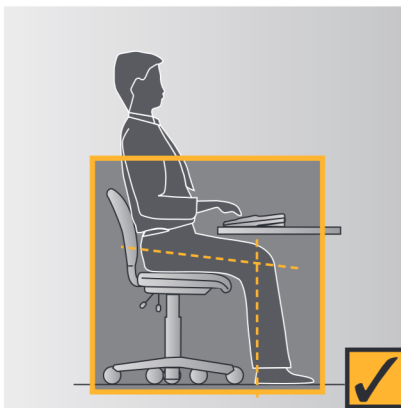
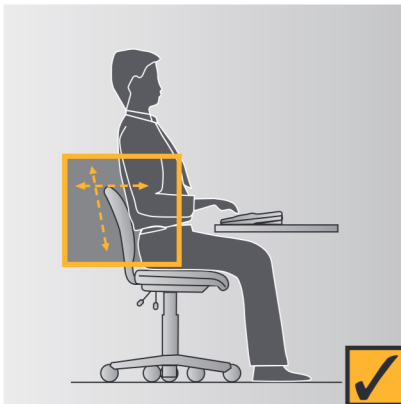


APPENDICES

- A. Setting up your workstation
- B. Exercises for office workers
- C. Office safety checklist
- D. References and advice
– where to obtain them



A.1



A.2

APPENDIX A: SETTING UP YOUR WORKSTATION

Despite the availability and supply of adjustable workstation furniture and equipment, employees usually do not use these very well. The following checklist is a step-by-step approach designed to be used when employees are located at a new workstation or whenever their tasks change.

When setting up the position of this furniture and equipment it is important to try new positions to find the most comfortable arrangement for yourself. Give yourself a chance to get used to any changes, as it may take several hours or even days to determine the best position. Remember, it may take a few tries to get the best arrangement, but it is worth the effort – and if a change doesn't work, you can always reset it.

Chair

When adjusting your chair please refer to any instructions that are provided with the chair or have someone show you how to adjust it and use the controls. If there is no one available to assist you, work through this checklist with another person and observe each other's postures and body positions.

Also, remember to try and avoid sitting for long periods of time. Some form of break from sitting every 20 – 30 minutes is helpful. Even getting up for 20 to 30 seconds to go to a printer or standing while talking on the telephone will provide some relief.

Seat

Height – adjust chair height so feet are comfortably flat on the floor, thighs are approximately horizontal and the lower legs approximately vertical. Low heeled shoes will improve comfort of the legs with the chair at this height. See Figure A.1.

Tilt (if available) – set to horizontal or slightly forward to suit your comfort.

Back support

Height – start by raising the backrest to its maximum height. Then sit in the chair and check the fit of the backrest to the curve of the lower back. If it's not comfortable, lower the height by several centimetres and try this position. See Figure A.2.

Repeat this adjustment and try each new position until the most comfortable fit is found. Ensure that the backrest supports the curve of your lower back and is not placed too low.

Forward/backward position – adjust the position of the backrest until a comfortable pressure is exerted on the lower back area while seated in the usual working posture at the desk. See Figure A.2.

APPENDIX A

SETTING UP YOUR WORKSTATION



A.3

The backrest position should not feel as though it pushes you out of the seat or that you have to lean back too far to reach it. There should be a two-finger clearance between the front of the chair and the back of the knee. Trial a number of different positions until the best fit is achieved. A slight backward tilt is a preferred position as the force on the lower back is reduced. However, some people prefer to sit upright. You can vary this angle to provide changes in posture from time to time.

Armrests

Armrests are usually not recommended unless they are short, fit under the desk or are adjustable. However, if your chair has armrests make sure that they do not prevent you from getting as close to the desk as you require (see Figure A 3) or that they impinge on your elbows while you are working. If this is the case, either remove them by unscrewing them, or replace them with a smaller or adjustable option. See Figure A 4.

