

WHAT IS GOOD POSTURE?

Importance of good posture:

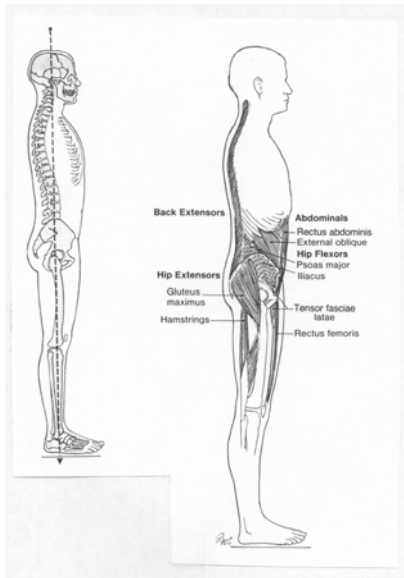
- When body weight is distributed such that minimal muscle tone is necessary and minimal tension is exerted on ligaments and articular surfaces
- Maintenance of posture is mainly reflex – changes are made by the nervous system
- Allows freedom & precision of movements

Axial Extension :

- Term used to define « Ideal posture » for someone - not the same for everyone as we are not all built the same
- The tallest position of the spine with minimal muscle work between the knees and the lower neck except for respiration
- Posterior neck muscles must work to maintain head position and the calf muscles control sway
- Posture is « dynamic »

Neutral spine :

- When the normal curves of the spine are maintained
- Least pressure on the tissues around the spine
- Best position for the recruitment of muscles around the trunk



Poor posture :

- Decreased efficacy of the muscular system as more muscles are under tension and some tissues absorb abnormal load (joints, muscles, fascia, nerves, ligaments)
- Increased load can cause pain and premature degenerative changes (wear & tear)
- Increased muscle activity can lead to fatigue, decreased circulation, accumulation of metabolites = pain
- Shortening & lengthening of soft tissues = abnormal movement patterns

Correction of standing posture :

- Equal weight on each foot
- Pelvis under shoulders
- Angle of sternum in line with pubic bone
- Lift chest up (line pulling up at 30 degrees from sternum to the ceiling)
- Lift top of head towards ceiling; chin parallel to the ground
- Eyes level looking straight ahead
- Shoulders relaxed
- Keep breathing

Sitting Posture :

- Keep back straight, maintain curve in low back
- Always sit with your buttock against the back of the chair
- Knees in line or slightly lower than the hips
- Lift chest up
- Using a back rest will decrease the amount of weight bearing on the spine
- A support in the low back will further decrease the weight on the spine
- Avoid soft and deep couches

Poor sitting posture:



- Curve in the lower back not maintained, sitting slouched creates lots of tension on muscles, ligaments and fascia. It also increases pressure on the discs in the lumbar spine

Corrected sitting posture:



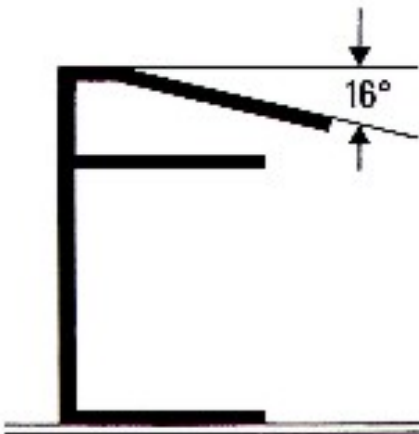
Sitting with pelvis anterior, curve in lower back maintained



Sitting with a lumbar support (towel) helps to maintain the normal curves



Sitting on a wedged cushion can also help to maintain the normal curve in the lower back



Using an inclined plane for reading will help maintain the normal curves of the spine

Sitting at the computer :

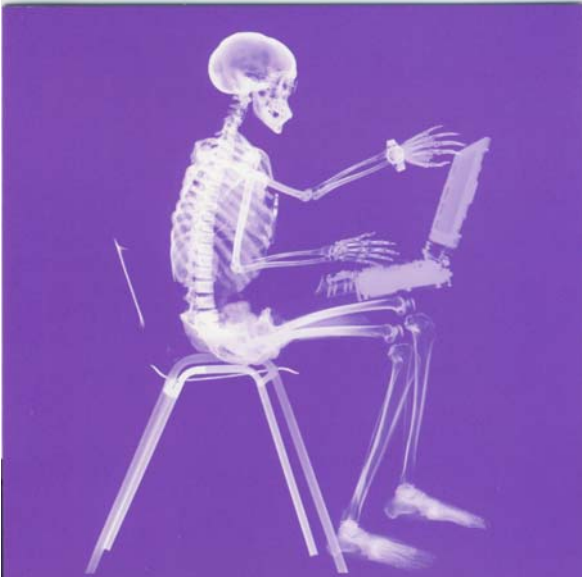
- Feet on the ground
- Thighs horizontal, supported
- Low back supported by back rest
- Forearms parallel to the floor
- Wrists and hands in line with forearms
- Elbows close to body
- Head aligned with rest of body
- Top of monitor at eye level
- Mouse close to you
- Take breaks regularly (at least every 30 min); get up stretch backwards



Poor posture – round back, head forward, elbows too low

Good posture – back well supported, neck neutral, arms in a good position

Portable computers – beware of your posture!



