

# Workplace Wellness: Your Physical Surroundings

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# Topics covered

- Introduction
- Health and safety legislation
- Healthy libraries
- Resources

# Introduction

Healthy Employees + Healthy Organizations  
= Healthy Workplaces

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# Health and safety legislation

- Employers
- Supervisors
- Employees



# Internal responsibility system

- Employee and employer jointly responsible
- Employer accountable for non-compliance

# Rights of employees

- Right to know
- Right to participate
- Right to refuse unsafe work

# Elements of on-the-job safety

- Learn the main health and safety concerns related to your work
- Ask your supervisor about potential hazards on the job
- Know the safe way of doing the work

- Report unsafe conditions and unsafe practices to your supervisor
- Follow emergency procedures
- Report all incidents, accidents and injuries



# Healthy libraries

- Indoor air quality (IAQ)
- Ergonomics
- Other library tasks
- Lighting
- Noise
- Workplace stress

# Symptoms linked to poor IAQ

- Dry, irritated eyes, nose, throat, and skin
- Hypersensitivity and allergies
- Headache
- Dizziness and/or nausea
- Fatigue
- Shortness of breath
- Sinus congestion
- Coughing and sneezing



- ! In general, symptoms are noticed after several hours at work and improve away from work.
- All of these symptoms can be caused by other factors and are not necessarily due to IAQ.

# What are the common causes of IAQ Problems?

- **Indoor environment**
  - temperature and humidity – too high or too low
- **Indoor air contaminants** – chemical vapours, dusts, moulds or fungi.
- **Insufficient ventilation**



# IAQ issues – likely causes in libraries

- Poor ventilation
- Air borne toxic substances
- Dusts
- Moulds

# Dusts

## **Sources include:**

- Weeding
- Cleaning
- Moving books around

## **Controls:**

- Clean and dust shelves and books regularly
- Wear light gloves and disposable paper masks

# Dusts: potential health concerns

- Allergies
- Skin infection
- Eye irritation
- Breathing problems

# Mould

## Sources:

- Grows in hot humid places and water damaged places
- May grow in books and floor coverings that have become wet
- Walls and ceilings can also contain mould
- Can cause allergies, eye irritation and asthma

## **Prevention:**

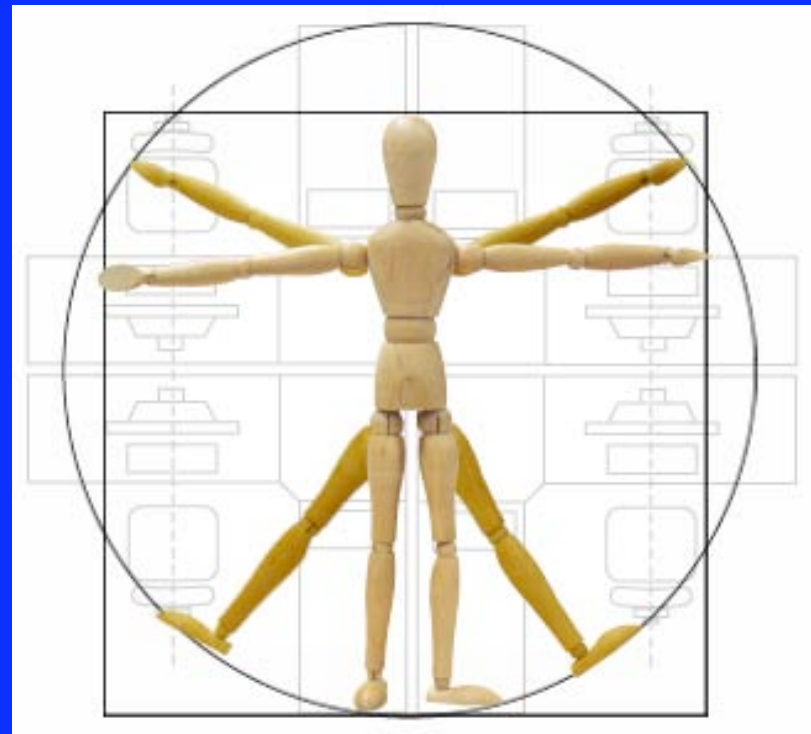
- Eliminate hot and humid locations
- Eliminate water leaks
- Clean up water damages as soon as possible
- Clean and dry carpets and floors
- Follow mould cleaning and removal procedures