Desk

If you have a height-adjustable desk

Having first adjusted your chair to suit your body size, adjust the desk so the top surface is just below elbow height. See Figure A 5. To determine your elbow height, relax your shoulders and bend your elbows to about 90 degrees and check the elbow height against the desk height. See Figure A 6.

If you don't have a height-adjustable desk

If the chair has been adjusted and the desk is higher or lower than the elbow, other forms of adjustment will be required. Start by measuring the height difference between the desk and your elbow.

If the desk is too high

Raise the chair by the measured difference and use a footrest. Set the footrest platform so that it is the same as the measured difference. See Figure A 7.

OR

Lower the desk by cutting the legs down by the measured difference. See Figure A 6.

If the desk is too low

Raise the height of the desk by extending the leg length or sitting it on wooden blocks or something similar. Remember to ensure that any such changes are secure and stable.

Clearance under the desk

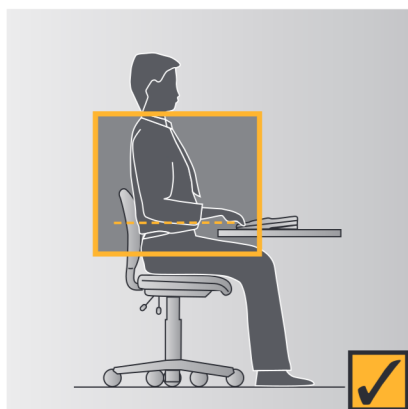
General items, like computer hard disk drives, boxes of documents or files, rubbish bins and mobile drawers should not be stored under desks where they will decrease or interfere with the space required for the legs. This may force you to adopt a twisted or awkward posture of the spine. See Figures A 8 and A 9.

Drawers

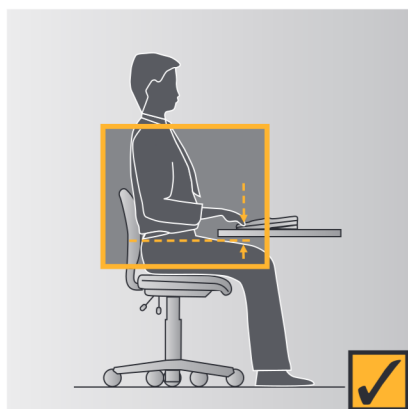
Most commonly used items should be placed in the top desk drawer to improve access and reduce reaching and bending movements. Where drawers are fitted to the desk, equipment such as the keyboard and computer screen should be arranged on the desk so that you can sit comfortably in the leg-well space.



A.4



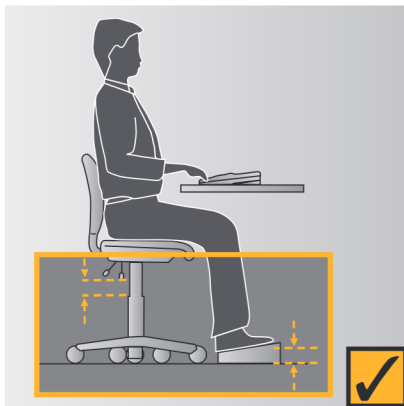
A.5



A.6

APPENDIX A

SETTING UP YOUR WORKSTATION



A.7

General storage on the desk

In/out-trays

Place trays at the outer reach sector (see Figure A.10). In-trays should not be located above shoulder level.

Stationery

A variety of containers are available for mixed stationery items. These should also be stored at the outer reach sector (see Figure A.10) or in the top desk drawer.

Reference books and folders

Large or heavy references such as telephone directories and manuals should either be stored within close reach or in a nearby position where you need to stand to access them. Handling of these items should not be conducted at the limit of your reach capacity while sitting, as this can result in undue strain on the back, shoulder and arm muscles.



A.8

Keyboard

Angle

Tilt the keyboard using the feet at the back to suit your level of comfort. The common and preferred setting is where the feet are lowered so the keyboard sits flat on the desk. This assists in preventing awkward postures of the wrists.

