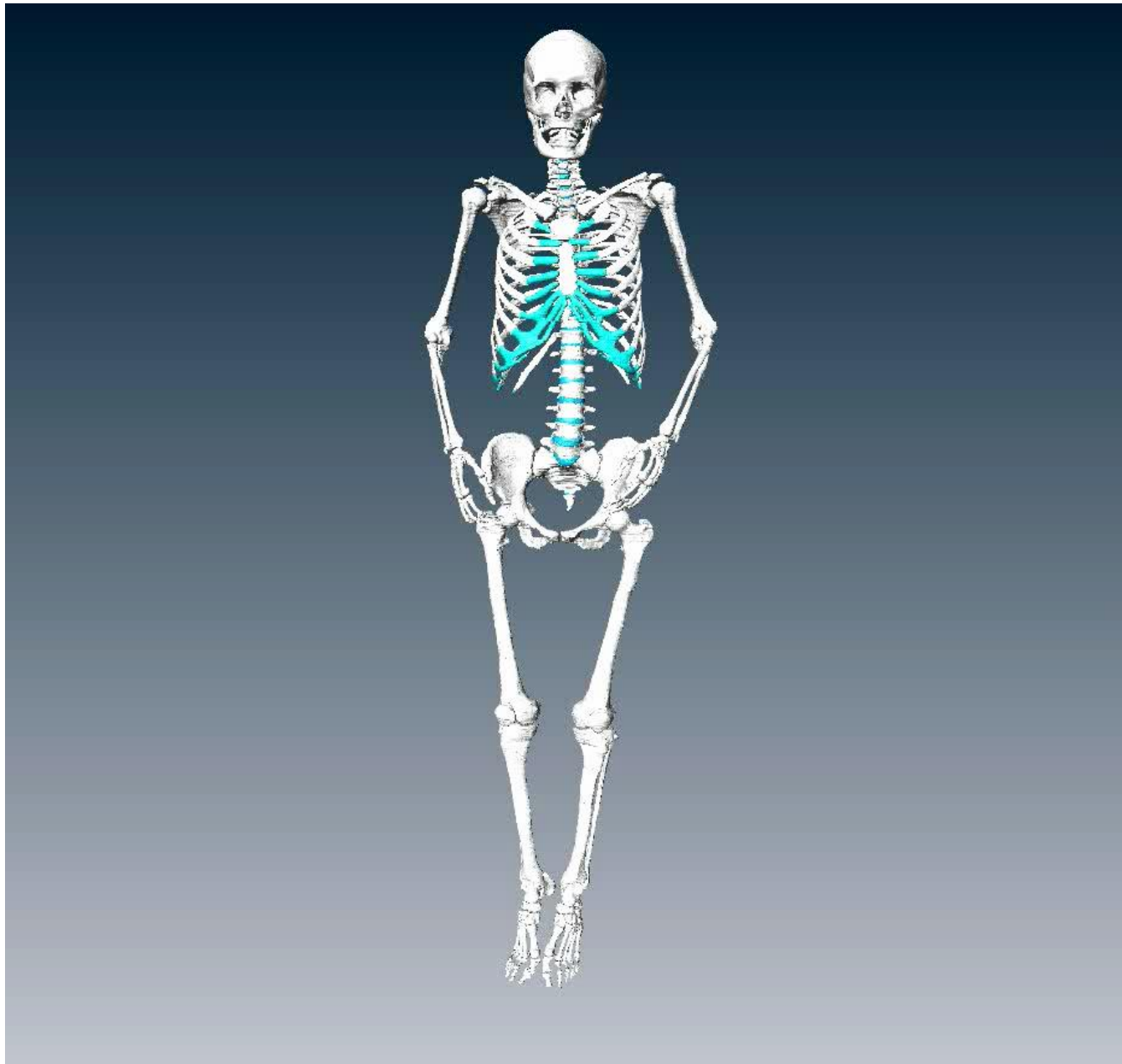
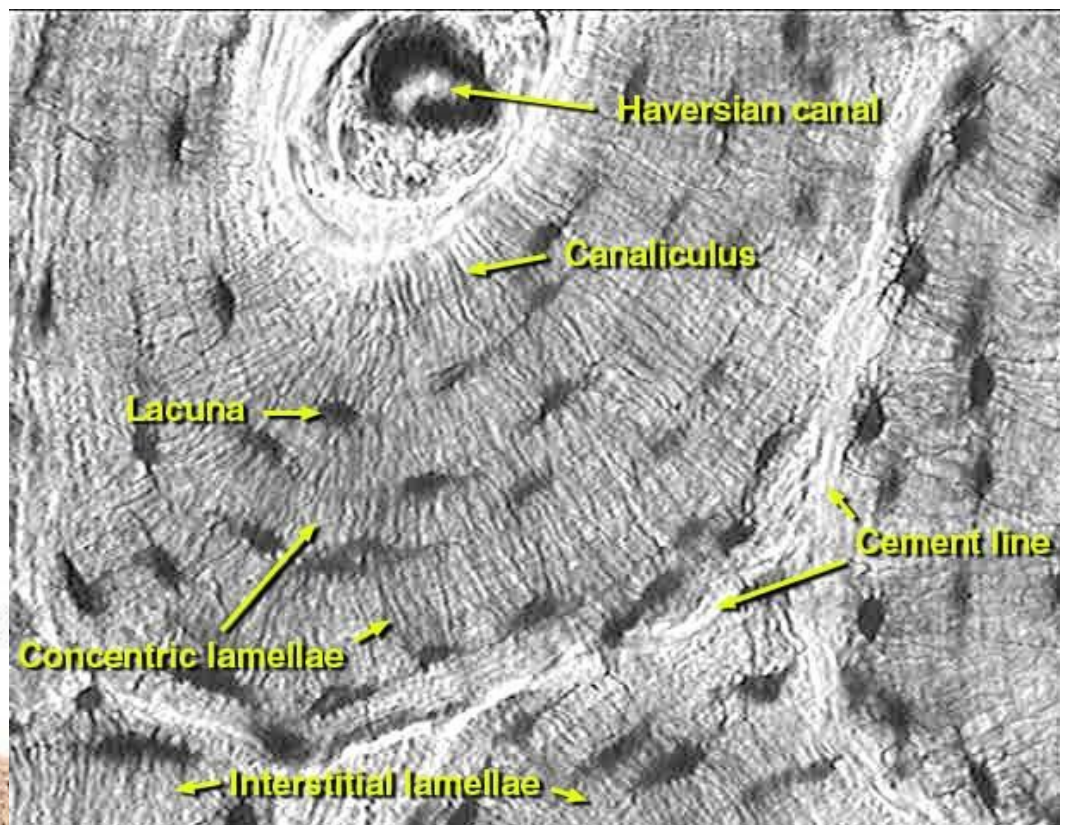


