



MUNI MED


Introduction to the anatomy Axial skeleton

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*Doctors without anatomy are like moles.
 They work in the dark and the work of their hands are mounds.*

prof. Tiedemann: Heidelberg, 1781–1861



Rooms

Seminary rooms S 1-5 (red floor)



Dissection rooms P 1-3 (blue floor)



Study room – red floor

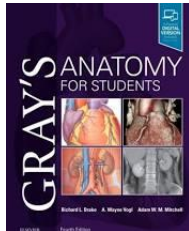
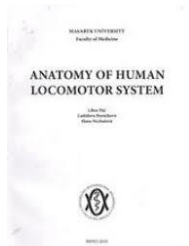


Bone room – lending of bones

Mo 10.00 – 17.00
 Tue 10.00 – 16.00
 Wed 8.00 – 15.00
 Th 8.30 – 16.00
 Fri 8.30 – 14.00

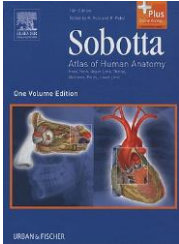
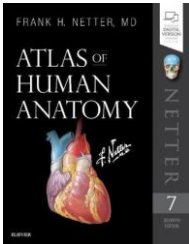
Every single hour

Textbooks

<https://exdroje.muni.cz/prehled/zdroj.php?lang=cs&id=333>

Atlases

Other sources





Applications - 3D atlases, quizzes

Seminars

Labcoat
Shoecovers
Probes (tweezer)
Lock for the locker

Anatomical nomenclature

Vesalius (1542), Basilian (1895) BNA, Jenna (1935) INA, Parisian (1955) PNA, NA, TA

- approximately 5640 words derived from latin, greek or arabian
- Each structure has valid international name
- Description of position and relations used in medical records, articles etc.

Anatomical structure (latine) – substantive in nominative,
adjectives
genitive – structure of location
antonyms (major-minor, superior-inferior)

Example:

Collum anatomicum humeri - Anatomical head of humerus
Arteria carotis externa – External carotid artery

Anatomical orientation

Anatomical position Surface planes

Directions:

Longitudinal axis:

- Cranial (superior)
- Caudal (inferior)

Transverse axis:

- Medial
- Lateral
- Medius
- Medianus
- Dexter
- Sinister

Sagittal axis:

- Ventral (anterior)
- Dorsal (posterior)
- Internus (profundus)
- Externus (superficial)

<http://www.amejpubs.com/anatomy/physiology/anatomical-position-direction-planes/>


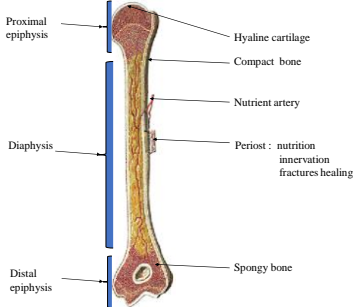
Extremities
Proximal
Distal

Upper limb:
Radial (lateral)
Ulnar (medial)
Palmar
Dorsal

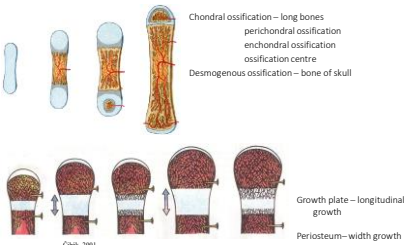
Lower limb:
Tibial (medial)
Fibular (lateral)
Plantar
Dorsal

Parts of body :

- head – *caput*
- neck – *collum (cervix)*
- trunk – *truncus*
 - thorax
 - abdomen
- back – *dorsum*
- pelvis
- Upper extremity – *membrum superius*
 - arm – *brachium*
 - forearm – *antebrachium*
 - hand – *manus*
- Lower extremity – *membrum inferius*
 - thigh – *femur*
 - crus
 - Foot – *pes*

Ossification and bone growth



Chondral ossification – long bones
 perichondral ossification
 enchondral ossification
 ossification centre
 Desmogenous ossification – bone of skull

Growth plate – longitudinal growth
 Periosteum – width growth

Caab. 2001

STH – pituitary gland – nanism – gigantism
 thyroid gland, parathyroid gland, calcium, sexual hormones etc.