Position on the desk

Place the keyboard as close to the front edge of the desk as is comfortable (see Figure A.7). Do not place documents between the keyboard and the front edge of the desk while using the keyboard as this increases the reach distance to the keyboard and may result in excessive bending of the neck to look at the documents. Ensure that there is room to put the keyboard to one side when it is not in use.



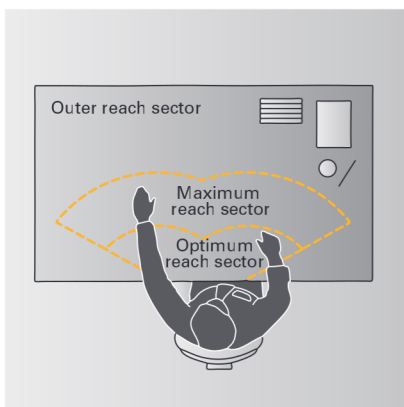
A.9

Mouse

Place the mouse mat directly beside the end of the keyboard on your preferred side. Use the mouse in this position and always aim to keep the mouse on the mat during use.

If you frequently use the mouse in your work you may wish to:

- learn to use it with both hands so that you can swap between the right and left sides for improved comfort;
- set the tracking speed of the mouse to a setting that suits you;
- maintain your mouse to keep it in good working order (for example, keeping it clean inside); and
- where possible, try and avoid holding on to the mouse when not in use.



A.10

APPENDIX A

SETTING UP YOUR WORKSTATION



A.11

Computer screen

The screen should be positioned once the chair and desk heights have been established.

Height

The screen should be positioned so that the top of the screen is level with, or slightly lower than, your eyes when you are sitting upright (see Figure A.11). If the screen does not have a raising device such as a monitor stand, you may be able to use telephones books to raise the screen height on a temporary basis.

Distance from the eye

First place the screen so that it is approximately an arm's length away from your usual seated position (see Figure A.11). Trial this position and if necessary move it further away or closer as required.

Positioning the screen

The screen should be placed so that it does not face windows, catching reflections from the windows, or have a window directly behind it causing glare from the window (see Figure A.15 and A.16).

Document holder

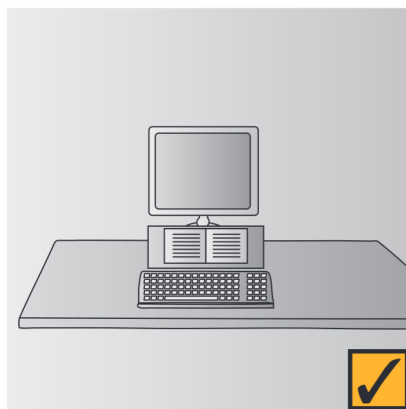
The position of the document holder depends on your need to view and reach the documents and the type of document holder that is used.

For continuous or frequent data entry where the source document is observed more than, or the same amount as, the screen:

- place the screen slightly to one side so that the document holder is directly in front of the user (see Figure A.12);

OR

- place the document holder in a similar position to the screen where it is slightly to one side and you look evenly between the two (see Figure A.13).



A.12



A.13

An A-frame style book rest that sits on top of the desk is the most practical and can be set at different angles (see Figure A.14). It is usually best placed so that it supports documents on an inclined angle between the keyboard and the screen (see Figure A.12). For further information, see Section 4.

A lever or swivel arm document holder suspends the document above the desk at eye level. Anchor it to the desk on either the left or right of the screen, according to your preference, and place it directly beside the screen. See Section 4 for further information regarding document holders.

Telephone

The telephone should be placed either within or at the limit of the optimum reach sector, depending on the amount of use (see Figure A.10). The placement should enable the user to operate the telephone without the need to move their trunk to grasp the handset or to operate the numeric and function buttons.

When making a lot of calls, it may be best to place the telephone on the same side as the dominant hand so that this hand can comfortably operate the numeric and function buttons. When mostly receiving calls, it may be more comfortable to place it on the non-dominant side.

