



Session 1

Lecturer:

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C-PE 2 (3 units) **PATHFIT II Exercise-based Program**

Spring Semester 2024



Introduction: Body Typing , Posture and Postural Deviation



Session Objectives:

- ✓ Identify the common body types including the advantages and setback of each type.
- ✓ Describe the human body in terms of anatomical positions to properly refer to relative positions or movements.



Session Objectives:

- ✓ Describe human posture and postural deviations.
- ✓ Identify the advantages of having good posture in comparison with postural discomfort in relation to movements.

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Somatotype or Body Typing

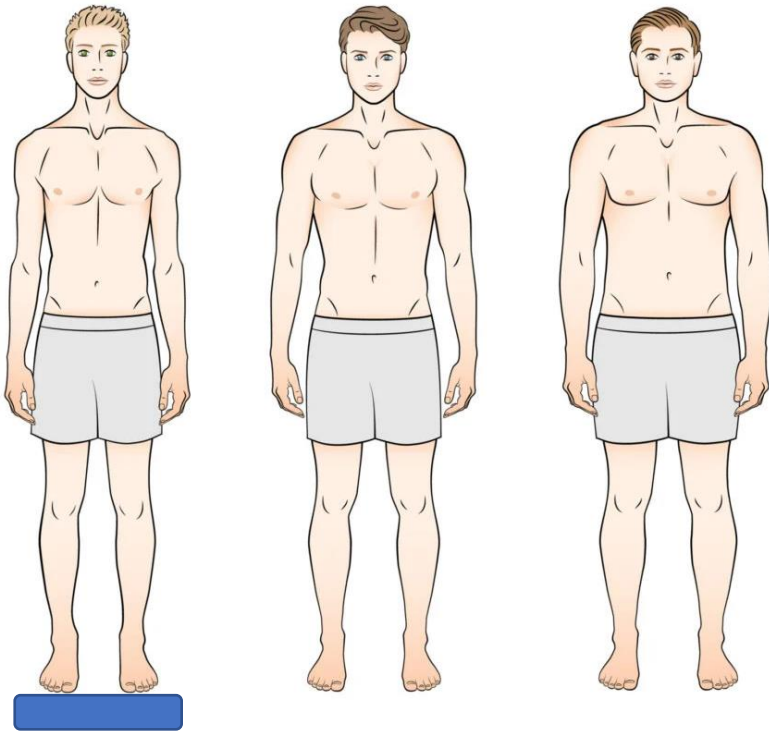
- *devised by Dr. William Sheldon*
- *in 1940*

Ectomorph **Mesomorph** **Endomorph**



Figure 1: Who remembers William Sheldon?
(Source: Hanson, B. 2015:Online)

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Ectomorph

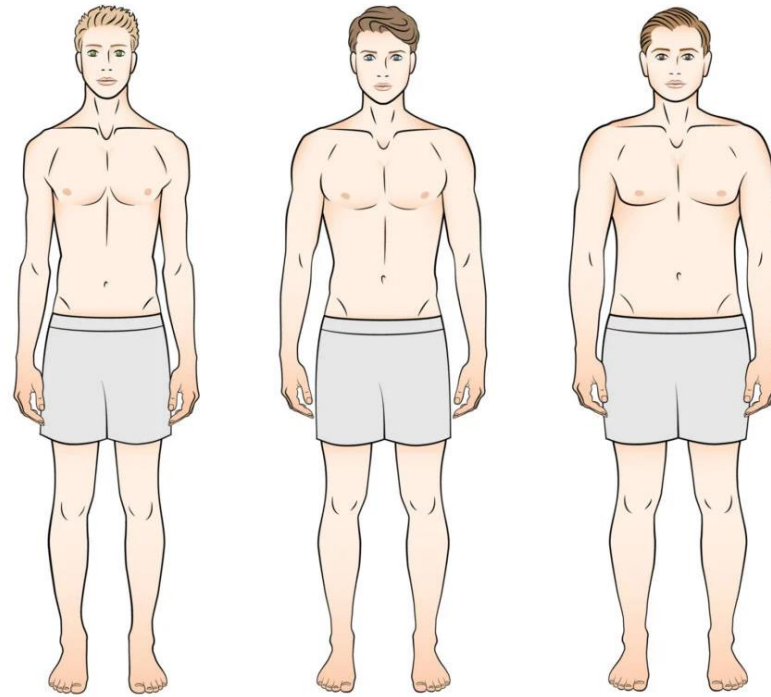
Characteristics:

