

HEALTH AND SAFETY IN THE OFFICE





CONTENTS	PAGE
INTRODUCTION	2
1. OFFICE ENVIRONMENT	5
Temperature and air conditioning	5
Humidity	5
Ventilation	5
Contaminated air	6
Smoking	6
Ozone	6
Photocopiers	7
Sick building syndrome	7
Plants in the office	7
Lighting	8
Colour	8
Office floor space	9
2. SAFETY IN THE OFFICE	10
Office accidents	10
Manual handling	10
Reducing manual handling injuries	11
3. KEYBOARD EQUIPMENT	13
Recommended dimensions for seated work stations	13
Chairs and posture checklist for keyboard workers	13
Lighting for VDUs	13
Glare and reflection	14
Using a mouse	15
Keyboard equipment and radiation	16
Keyboard and telephone operations	16
4. REST BREAKS AND EXERCISES	17
Rest breaks and keyboard work	17
Eyestrain	17
Muscle care and preparation	17
Exercises for rest breaks	18
5. FOR MORE INFORMATION	20
References and further reading	20

INTRODUCTION

The modern office environment presents an array of potential hazards that can be avoided by taking simple precautions. This guide outlines minimum standards for the office environment, keyboard equipment, rest breaks and basic occupational health and safety.

Although working in an office has always been considered relatively safe, office workers face occupational hazards that include eyestrain, overuse syndrome, headaches, trips and falls and manual handling injuries.

WorkCover NSW is the NSW Government body responsible for administering the occupational health and safety, workers compensation and injury management legislation in the state.

Occupational health and safety legislation

The Occupational Health and Safety Act 2000 (the Act) and the Occupational Health and Safety Regulation 2001 (the Regulation) aim to ensure the health and safety and welfare of workers, self employed people and visitors to workplaces in NSW.

To meet these obligations employers must:

- · systematically manage identifiable risks in the workplace
- · consult with workers on health and safety matters
- provide and maintain equipment and systems of work that are safe
- ensure that equipment and substances are used, stored and transported safely
- provide adequate information, instruction, training and supervision
- maintain the workplace in a safe condition, including entrances and exits
- provide for emergencies, including, evacuation, communication and first aid/medical treatment.

Workers must:

- · co-operate with their employer's efforts to meet obligations under the legislation
- take reasonable care for the health and safety of others in the workplace.

People in control of workplaces (ie. building owners who are not the employer) must ensure that the workplace, including entrances and exits, is safe.

The Act requires employers to consult with their workers on matters relating to health and safety in the workplace. There are a number of ways this can be done. Through an OHS committee, OHS representatives or by other arrangements agreed to at the workplace.

For further information see the WorkCover code of practice – OHS Consultation 2001 (Catalogue No. 964.1).

Systematic risk management

The systematic risk management process consists of well-defined steps, which can be linked to the problem solving process. This process should be carried out in consultation with workers. Risk management involves:

Step One – Identifying the problem (hazard identification)

Step Two – Determining how serious the problem is (risk assessment)

Step Three – Deciding what needs to be done to solve the problem (risk elimination or control)

For further information see the WorkCover Risk Assessment Guide 2001 (Catalogue No. 425).

First aid

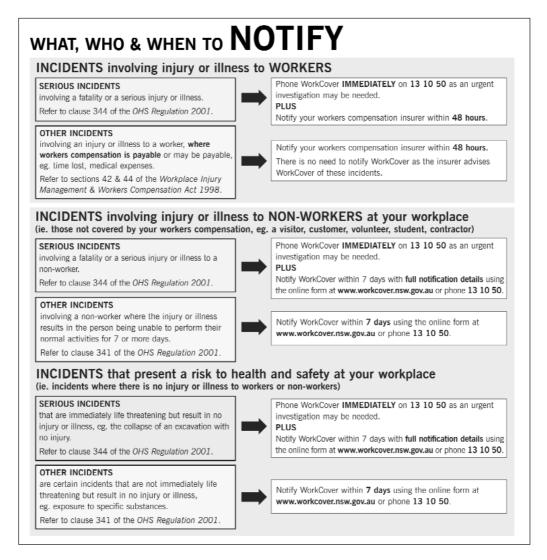
The Regulation requires employers to provide adequate first aid facilities for the immediate treatment of injuries and illness that may arise. The minimum requirement for office first aid facilities are:

- Staff of more than 200: First aid room with person in charge possessing an occupational first aid certificate or equivalent
- Staff of 100-199: Type A first aid kit with person in charge possessing a first aid certificate
- Staff of 25–99: Type B first aid kit with person in charge possessing a first aid certificate
- Staff of 11-24: Type B first aid kit
- Staff of 10 or less: Type C first aid kit.