Learn and utilise the functions of your phone, such as redial and the storage of commonly used phone numbers, to improve the efficiency of its use. Also, where the phone is used very often or for prolonged periods, a headset should be used.

Angled reading and writing surface

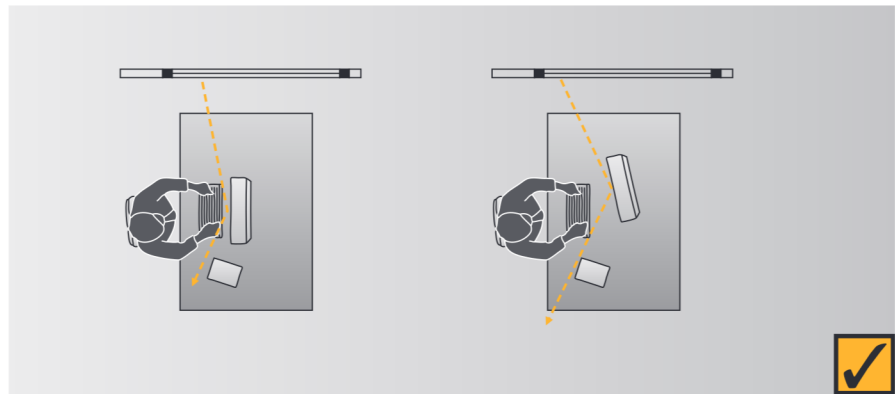
An angled board can improve neck comfort where a job involves a lot of reading and handwriting. It should be placed immediately in front of the user on top of the desk (see Figures A.17 and 4.10).



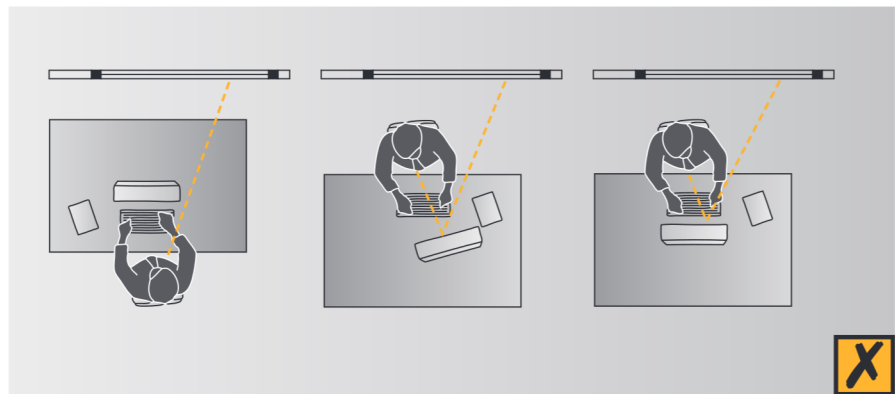
A.14

APPENDIX A

SETTING UP YOUR WORKSTATION



A.15 Placement of screen to reduce reflections



A.16 Screen position with undesirable reflections

CHECKLIST

Setting up your workstation

Chair

Is the chair adjusted to fit you? Check that the:

- Backrest height and back tilt are adjusted to fit the curve of the user's back and allow a slightly reclined posture.
- Seat height and angle are adjusted so that user can sit with their feet flat on the floor, hips between 90 degrees and 120 degrees.
- An adjustable-height footrest is supplied if you need one.

Have you been shown how to adjust the chair to correctly support the body?

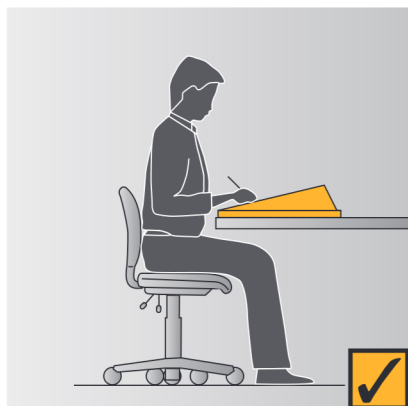
Desk/bench

Has the desk height been adjusted so the surface is set just below your elbow height?