# Anatomie člověka

Vertikalizace lidského těla jako klíč k  
hominizaci: změny na kostře, příčiny  
a důsledky



## Compact Bone & Spongy (Cancellous)



Lacunae containing osteocytes

Lamellae

Canaliculi

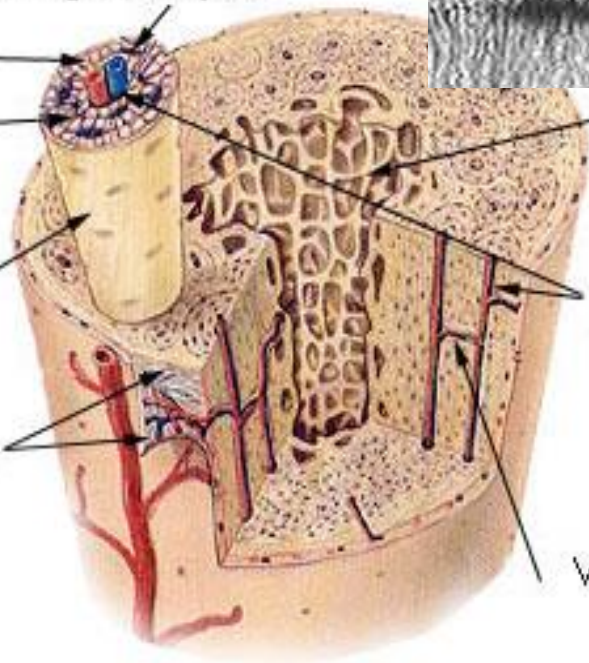
Osteon

Periosteum

bone

Haversian canal

Volkman's canal

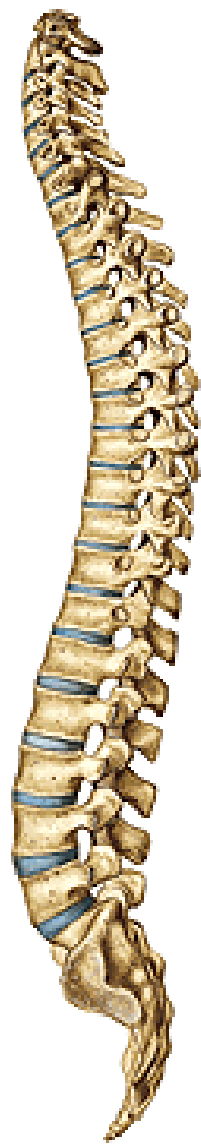
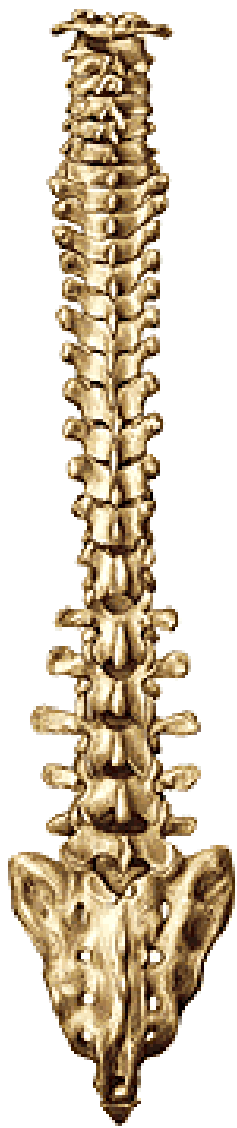
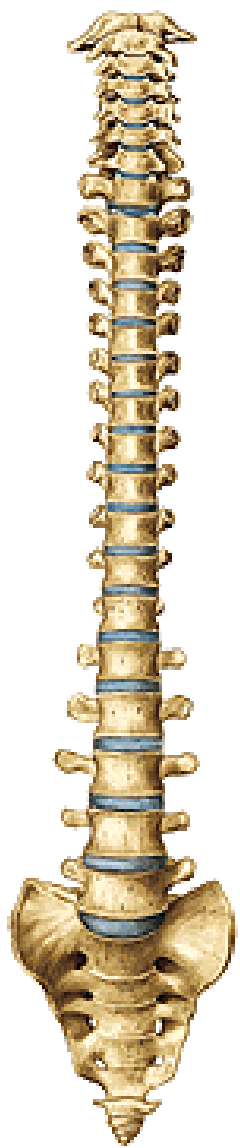




**ANIMAL**



**HUMAN**



total kyphosis  
(newborn)



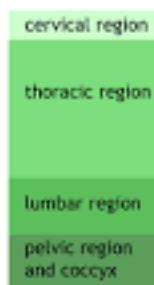
cervical lordosis  
(ca. 3-4 months)