- *Slim*
- *Flat chested*
- *Lightly muscled*
- *Muscles growth takes longer*



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Benefits

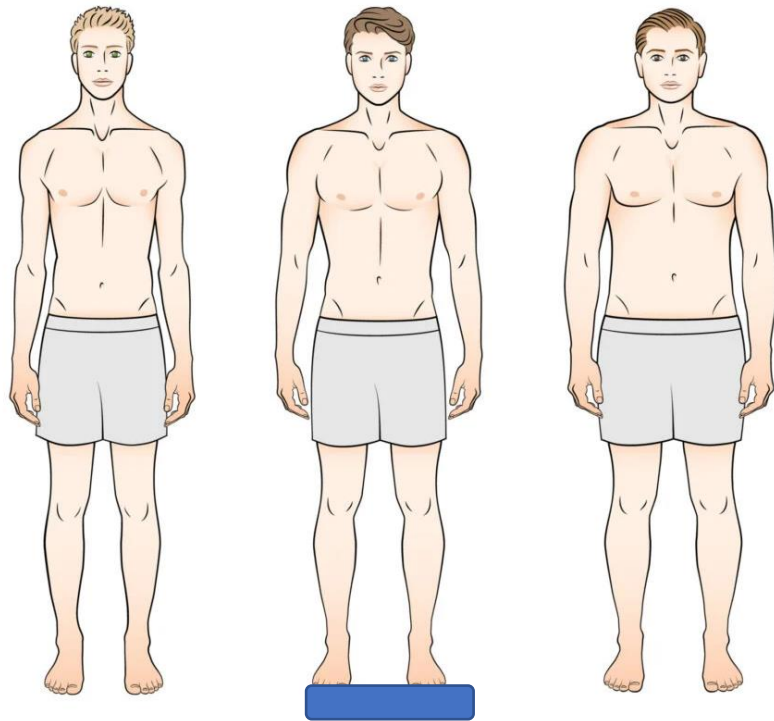


Drawbacks



Ectomorph

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Mesomorph

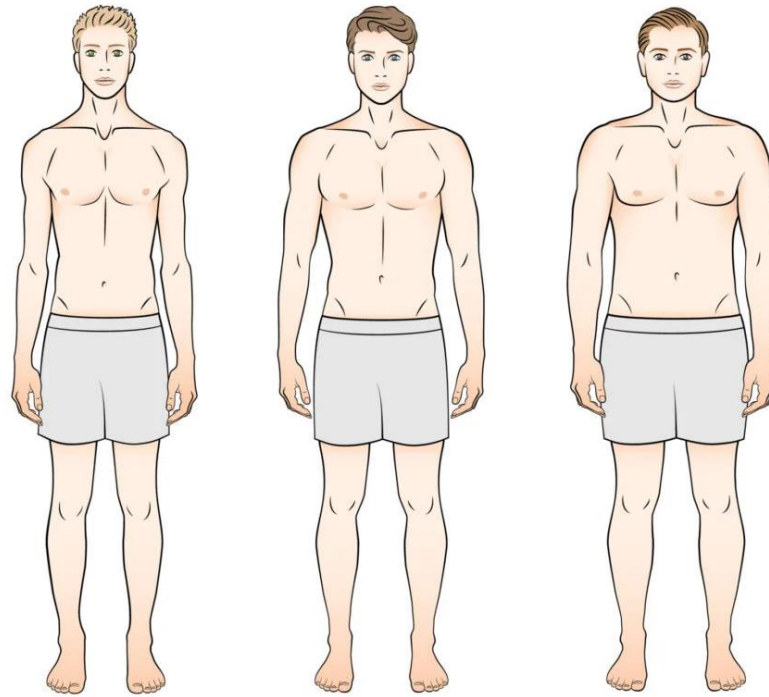
Characteristics:

- *Muscular body*
- *Upright posture*
- *More mature in appearance*
- *Not having trouble in gaining or losing weight*



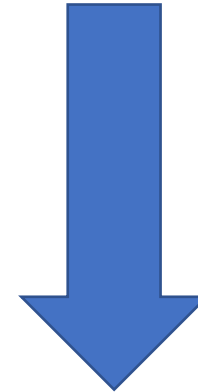
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Benefits

