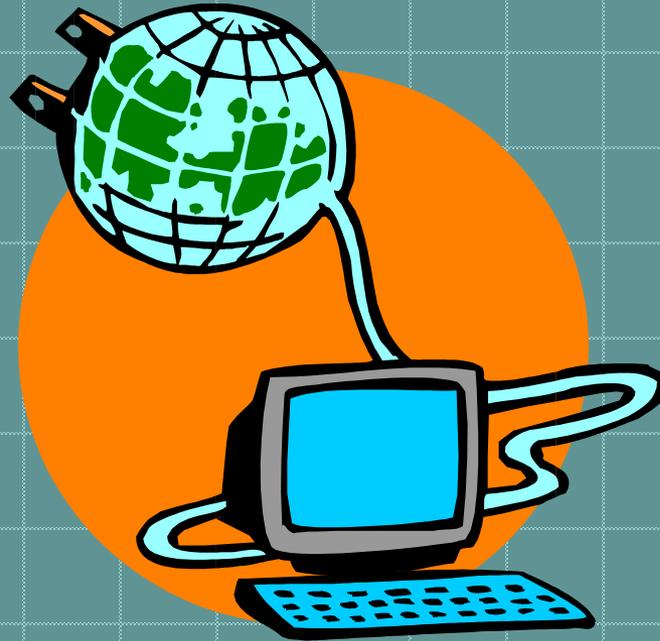


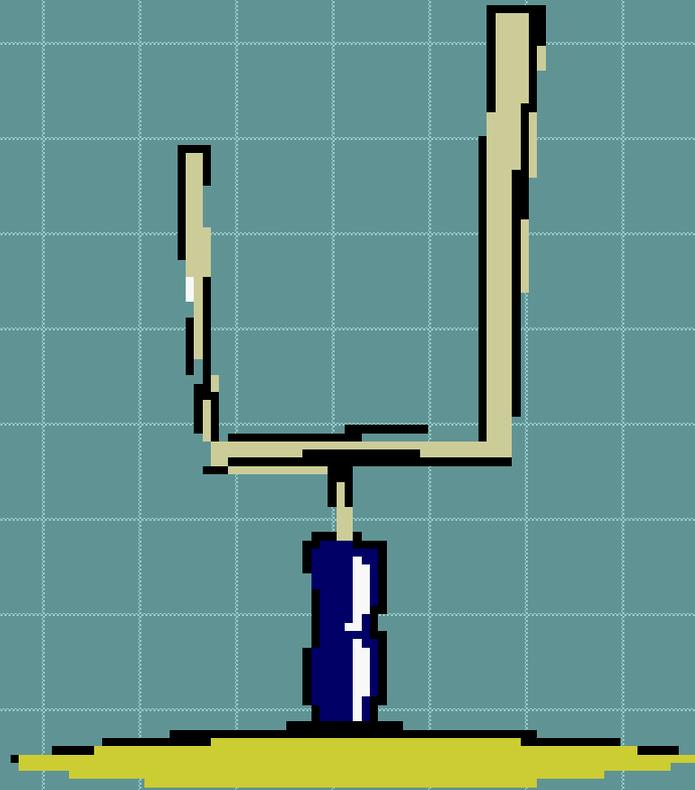
# Video Display Terminals Training Program



2003 version

Produced by DC 37 Safety & Health Dept  
and NYC COSH, DCAS

# Goals of This Training Session



2003 version

Produced by DC 37 Safety & Health Dept  
and NYC COSH, DCAS

# VDT Training Program

- ◆ To inform you of your rights under the Citywide Contract, Article 18.
- ◆ To understand how Article 18 applies to you.
- ◆ To discuss VDT related health problems.
- ◆ To identify controls to prevent workplace injuries.



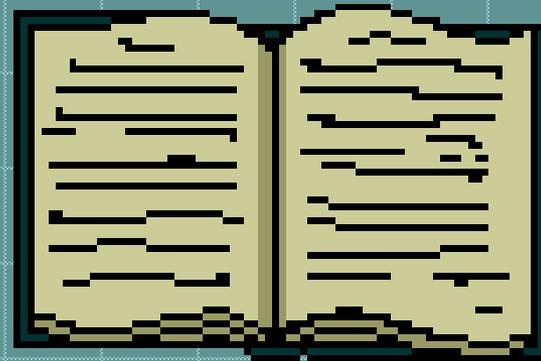
# Citywide Contract Article 18, Section 1



- ◆ **Section 1: Applicability**
  - ◆ All mayoral and non-mayoral agencies covered by the Citywide Contract, including HHC.
  - ◆ Full-time workers who spend a minimum of 20 hours on VDTs.
  - ◆ Part-time workers who also work 20 or more hours on VDTs (limited coverage).