X-ray picture of 4 year old children

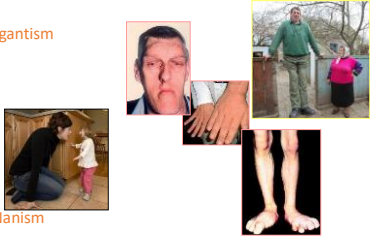


Ossification centres


Adenohypophysis dysfunction
 (higher or lower hormon production or cell receptors miss)

STH

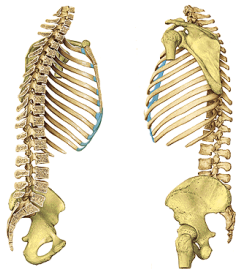
a) **gigantism**



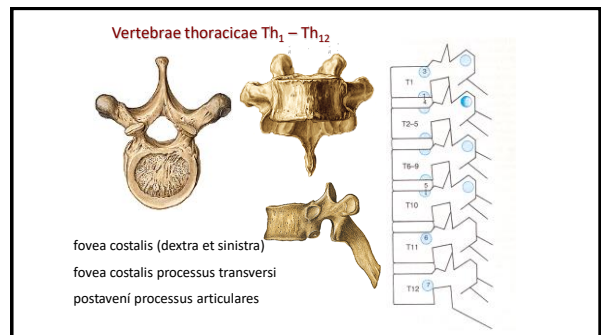
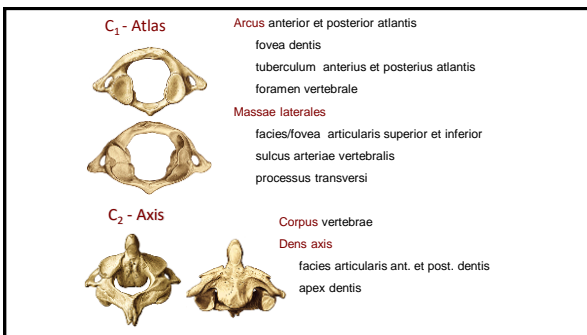
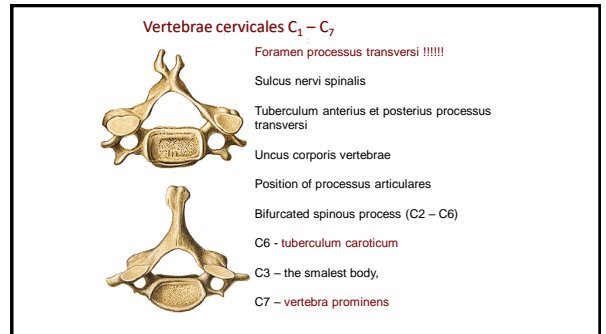
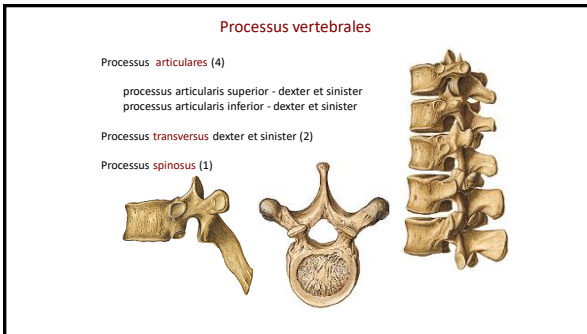
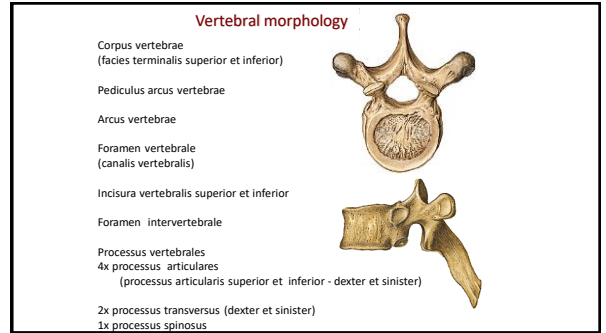
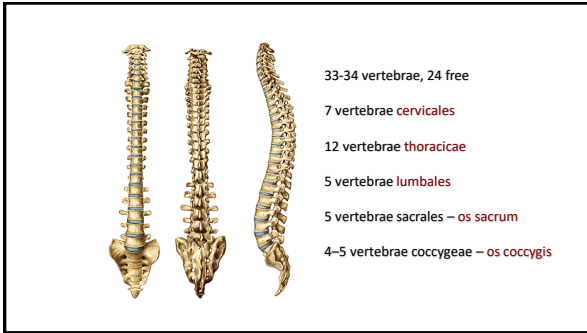
b) **Nanism**