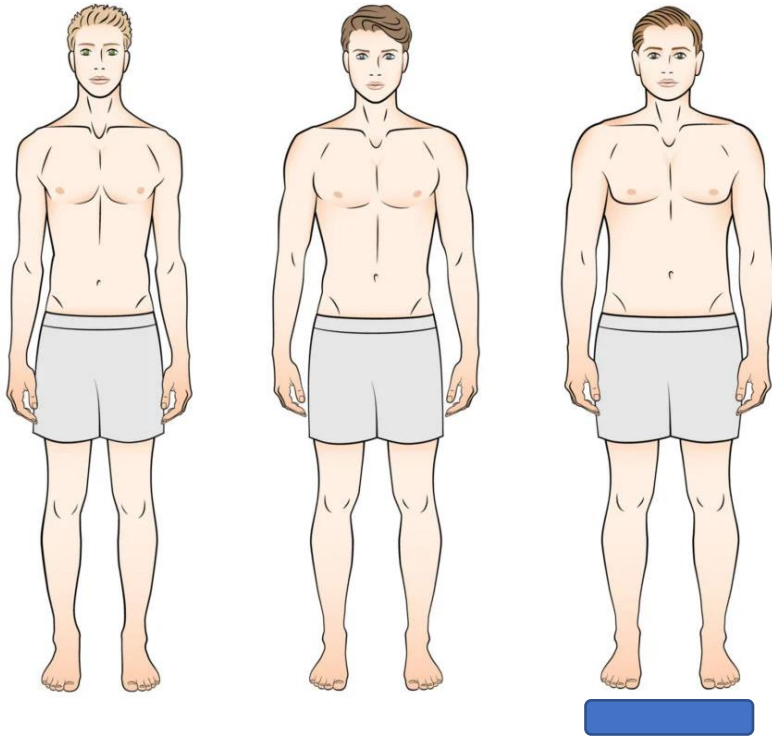


Mesomorph

Drawbacks



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Endomorph

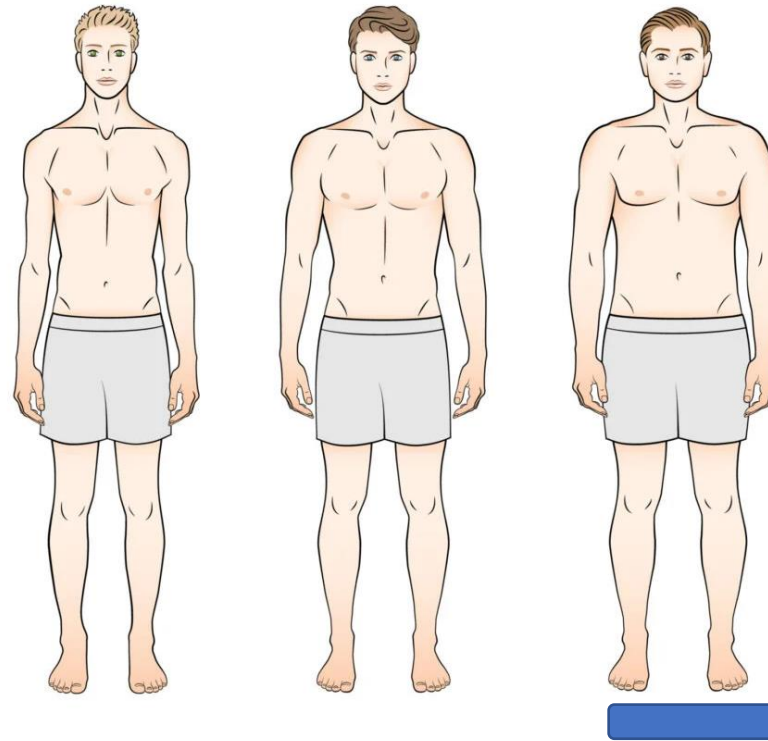
Characteristics:

- *Round shape*
- *Underdeveloped muscles*
- *Difficulty in fast movements*



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Benefits



Drawbacks



Endomorph

*Other body types that
influence efficiency
in human movements*

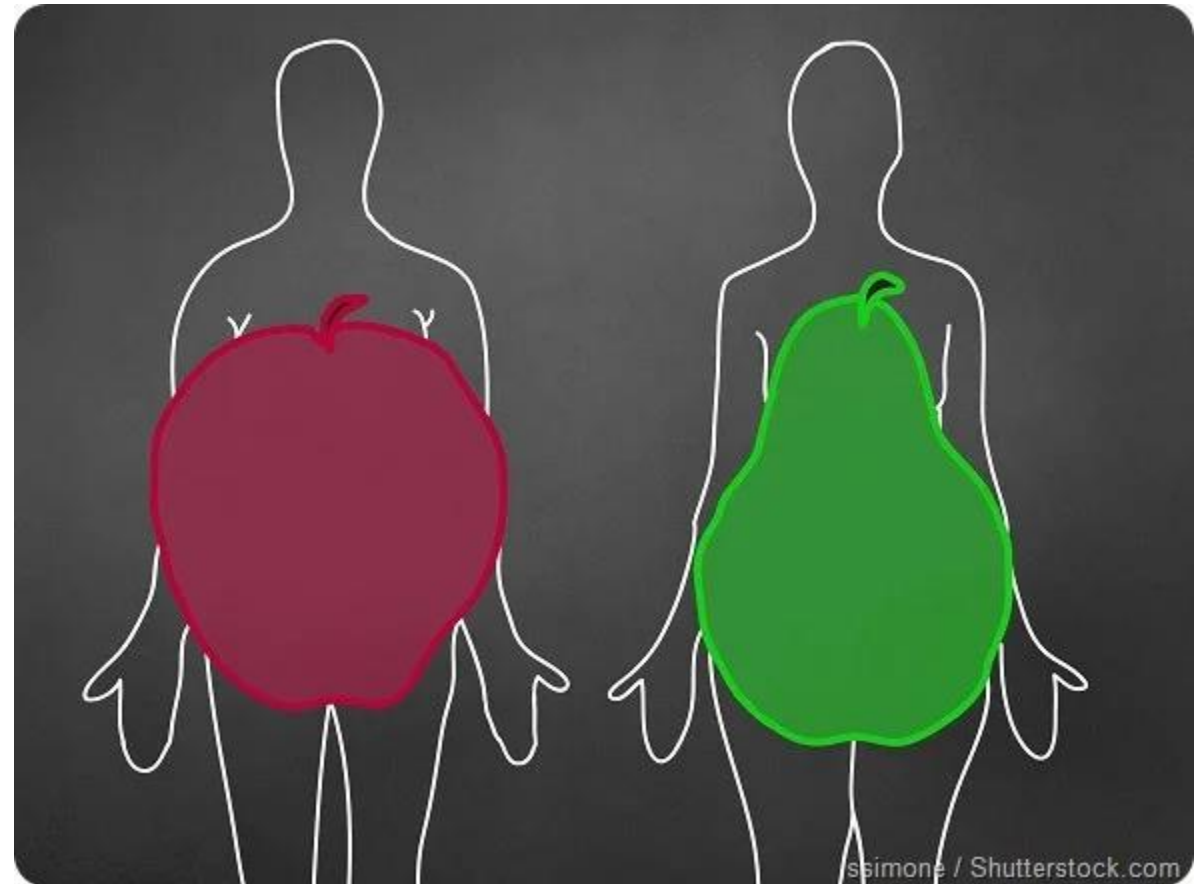


Figure 3: Apple body shape linked to higher heart risk than pear shape in diabetics.
(Source: Fields, D. 2016:Online)

