

# LAYOUT FOR WORKPLACE



## PRACTICAL RULES FOR THE LAYOUT OF OFFICE WORKPLACES

A good ergonomic workplace is necessary in order to create a healthy working environment for the individual employee. Simultaneously, a healthy working environment ensures safety for employees and management.

# INDHOLD

The body's signals	3
Variation	4
The chair	5
The desk	6
The screen workplace	7
The mouse	8
The keyboard	9
Lighting	10
Indoor climate	11

These instructions have been prepared by AM-Gruppen's occupational therapists and physiotherapists and contain instructions for the layout of office workplaces. The instructions include general guidelines and inspiration.



# THE BODY'S SIGNALS

YOUR BODY CAN TELL YOU IF SOMETHING AT THE WORKPLACE SHOULD BE CHANGED

The indications may be:

- Difficulty in concentrating
- Headache
- Tension around the eyes
- Fatigue
- Visual disorders
- Neck tension
- Shoulder problems
- Tennis elbow
- Lower back/back ailments
- Swollen legs

However, the body rarely tells you the exact cause of the problems. There are often several causes

The discomfort can be due to:

- Lack of variation
- Layout of the workplace
- The psychological working environment
- Indoor climate
- Lighting
- Or other totally different factors.

If the cause of the problems is not immediately clear, it is a good idea to first look at the variation of the work and the layout of the workplace. This can often be put right with modest effort.



# VARIATION

## Variation

The body needs variation and movement through a working day. Even though the workplace is fitted out according to the attached instructions and you have furniture with good possibilities of changing the working position, it is absolutely necessary that the work contains as much variation as possible. Keyboard work/screen work should not exceed 4 hours per day.

## Du kan opnå variation i arbejdet ved at:

- Combining the work so it contains varying work movements
- Being able to arrange your own working day
- Changing between standing, sitting and walking work during the course of the day
- Inserting “natural” breaks in the work so you do something else other than screen work for at least 10 minutes every hour.
- Doing gymnastic stretch exercising during breaks.



# CHAIR

## THE CHAIR

The best chair can change position when you move on the chair. This provides the possibility of changing the sitting position often.

### The seat angle of the chair is set so:

- The seat tilts slightly forward

### Set the height so:

- There is full support under the feet
- There is support under the thighs on the entire depth of the chair

### Set the backrest so:

- The backrest supports the arch of the lower back from the hips (iliac crest)
- There is a hand's width distance from the back of the knee to the front edge of the seat

### A good work chair can easily be adjusted and has:

- A firm, stable base
- Firm ( not hard) upholstery
- Rounded front edge on the seat

### Alternative chairs:

- Standing support chairs – knee chairs – saddle chairs – can be good alternatives to supplement the ordinary office chair. These can be

shared by several people in the office





# DESK

## THE DESK

Good desks have sufficient place so that the necessary number of tasks can be worked on at the same time. There must also be room for the necessary equipment. The best desks can be adjusted in height so you can quickly vary your working position between standing and sitting.

## SUGGESTIONS FOR DESK ADJUSTMENT

### The desk is adjusted in height so:

- The desk top is at elbow height when you stand or sit with relaxed shoulders – the desk top must support the underarm

### Secure free leg room under the desk:

- No drawers, chair legs, wastepaper basket or hard drives

### The desk top can be tilted so:

- Excess bending of the neck is reduced

## LAYOUT OF THE DESK

Today, many office workplaces use screens, telephones and writing/reading space whilst working. Therefore, the desk should be laid out so those things that are used simultaneously – for example a screen and telephone – are placed together. In so doing, some twisting working positions are avoided.