# Article 18, Section 1

- ◆ Part-time workers are covered by sections 2, 4, and 5 of Article 18.



# Article 18, Section 2

- ◆ **Alternative work break**
  - ◆ A 15 minute alternative work break must be provided for every two consecutive hours on the VDT

The alternative work break must be less visually and physically demanding



# Why Take an Alternative Work Break?



- ◆ Sitting in the same position for long periods of time can lead to aches and pains to your back, neck, shoulders, hips, arms, hands and legs.

Looking at the monitor/screen for long periods of time can result in vision problems.



# Examples of Alternative Work Breaks



- Photocopying
- Note-taking
- Discussions with Supervisor/co-worker

- Answering/returning telephone calls
- Filing
- What else?



# Alternative Work Break

## Not an additional REST BREAK



If your scheduled rest break or lunch time arrive before the 2 hours have passed, it is not necessary to spend 15 minutes doing “alternative work” after you return from your break.

# Article 18, Section 3

- ◆ **Alternative work**
  - ◆ Applies to full-time employees who are physically incapable of operating a VDT due to:
    - ◆ Injury
    - ◆ Disability
    - ◆ Pregnancy



## Article 18, Section 3

- ◆ Must submit proof satisfactory to the agency head or designee.
- ◆ Employer must make every effort to assign employee to appropriate alternative duties.
- ◆ Alternative assignment can be up to one year.
- ◆ If no alternative assignment is available, may offer to transfer the employee.

# Article 18, Section 4

## ◆ Training

- ◆ Must be provided annually. Usually occurs at the same time as Right-to-Know training session.
- ◆ Must be included in an agency orientation program.

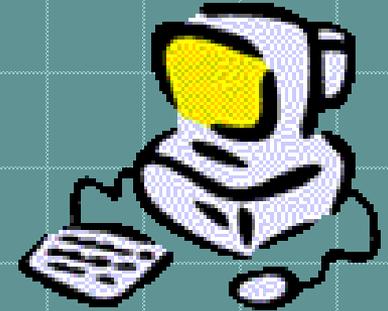


# Article 18, Section 5



- ◆ **VDT and related equipment**
  - ◆ Procurement and ergonomic standards for VDT's and ancillary equipment can be found in Mayoral Directive 1-91.
  - ◆ Agencies must advise the union of the installation and proposed utilization of new VDT equipment and make service logs available.

# Mayoral Directive 1-91



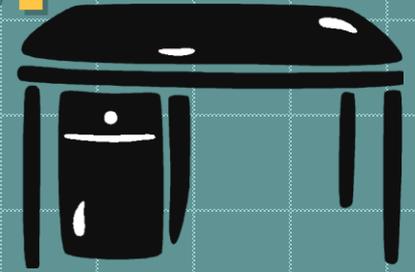
- ◆ Mandates that all new purchases meet at a minimum certain specification:
  - ◆ The monitor must be adjustable for tilt and have swivel capabilities or equipped (caddy, flexible arm) to provide same features.
  - ◆ Keyboard must be detached.
  - ◆ All surfaces must be finished in neutral color with non-reflective matte finish.
  - ◆ All equipment including controls must be maintained and in functioning order.
  - ◆ Noise reduction devices must be provided for impact printers.

# Mayoral Directive 1-91



- ◆ VDT workstation equipment
  - ◆ New chairs must meet specs. identified in table 1 of the Directive.
    - ◆ Seat pan and backrests must be upholstered and covered in material which absorbs perspiration.
    - ◆ Seat pans and backrest must be adjustable by the operator from a seated position.
    - ◆ Chair must have the ability to swivel and be supported by 5 legs. Armrest must be provided if requested
    - ◆ The lumbar support contour must be vertically convex and horizontally concave.

# Mayoral Directive 1-91



- ◆ VDT workstation equipment
  - ◆ Tables must meet the specs identified in table 2
    - ◆ The keyboard support surface must be independently adjustable for height without tools.
    - ◆ There must be adequate workspace for the VDT, document holder, documents, books, and allied materials
      - > Workstation arrangements must be appropriate for the task being performed.

# Mayoral Directive 1-91

- **Document holders** must be provided
- **Task light** must be adjustable in 3 dimensions
- Upon request, a worker must be given **wrist and/or foot rests**



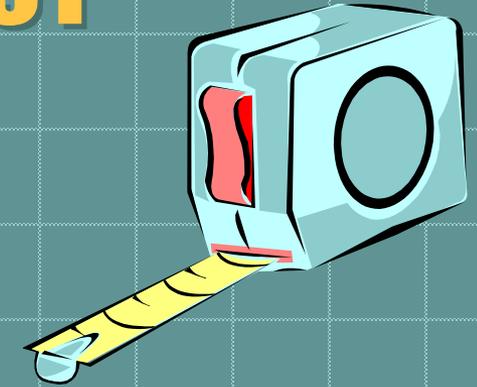


# Mayoral Directive 1-91

## ◆ Work environment

- ◆ Light levels can range from 300 to 700 Lux
  - ◆ Individual low glare task light must be provided to workers whose work includes reading documents.
  - ◆ Office lighting must be indirect or direct lighting must be shielded. No flickering lights are allowed.
- ◆ Reduction of direct light or glare by proper positioning of screen, appropriate window treatment, and wall paint must have a non-glossy finish.