# What is Ergonomics?

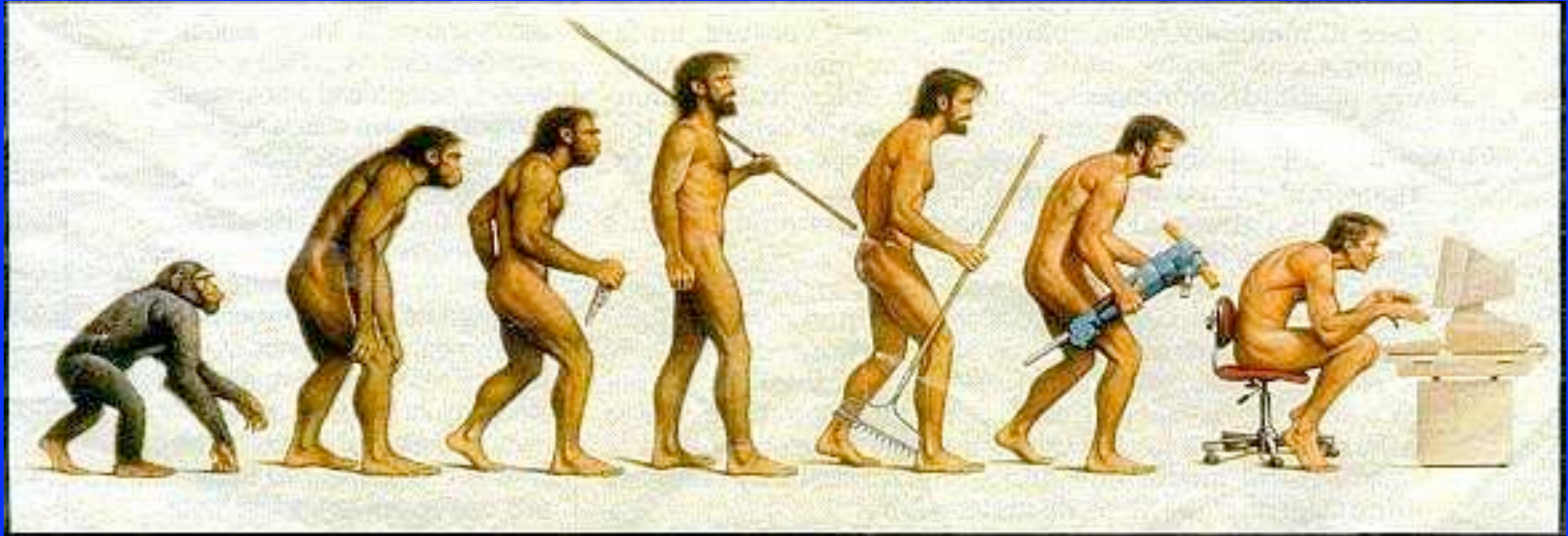
Ergonomics is the science of matching the JOB to the WORKER.

The goal of ergonomics is to reduce workplace injuries and enhance job performance.



Why are we so interested in ergonomics?

Work related musculoskeletal disorders or  
WMSDs



**Somewhere, something went terribly wrong**

# What are the stages of WMSD?

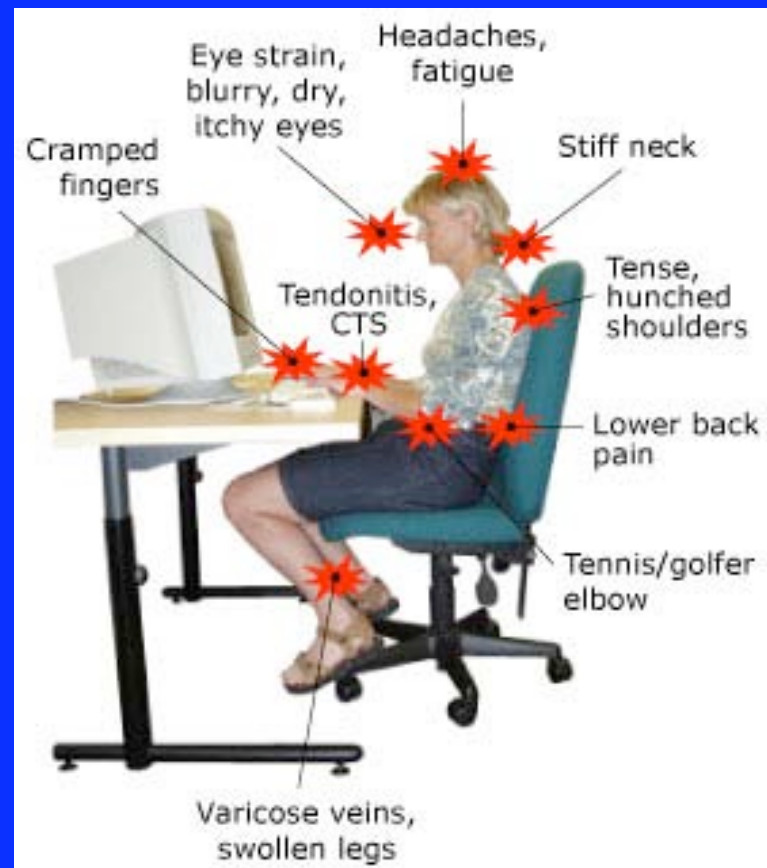
- Early
- Intermediate
- Late

# Injury prevention is the key!

- Recognize the risk factors
- Identify the specific symptoms early
- Report the symptoms to your supervisor
- Implement corrective measures

# Common symptoms of WMSDs

- Pain
- Joint stiffness
- Muscle aching or weakness
- Redness and swelling
- Numbness and tingling (“pins and needles”)
- A burning sensation
- A general feeling of tiredness



