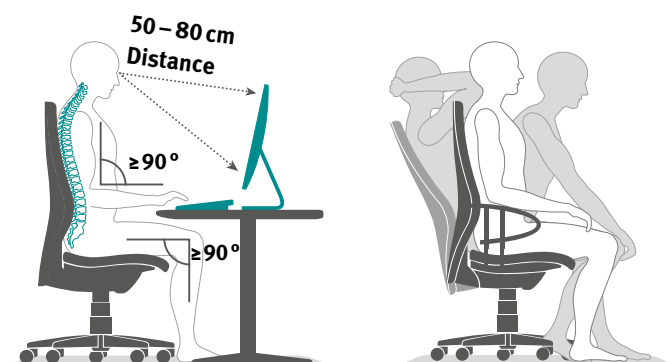
body dimensions (if necessary, using electric height adjustment) and is approx. 60–90 cm for sitting workstations and approx. 60–125 cm for standing workstations.

#### Correct sitting

- The top line of the screen should be slightly below the horizontal visual axis
- If a chair offers the possibility of “dynamic sitting”, it should be taken advantage of
- The angle between upper and lower leg as well as between upper and lower arm should be  $\geq 90^\circ$
- If necessary, use a footrest

#### Working with a notebook

For the continuous use of notebooks at a stationary desk, a docking station with an additional keyboard, mouse and screen should be used.



## Adequate physical activity

#### Dynamic sitting

A flexible backrest allows the user to sit dynamically according to individual needs. The chair and desk height can also be adjusted according to the user and the work task, even several times a day.

#### Use every opportunity to do exercises

Organize the work in such a way that constant sitting is avoided: e.g. call on colleagues in person, climb the stairs, hold shorter meetings or telephone calls while standing, use every opportunity to move, even in your free time!



VDU glasses, which are only required for working at a computer screen, may be needed by employees whose normal visual aids are unsuitable for screen work.

## Chronic symptoms

If the workplace is designed ergonomically and this does not improve problems with the musculoskeletal system, the eyes or headaches, the issue should be discussed with the company physician as part of occupational medical check-ups. In some cases,

corrective visual aid may be necessary. Furthermore, the occupational physician can provide individual advice and, in cooperation with the employer, work towards ergonomic workplace design.