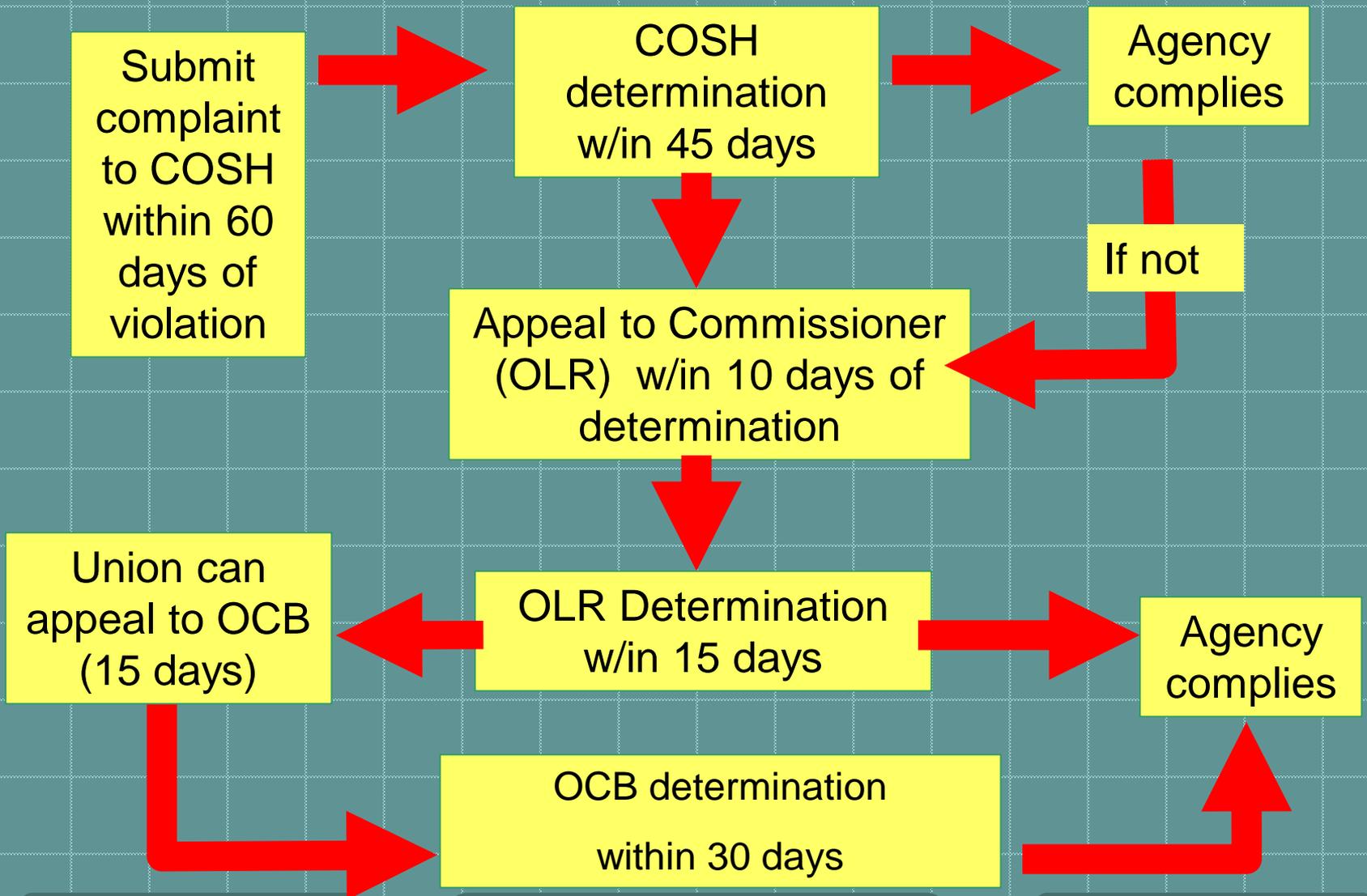
# Mayoral Directive 1-91



## ◆ Forty inch rule

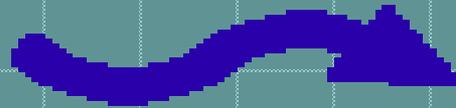
- ◆ The **back and sides** of the terminals must be at least forty inches from any employee
- ◆ Forced air exhaust from computer cannot be directed toward any employee

# Expedited Grievance Procedures



# Ergonomics: What is it?

**Ergonomics** is the field of study that seeks to design tools and tasks to be compatible with human capabilities and limitations. Ergonomics is all about fitting the task to the worker. It provides an opportunity to improve human well-being, reduce costs and improve quality and productivity, or...



