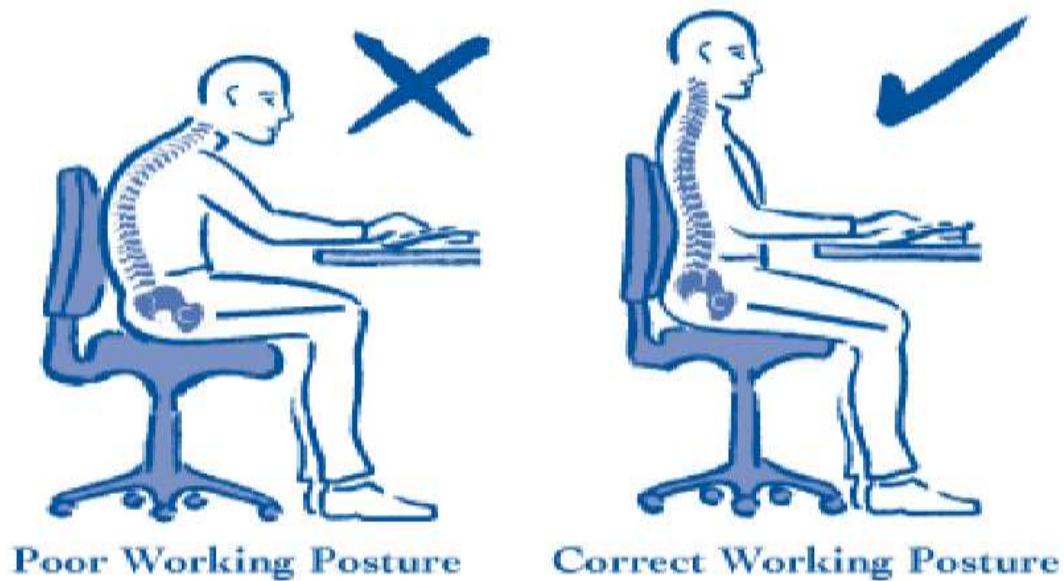
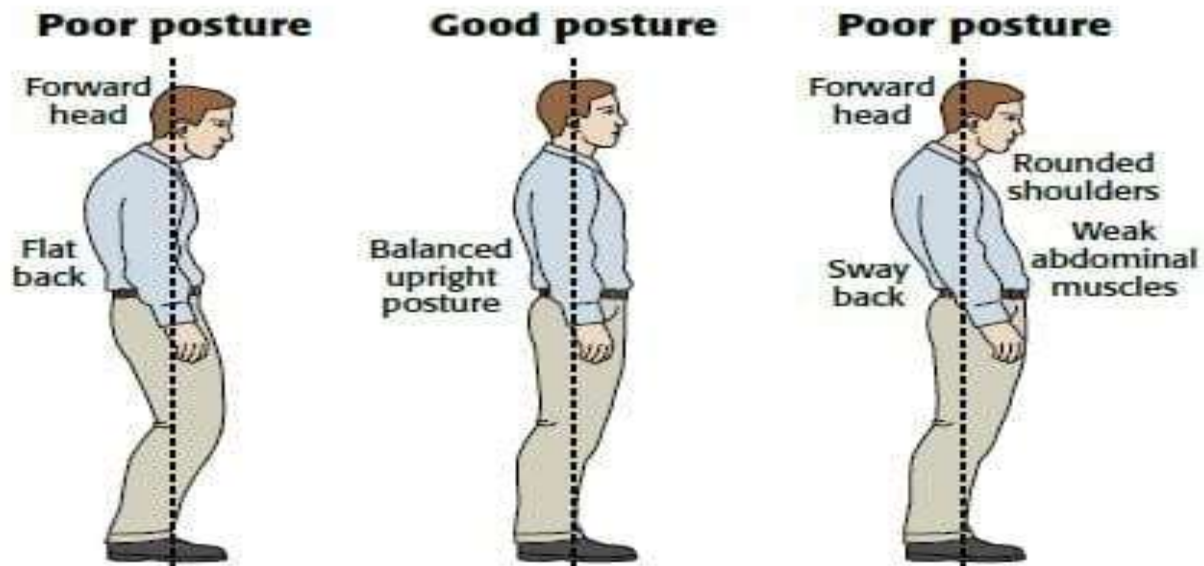




Posture

Proper posture reduces stress on muscles, joints, and ligaments, preventing pain and injury