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Ectomorph Mesomorph Endomorph

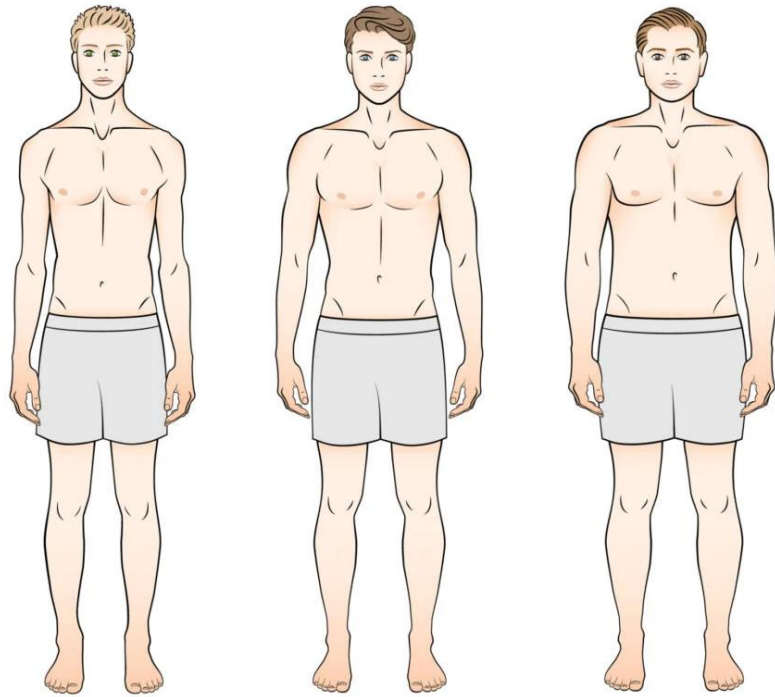


Figure 2: Sheldon's Constitutional Theory: Somatotyping.
(Source: Nickerson, C. 2024:Online)

Influencing factors:

- *Genetic*
- *Age*
- *Nutrition*
- *Physical Activity or occupation*



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Posture of Human Body

Two types of Posture:

Dynamic posture is how you hold yourself when you are moving walking, running, or bending.

Static posture is how you hold yourself when you are not moving: sitting, standing, or lying.

Factors that affects Good Posture

- Poor nutrition
- Improper routinary posture
- Poor daily habits
- Occupational practices
- Congenital deformities
- Lack of physical exercise



Figure 4: Poor Posture and its Effects on the Body.
(Source: Friend, E. 2015:Online)