If the desk is not adjustable, is the surface set just below your elbow height (e.g. chair raised slightly, foot rest supplied)?

APPENDIX A

SETTING UP YOUR WORKSTATION



A.17

CHECKLIST CONTINUED

Desk/bench

Is the desk large enough to fit the task requirements of the job?

Is the desk deep enough to allow the computer screen to be approximately at arm's length away from you?

Is there adequate space under the desk to allow comfortable forward facing posture and ability to get in and out of the workstation?

Are the desk corners and under desk space rounded, smooth and free of sharp edges (e.g. no keyboard, shelves under desk)?

Are items such as disk drives, files, rubbish bins and desk drawers stored so that they do not interfere with available space under the desk?

Are frequently used items on the desk stored within easy reach (e.g. keyboard, telephone)?

Are large or heavy items stored within close reach and not above shoulder height, or nearby where you have to stand to access them?

Is there a sloped desk surface or angle board for reading and writing tasks if required?

For a standing desk, is the desk adjustable so the surface can be set just below the user's elbow height?

Computer

Is the keyboard close to the front edge of the desk allowing space for the wrists/forearms to rest on the desk surface (about 2 – 5cm)?

Are the keyboard feet adjusted to position the keyboard as flat as possible on the desk?

Have you been trained in touch typing to avoid the need to look down at the keys?

Is the mouse or pointer positioned as close to the keyboard as possible?

Have you been trained to operate the mouse as close as possible to the midline and not to hold the mouse when not in use?

Has the screen been positioned at approximately arm's length from your seated position?

Has the screen been positioned so you can look straight ahead and slightly down at the screen (top of screen level with or below eye level when the user is sitting upright)?

Has the screen been positioned directly in front of the user (or close this position if document holder or second screen required)?

Is there a document holder either beside the screen or between the screen and keyboard if required?

Is the screen positioned to avoid reflections or glare from windows or lights (e.g. not facing or backing onto windows)?

Telephone

Is the telephone placed within the close reach sector on the side which is comfortable to use with other tasks and equipment?

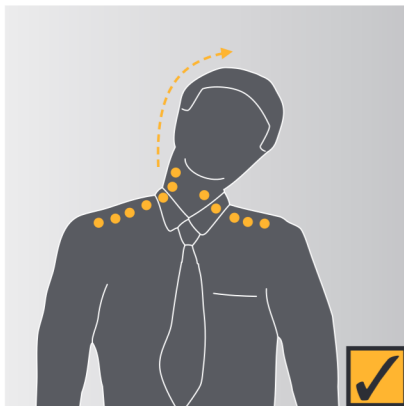
If there is considerable telephone work, is there a headset provided?

Is the headset appropriate for the task (one or both ears) and comfortable to wear?

Is the workstation appropriately positioned or partitioned to prevent interference noise?

APPENDIX B

EXERCISES FOR OFFICE WORKERS



B.1 Neck stretch

APPENDIX B: EXERCISES FOR OFFICE WORKERS

Stop, get up and move

Getting up and walking around is the best exercise you can get to provide a break from sitting, concentrating and using the muscles of the arms and hands. About every 20 to 30 minutes is a guide to how often it is helpful to move around.

Even getting up for 20 to 30 seconds to pick up papers from the photocopier or get some water is a way to change your posture and give muscles a chance to recover.

S-t-r-e-t-c-h and check!

Stretching exercises help to relax muscles which have been working and move those which have been in a fixed position. If possible, stand up to do your stretches.

While you are exercising, read the notes alongside each instruction and consider whether your workstation is adjusted to suit you. Refer to Section 2 for information on job design.

- Do a few of these exercises a few times every day
- Dots show the muscles that you are exercising
- Make sure you relax and perform them gently
- Hold the stretch or repeat as indicated on the diagram
- Do not over-stretch
- Stop if you feel discomfort when performing an action
- Remember to do each side

Neck

Neck stretch

Keeping your chin tucked in, gently lower ear to shoulder and hold for 10 seconds on either side. Repeat several times. See Figure B 1.