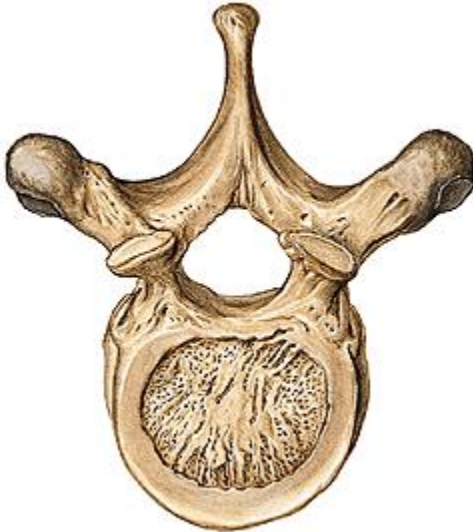


thoracic kyphosis  
(ca. 8-9 months)

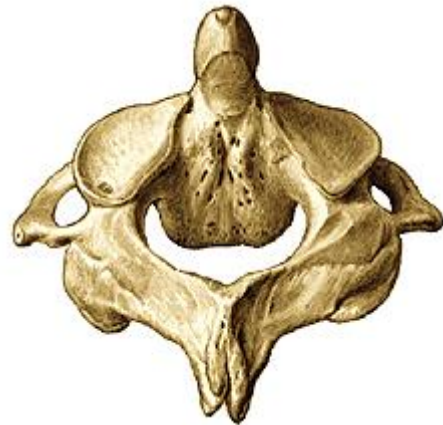
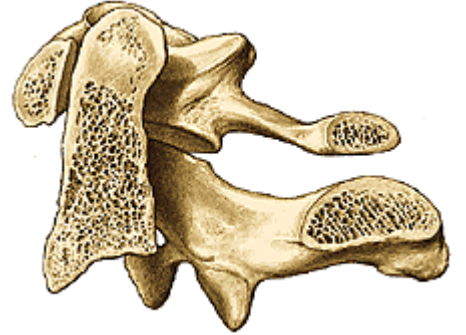
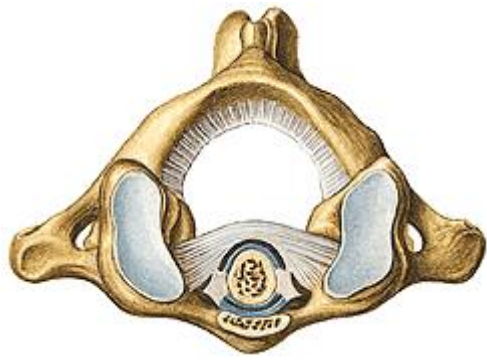


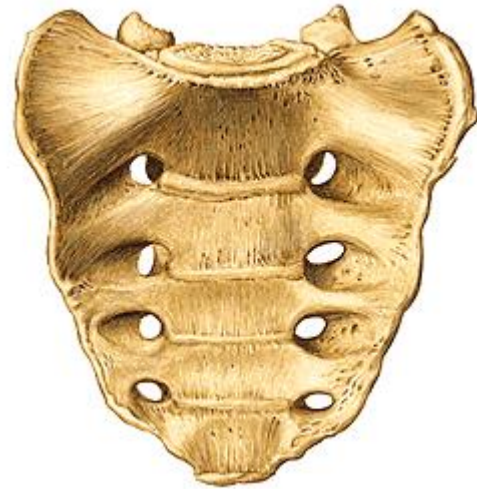
lumbar lordosis  
(ca. 1 year)