# Ergonomic hazards occur if 3 very important factors are not considered:

**THE WORKER** – skills, work practices, communication with the supervisor and co-workers

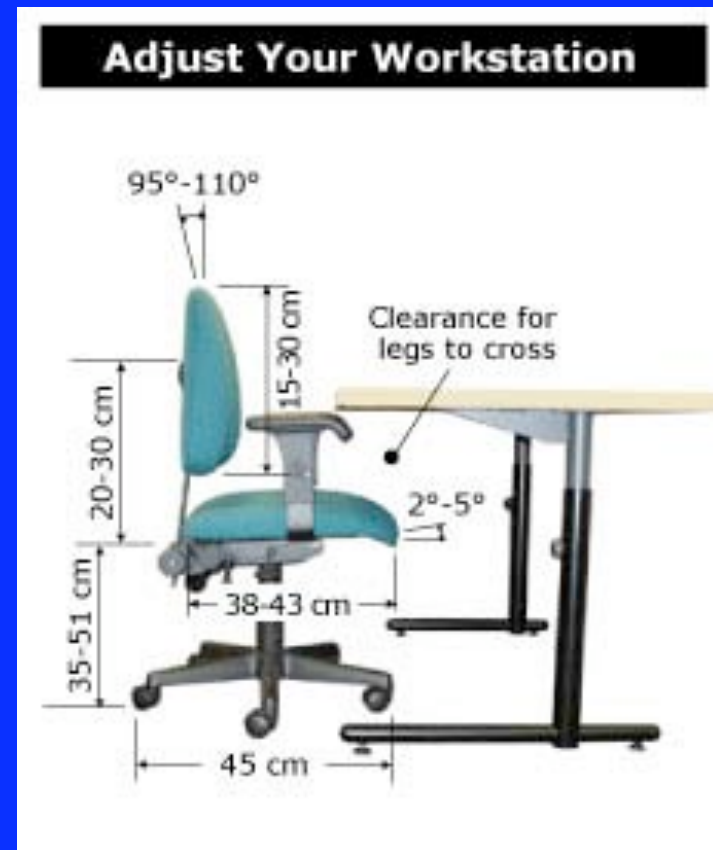
**THE WORKSTATION** – the workstation's physical shape, size and adjustability; the design of tools and equipment to be used by the worker; the physical environment

**THE JOB** – workload (variety and sequence), work/rest breaks

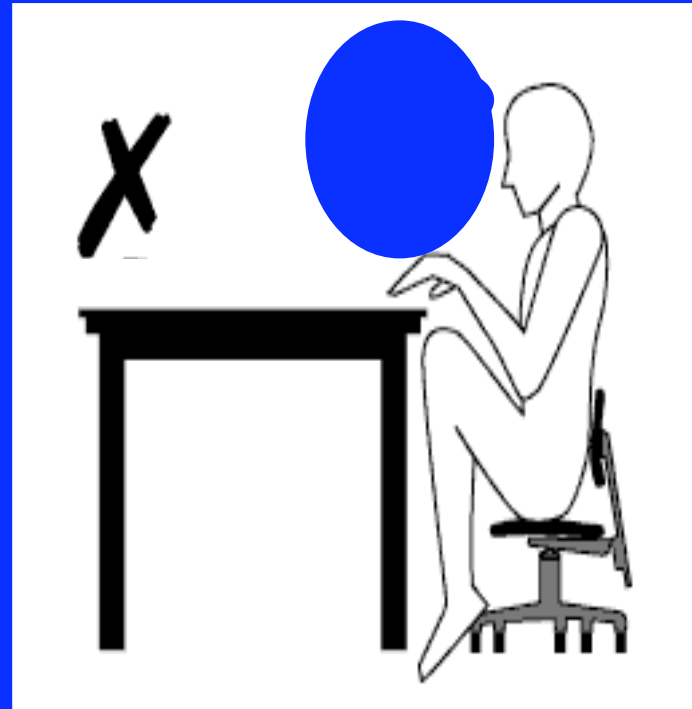
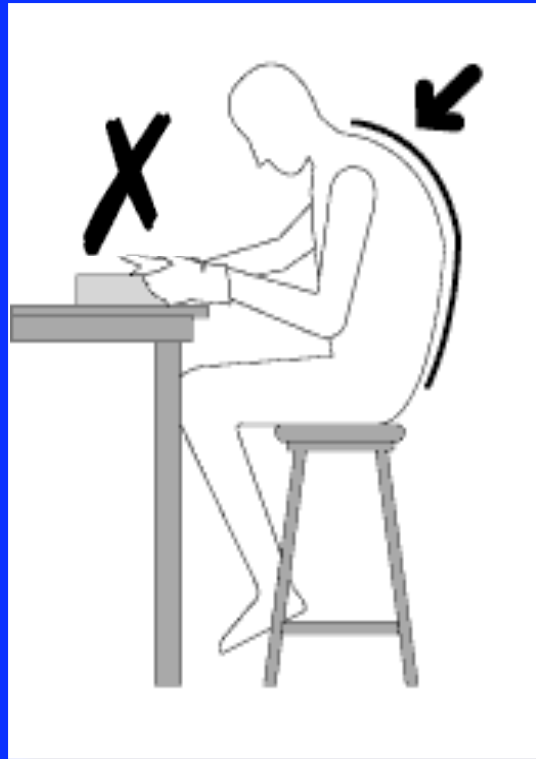