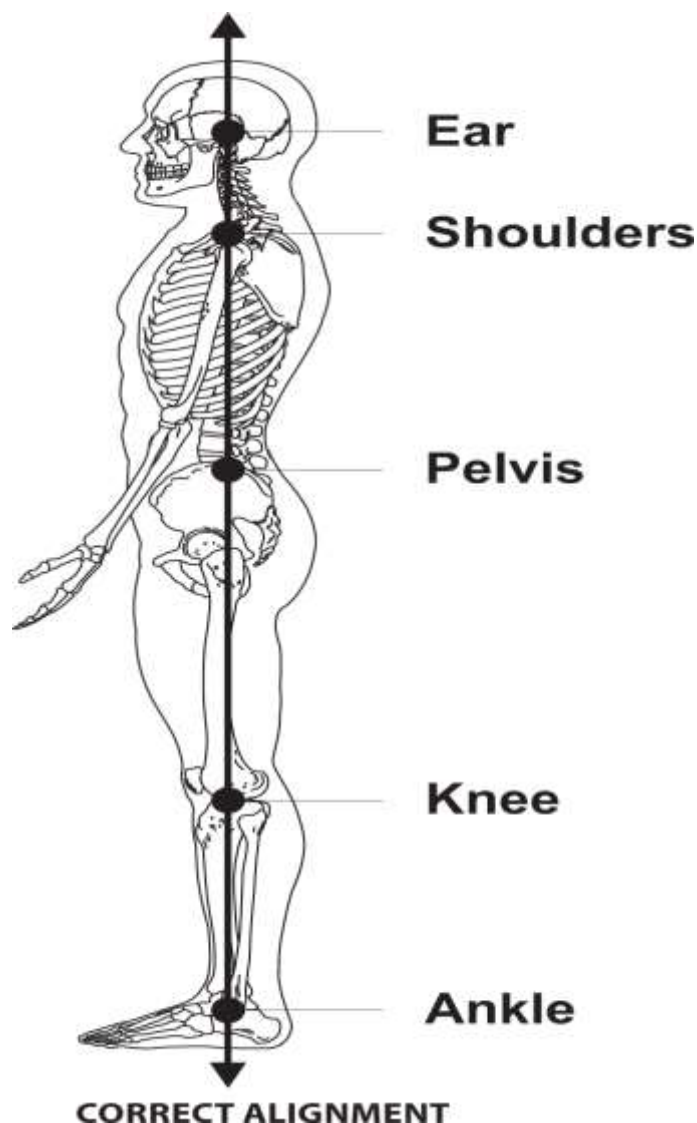




Anatomical Components of Posture

Plumb Line Test

It is a simple test used to evaluate the body's alignment and determine any deviations in posture (Posture). This is done by hanging a vertical line (a string with a weight) next to the person and comparing the location of the body parts in relation to him.





THE POSTURE LINE

A: Excellent Posture

- Head straight above chest, hips, and feet
- Chest up and forward
- Abdomen in and flat
- Back curves not exaggerated



B: Good Posture

- Head forward
- Chest slightly depressed
- Abdomen not so flat
- Back changed little



C: Poor Posture

- Head forward of chest
- Chest flat
- Abdomen forward
- Back hollow



D: Very Poor Posture

- Head farther forward
- Chest flatter and hollow
- Abdomen "slouchy"
- Back curves exaggerated