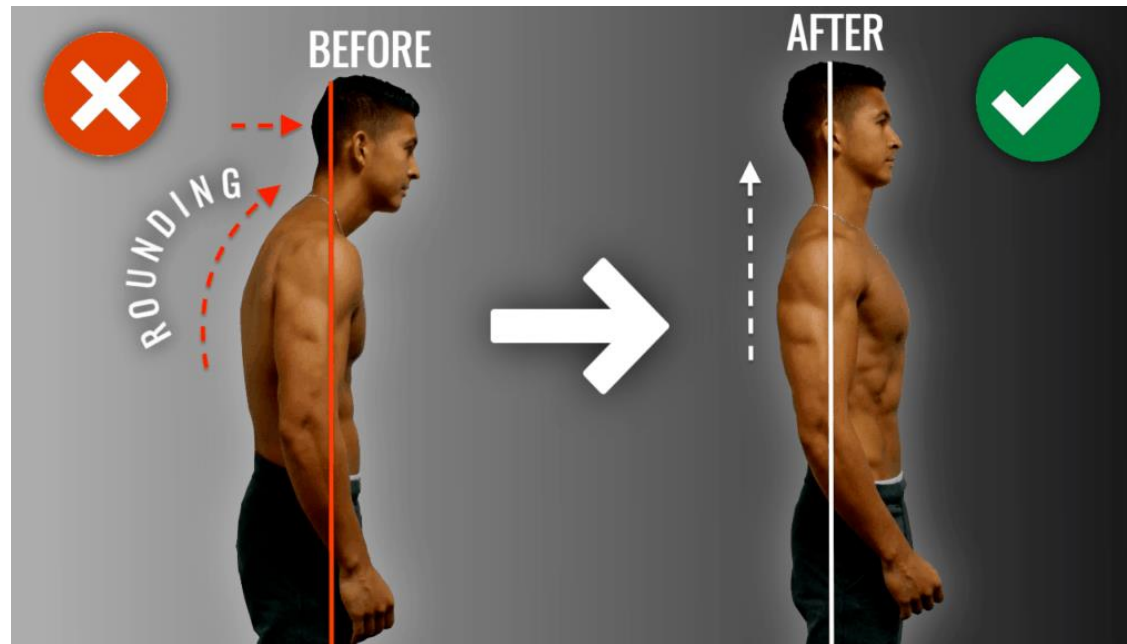


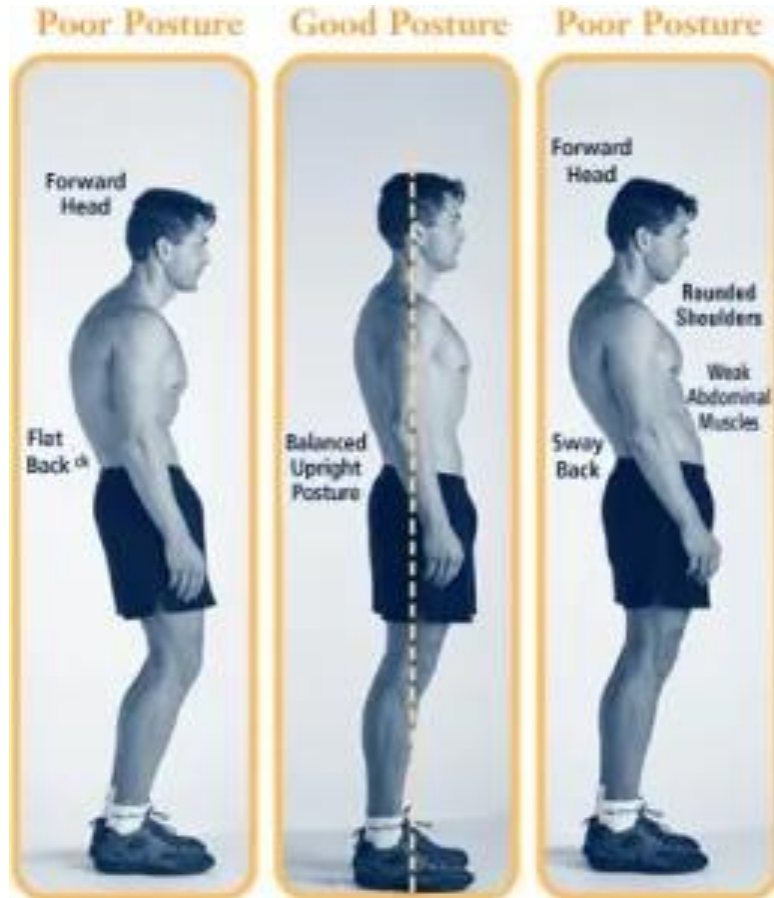
Figure 5: How to Fix Rounded Shoulders in 10 Minutes (Science-Based Routine).
(Source: Ethier, J. 2019:Online)



Possible scenarios in engaging to PA or exercise:

- Use of gym mirror
- Lifting inappropriate weights
- Improper execution of movements

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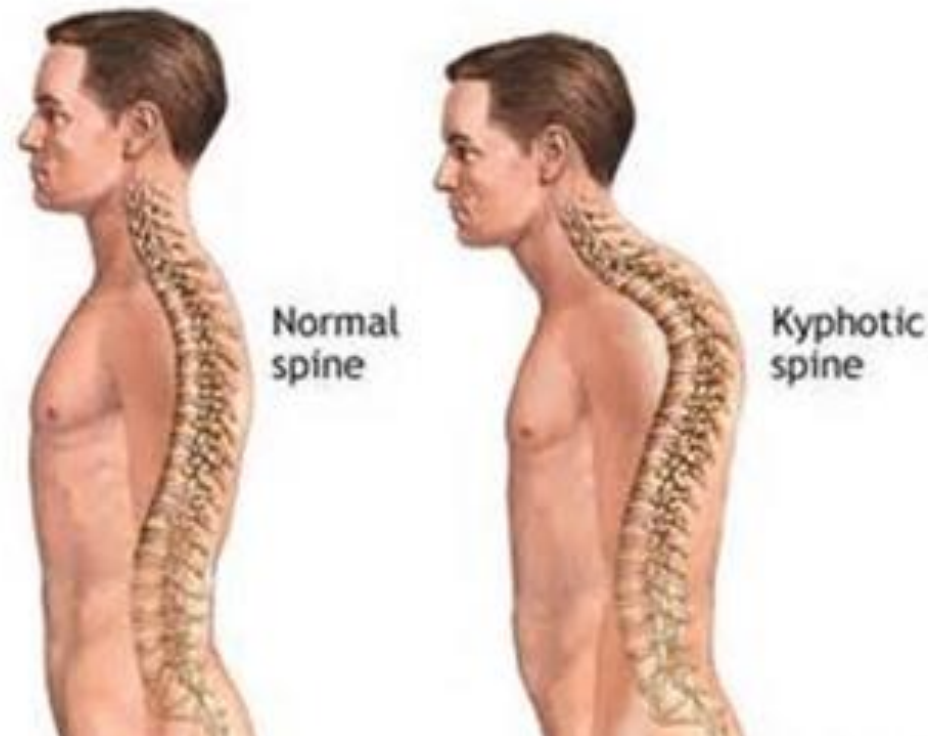


- *Forward head*
- *Round shoulder*
- *Round back*

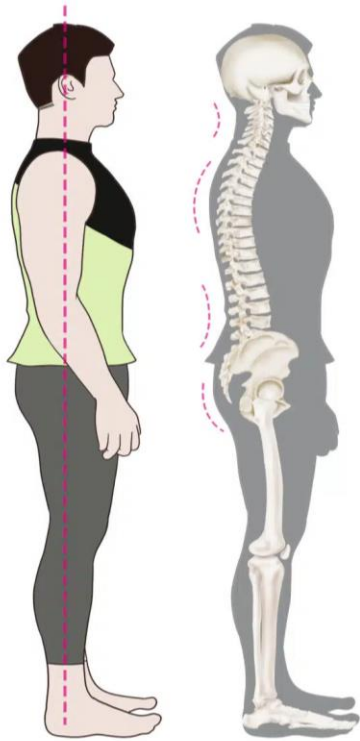
Figure 6: Simple ways to Assess and Correct Poor Posture.
(Source: Omokha, D. 2013:Online)