# The worker

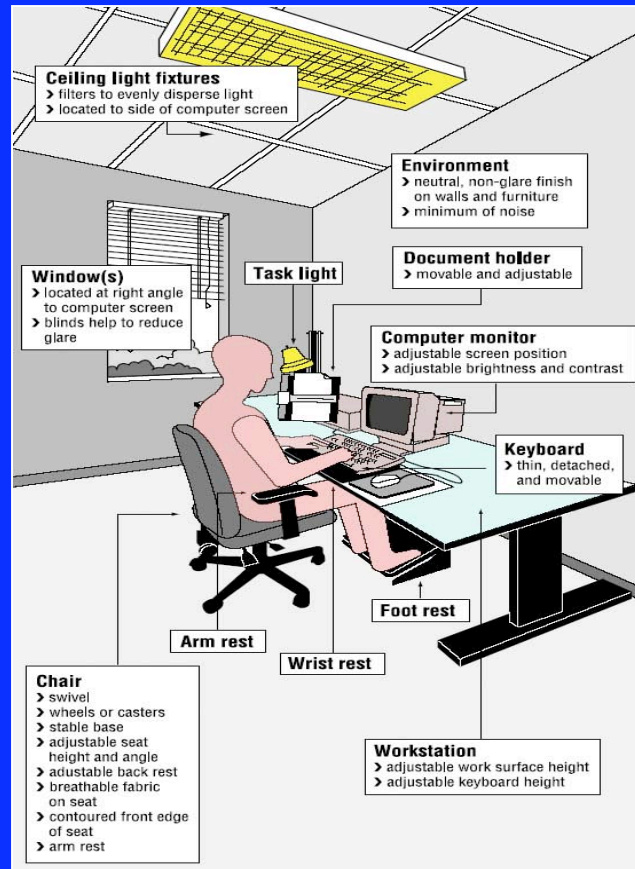
How you work and how you use the workstation layout are very important, e.g. you must know how to:



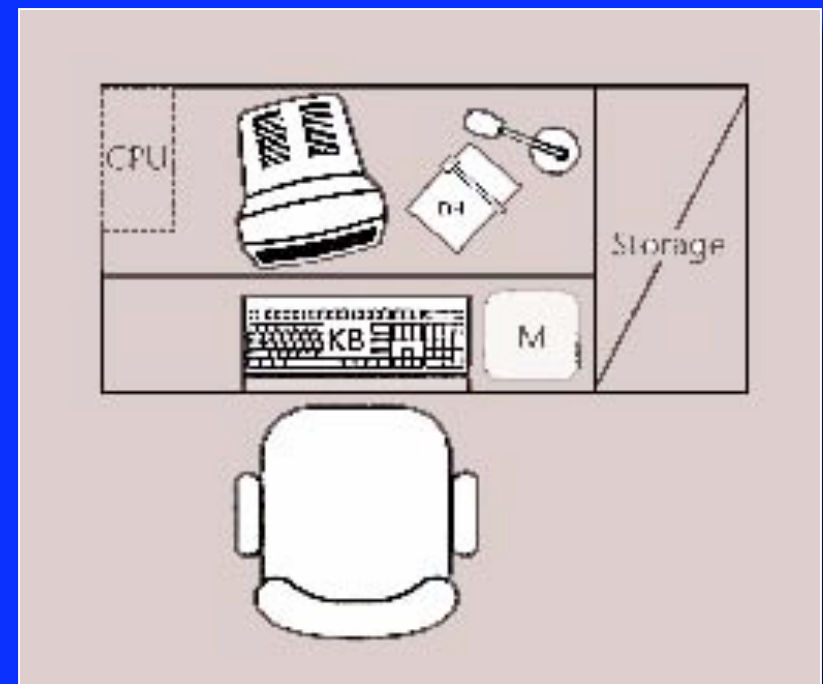
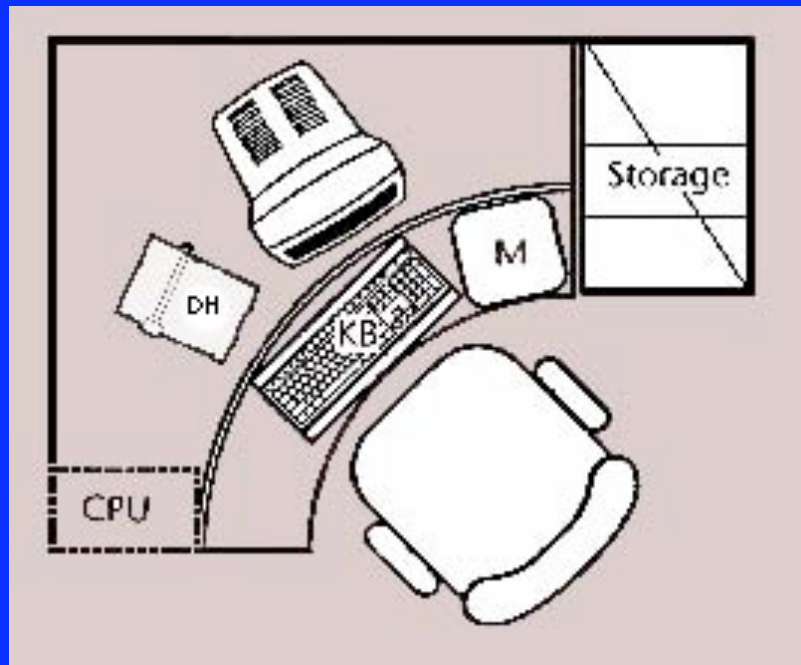