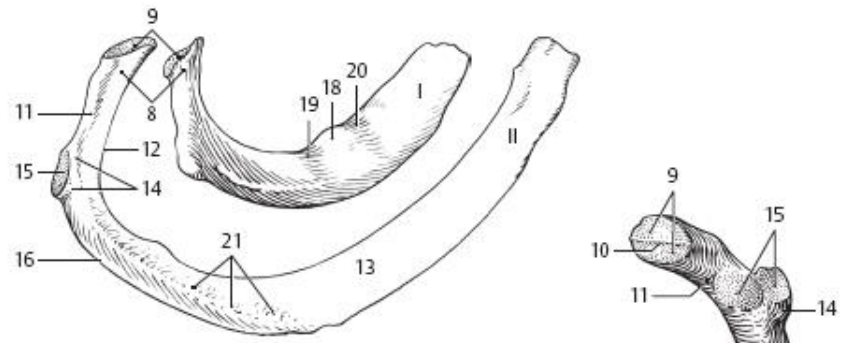




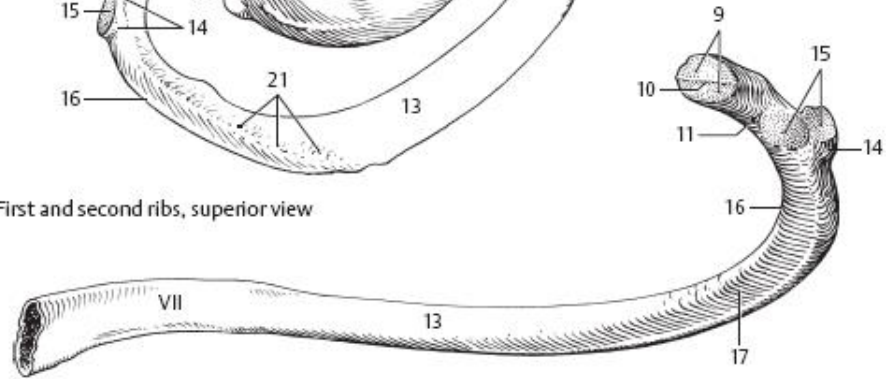




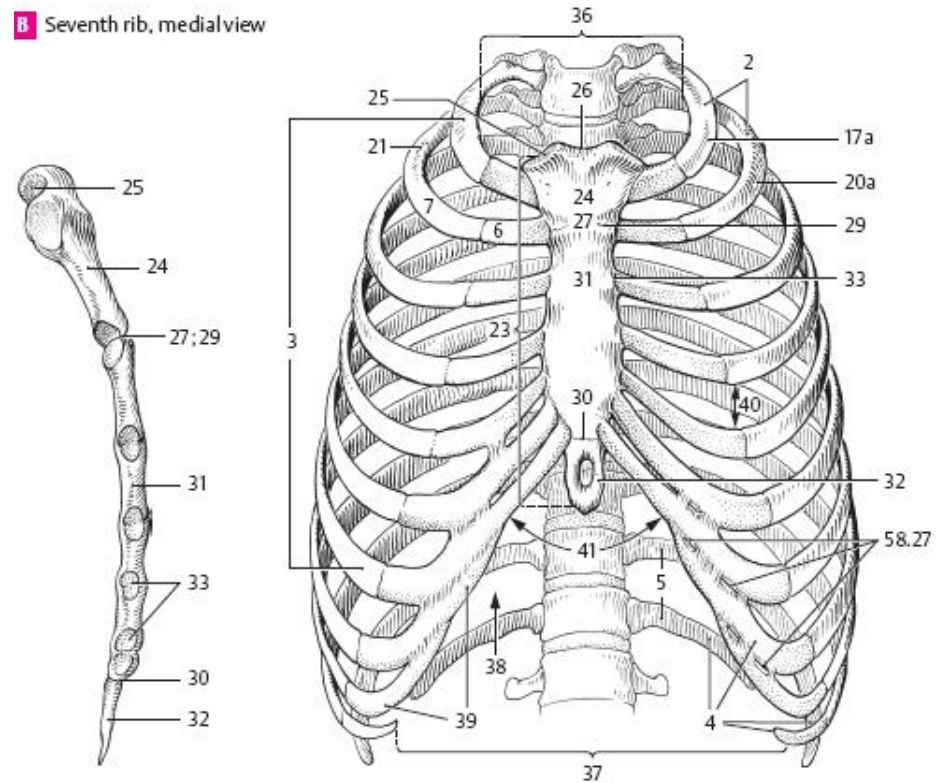




**A** First and second ribs, superior view

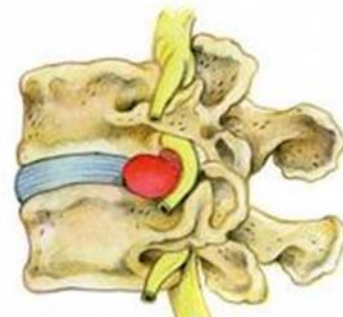
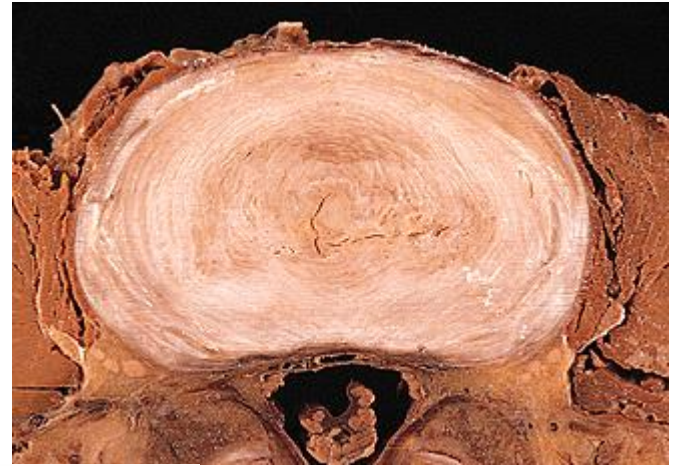
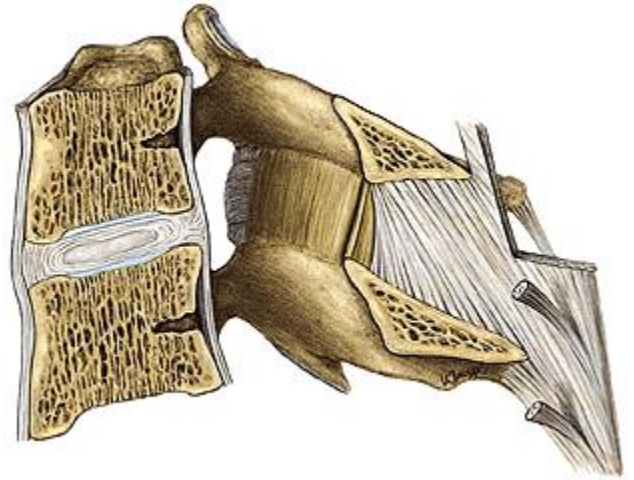
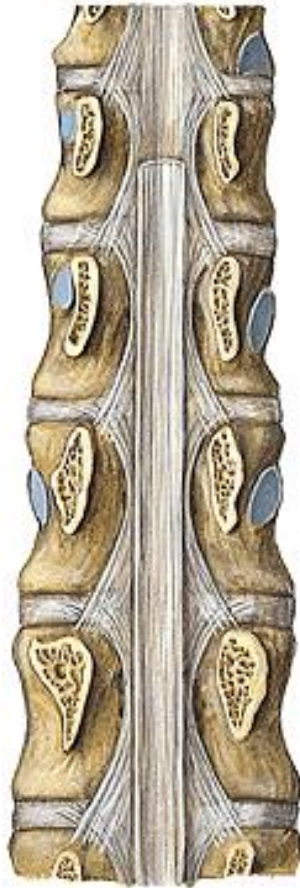
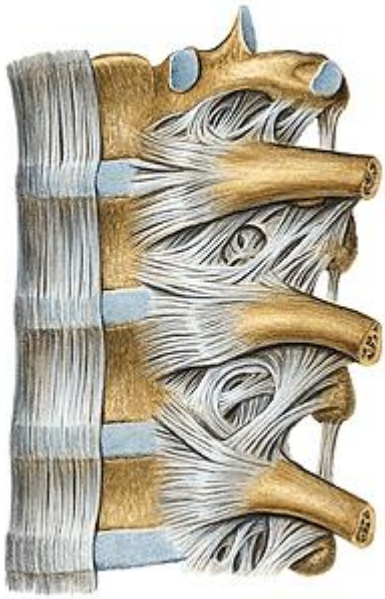


