

## **DESK DESIGN**

### **Desk**

Your desk should allow your fore arms to be parallel to the floor when writing ( a slight angle upwards toward desk is ok ).

### **Proper Screen Height**

1. Sit with back in NEUTRAL.
  - a. To find NEUTRAL: stand, now sit down with your back in the same position. If you do not have your eyes level with the upper third of the screen, elevate the monitor ( phone books work well for this ).

### **Glare**

1. Screen glare from your monitor can be reduced by purchasing a screen cover from your local computer supply store.
2. Have your eyes checked by your eye doctor.

### **Correct Keyboard Arrangement**

1. The wrists are stronger when your knuckles are elevated or parallel to the floor.
2. Allow arms to hang limply with forearm parallel to the ground ( slightly lower or higher is ok ).
3. Your arms and shoulders will be most comfortable if the keyboard and mouse allow the forearms to be angled slightly downward ( parallel to the floor is okay ).

### **Optimal Chair Position**

1. The best position is a changing one.
2. Alternate knees parallel to ground or knees below pelvis with occasional reclining. If your feet do not touch the ground put a phonebook under your feet!
3. Purchase a back pillow if you need added support.

### **Copy Stand**

1. When copying text always use a copy stand.
2. Change sides every few hours ( days? ).

### **Writing**

1. If you do a lot of writing elevate the angle of the work.

### **Telephones**

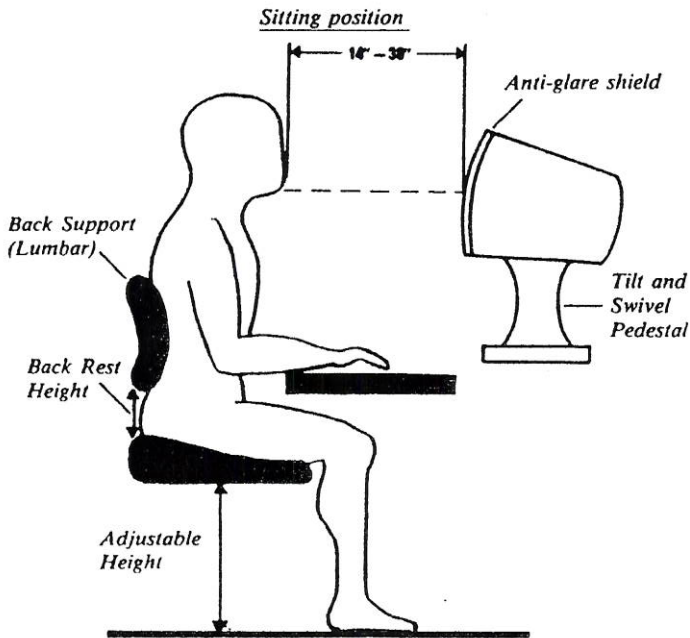
1. NEVER HOLD THE PHONE WITH YOUR EAR AND SHOULDER!!!!
  - a. Use a headset or shoulder support.
2. But if you must—change sides often.

### **Taking Breaks**

1. Never sit longer than one hour without getting up and stretching.
2. After 2–4 hours take some time to go for a walk, stretch for 15 minutes, etc.

## ERGONOMICS

Below are a few pointers designed to help reduce repetitive strain syndromes at the office desk. A knowledge of Ergonomics (relationship between humans and their working environment) and stretching at the work station is the key to prevention!



### WORKCHAIR DESIGN

- Chair Base: 5 point base
- Seat Size: 16 x 16 inches
- Seat Slope:  $\pm 6^\circ$  (on horizontal axis)
- Back Rest Size: 13 x 7 inches
- Back Rest Height (lower edge): Adj. 3 - 6 inches above seat
- Back Rest Tilt: Adj.  $\pm 15^\circ$  (on vertical axis)

### BASICS:

- Sit up straight; hold head at a slight downward tilt
- Keep hands and wrists straight, and feet flat on the floor
- Body, hands and feet facing work station.
- Do not use first 3 inches of work desk.

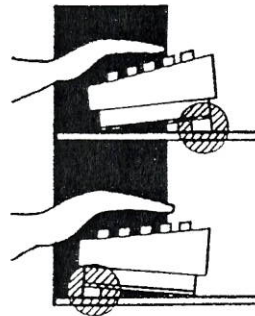
### HAND/WRIST POSITIONING

- Keep wrist straight, level and flat
- Do not bend wrist (up or down)!
- Do not twist wrist (left or right)!

### WRIST CARE

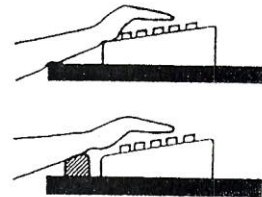
- Upper extremity alphabet exercise
- Rubber band exercise
- Ice

*The neutral position for wrists and hands*

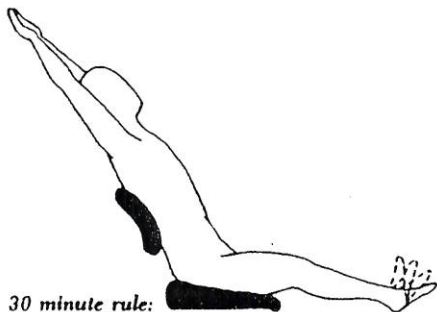


*Tilt the keyboard to fit your hands and wrists*

*Normal movements of the wrists and hands*



*Avoid letting your forearms press into sharp edges of work surfaces. Wrist and forearm rests could be helpful*



**30 minute rule:**  
Extend legs and arms while sitting and rotate your ankles, wrists and shoulders

### DAILY PREVENTION:

- Take your eyes away from the computer monitor and focus elsewhere from time to time ("follow the lines" exercise)
- Create your microenvironment to be relaxing and uplifting - change it regularly!  
Example: photographs, flowers, cards, colors, sounds, etc.
- Every 30 minutes, take a 1 minute break (stretch and relax hands, feet and body) - **STAND UP IF POSSIBLE**
- Take deep breaths and exhale slowly as you relax your shoulders - frequently!
- Exercise regularly to improve nerve and blood flow
- Use headsets or speaker phone; avoid head-bending with the phone
- At home, avoid repeating the same movements you use at work

## **Lesson Three**

### **Proper Sitting Position**

#### **There are two main considerations**

- Always maintain a neutral lower back.
- Change positions and take breaks often.  
(once every 15 minutes is optimal)

#### **How to achieve neutral lumbar spine in sitting:**

- Stand in a relaxed neutral posture.
- Sit down while maintaining your neutral lower back.
- Note that you may need to have the thighs parallel to the floor or slightly extended (knees below hips) to maintain this neutral position.

#### **Special tips**

- Make sure that you have a well-designed office chair.
  - See “How to Choose a Chair”
- Add a lumbar pillow to your car or office chair if it lacks proper support.
- Use a lumbar pillow when watching TV or movies, traveling on airplanes, etc.
- Use slumping only as a “break” from proper posture.
- Change positions often.
- Take a break and stand every 15-30 minutes.