Kyphosis

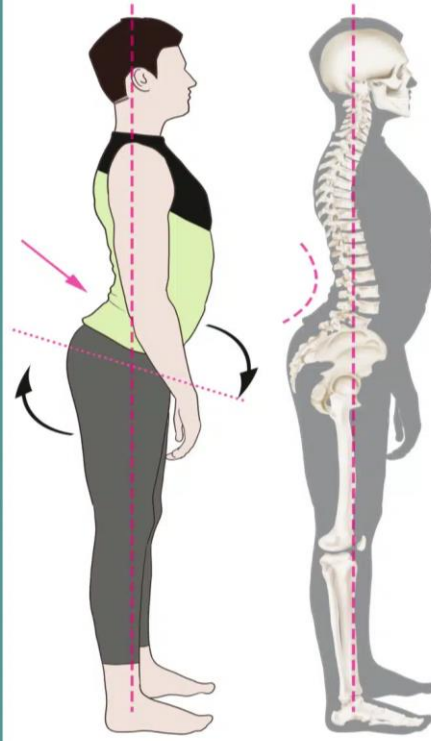
-is a postural deviation characterized by over curvative of the thoracic vertebrae. The chest is flat with round shoulders and forward head generally accompany this deviation.



normal



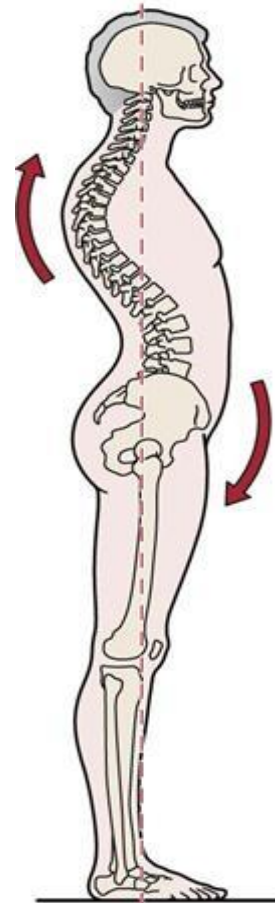
Lumbar lordosis



Lordosis

-is a deviation
where there is
over curvature of
the lumbar
vertebrae.

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Kypholordosis

**-is observed when
the normal curve of
the thoracic as well
as lumbar
vertebrae is
increased**

Figure 9: Assessment of Posture.
(Source: Orthopedic Physical Assessment, 2015:Online)

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Scoliosis

Is the lateral curvature of the vertebral column

- Single curve "C"
- Double curve "S"
- Functional scoliosis
- Structural scoliosis