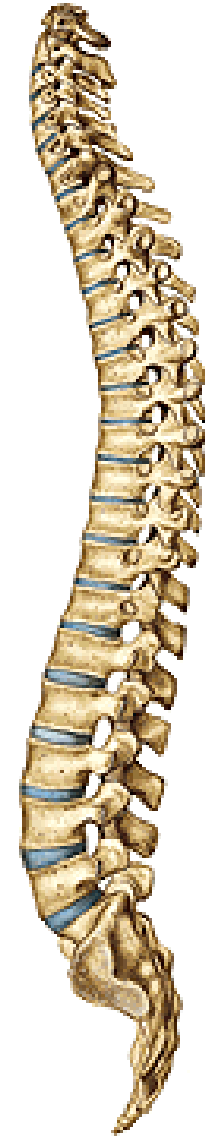
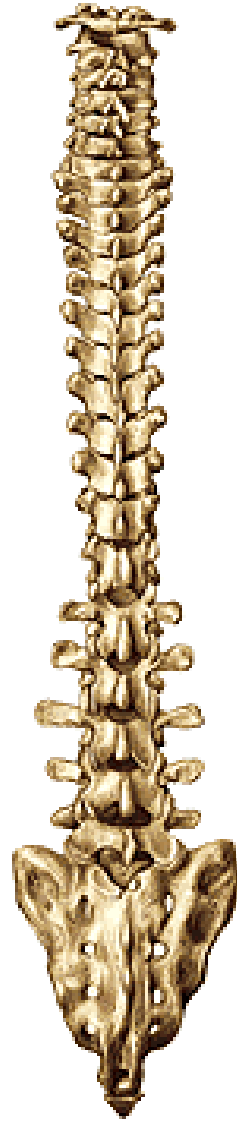
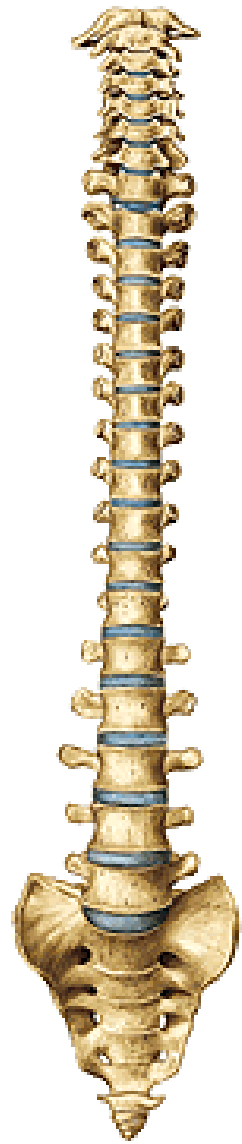
**B** Seventh rib, medial view