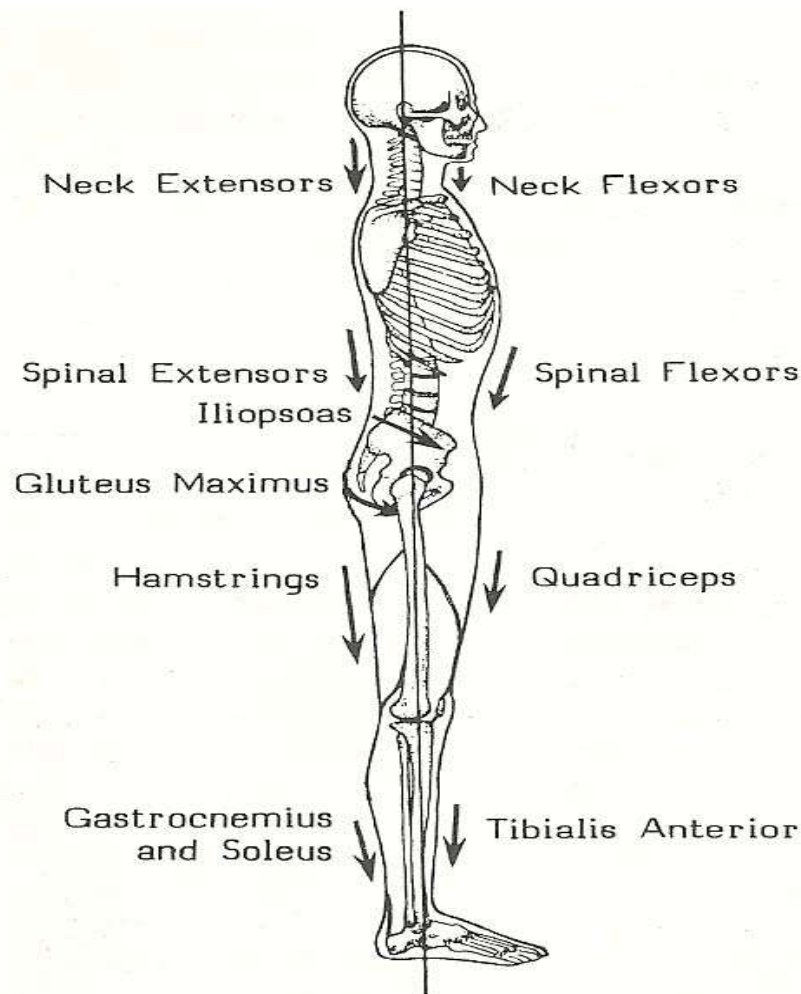
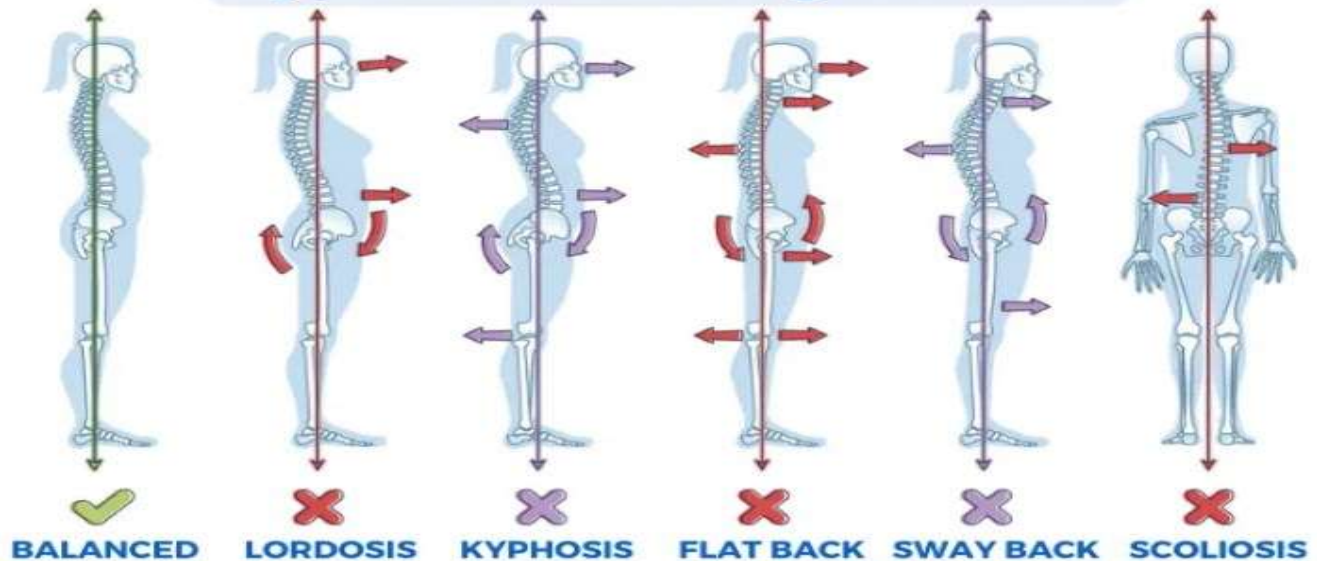


Figure 4.1. The major antigravity muscles that maintain the erect position.



Postural Alignment and Deviations

Types of Standing Posture



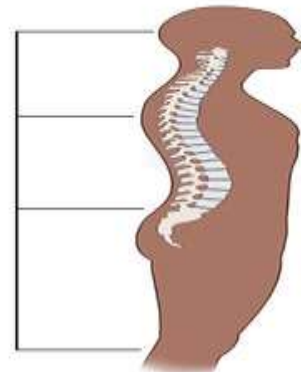
Posture

Maintain good posture

Keep head above shoulders

Hold shoulders above hips

Keep lower body in stable position



Improve posture



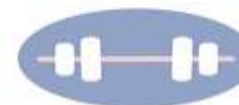
Think about posture occasionally



Activate core muscles



Wear comfy, well-fitted shoes



Eat well and exercise



Practical applications

Smart Posture Corrector

Comfortable and lightweight design worn around the shoulders and back, the Sport Band-like design features sustainable, breathable materials for comfort during extended use.





Sends a vibration alert when detecting incorrect curvature or tilt of the shoulders or spine.

Displays data such as:

- Number of times posture has been corrected.
- Duration of correct sitting or standing.
- Personalized advice for improving posture based on daily activities.

Advanced postures:

Different settings for specific scenarios (long sitting, walking, sports)

Benefit:

- Reduces back pain and spine problems caused by poor posture.
- Encourages improving daily habits in a technological way.
- Attracts visitors' attention and shows the importance of linking engineering and medicine