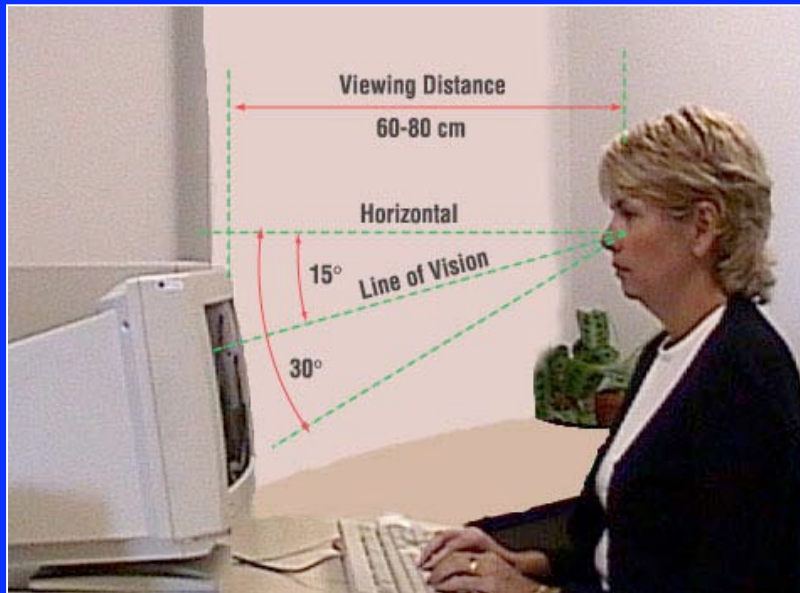
# Workstation – one of the most important components



# Some possible arrangements



# Monitor position



- Consider:
  - Height
  - Distance
  - Angle

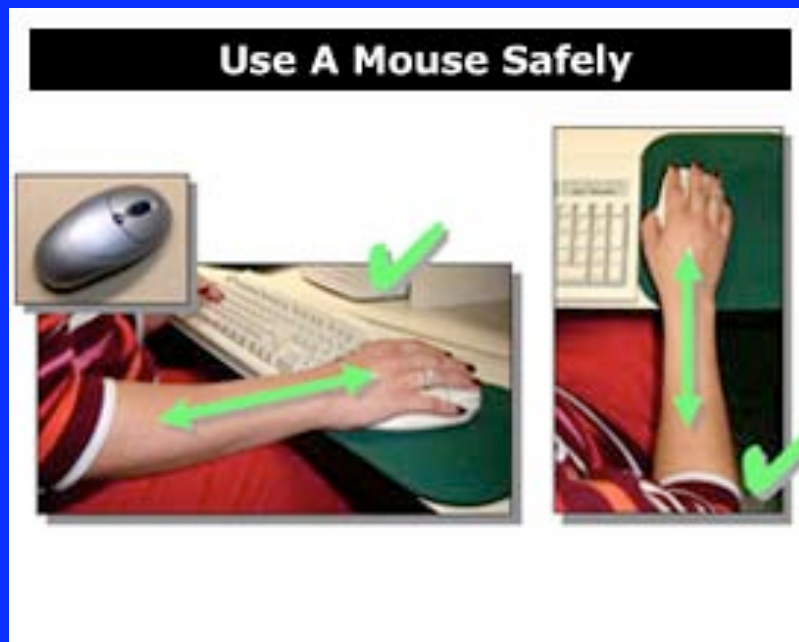
# A standard keyboard layout



### Position Your Hands Properly



- Keep your elbows at an angle of  $80^{\circ}$  to  $100^{\circ}$
- Keep your forearms between horizontal and  $20^{\circ}$  up
- Keep your wrists straight and aligned with your forearms
- Keep your upper arms between vertical and  $20^{\circ}$  forward



- Choose a mouse that fits your hand
- Keep your arm and wrist straight and relaxed
- Keep the mouse close to the keyboard



# Where else can you keep the mouse?





# The job – another one of the job's most important components

- Even the best work station does not guarantee comfort and safety if the job itself is poorly designed. Consider:
  - Tasks: content, variety, sequence
  - Workload: volume, distribution
  - Work/rest breaks: exercises
  - New tasks: time for adjustment

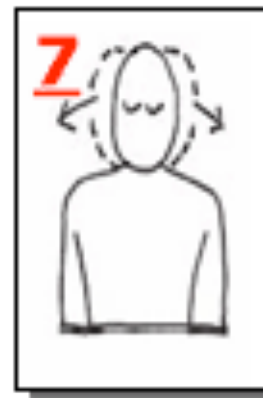
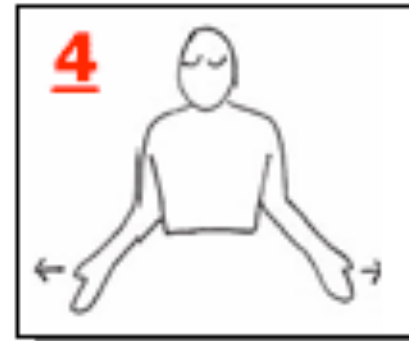
# Give yourself a break!

