

## Unit 30:

# Back

## Chapter 4 (Back): (p. 482-507)

### GENERAL OBJECTIVES:

- general considerations of the organization of the back
- review of the anatomy of the vertebral column

### SPECIFIC OBJECTIVES:

#### **Thoracic and lumbar vertebrae**

Identify major bony features of (i) a typical THORACIC vertebra & (ii) a typical LUMBAR vertebra

##### BODY

VERTEBRAL ARCH (pedicles, laminae)

PROCESSES (transverse, spinous)

ARTICULAR SURFACES - intervertebral disc

- for (zyg)apophyseal or "facet" joints

- for ribs (thoracic vertebra)

Compare and contrast the following groups of thoracic and lumbar vertebrae:

Upper Thoracic, Middle Thoracic, Lower Thoracic, Upper Lumbar & Lower Lumbar

Define the boundaries of an intervertebral foramen (noting the intervertebral disc anteriorly and the zygapophyseal joints posteriorly).

Indicate where each spinal nerve emerges from an intervertebral foramen.

Deduce the movements of (i) the thoracic spine & (ii) the lumbar spine (from direction of articular facets).

Indicate the bony attachments of major ligaments maintaining joint stability (while allowing movements).

#### **Joints of Thoracic & Lumbar Spine**

Joints of Vertebral Bodies

*Intervertebral Discs*

*Anterior and Posterior Longitudinal Ligaments*

Joints of Vertebral Arches

*Zygapophyseal (Facet) Joints*

*Ligamenta Flava*

*Interspinous & Supraspinous Ligaments*

Movements

*Flexion/Extension*

*Lateral Flexion*

*Rotation (at thoracic joints only)*

Fascia

Lumbar (Thoracolumbar) Fascia

#### **Muscles of Back**

Superficial Group (attach the upper limb to the vertebral column)

1st. Layer Trapezius

Latissimus Dorsi

2nd. Layer Levator Scapulae

Rhomboideus Minor

Rhomboideus Major

Intermediate Group (attach to ribs for respiration)

Serratus Posterior - Superior & Inferior

Deep Group (ie. "Intrinsic" Muscles of Back)

Splenius

Long muscles Erector Spinae (Sacrospinalis):

(--> Iliocostalis, Longissimus, Spinalis)

Oblique muscles Transversospinalis:  
Semispinalis, Multifidus, Rotatores  
Other muscles Interspinales, Intertransversarii,  
Levators Costarum, Suboccipital Muscles

**Suboccipital and deep neck muscles**