Head turns

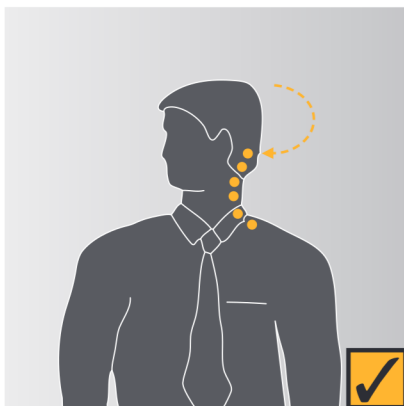
Turn head slowly to look over left shoulder. Turn head the other way. Repeat several times. See Figure B 2.

Chin tucks

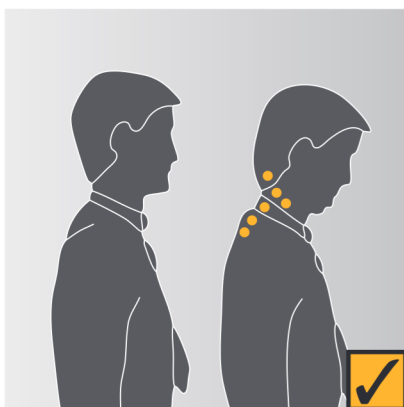
Raise the head to straighten the neck. Tuck the chin in and upwards creating a double chin. This also results in a forward tilt of the head. Repeat several times. See Figure B 3.

Check neck posture

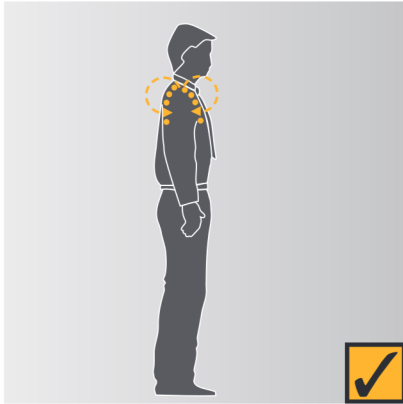
- Position the top of your screen at eye level.
- Use a document holder directly beside or below the screen – it saves you looking down.



B.2 Head turns



B.3 Chin tucks



B.4 Shoulder rolls

Shoulders

Shoulder rolls

Circle shoulders forward several times, then backwards. Repeat 3 to 5 times. See Figure B.4.

Check shoulder posture

- Relax your shoulders and rest your hands on your lap. Bend your elbows to no more than 90 degrees and check the height of your finger tips against your current work height. If the work (keyboard or desk) is higher than your hands, you may be hunching your shoulders unnecessarily. If so, try and raise your chair height or lower your desk height and try and relax your shoulders while working.

Wrists, hands and arms

Wrist and elbow stretch

Interlace fingers, palms outward, and straighten arms in front. Hold for 10 seconds and repeat several times. See Figure B.5.



B.5 Wrist and elbow stretch

Wrist stretch

Straighten your arm in front and bend your wrist forward, gently assist the stretch with your other hand. Hold for 10 seconds then stretch your wrist back and hold for 10 seconds. Repeat with other arm. See Figure B.6.

Check hand and wrist posture

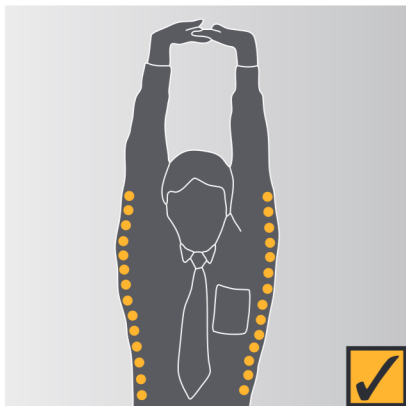
- While keying, keep your wrist straight while your fingers are suspended over the keyboard.
- Keep elbows at keyboard level. This may mean adjusting the desk or chair height.
- Don't rest your wrists on the desk or keyboard while keying. Keep hands suspended.
- Rest on the desk between periods of keying.