**C** Sternum from right

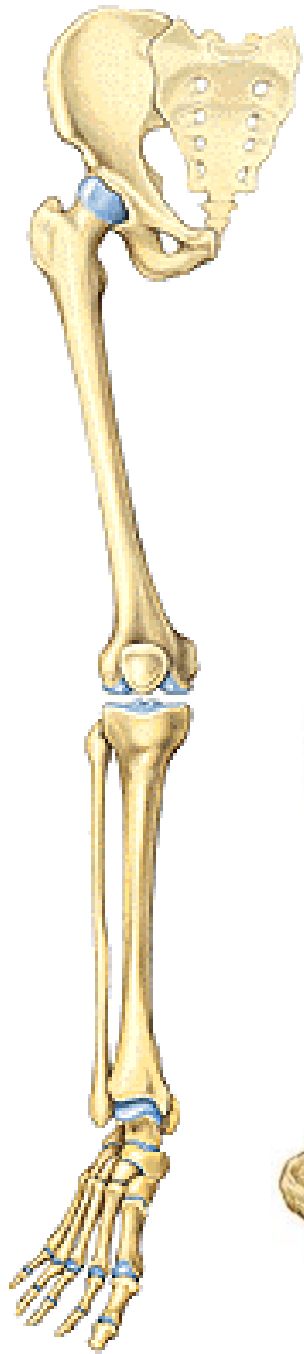
**D** Thoracic skeleton, anterior view



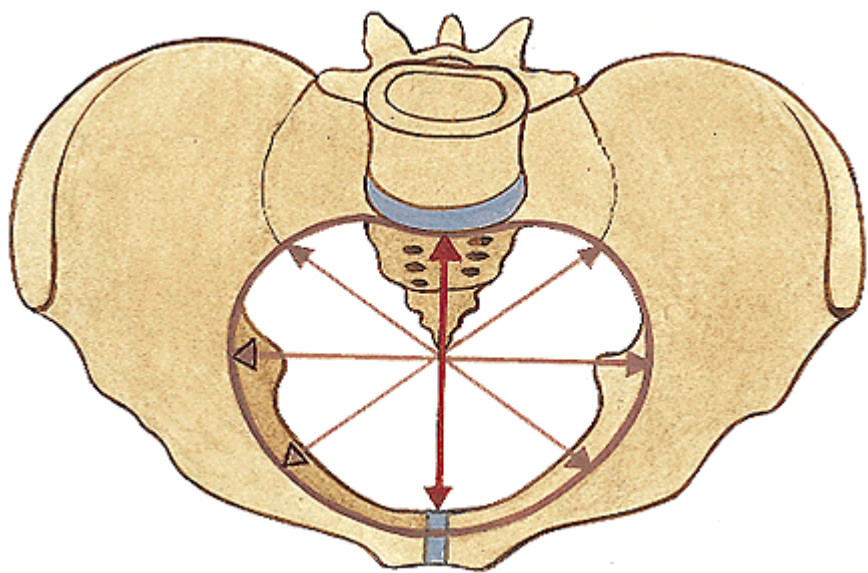
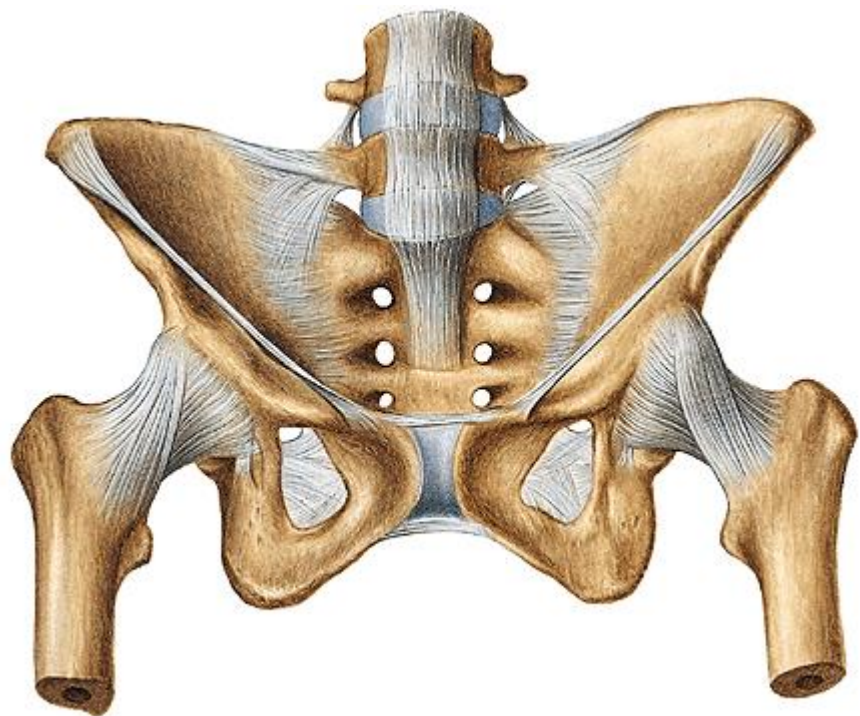


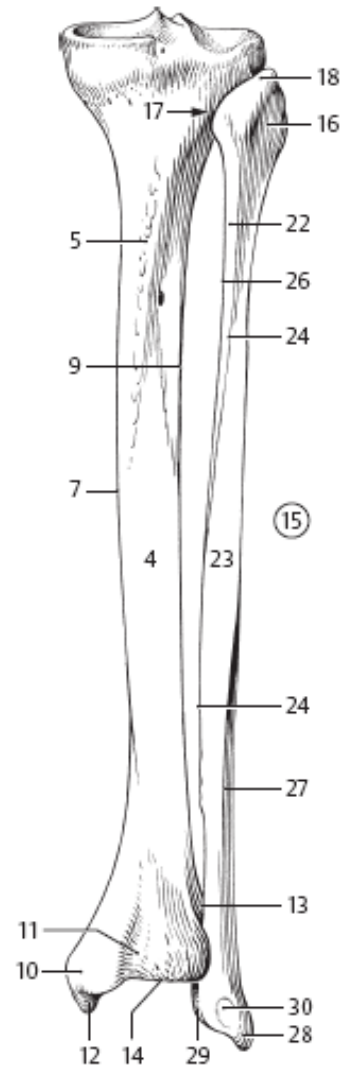
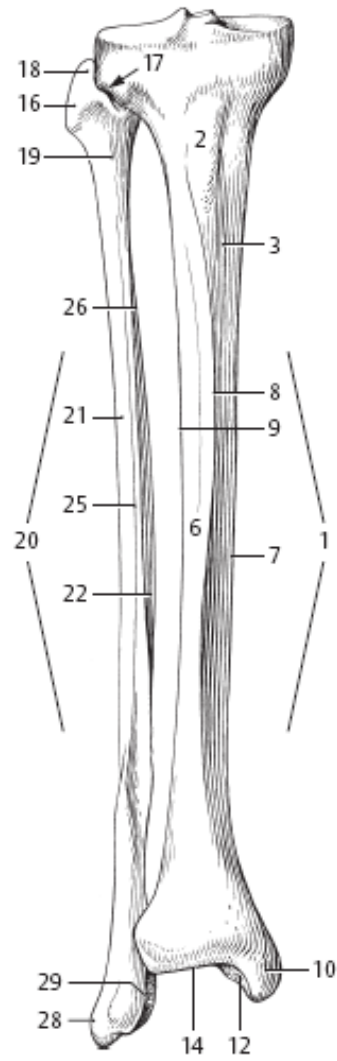