- Vary the work tasks
- Look away from the screen occasionally
- Take regular rest breaks
- Relax your muscles, stretch and change position

# Why do you need frequent rest breaks?

- Working in a hurry tenses muscles
- Muscle tension accelerates fatigue
- Fatigue promotes discomfort and injury

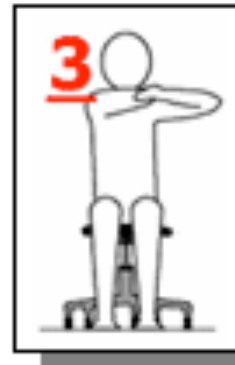
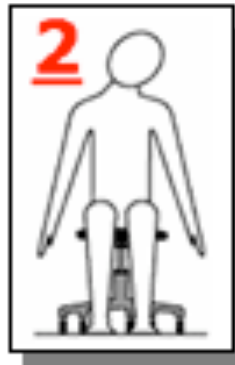
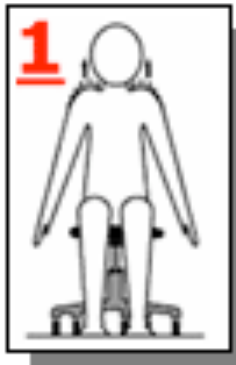
# Exercises *Do* Help



# Exercise instructions

1. Place your palms together and gently pull your arms down into prayer position.
2. Place palms together overhead.
3. Then pull down and backwards, pinching your shoulder blades together.
4. Keeping your arms at the side, bend the elbows at 90 degrees and gently swing the forearms outward.
5. Straighten your arm down your side, make a fist and gently flex the wrist backwards.
6. Gently stretch the upper shoulder muscles that hold the head up.
7. Gently, look down towards one arm, then the other, lifting the chin in between stretches.
8. Balance the head over the spine, then shift it forward.

# Exercises to do while sitting



# Besides working on a computer what else do you do?

- Operating equipment such as printers, photocopiers, fax machines and scanners
- Working on telephones
- Filing in cabinets
- Shelving
- Walking on floors and stairs
- Lifting

# Other office tools



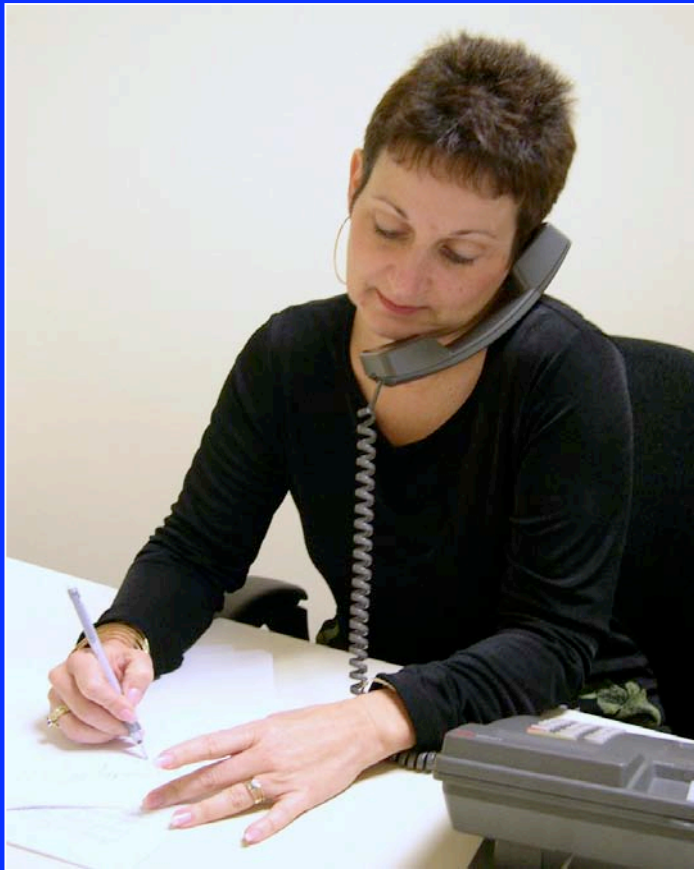


# Filing cabinets

- Locate cabinets to ensure that drawers do not open in high traffic areas
- Load heavy materials in bottom drawers
- Close drawers after each use
- Load frequently used materials in middle drawers



# Using the telephone



# Safe lifting tips

- Stand close to the load, facing the way you intend to move
- Use a wide stance to gain balance
- Grip the load with your whole hand, not just your fingers
- Keep your back straight. Tighten your abdominal muscles



# More lifting tips

- Lift with your legs, not your back
- Lift smoothly without jerking
- Lift the load close to your body
- Avoid twisting and side bending while lifting
- Turn your whole body, feet first when you must turn with a load