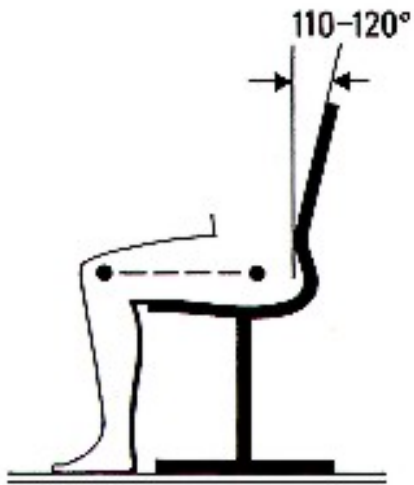
Make sure to place your computer on a table at a proper height, not on your knees!

Poor posture – not using backrest of chair, lower back round not maintaining neutral spine, computer too low

Adjustable Chairs :

- 5 wheels
- Adjustable seat
- Adjustable back rest
- Back rest should be at the level of the sacrum and lower back area
- Height of the seat = length of lower legs
- Depth of seat = should support the thighs without compressing behind the knees
- Arm rests – elbows supported at 90 degrees
- Keyboard at wrist height when the forearms are supported (can use a support for the wrists)
- Distance from monitor to eyes = 1 arm length
- Height of monitor – between the horizontal line of the eyes and 15 degrees below that line

Adjustable back rest



The back rest should be inclined from either 100° to 120° to help maintain neutral spine



Posture should be dynamic:

- As soon as tensions are felt – change position
- Moving when you are sitting is a better strategy
- The more physically fit you are, the easier it is to maintain postures – better muscle tone, less fatigue
- If someone spends their day in flexion, should do some extension activities to balance out the tension on their tissues
- Sedentary jobs – if not active enough, will develop inadequate postures as tissues start to shorten or lengthen – these postures may become chronic and lead to all kinds of musculoskeletal problems

Flexion & Extension activities :

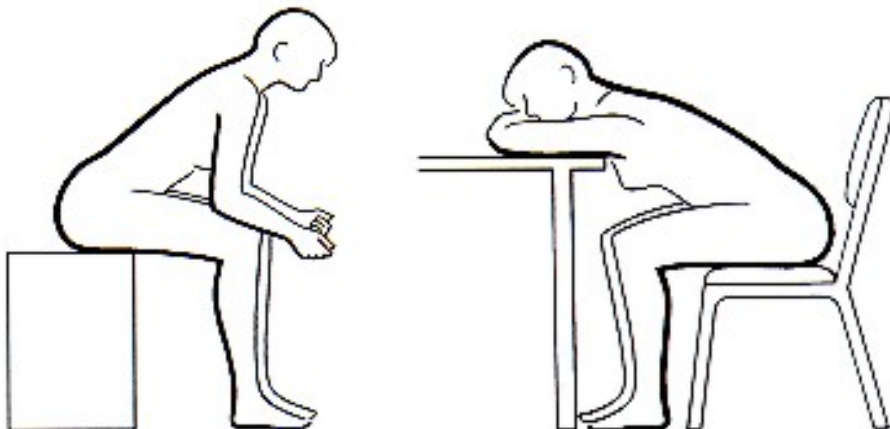
- Flexion activities :

- Sitting
- Driving
- Gardening
- Bending
- Lifting
- Biking

- Extension activities :

- standing
- walking
- hiking
- swimming
- cross-country skiing
- up & down stairs

Resting your back by transferring part of the load on the arms



Posture correction :

- Good posture = make it a **life habit** and not a short term intervention
- Good body hygiene every day = like brushing your teeth every day
- Staying active = better muscle tone = better posture = better quality of life
- Make sure to move in different ways to maintain optimum flexibility and strength of all muscle groups and optimum joint mobility – good to do different activities

Dynamic sitting on a ball



Sitting on an exercise ball is a good exercise to improve muscle tone to hold the spine in a good posture; this can be done for short periods at a time (in front of the television) – make sure to maintain the curve in the lower back

Why bother about good posture?

- Less strain on all tissues of the body so less likely to develop musculoskeletal problems
- Better muscle balance so easier to perform movements and practice sports
- Less energy consumption so less fatigue, better attention span, better condition for learning or being alert