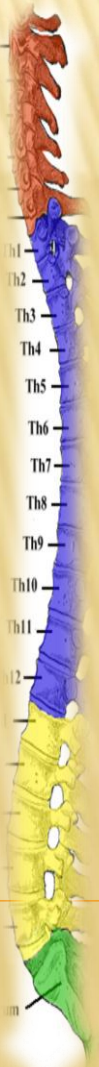


# ERGONOMICS

*Vertebral column (spine)*



# VERTEBRAL COLUMN



# WHAT IS POSTURE?

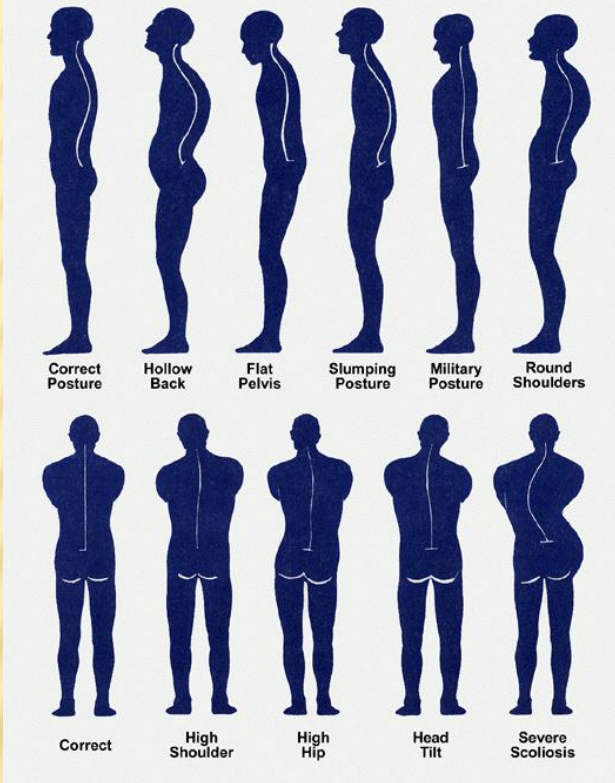
---

- ✗ Posture is the position in which you hold your body upright against gravity while standing, sitting or laying down. Good posture helps to minimize the amount of strain imposed on our muscles, joints and ligaments whilst performing our daily activities.

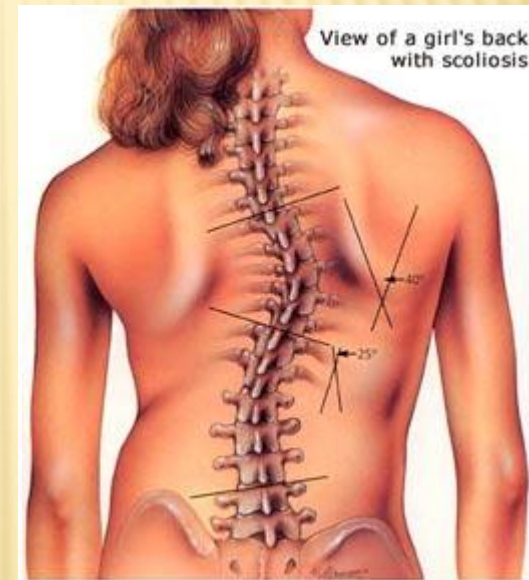


## FAULTY SPINAL POSTURES

**LOOK AT YOUR POSTURE... OTHERS DO**



## WRONG POSTURE



# IMPROPER SPINAL POSTURES

# IMPROPER SEATING POSTURE





# HOW INCORRECT SEATING POSTURE NEGATIVELY AFFECTS YOUR HEALTH

- ✘ **Incorrect sitting posture** is a problem many people have. It might come as the result of body type or characteristics, or it might be the result of bad habits over the years. Whatever the reason, there are a variety of negative health effects that result from having bad posture.
- ✘ One of the health problems resulting from poor posture is **back pain**. There are several positions and posture problems that can lead to or contribute to back pain. Some of these problems are extremely common.
- ✘ Poor posture also leads to **shoulder and neck problems**, and constricted blood vessels, which might also mean **headaches**. Bad posture leads to poor performance in activities, as well. It might also lead to muscle imbalances, and faulty movements.

# SO! HOW TO CORRECT THE POSTURE



Good sitting posture at your workstation means your shoulders are relaxed, your feet are flat on the floor, and you can sit up straight to do your work.