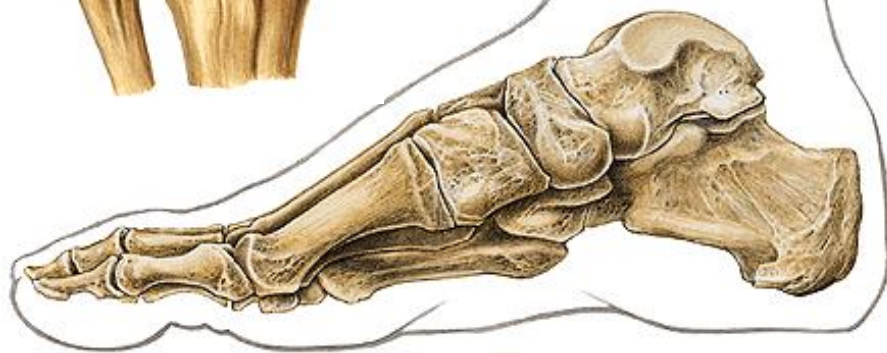
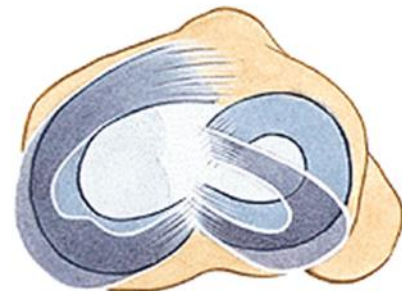
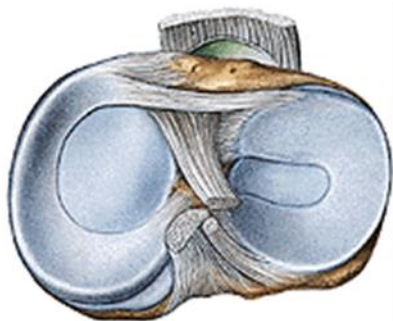
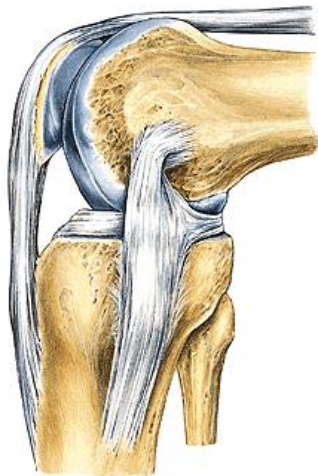