B.6 Wrist stretch

APPENDIX B

EXERCISES FOR OFFICE WORKERS



B.7 Upper and lower back stretch

Upper and lower back

Upper and lower back stretch

Interlace fingers and turn palms upwards above head; straighten arms then slowly lean slightly from side to side. Repeat movement several times. See Figure B.7

Back arching

Stand up. Support your lower back with hands and gently arch back and hold for 5 to 10 seconds. Repeat as often as is needed. See Figure B.8

Pectoral stretch

Raise both arms to shoulder height and bend elbows. Pull both elbows back slowly to bring shoulder blades towards each other.

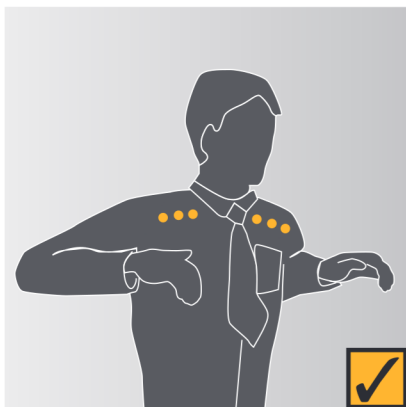
Repeat several times. See Figure B.9

Check back support

- Sit well back in your chair – if your feet need support, use a footrest.
- Adjust the backrest on your chair to support your lower back.



B.8 Back arching



B.9 Pectoral stretch

APPENDIX B

EXERCISES FOR OFFICE WORKERS



B.10 Foot pump

Legs

Foot pump

Stand up, holding the chair for balance if necessary, and alternately raise heels and toes. Repeat 10 times. See Figure B.10.

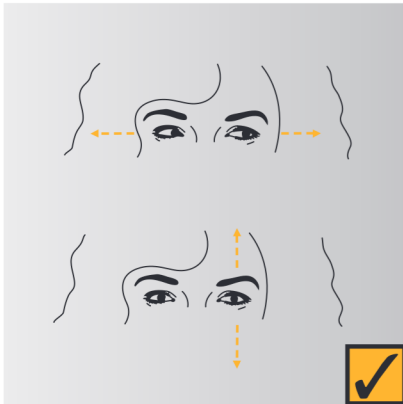
Check leg comfort

- If the seat of your chair is digging into the backs of your thighs, check that it is not too high or whether it is tilted backwards.
- If the seat is too high, lower the chair and desk or use a foot rest to support your feet.
- Also check the tilt of the seat and, if necessary, adjust it to a horizontal position.

Eyes

Eye exercise

Sit up straight, face forward and repeat this sequence several times without moving your head. Look up, then down. Look left, then right. See Figure B.11.



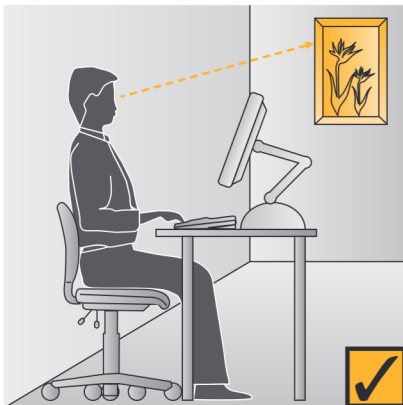
B.11 Eye exercise

Visual rest

Look up and away from the screen. Focus on a distant object (more than 3 metres away). For example, look out of the window or at a picture on a far wall. Shift vision back to screen and refocus. See Figure B.12.

Check eye comfort

- Is there enough light falling on your documents?
- Do windows or light fittings cause glare or reflection on the screen? If so, try turning the screen or blocking the path of the light.
- Use a screen with a light background when working with text. Software with a light background for text is more comfortable for the eyes.



B.12 Visual rest