The Workers Compensation Act 1987 requires that a register of injuries be kept. For further information see the WorkCover Guide, First Aid in the Workplace (Catalogue No. 121).

Incident (accident) reporting

Employers are required to report all workers compensation claims to the insurance company within 48 hours of becoming aware of it. A serious incident involving a fatality or serious injury requiring hospitalisation or where there was an immediate threat to life needs to be notified to WorkCover immediately. The following table outlines how to notify.



For further information see the WorkCover brochure *How to Notify Work Related Incidents* (Catalogue No. 1287.1).

Workers compensation and injury management

Under the Workplace Injury Management and Workers Compensation Act 1998, employers must:

- take out a workers compensation insurance policy to cover all workers regardless of the size of the business
- display a Workers Compensation Act poster detailing worker rights in a location where all workers can see it
- establish a return-to-work program to assist injured workers to get back to work as soon as is appropriate for them to do so.

For further information see the WorkCover publications: *Guidelines for Employers' Return-to-Work Programs* (Catalogue No. 506) and the Workers Compensation and Injury Management Fact Sheet 3 – *What to do if there is an injury* (Catalogue No. 1292).

1. OFFICE ENVIRONMENT

The office environment is a combination of lighting, temperature, humidity and air quality.

The office can be a healthy and comfortable place to work if the correct combination of these elements is maintained.

Temperature and air conditioning

In Australia, most people work comfortably at temperatures between 20°–26° Celsius. The preferred winter temperature is usually about two degrees lower than in summer.

Office temperatures can be localised. A desk situated in direct sunlight will be much warmer than the average temperature in the office and a desk situated directly under an air conditioning vent can be cooler than average.

If there are continual complaints that the office is too warm despite the reading on the thermostat showing the temperature to be within the acceptable range, check that the thermostat has not been situated directly in the airflow from an air conditioning vent.

Some older personal computers can generate as much heat as small electric bar heaters, raising local temperatures above the room average. This problem can be compounded by the clustering of computers in one particular section of the office.

Many of the complaints of discomfort in airconditioned offices occur in the winter time. The cause of the complaints can be because if the air temperature is about 24° Celsius this feels hot to the worker coming into the building from the outside air. The problem can be made worse if the air movement is less than 0.1 metres per second.

Humidity

Humidity refers to the amount of water vapour in the air. The optimum comfort range for relative humidity is 40–60 per cent. Low humidity can cause dryness of the eyes, nose and throat and may also increase the frequency of static electricity shocks.

Relative humidity above 80 per cent can be associated with fatigue and reports of 'stuffiness'. If relative humidity is consistently high or low call in an air conditioning expert to conduct a review.

Ventilation

Ventilation refers to the movement of air and rate of fresh air input. Air movement of less than 0.1 metres per second can lead to stuffy rooms whereas above 0.2 metres per second draughts can be felt.

For each person a minimum rate of 5–10 litres per second per person for general office space or 10 litres per second for every 10 square metres of floor space is recommended.

Contaminated air

Air contaminants in the office can include bacteria, viruses, mould spores and dusts, solvent vapours or chemicals generated or used in the building. Air conditioning units that do not provide adequate amounts of fresh air can cause high levels of carbon dioxide. Stale air due to poor ventilation and excessive heat

build-up or humidity can also contribute to air contamination. Appropriate control measures for the reduction of air contamination include:

- · effective air filtration
- ensuring that adequate amounts of fresh air enter the building
- · maintenance of air conditioning units, including regular cleaning
- · preventing the obstruction of vents
- locating equipment using solvents in areas with substantial air movement and/or installing local exhaust ventilation.

Employers need to do a proper risk assessment for every hazardous substance used in the workplace (such as ozone, dust, inks, solvents and toner). WorkCover NSW requires employers to keep records of these risk assessments in acordance with clause 168 of the Regulation.