# Ergonomics

## ◆ More simply...

*Ergonomics is the science of fitting the job to the worker instead of fitting the worker to the job.*



# Health Problems Associated With VDTs

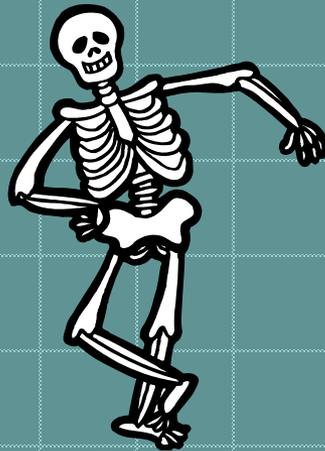
**EYES**



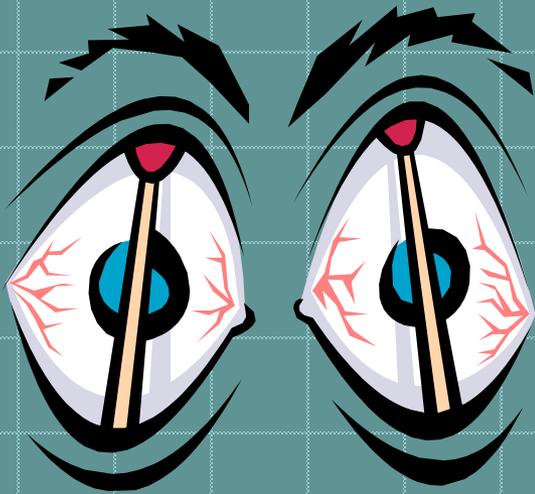
**MUSCLES**



**BONES**



# Eyes



- ◆ Visual impairment
  - ◆ Blurred vision
  - ◆ Burning eyes
  - ◆ Tinted vision
  - ◆ Strain/fatigue

*Headaches are signals that there may be something wrong with your vision.*

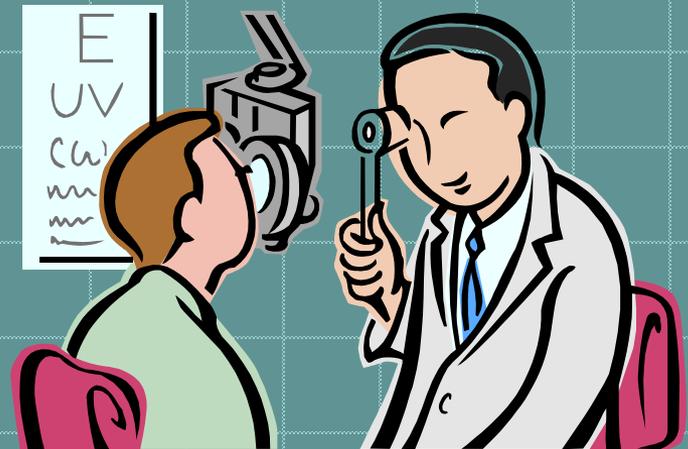
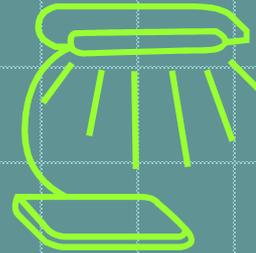
# Causes of Eye Problems

- ◆ Image quality
- ◆ Illumination
- ◆ Glare
- ◆ Improper positioning of equipment
- ◆ No break



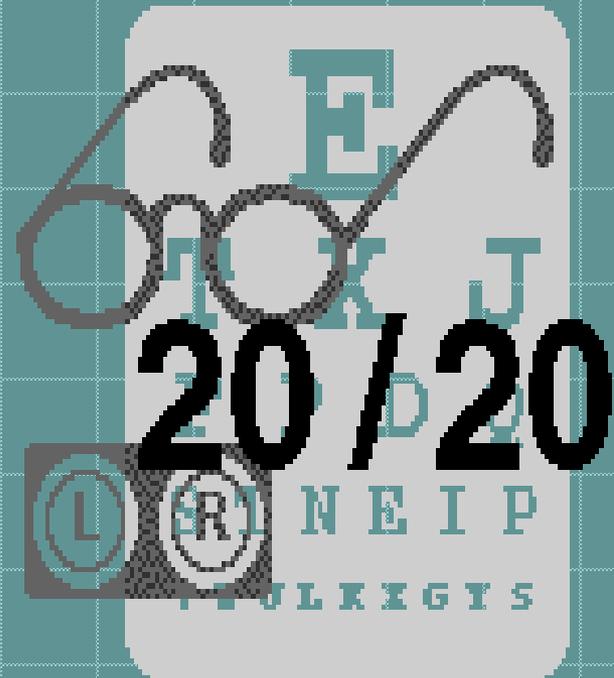
# Methods of Prevention

- Adjust monitor controls
- Adjust lights/task lighting
- Use glare protectors
- Adjust equipment/furniture
- Have eyes examined & use corrective lenses when prescribed