TYPES OF SCOLIOSIS

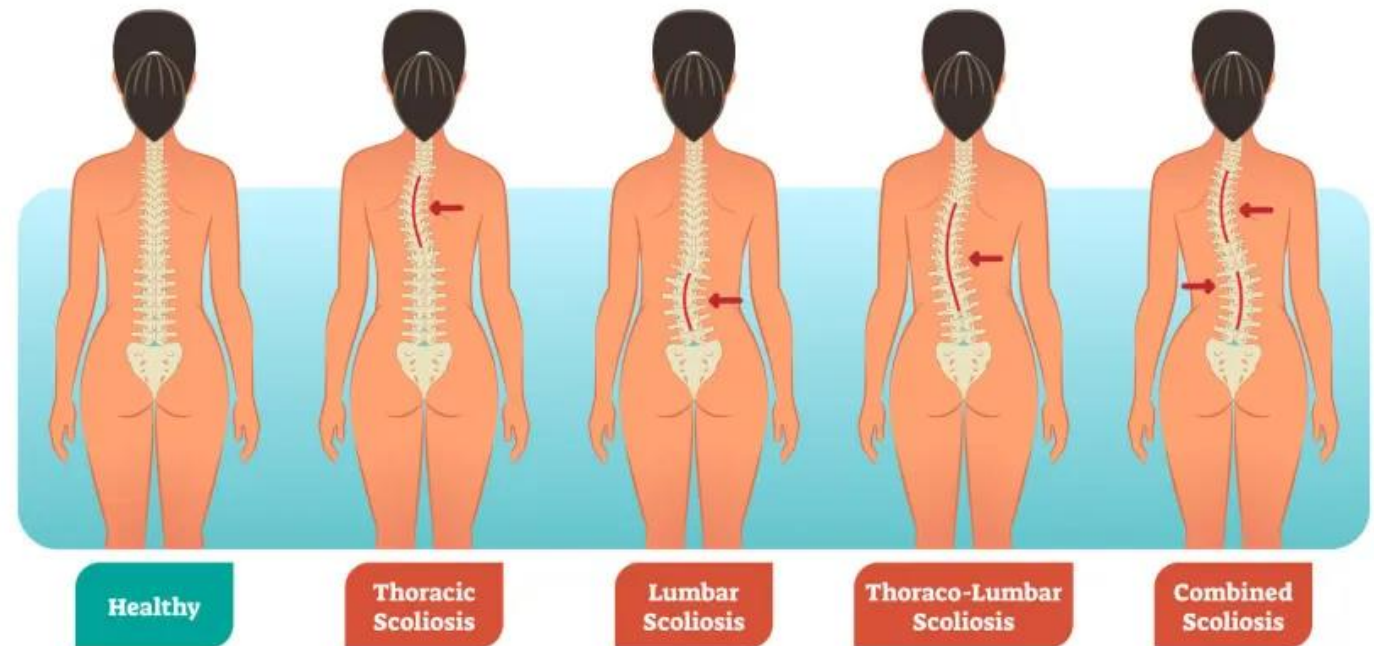
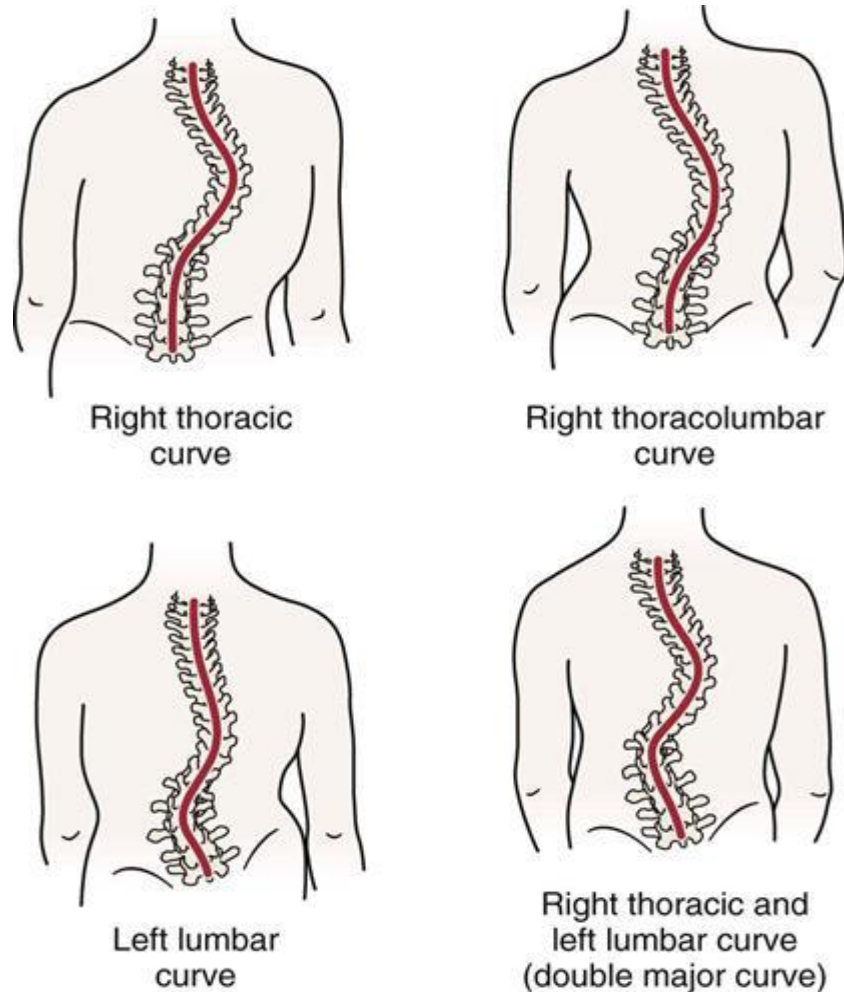


Figure 10: Symptoms of Scoliosis.
(Source: Rodts, M. 2019:Online)

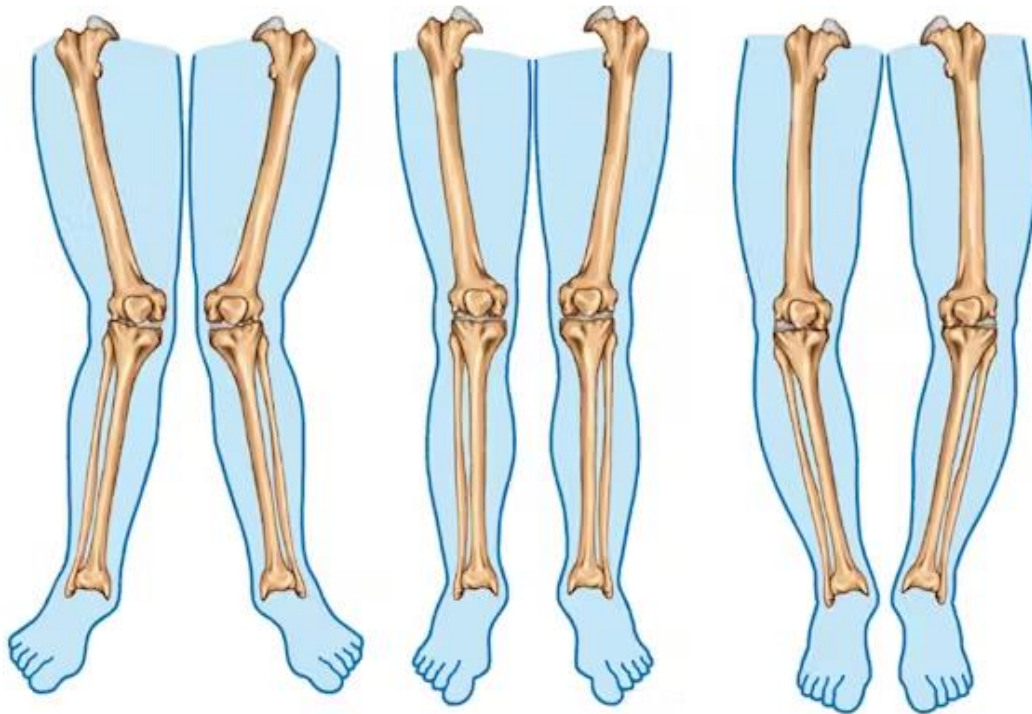
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Difference of Functional and Structural Scoliosis