Passive smoking

Environmental tobacco smoke has been recognised as a risk to be eliminated from office workplaces. For employers to meet their obligations under the Act, exposure of workers and visitors in office workplaces to environmental tobacco smoke is to be eliminated. Smoking is prohibited in public indoor spaces unless exempt under the *Smoke Free Environment Act 2000*.

Employers should:

- · in consultation, develop and implement a non-smoking policy
- designate all indoor areas as non-smoking
- · inform staff of the policy and designated non-smoking areas
- post signs using the standard symbols clearly indicating to staff and the public that the indoor areas are non-smoking.

For further information see the WorkCover publication: *Passive Smoking in the Workplace – Policy and Control* (Catalogue No. 353).

Ozone

Photocopiers and laser printers produce ozone gas during operation. It is possible to smell ozone at a concentration of between 0.01 and 0.02 parts per million (ppm). The Exposure Standard for ozone is a 0.1 ppm peak limit (a level which should never be exceeded at any time during the working day). Ozone does not build up in the air. It breaks down into oxygen quickly after it is released into the air.

A peak limit is not a 'time weighted average' and therefore the usual way of interpreting the limit (averaging the airborne concentration over an eight hour period) is inappropriate. Substances with a peak limit can induce acute effects after relatively brief exposure to high concentrations.

At concentrations above the Exposure Standard ozone can cause eye and upper respiratory tract irritation, headache and temporary loss of the ability to smell.

Investigations carried out by WorkCover NSW indicate that modern photocopiers fitted with an ozone filter do not present any hazard to health, provided they are properly maintained. Preliminary investigations on laser printers indicate the same result.

To keep ozone levels well below acceptable limits:

- · have photocopiers regularly serviced
- · ensure that an ozone filter is fitted to photocopiers and laser printers
- ensure that there is adequate ventilation.

Photocopiers

It is recommended that photocopiers are not placed in, or in close proximity to, the personal workstations of office workers because of possible discomfort from the heat, light and noise generated during the photocopying process.

Always put the cover down when using a photocopier. The fluorescent, metal halide, or quartz exposure lamps used in photocopiers can irritate the eyes if viewed directly.

Tests conducted by WorkCover NSW indicate that the dust from the toners used in photocopiers is well below the Australian Exposure Standard of three mg per cubic metre of air for dust containing carbon black. It is possible, however, if toner dust is breathed in directly, that it could irritate the respiratory tract.

Information on the exposure limits for ozone, carbon black and other airborne contaminants is available at the HOHSC website: http://www.nohsc.gov.au/OHSInformation/Databases/ExposureStandards/expsearch.asp

Sick building syndrome

The incidence of illness is significantly higher in some buildings than in others. The symptoms that characterise 'sick building syndrome' are sore eyes, running nose, headaches, mucous membrane irritation, dry skin, dizziness and nausea.

No single, specific cause has been found. It is believed that the syndrome is caused by a combination of poorly adjusted ventilation, air conditioning, temperature, humidity and lighting and psychological factors such as stress, management style and tedious work schedules.

Using the solutions to each individual aspect of the office environment offered in this guide may help in alleviating the symptoms that characterise sick building syndrome.

Plants in the office

United States NASA studies have shown that plants reduce the levels of toxic substances such as formaldehyde, benzol and carbon monoxide in the air. Some useful plants for the office are:



Chinese Evergreen



Madonna lily



Warenkii



Mother-in-laws tongue



Heart leaf



Corn plant







English ivy Pothos

Madagascar dragon tree

Further information is available on the NASA website: http://www.colormegreenco.com/NASA/nasa2.htm

Lighting

The basic requirements for adequate lighting are that the work must be easy to see and the light comfortable to the eyes. Illumination is measured in units of LUX – lumens per square metre.

Suitable light levels based on AS 1680.1–1990: *Interior lighting – General principles and recommendations* are:

• general background 160–240 Lux

routine office work (typing, filing)
 400 Lux

work with poor contrast (proof reading) 600 Lux.

Sharp differences in illumination between adjacent areas should be avoided. Ideally the surrounding area should be slightly lower in luminance than the task area itself, except in special cases such as viewing outlines against a luminous background.

Light should fall from the side rather than from the front to avoid reflections on the work surface.

Glare causes visual discomfort and is usually caused by light sources which are too bright or inadequately shielded. (See page 15 for more information on glare.)