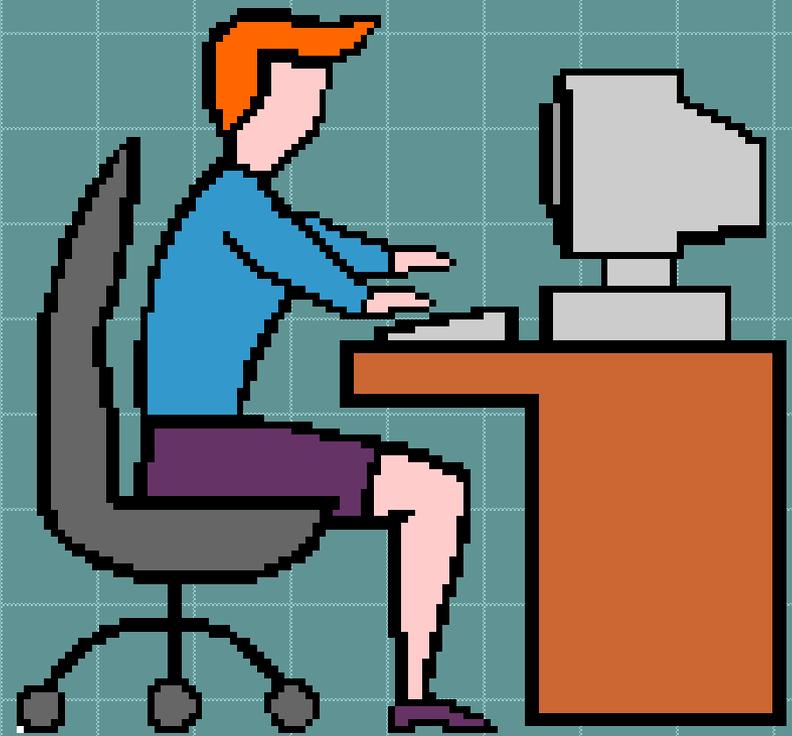
# Eye Examinations : A DC 37 Benefit

- ◆ Workers who spend more than 20 hours/week on a computer are entitled to a VDT eye examination every 2 years.
- ◆ You are given two hours of work time to have the examination.
- ◆ To obtain the VDT eye exam, you must request the VDT voucher from DC 37 and have it completed by your supervisor.



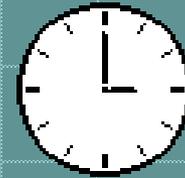
# Musculo-skeletal Problem

- ◆ Develop gradually as a result of repeated micro-trauma
- ◆ Onset is slow and therefore often ignored



# CTD=RSI

**C**umulative = Develops over time



**T**rauma = Bodily injury

**D**isorder = Physical ailment



# repetition+force+awkward position+insufficient recovery :

CTDs arise from  
ordinary  
movements...  
performed  
over and  
over again.