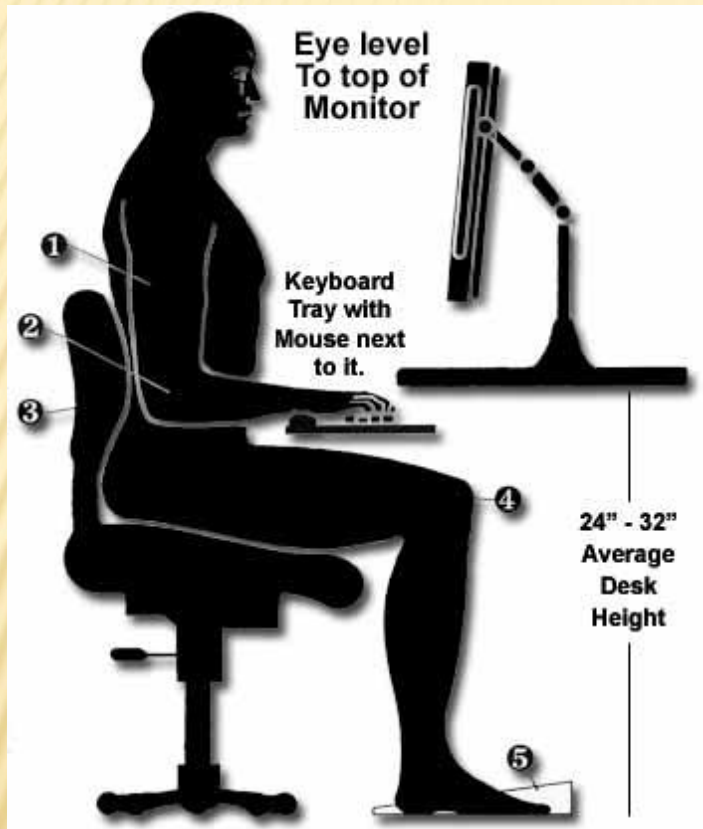
# PROPER POSTURE

---

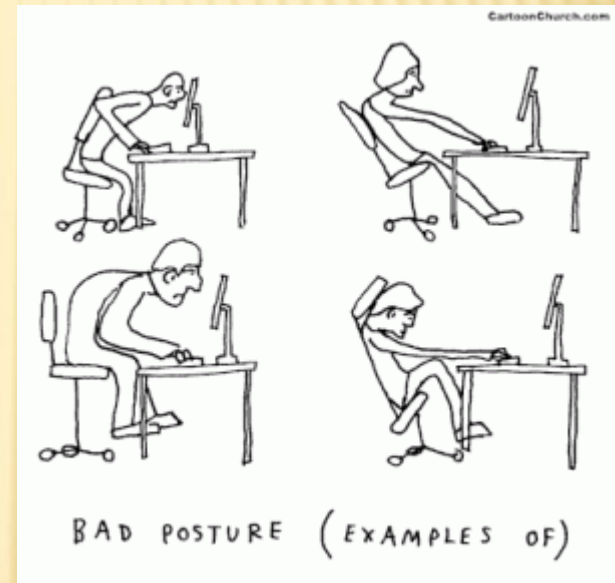
- ✖ Minimises muscle strain by keeping bones and joints in optimal alignment.
- ✖ Decreases the abnormal wearing of joint surfaces caused by overload and overstrain.
- ✖ Minimises ligament strain on the joints of the spine and posture loaded joints.
- ✖ Minimises fatigue due to more efficient use of muscles, allowing the body to use less energy.
- ✖ Helps prevents backache and muscular pain.
- ✖ Contributes to a more positive and assertive appearance.