Lights deteriorate with age and accumulate dirt over the surface. It is advisable to ensure that lights are cleaned at regular intervals, at least every 6-12 months. Fluorescent light flicker indicates either the tube or starter needs replacing.

Colour

Colours determine the level of reflectance as follows:

- · white reflects 75 per cent or more of light
- light colours 50–75 per cent (subdued cool colours)
- medium colours 20-50 per cent (bright warm colours)
- dark colours 20 per cent or less.

White or off-white is recommended for ceilings as they should reflect greater than 80 per cent of light. Walls should have a reflectance between 50–75 per cent and have a gloss or semi-gloss finish. Walls near windows should be light in colour whereas those away from windows should be medium coloured below eye level. Floors should reflect less than 20 per cent of light and therefore should be dark coloured. The use of colourful posters and pictures relieves the monotony of the surroundings and also provides relief from eyestrain.

Office floor space

A good rule of thumb for personal space is to allocate 6.25 square metres per individual workstation, including furniture and fittings, but excluding passageways and amenities. Check with your local occupational health and safety authority for more information.

Ten square metres per person for the general, air-conditioned office areas including passageways and amenities, is the design recommendation in AS 1668.2–2002: *The use of ventilation and airconditioning in buildings – Ventilation design for indoor air contaminant control*.

2. SAFETY IN THE OFFICE

Most office accidents result from slips, trips and falls, lifting objects, punctures or cuts and being caught in or between things.

Office accidents

Slips are caused by slippery floors, uncleaned spillages or shoes with insufficient grip. Trips occur over objects lying on the ground or jutting out into aisles or poorly maintained floor surfaces. Falls can be from ladders or from standing on chairs to reach an object.

Many of these accidents can be avoided by simple planning and good housekeeping:

- Traffic ways and aisles should be well lit, and be kept clear of materials, equipment, rubbish and electric leads.
- Floors should be level and the use of mats discouraged. Spilled liquids and anything else dropped on the floor should be immediately picked up or cleaned away.
- Free standing fittings should be completely stable or secured to the wall or floor. Filing cabinets
 should be placed so that they do not open into aisles and should never be left with cabinet drawers
 open. For stability load cabinets starting from the bottom and do not open more than one drawer at a
 time.
- Office machines and equipment should be kept in good working order. Equipment using hand-fed
 processes such as electric staplers and paper guillotines should be guarded and staff trained in their
 proper use.
- Many pieces of equipment using electricity can mean trailing cables, overloaded circuits, broken plugs
 and sockets. Ensure that these dangers are seen to by a competent person and the risks are
 managed.

Manual handling

Manual handling is a term used to describe everyday type activities such as carrying, stacking, pushing, pulling, rolling, sliding, lifting or lowering loads.

For office workers this can include tasks such as moving boxes of stores, filing, getting equipment from cupboards and filling the photocopying machine with paper.

Injuries that are a result of a manual handling incident include twisted ankles, sprains and strains, torn ligaments or broken bones.

Many risks arising from manual handling can be controlled by quite simple solutions.

For example, the office tasks of sorting/collating and handling bulk mail. In the example below the work table has had the legs extended by attaching a 350mm extension to each of the legs. This raises the table to a comfortable working height removing the need for continuous bending.





Don't stoop - change the working height

When filing and storing, the most commonly used items should be placed according to bulk and weight in readily accessible areas, between knee and shoulder height. Where this is not possible, stepladders with a solid base and a non-slip surface should be provided.

The *Manual Handling Code of Practice* requires employers to identify, assess and control risks arising from manual handling activities.

Reducing manual handling injuries

Stage 1: Risk identification

Where are the manual handling injuries happening in the office?

- look at injury records
- talk to workers and the workplace OHS committee or representatives
- · watch the work in progress.

Stage 2: Risk assessment

What is causing these manual handling injuries? Consider:

- force applied
- · actions and movements
- range of weights
- · how often, and for how long the job is done
- · where the load is positioned and how far it has to be moved
- · availability of mechanical aids
- · layout and condition of the work environment

- work organisation
- position of the body while working
- · analysis of injury statistics
- age of the workers
- skill and experience of the workers
- nature of the object handled
- any other factor considered relevant.

Stage 3: Risk control

What changes can be made to prevent these manual handling injuries?