# SCREEN THE WORKPLACE

## The desk should be:

- The desk must be deep enough to achieve a suitable vision distance
- Wide enough for equipment and the need for putting things aside
- Equipped with a cut-out so you can work with the entire underarm supported all the way close to the body when you work

## If the equipment is used by several people:

- Adjustment of the workplace must be able to be done easily and quickly

## Placement of keyboard:

- The keyboard should be placed at elbow height
- Push the keyboard further onto the desk so you can rest the underarms on the desk top while working

## Screen:

- The screen should be placed as low as possible. It can possibly stand on the desk or be placed on a separate board that can be adjusted under the level of the desk top
- The screen should be angled backwards so the vision direction is perpendicular to the screen image
- The screen must have the correct size for the

task

- The flat screen takes up less space – heats less – is less light sensitive

*Remember that the flat screen must be able to be adjusted in height*

## Vision distance should be:

- 50-80 cm depending on the screen size
- If work is being done from a manuscript, the document holder must be able to be placed between the keyboard and the screen

## Good IT equipment:

- Has a stable picture without flickering



# MOUSE

## THE MOUSE

Intense work with the mouse is often the cause of injuries to the neck, shoulders and arm.

### Strain can be reduced by:

- Using the keyboard's short-cut keys
- Adjust the desk so you can work with the whole underarm supported close into the body
- Have several different tasks you can switch between so you do not work with the mouse all day
- Choose a mouse or other pointing tool that suits the task
- Choose a mouse that suits you in size and shape
- Choose a mouse or other input equipment that is operated with finger movements
- Attach 2 different mice so you can switch between working with the right and left hand
- Choose a mouse that can "turn" so you can change between working with the right and left hand
- Work with the mouse in front of the keyboard
- Switch between standing and sitting working positions
- Do stretch exercises





# KEYBOARD

## THE KEYBOARD

If you choose a narrow keyboard, you avoid working with an outward turned arm when you use the mouse. The keyboard should be as flat as possible. Most keyboards have built-in wrist support. Various wrist supports in different materials can be purchased separately.

### Width of the keyboard:

If you primarily use the character section of the keyboard, it can be an advantage to choose:

- A keyboard with a separate numerical section that can be freely moved around
- A keyboard without a numerical section

In so doing, you have the opportunity to work with the mouse closer to the body.

### Short-cut keys of the keyboard:

Many programmes can be operated by using short-cut keys. It is time-saving to use short-cut keys when the short-cut functions have been learned.



# LIGHTING

Good lighting at the office is daylight supplemented with artificial light.

Windows and light fittings can result in annoying reflections on surfaces like paper, desks and IT screens.

## **Annoyances from the lighting can be counteracted by:**

- Placing the light fittings correctly in relation to the workplaces
- Place the workplaces in relation to the windows – so the daylight is side light.
- Use blinds or other sun-screening on the windows

The best light distribution at the workplace is obtained by supplementing with an asymmetrical lighting work lamp that lights the working surface diagonally from the left (for right-handed people).

## **Good working light is:**

- Concentrated where it is to be used
- With limited glare and reflection
- Without flickering
- With good colour rendition
- Only some light around the screen



# INDOOR CLIMATE

If the indoor climate is poor, the physical annoyances from poor layout of the workplace or work that is too one-sided are worsened.

## Poor indoor climate can be caused by:

- A too high temperature in the work room
- Draughts
- Static electricity
- Vapours from buildings, persons and machines
- Insufficient air circulation
- Noise

## The annoyances can be prevented by:

- Keeping the temperature between 20° and 22° C
- Counteract cold air currents from windows and radiators
- Avoid placing workplaces where there is a draught or cold air current
- Choose flooring and shoes that deflect static electricity
- Ventilate the rooms with a brief through draught or ventilation system
- Regulate the acoustics with sound muffling material
- Ensure that printers and photocopying machines are placed in a separate machine room





**AM-GRUPPEN**

*Autoriseret Arbejds miljørådgiver*

# AM-GRUPPEN

YOUR CONSULTANT

We offer consulting that contributes to creating growth for your company and quality in the working environment for your employees.

AM-Gruppen is an authorised working environment consultant and a modern consultancy with divisions throughout Denmark. We are your total supplier for consulting on the working environment