## CORRECT SEATING POSTURE

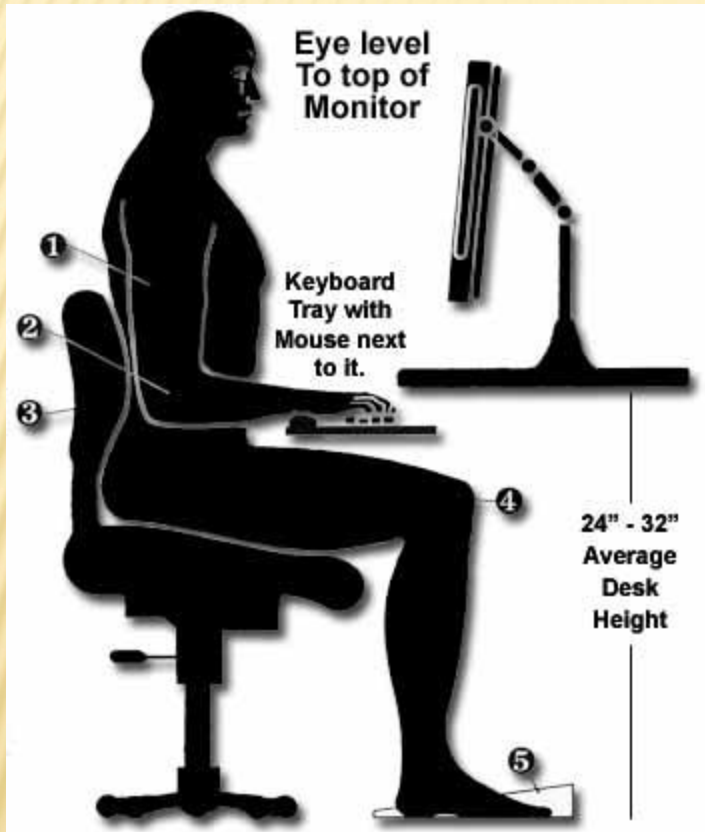


## INCORRECT SEATING POSTURE



# CORRECT AND INCORRECT SEATING IN CHAIR

# IDEAL SEATING POSTURE



- ✗ 1. **Feet** should be resting on the floor with knees and hips bent 90 degrees.
- ✗ 2. Maintain an arch in the low back. A “**lumbar roll**” is recommended nothing but the **foam roll** of 4-5 inches of diameter and 12 inches long to support the low back with prolonged sitting.
- ✗ 3. Lift your **breastbone**. Picture a string tied to the 2nd or 3rd top button on a shirt pulling straight up to the ceiling.
- ✗ 4. Make your chin level. If it helps, picture a book on your head. **Eye level** to top of monitor.

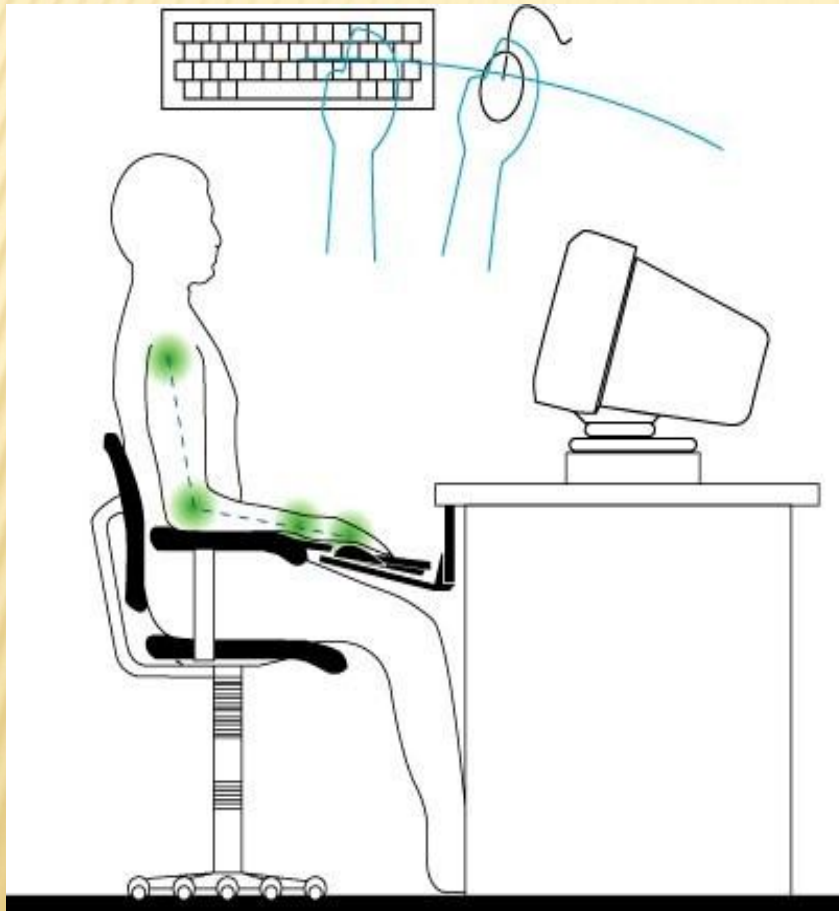
# COMPUTER KEYBOARD ERGONOMICS



- ✘ A computer keyboard and keyboard tray that allow comfortable typing or keying. Your keyboard should be at a height that allows your elbows to be open (bent no more than 90 degrees) and close to your sides.
- ✘ Many keyboards and keyboard trays have wrist supports to help keep your wrists in a neutral, almost straight position.