- redesign the job
- · provide mechanical handling equipment
- provide training in manual handling skills.

Once this process has occurred it is important to evaluate the effectiveness of the changes that have been made. Any evaluation must assess whether the changes are used correctly, help reduce manual handling injuries and have not created new problems.

3. KEYBOARD EQUIPMENT

Office workers of all kinds spend many hours using a variety of keyboard equipment. Keyboard equipment that is properly selected, coordinated and adjusted will help prevent a range of injuries caused by overuse, poor posture and poor lighting.

Recommended dimensions for seated workstations

These recommendations are based on AS 3590.2–1990 *Screen-based workstations – Workstation furniture*.

Height of work-surface(height to top of the work surface)If fixed680 to 720 mm above floor levelIf adjustable580 to 730 mm above floor level

Area of work-surface

Width 1500 mm minimum
Depth 900 mm minimum
Bench thickness over leg span 25mm maximum

Volume of leg-space

Width 800 mm minimum
Depth 550 mm minimum
Height 580 mm minimum

Viewing distance to work

Minimum 350 mm Maximum 750 mm

Height of display 30–40° below eye level

Seat pan height

Surface of seat to floor 380 to 510 mm
Seat pan depth 330 to 430 mm
Footrest area 300 x 375 mm

Chairs and posture checklist for keyboard workers

Well-adjusted chairs improve body position and blood circulation, reduce muscular effort and decrease pressure on the worker's back. Chairs should swivel, have five castor wheels or glides for stability, breathable fabric on the seat, a rounded front edge and have adjustable seat height and backrest for lumbar support. Twin wheel castors should be fitted when the chair is used on carpet but 'glides' (flattened smooth egg-shaped feet) should be fitted for chairs used on smooth surfaces because the use of castor wheels can cause accidents on smooth floors.

1. Work surface height

Adjust the height of the work surface and/or the chair so that the work surface is approximately at finger length below the height of the elbow when seated.

2. Chair

Adjust the seat tilt so that you are comfortable when using the keyboard. Usually this will be close to horizontal but tilted slightly forwards. If this places an uncomfortable strain on the leg muscles or if the feet do not reach the floor then a footrest should be used. Adjust the backrest so that it supports the lower back when you are sitting upright.

3. Keyboard placement

Place the keyboard in a position that allows the forearms to be close to horizontal and the wrists to be straight. That is, with the hand in line with the forearm. If this causes the elbows to be held far out from the side of the body re-check item 1.

4. Screen placement

Set the eye to screen distance at the distance that permits you to most easily focus on the screen. Usually this will be within an arm's length. Set the height of the monitor so that the top of the screen is below eye level and the bottom of the screen can be read without a marked inclination of the head. Usually this means that the centre of the screen will need to be near shoulder height.

5. Desk-top layout

Place all controls and task materials within comfortable reach of both hands so that there is no unnecessary twisting of any part of the body.

6. Document holder

Place this close to the monitor screen in the position that causes the least twisting or inclination of the head.

7. Posture and movement

Change posture at frequent intervals to minimise fatigue. Avoid awkward postures at the extremes of the joint range, especially the wrists. Take frequent short rests rather than infrequent longer rests. Avoid sharp increases in work rate. Changes should be gradual enough to ensure that the workload does not result in excessive fatigue. After prolonged absences from work the overall duration of periods of keyboard work should be increased gradually if conditions permit.

Lighting for VDUs

Place VDUs to the side of the light source(s), not directly underneath. Try to site desks between rows of lights. If the lighting is fluorescent strip lighting, the sides of the desks should be parallel with the lights.

Try not to put the screen near a window. If it is unavoidable ensure that neither the screen nor the operator faces the window.

If the VDU is well away from windows, there are no other sources of bright light and prolonged desk-work is the norm, use a low level of service light of 300 lux. If there are strongly contrasting light levels then a moderate level of lighting of 400 to 500 lux may be desirable but high quality anti-glare screens may be necessary.

Glare and reflection

It is important to detect the presence of glare and reflection. To determine whether there is glare from overhead lights the seated worker should hold an object such as a book above the eyes at eyebrow level and establish whether the screen image becomes clearer in the absence of overhead glare. To detect whether there are reflections from the desk surface the worker should hold the book above the surface and assess the change in reflected glare from the screen.