Figure 11: Assessment of Posture.
(Source: Orthopedic Physical Assessment, 2015:Online)

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Genu Varum – (bowlegs) deformity of lower extremities wherein the knees are separated when the feet are joined together

Genu valgum – (knock knee) the knees are drawn together and the feet become separated.

Figure 12: Explainer: What causes knock knees and do they have to be treated?
(Source: Burns, J. & Pacey, V. 2016:Online)

Pes Planus

-(flatfoot) is a decreased longitudinal arch of the foot. The depression of the arch is usually accompanied by a pronation and abduction of the foot which makes it weak and inefficient.

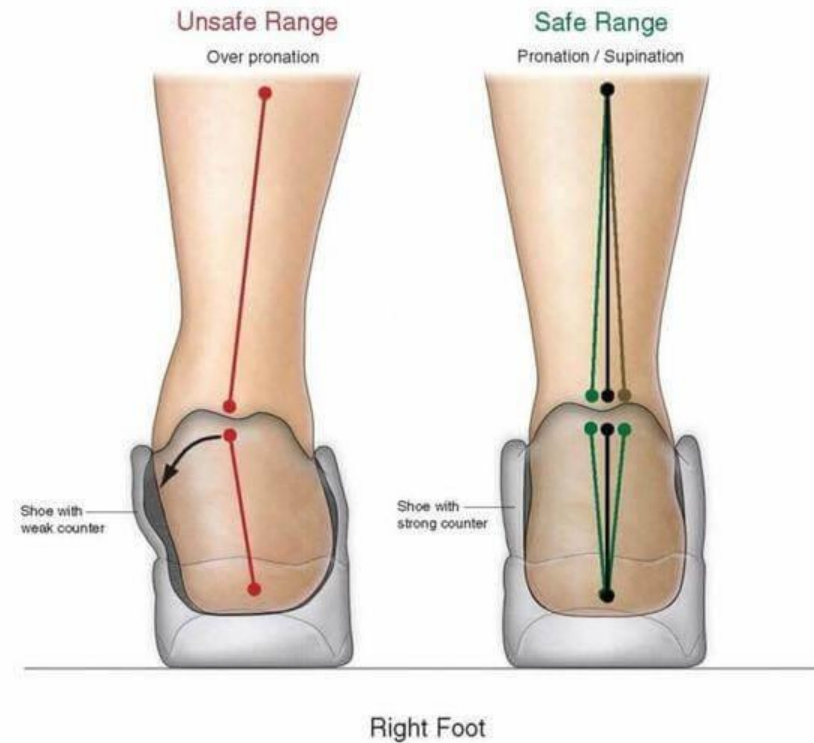
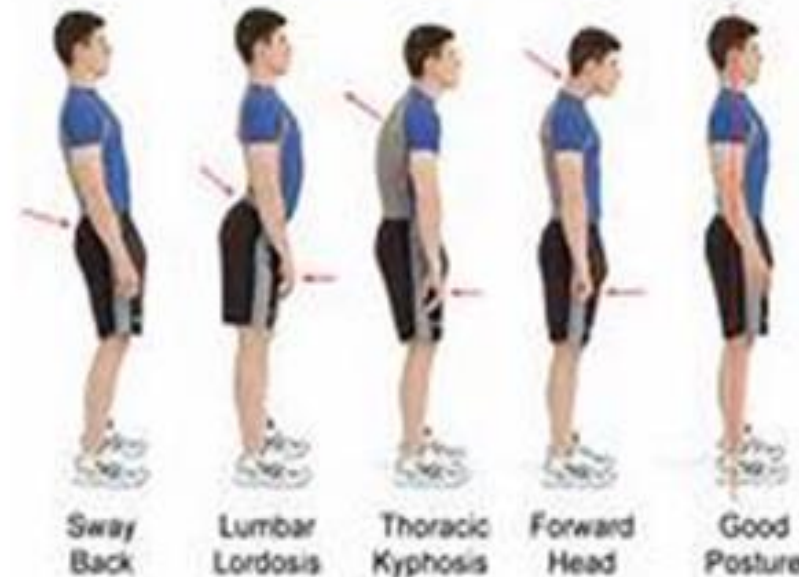


Figure 13: Flat feet Overpronation Causes, Treatment and Prevention.
(Source: Gershman, S. 2022:Online)

Good Posture

A line drawn from the ankle bone:

1. Front of the knee
2. Center of the hip bone
3. Center of the shoulder
4. Middle of the ear





Benefits Good Posture:

- ✓ Breathing comfortably
- ✓ Pain-free on joints and muscles
- ✓ Ease of movement
- ✓ Improved range of motion
- ✓ Feel sexy!



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