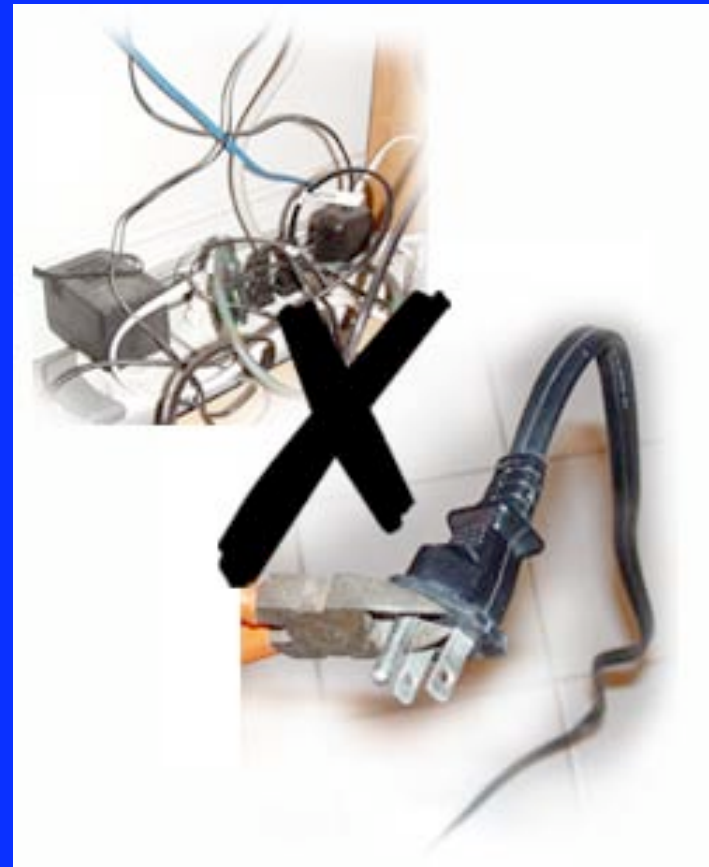
# Floors and stairs

- Keep well illuminated and uncluttered
- Use non-slip surfaces
- Mark swinging doors “IN” and “OUT”
- Clean up spills
- Make landings look different than stairs
- Remember 3-point contact



# Cord control

- Watch the tangle of cords, especially around computers and peripherals
- Use plastic ties or specific plastic channels for cords
- Inspect power cords before use
- Discard defective and worn out cords
- Never pull a plug out by the cord
- Do not overload outlets.



# Shelving Units



- Injuries may arise from:
  - Books falling from overloaded or improperly arranged shelves
  - Toppling of unstable shelves
  - Too narrow a space between shelving units
  - Weight of books
  - Extremes of reaching and bending
  - High repetition rate of tasks



- Ensure that self-contained shelves are stable
- Provide sufficient width between library shelves
- Inspect shelving units for
  - Wear and tear due to aging
  - Sagging
  - Missing and loose parts
  - Weak moorings

# Compact shelving

- Ensure that shelves run smoothly
- Check aisles before moving to avoid trapping anyone
- Inspect regularly, especially electrical and mechanical components

# Shelving books

- Use book trucks to transfer books to shelves
- Don't put too many books on a book truck
- Ensure that books are not too tightly packed on shelves to reduce force needed (neck and shoulder pain)
- Rotate duties to reduce risk of injury
- Avoid repeated awkward postures

- Locate heavy books at waist height
- Try to keep the lowest shelf at least 30 cm above the floor
- Place book truck next to yourself and in line with the shelves to minimize stretching and twisting
- Avoid use of pinch grip – use 2-handed power grip
- Consider using sure grip gloves to help prevent slipping in handling materials.

# Book trucks

- Use carts with with the largest diameter wheels
- Push carts – easier on your back than pulling
- Push from the end not the side
- Do not overload or pile materials on it that obstruct your view
- Do not use a damaged cart

# Ladders and stools

- Inspect ladders for
  - Missing, cracked, split, worn, loose or broken rails, braces, steps or rungs
  - Sharp edges on rails and rungs
  - Twisted or distorted rungs
  - Loose nails, screws, bolts and hinges
  - Rough or splintered surfaces
  - Excessive wear

- Ensure that steps are deep enough to fit the length of your feet.
- Reach only for items directly in front of you
- Keep the centre of your body within the side rails
- Do not wear high heels when climbing
- Do not use a chair or box as a substitute for a ladder

# Stools



- Ensure that the surface is non-skid
- Casters retract when stool is stepped on
- The base is wider than the top to prevent tipping
- Do not place again flexible or moveable surfaces



# Noise

- Hearing loss is not usually an issue in libraries
- Main objective of noise control guidelines in libraries is to:
  - Prevent disruption of verbal communication
  - Prevent discomfort and stress
  - Minimize interference with concentration in performing mental work

- Minimize noise levels:
  - Use sound absorbing materials such as carpeting, curtains, acoustic baffles and noise enclosures, acoustic ceilings, plants and textile wall hangings.