# COMPUTER KEYBOARD ERGONOMICS



- ✖ If you use a wrist pad, it's best to rest your palm or the heel of your hand on the support, rather than your wrist. The tilt of the keyboard can be adjusted. Some people find it more comfortable if the keyboard is flat or tilted slightly down at the top. Try different tilt angles to see what is most comfortable for you.

# DO'S AND DON'T'S FOR USING THE MOUSE

## PREVENTION Dos and Don'ts for Using the Mouse

Figure A:

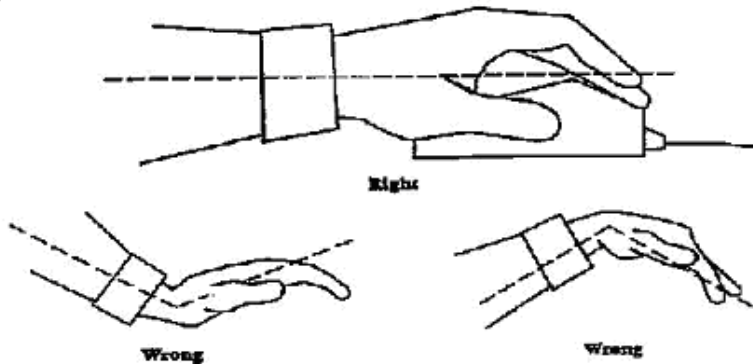
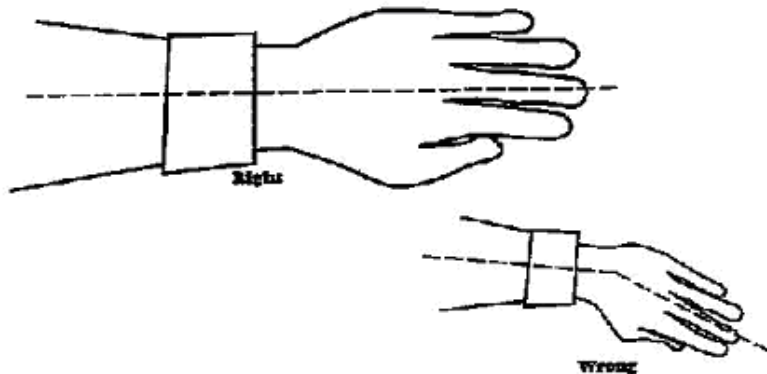


Figure B:

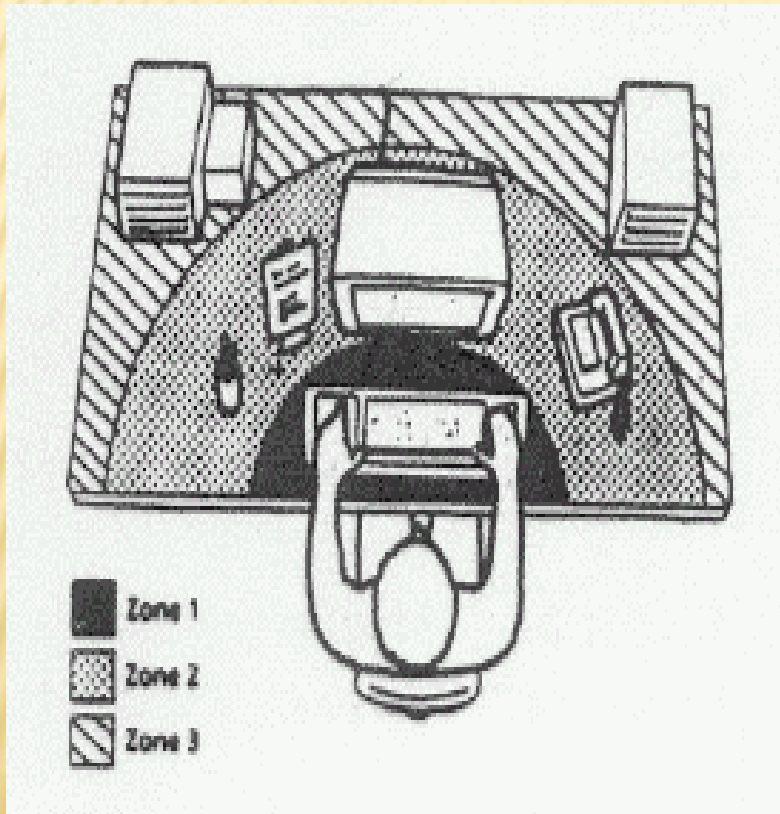


**Figures A and B:** shows keeping your wrist and hand in line with your forearm, in a straight neutral posture, you reduce stress and strain on tendons and muscles.