With lots of force

*plus*

Awkward  
movement

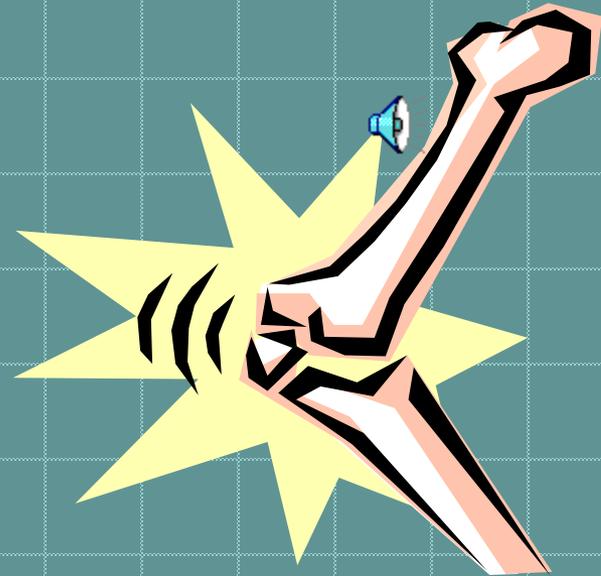
*plus*

No rest in  
between



# Symptoms of CTDs

- ◆ Pain
- ◆ Restriction of joint movement
- ◆ Soft tissue swelling

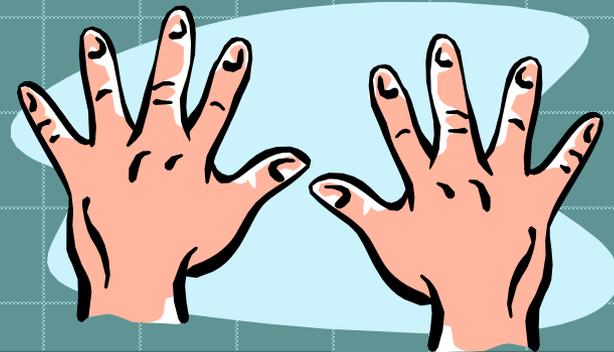


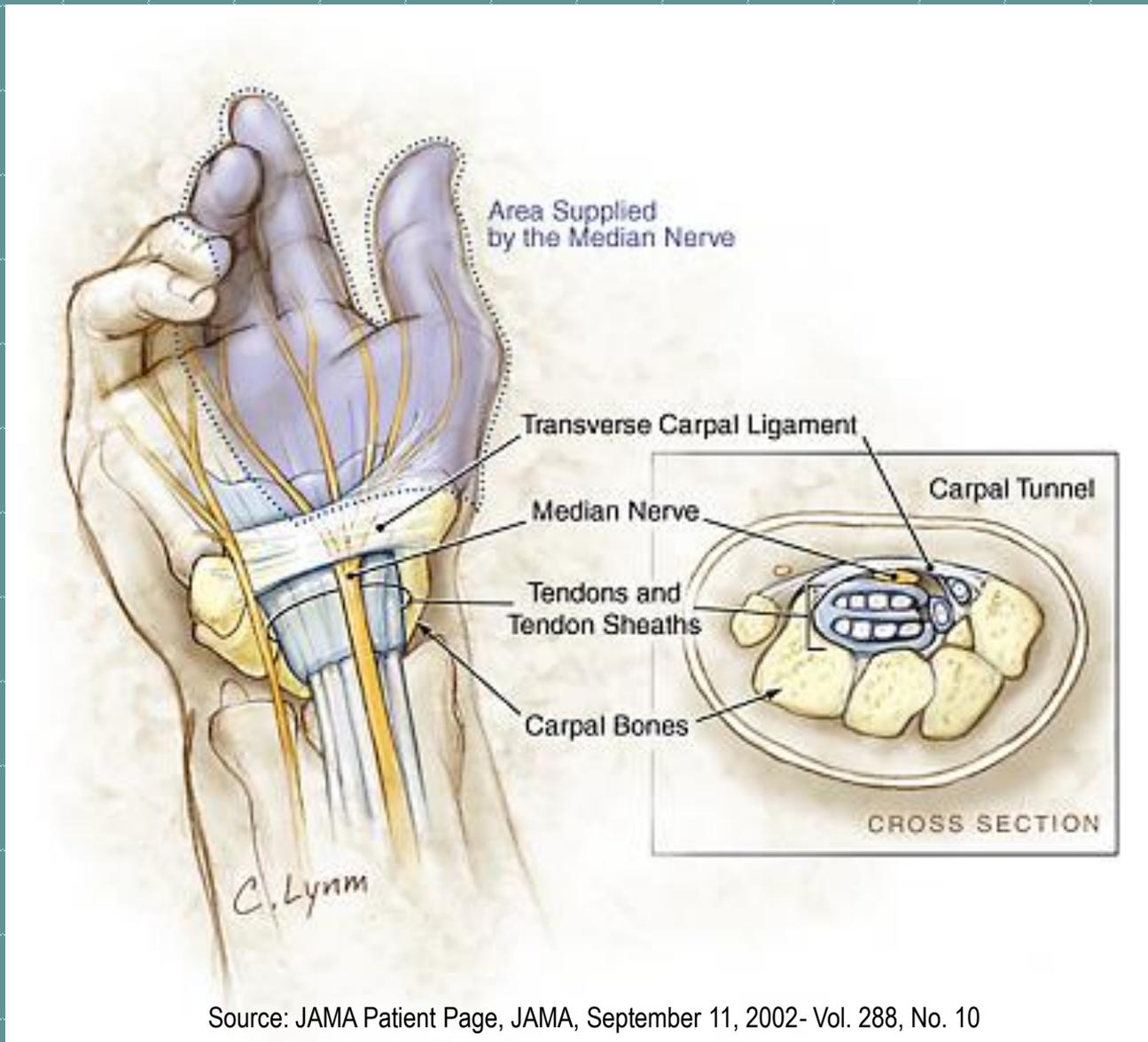
# Carpal Tunnel Syndrome

**Caused by inflammation of the median nerve which runs through the wrist to 4 fingers in the hand.**

**Symptoms include:**

- Numbness
- Tingling
- Swelling
- Burning
- Pain
- Loss of grip strength
- Clumsiness
- Increased pain at night