# Lighting

- Inadequate lighting can cause visual problems
  - Eye strain (soreness, itching, redness and tearing)
  - Blurred vision
  - Dry eyes or eye irritation
  - Headaches
  - Frequent changes of eye prescriptions

## Good lighting:

- Lets you see properly without straining your eyes or body
- Makes work easier and can increase productivity
- Helps prevent costly accidents and errors



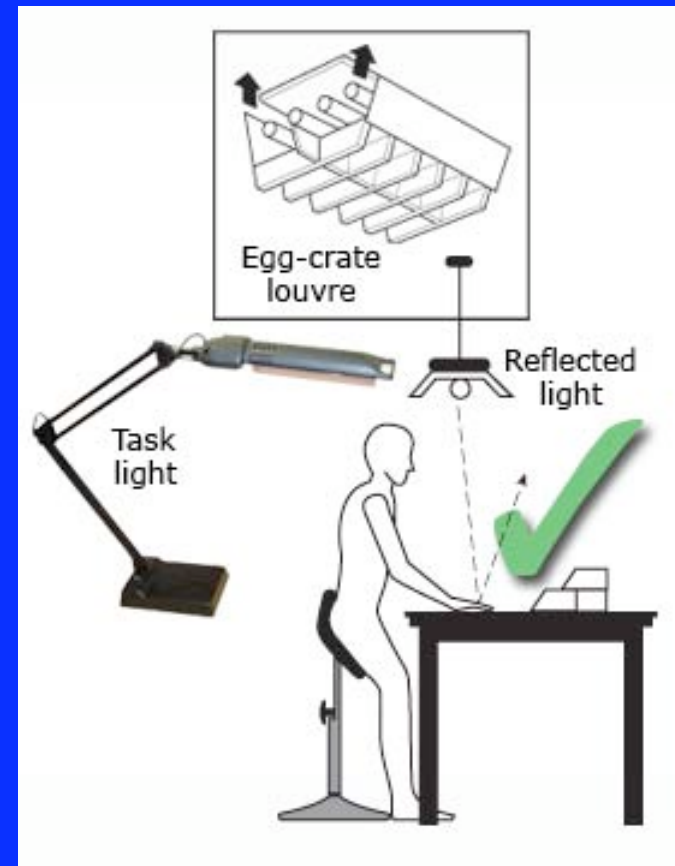
# To correct for too little light:

- Replace bulbs on a regular schedule.
- Clean light fixtures regularly
- Add more light fixtures in appropriate places
- Use more reflected light and local lighting (task lighting) to eliminate shadows
- Do not position the workstation light fixture directly behind worker



# To fix glare problems:

- Use several small low-intensity light fixtures rather than one large high-intensity fixture
- Cover bare bulbs with louvers, lenses or other devices to control light
- Use adjustable local lighting with dimmer switches
- Position the work station so windows and fluorescent light tubes are parallel to the worker's line of sight



# Workplace Stress



"Workplace stress" is the harmful physical and emotional responses that can happen when there is a conflict between job demands and the amount of control the employee has over meeting those demands.

In general, the combination of high job demands and a low amount of control can lead to stress.



# Effects Associated with Workplace Stress

**Physical** – headaches, grinding teeth, clenched jaws, chest pain, pounding heart, high blood pressure, fatigue, insomnia

**Psychosocial** – anxiety, irritability, mood swings, depression, feelings of helplessness, or hopelessness

**Behavioural** – overeating or loss of appetite, quickness to argue, increased use of alcohol or drugs, increased smoking, withdrawal or isolation from others, or poor job performance

Studies on workplace stress often show the following characteristics are common in jobs that people consider more rewarding and “less” stressful:

- The job should be **reasonably demanding** and provide **variety** in job tasks.
- You should have opportunities to **learn** on the job and continue to learn as your career progresses.

- The job should have some area of **decision-making** that you can call your own.
- There should be some degree of **social support** and **recognition** in the workplace.
- The job should lead to some sort of **desirable future**.

Working together, workers, managers and supervisors can find solutions to job stress issues.

# Workplace Stress Case Study

John has had trouble sleeping lately. He has lost weight and he's even taken up smoking again! He just cannot get his job off of his mind. Things sure changed when he accepted that promotion to the call desk – the calls just keep coming in – and **no one** is happy – he can barely take a bathroom break.

What can John's supervisor do to help him?

Provide John with more variety in his job, so he is not just taking unhappy telephone calls all day; provide more training on how to deal with unhappy customers; provide more support by having brainstorming sessions with other call desk employees; make sure John gets adequate rest breaks.

For more information on stress:

<http://www.ccohs.ca/oshanswers/psychosocial/stress.html>

# Print Resources

- Guideline on office ergonomics (CAN/CSA z412-00. CSA International, 2000
- Office ergonomics safety guide. 5<sup>th</sup> ed. CCOHS, 2002
- Health and safety guide for libraries. CCOHS, 2003
- Wellness in the workplace. CCOHS, 2002.
- Village, J. Ergonomic design for libraries. Vancouver, B.C. Vancouver Public Library, 1992

# Web resources

- OSH Answers

<http://www.ccohs.ca/oshanswers>

- Healthy Workplace Week

<http://www.healthyworkplaceweek.ca>

Canadian Health Network

<http://www.canadian-health-network.ca/>

- Guy Robertson. “Shelving and safety”

<http://www.netpac.com/provenance/vol1/no3/features/shelfhz1.htm>

*Thank you*

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Technical Questions?

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