A number of ways are available to eliminate or reduce the influence of these reflections:

- tilt the screen so that reflections are directed below eye level
- · purchase screens with matt or light diffusing surfaces
- cover screens with a light diffusing surface or anti-glare screen
- negative contrast screens (dark characters on light background) will reduce the influence of these reflections.

If VDU users experience eye discomfort when using a bright screen they should make the following adjustments:

- Turn the screen brightness down to a comfortable level. This can be judged by placing a piece of
 paper next to the screen and adjusting the brightness control so that the screen is similar in
 brightness to the paper.
- Look away into the distance in order to rest the eyes for a short while every ten minutes or so.
- Change the text and background colours. Recommended are black characters on white or yellow background, or yellow on black, white on black, white on blue and green on white. Avoid red and green and yellow on white.

Using a mouse

A well-designed mouse should not cause undue pressure on the wrist and forearm muscles. A large bulky mouse may keep the wrist continuously bent at an uncomfortable angle. Pressure and fatigue should be minimised by releasing the mouse at frequent intervals, by selecting a mouse with a design that permits a fairly natural wrist posture (such as a slim-line, low-profile design) and by holding the mouse in a comfortable position (not too far away or too far to the side).

Keyboard equipment and radiation

VDUs emit radiation, particularly visible light which allows the characters on the screen to be seen. Weak electromagnetic fields and very low levels of other radiation, not visible to the human eye, can be detected by sensitive instruments. Similar emissions are produced by television receivers.

The levels of most radiations and electromagnetic fields emitted from VDUs are much less than those from natural sources, such as the sun or even the human body, and are well below levels considered harmful by responsible expert bodies such as the International Radiation Protection Association.

Given that the levels of radiation from VDUs are much lower than recommended limits, and that these limits themselves incorporate significant safety factors, it is extremely unlikely that any harm to an unborn child would result from exposure to the radiation emissions from a VDU.

The weak electromagnetic fields produced by television receivers and VDUs extend in all directions, but their intensity decreases very quickly with distance from the source. A workplace should be organised to ensure that VDU operators are no closer to any other VDUs than they are to their own.

Flat screen displays, such as the liquid-crystal display used in some laptop computers, produce even smaller amounts of radiation than those which use television-type tubes. It may be sensible to use the new types for special purposes, such as to increase portability but concern about radiation emissions should not be a factor in their choice.

Although concerns have been raised that radiation from VDUs is a cause of cancer, research to date has failed to establish a causal link.

Keyboard and telephone operations

Lightweight adjustable headsets with a volume control should be provided for staff on continuous keyboard/telephone operation. For continuous, traffic dependent telephone operations a manual call facility should also be provided.

4. REST BREAKS AND EXERCISE

The key to preventing overuse injuries is to break repetitive work with non-repetitive tasks or exercises and/or rest breaks.

Workers need to move around and reduce the effects of fatigue by doing different tasks. However, rest breaks should be taken if the job requires a sustained period of repetitive or static activity because task variation is not possible.

Rest breaks and keyboard work

Frequent short breaks are most effective in relieving the strain associated with keyboard work. For reasonably sustained keying activity a break should be taken for a few minutes every half hour. During this break operators should walk around and perform whatever movement relieves the feeling of muscle fatigue. Movements that are a natural response to fatigued muscles such as shrugging the shoulders are generally the most effective in dealing with the fatigue.

A particularly useful method of relieving muscle fatigue is to occasionally alter posture. That is, to change from the recommended posture for short duration. Some chairs have a forward tilt control that allows the worker to sit forward which can sometimes help to reduce fatigue to the muscles of the forearm, neck and shoulders.

Eyestrain

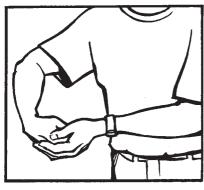
Working with VDUs can produce tired and sore eyes and eyestrain. To reduce strain take short rests and look into the middle distance or if necessary close the eyes and cover them with the hands without pressing and breathe deeply eight or nine times.

Muscle care and preparation

The following exercise should be done before commencing work and after lunch breaks. However it is important to:

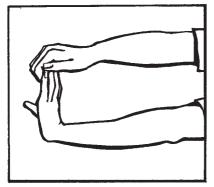
- never stretch to the point where pain is experienced
- refrain from doing these exercises if you have a medical condition that could be made worse by stretching.