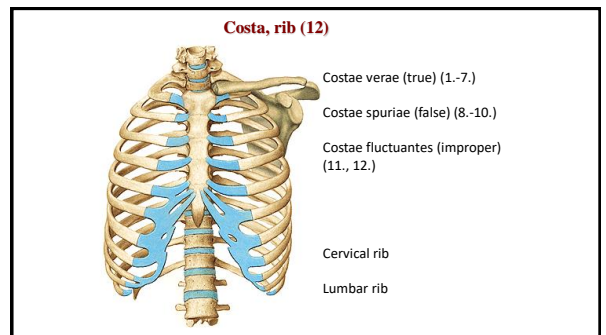
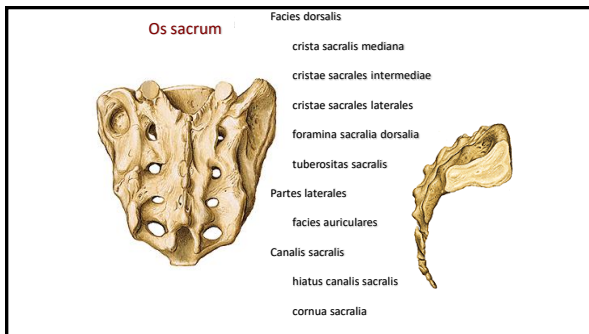
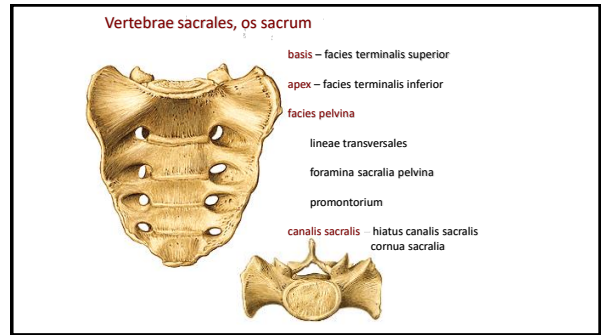
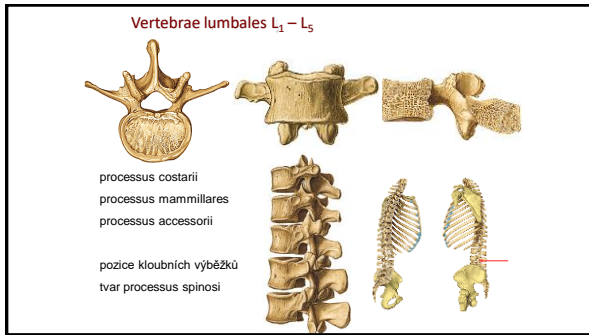