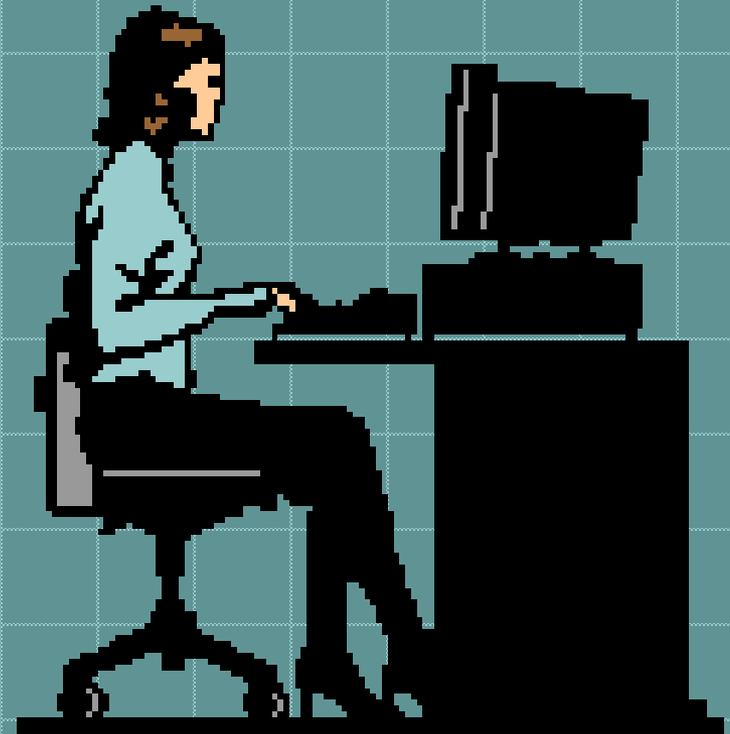




Source: JAMA Patient Page, JAMA, September 11, 2002- Vol. 288, No. 10

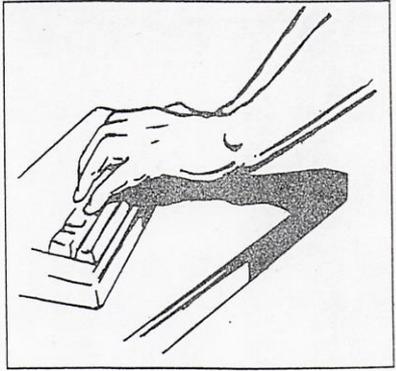
# Prevention of CTDs

- ◆ Ergonomically designed workstations
- ◆ Adjustable furniture and equipment
- ◆ Rest
- ◆ Stretch

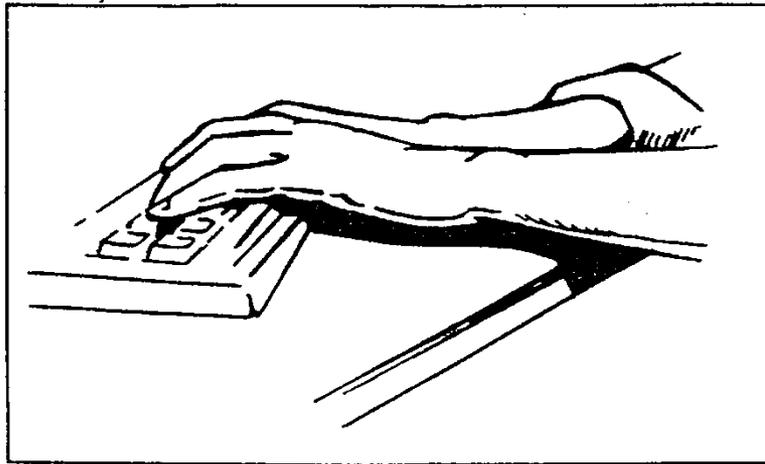
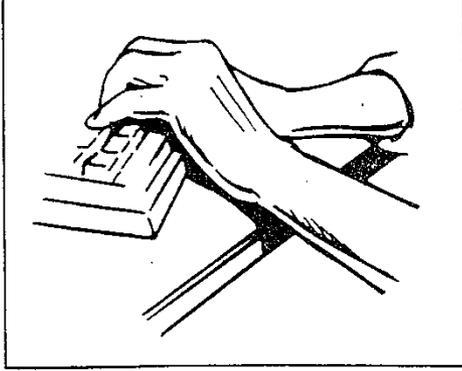