The benefit of these exercises is best achieved by a gentle stretching action over periods of at least 30 seconds.



Bend your wrist and fingers with your other hand, bending your elbow slightly at the same time, until you feel the stretch over the back of your forearm. Hold the position for 30 seconds.

17



Stretch your arm out in front of you with your elbow straight, palm facing away from you (fingers pointing up or down). Then with your other hand pull your fingers backwards until you feel the stretch over the front of your forearm. Hold the position for 30 seconds.



Tuck your chin down onto your chest and gently turn your head from side to side, keeping your chin on your chest. Do this ten times.



Turn your head slowly from side to side ten times.

Exercises for rest breaks



Tall stretch:

Interlock fingers, palms up. Stretch arms above the head until they are straight. Do not arch the back.



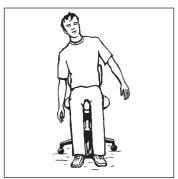
Toe-in, toe out:

Place feet shoulder-width apart, heels on the floor. Swing toes in, then out.



Shoulder roll:

Roll the shoulders – raise them, pull them back, then drop them and relax. Repeat in the opposite direction.



Side stretch:

Drop left shoulder, reaching left hand towards the floor. Return to starting position. Repeat on right side.



Back curl:

Grasp shin, lift leg off the floor. Bend forward curling the back, with nose towards the knee. Note: This exercise should be avoided in pre- or post-natal conditions.



Ankle flex:

Hold one foot off the floor, leg straight. Flex ankle (pointing toes up) and extend (pointing toes toward the floor). Repeat with other leg. $\frac{1}{2} \left(\frac{1}{2} \right) = \frac{1}{2} \left(\frac{1}{2} \right) \left(\frac{1}{$



Leg lift:

Sit forward on the chair and place feet on the floor. With a straight leg, lift one foot a few centimetres off the floor. Hold for a second and then return it to the floor. Repeat with the other leg.

5. FOR MORE INFORMATION

Further information

For further information phone the WorkCover Assistance Service on **13 10 50** or visit our website at **www.workcover.nsw.gov.au**.

WorkCover publications

- Code of practice Control of Workplace Hazardous Substances (Catalogue No. 153)
- Code of practice OHS Consultation (Catalogue No. 964.1)
- Guide Risk Management at Work (Catalogue No. 425)
- Guide First Aid in the Workplace (Catalogue No. 121)
- Guide Passive Smoking Policy and Control (Catalogue No. 353)
- How to Notify Work Related Incidents brochure (Catalogue No. 1287.1)
- Guidelines for Employers' Return-to-work Programs (Catalogue No. 506)
- Workers Compensation and Injury Management Fact Sheet 3 What do to if there is an injury (Catalogue No. 1292).

References and further reading

Australian Standards (AS)

AS 1668.2–2002: The use of ventilation and airconditioning in buildings – Ventilation design for indoor air contaminant control

AS 1680.2.1-1993: Interior lighting - Circulation spaces and other general areas

AS 3590.1–1990: Screen-based workstations – Visual display units

AS 3590.2-1990: Screen-based workstations - Workstation furniture

Australian standards are available from Standards Australia: see www.standards.com.au.

National Occupational Health and Safety Commission (NOHSC)

The National Occupational Health and Safety Commission have also published a number of relevant publications:

- Approved criteria for classifying hazardous substances [NOHSC:1005 (1999)]
- Ergonomic principles and checklists for the selection of office furniture and equipment, November 1991
- Exposure standards for atmospheric contaminants in the occupational environment guidance note [NOHSC:3008 (1995)] and standard [NOHSC:1003 (1995)]
- List of designated hazardous substances [NOHSC:10005 (1999)]
- Technical report of the study group on radiation and visual display unit, December 1989
- Technical report of the study group on eyesight testing of users of screen-based equipment. [NOHSC:10004 (1992)]

The above publications are available at Commonwealth Government Bookshops or see www.nohsc.gov.au

Catalogue No. 1319 WorkCover Publications Hotline 1300 799 003



WorkCover NSW 92-100 Donnison Street Gosford NSW 2250 Locked Bag 2906 Lisarow NSW 2252 WorkCover Assistance Service **13 10 50** Website **www.workcover.nsw.gov.au**