**Also** the pressure within the carpal tunnel to be at its lowest when the hand, wrist, and forearm are in the neutral position.

# ORGANIZE YOUR WORK PLACE

Organize your desktop so there's space in front of you for top priority items and space for lower priority items.





# ***PROPER POSTURE REQUIREMENTS***

- ✗ Good muscle and joint flexibility
- ✗ Strong postural muscles
- ✗ Balanced muscle tone on both sides of the spine
- ✗ An understanding of what constitutes good posture which leads to conscious correction.

With practice, the correct posture for standing, sitting, and lying down will gradually replace your old posture.

# **WHAT IS THE CORRECT WAY TO STAND?**

Most people when asked to stand with good posture immediately stand tall, arching their spine and pulling their shoulders back. It looks uncomfortable and is a far cry from a healthy standing posture. Keep it simple – try using PUPPET POSTURE !

Puppet posture is a term I have used to simplify the process of assuming correct posture. It works especially well with children but .. also with adults as they can identify easily.

**IMAGINE! U R A PUPPET**



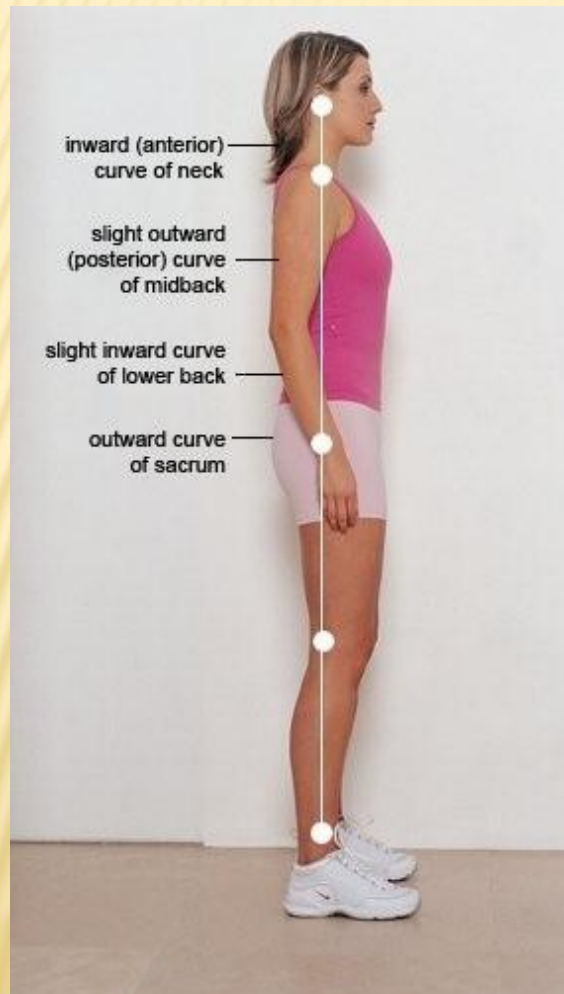


# **IMAGINE! U R A PUPPET**

---

- ✖ Imagine that you are a puppet (well try to at least!) with a string coming out of the top of your head. Gently lift the imaginary string upwards to straighten your spine. Your arms and shoulders will assume the best posture they can for your current spinal function. Watch yourself in the mirror to visualise what you are achieving. Practice regularly, it gets easier as your spine and muscles gain strength.

# ***SIMPLE STEPS TO IMPROVE OUR POSTURE***



- ✗ Draw your belly button in and up
- ✗ Lengthen through the spine, lifting the top of your head to the ceiling
- ✗ Lift the rib cage
- ✗ Activate the muscles between your shoulder blades, pulling them down and together.
- ✗ Keep your chin parallel to the floor, ears aligned over shoulders

# ***HOW TO FIX BACK PAIN WHILE AT THE COMPUTER***

---

While sitting at a computer, prefer back aligned chairs, which can be used to correct the position of the back. Try to maintain proper alignment of the spine. This will prevent a hump-back, and will help you stay alert and tension-free.