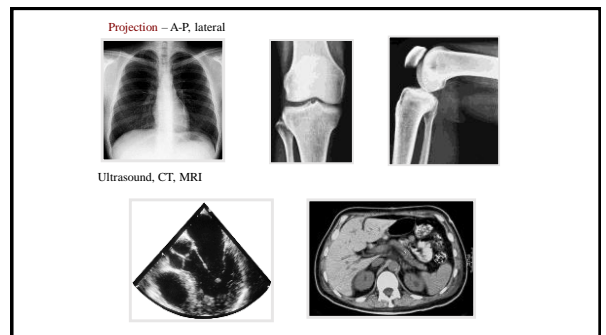
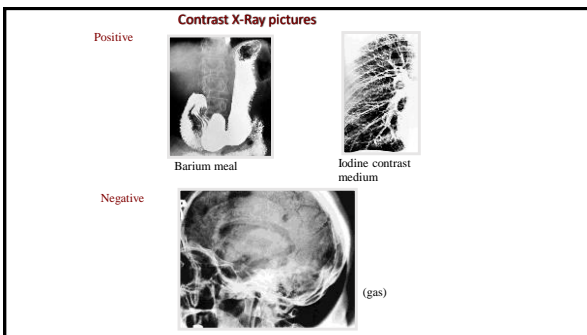
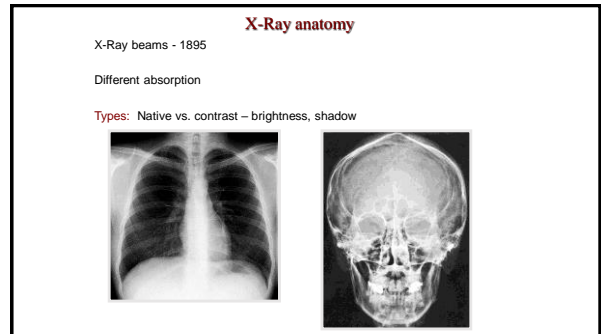
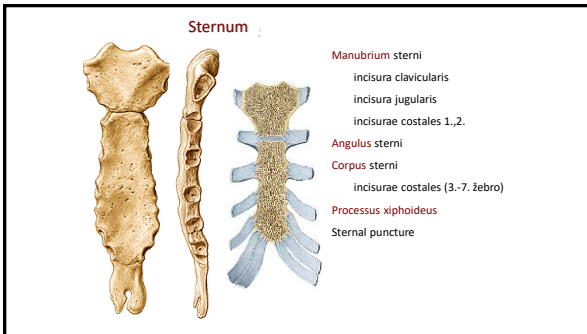
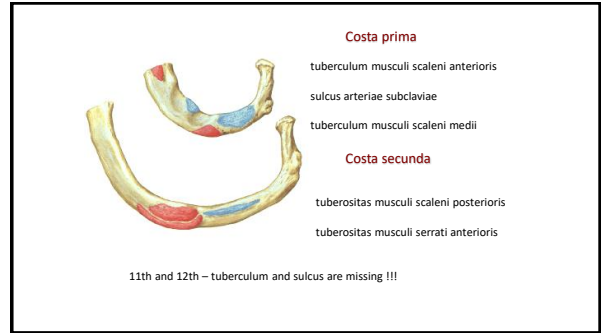
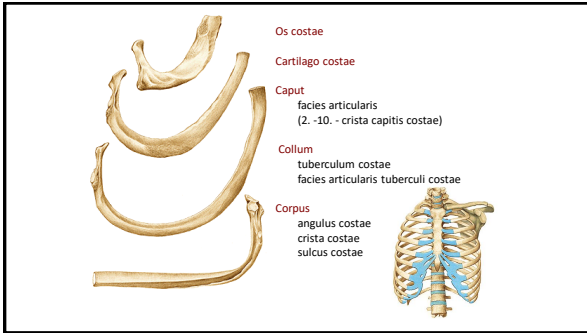
Axial skeleton

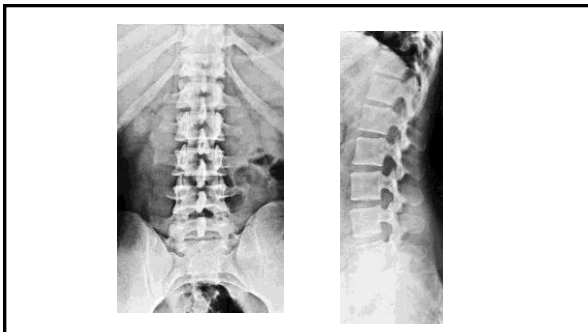
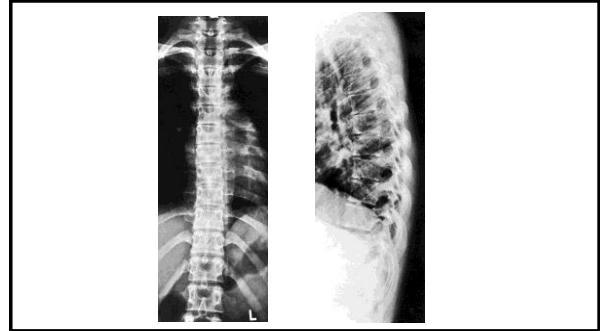
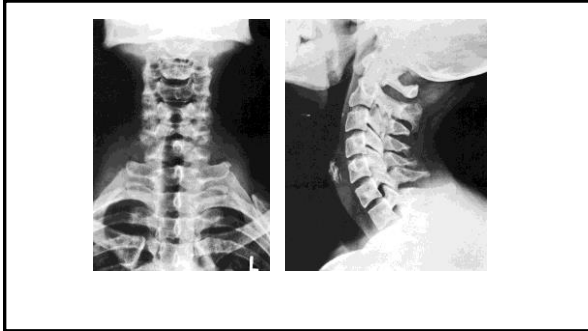


- Columna vertebralis
- Costae
- Sternum









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