# Hand Positions

**Incorrect**



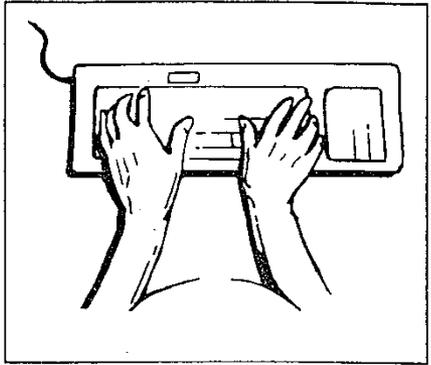
**Incorrect**



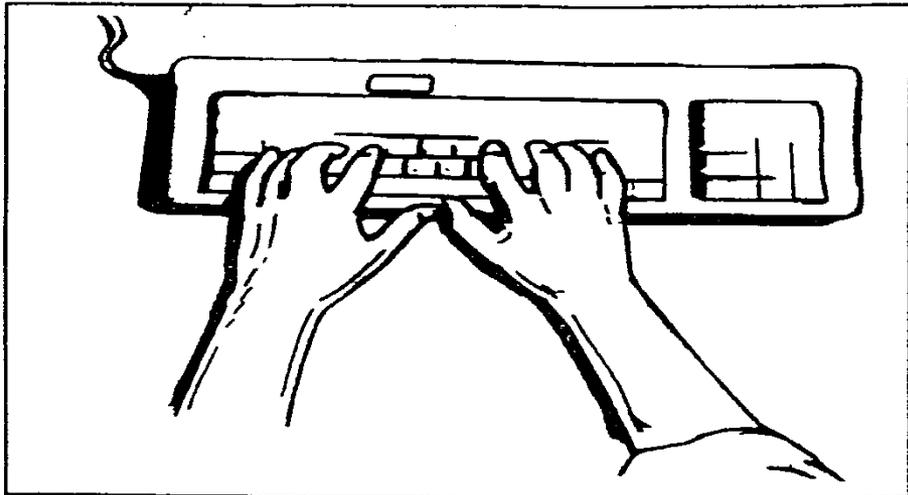
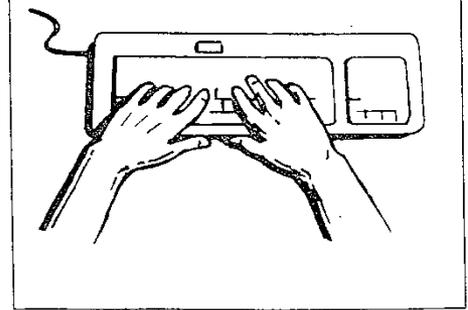
**Correct**

# Hand Positions

**Incorrect**



**Incorrect**



**Correct**

# How do I set up my workstation?

- ◆ **CHAIR** should be adjusted so that:
  - Thighs are parallel to floor (use foot rest if necessary).
  - Lumbar support is lined up with lower back.
  - Armrests keep arms at 90 degree angle.



# How do I adjust my workstation?

- ◆ **KEY BOARD TRAY** should be adjusted for height and tilt.
- Arms should be bent at a 90 degree angle
- Wrist should be straight, not tilted up.
- Hands should be straight, not turned in or out.
- Underside of wrists/palms should rest on wrist rest, not on hard surface.
- Should also have mouse tray with wrist support.

# How do I adjust my workstation?

- ◆ Mouse and mouse trays
  - ◆ Input devices such a mouse are available in many styles. Ideally, the devices should be contoured to accommodate the hand shape. A sure grip design allows for better control and less muscle stress. The buttons on the device should be programmable for left and right handedness
  - ◆ The input device should be placed on an articulating tray that allows for height and tilt adjustments.

# How do I Adjust my workstation?

- ◆ Other ancillary equipment
  - ◆ Independent keyboard platform
  - ◆ Height selectable monitor extension arms
  - ◆ Adjustable monitor stand

# How do I adjust my workstation?

- ◆ **MONITOR** should be adjusted for height so that neck is straight, not tilted down or up.



# Summary

- ◆ The Citywide Contract has provisions for anyone working on a computer.
  - ◆ Workers must be **trained annually**.
  - ◆ Workers must be given **alternative work breaks** after 2 hrs.
  - ◆ If qualified, a worker can be assigned **alternative work**.
  - ◆ Your agency must comply with **Mayoral Directive 1-91**.
  - ◆ **Expedited grievance procedure** is in place for disputes/application of Article 18 of the Citywide Contract.
  - ◆ **Computer furniture** can be properly adjusted.

Agency Contact information will be provided by your trainer



# Additional Contacts

- ◆ **District Council 37**

  - Occupational Safety and Health Department**

  - ◆ **(212)815-1685**

- ◆ **Department of Citywide Administrative Services**

  - Citywide Office of Occupational Safety and Health (COSH)**

  - ◆ **(212)386-6251**



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