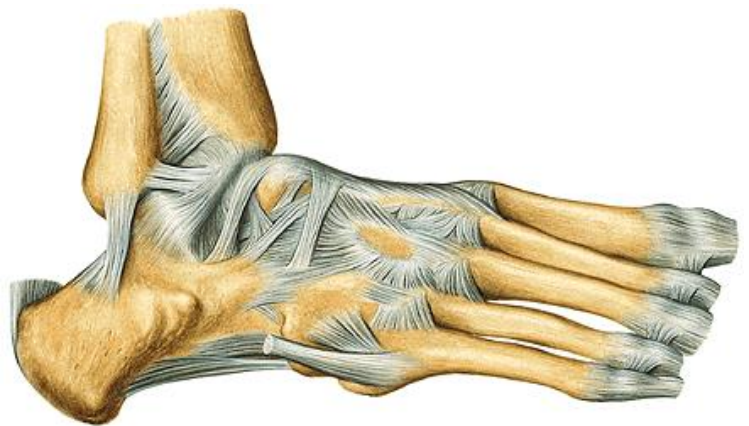


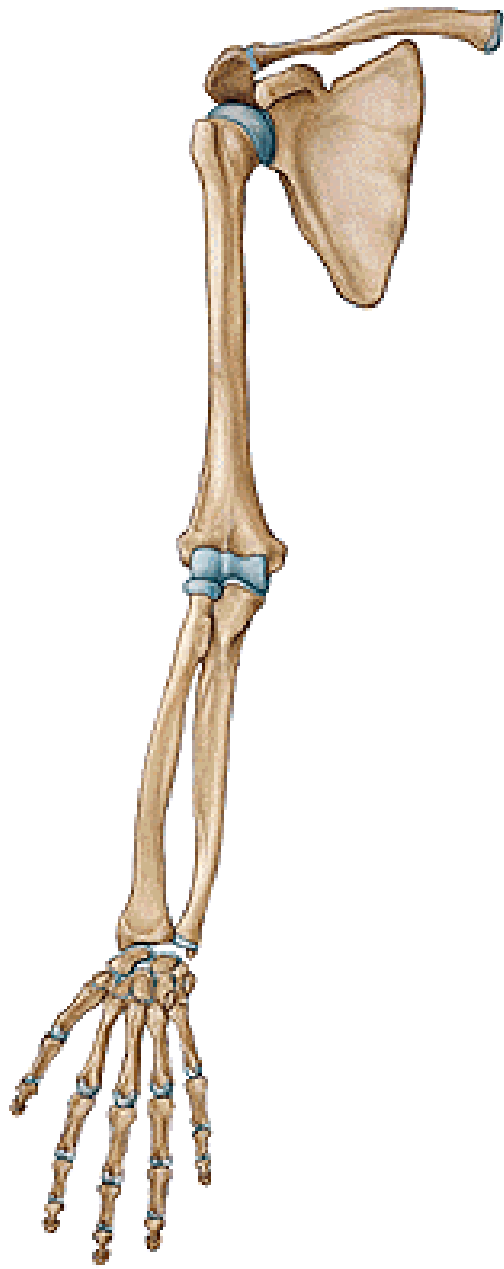




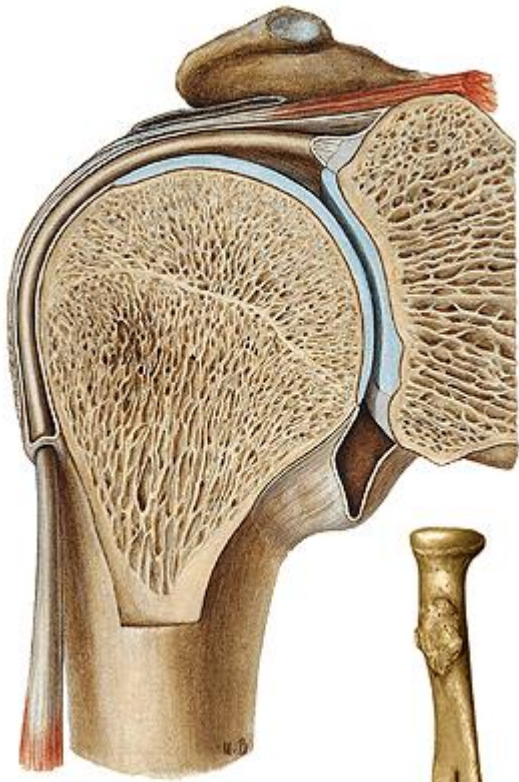




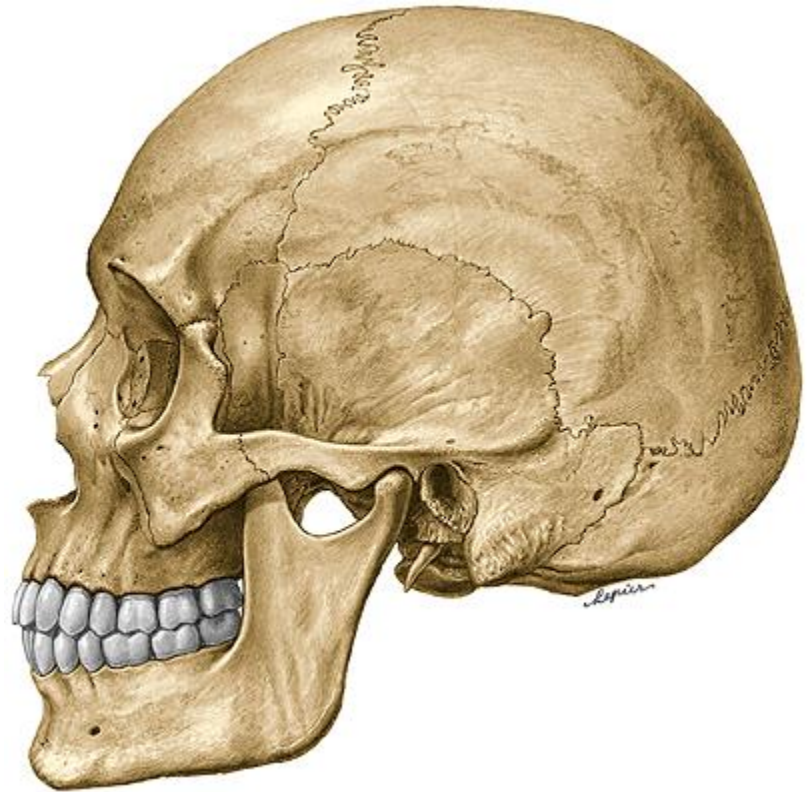
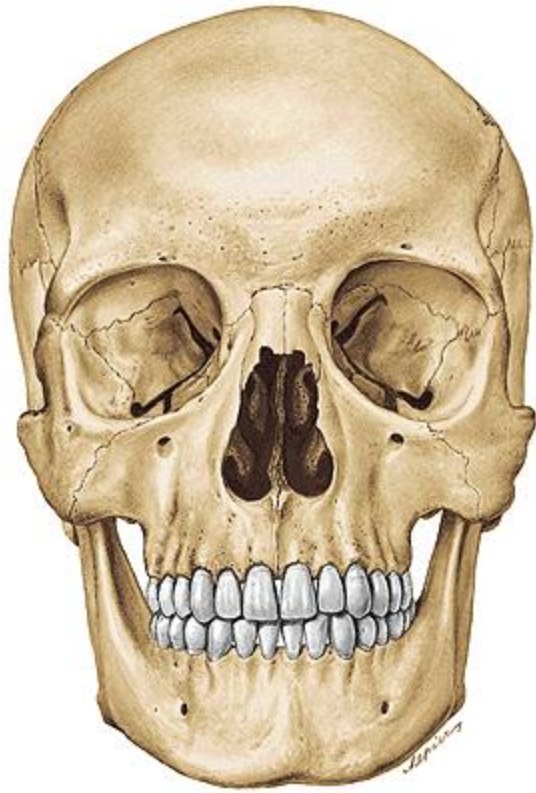




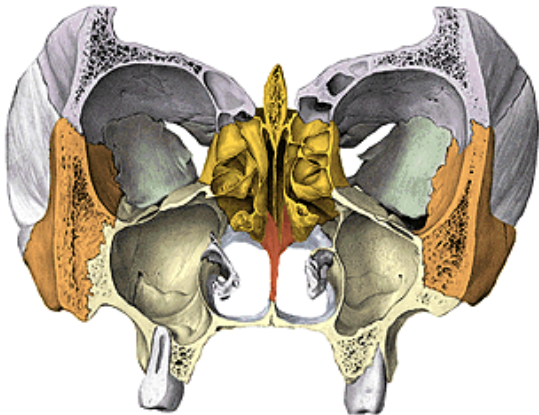
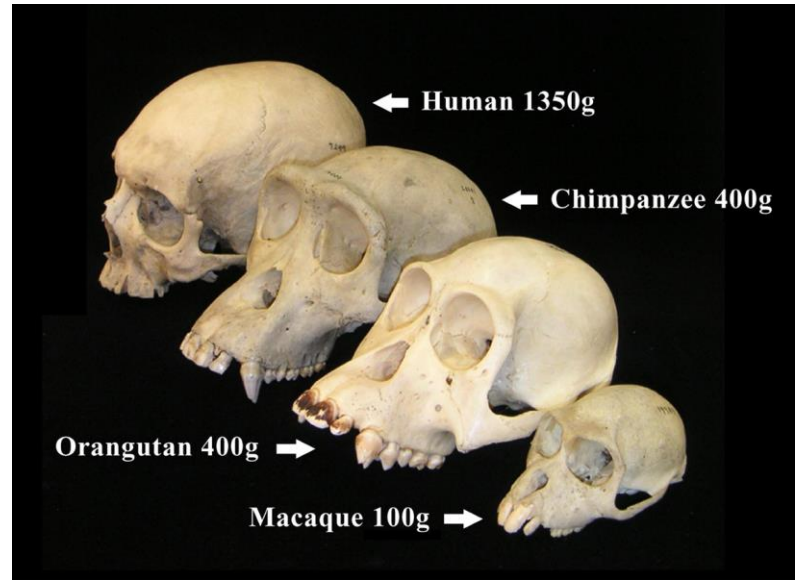
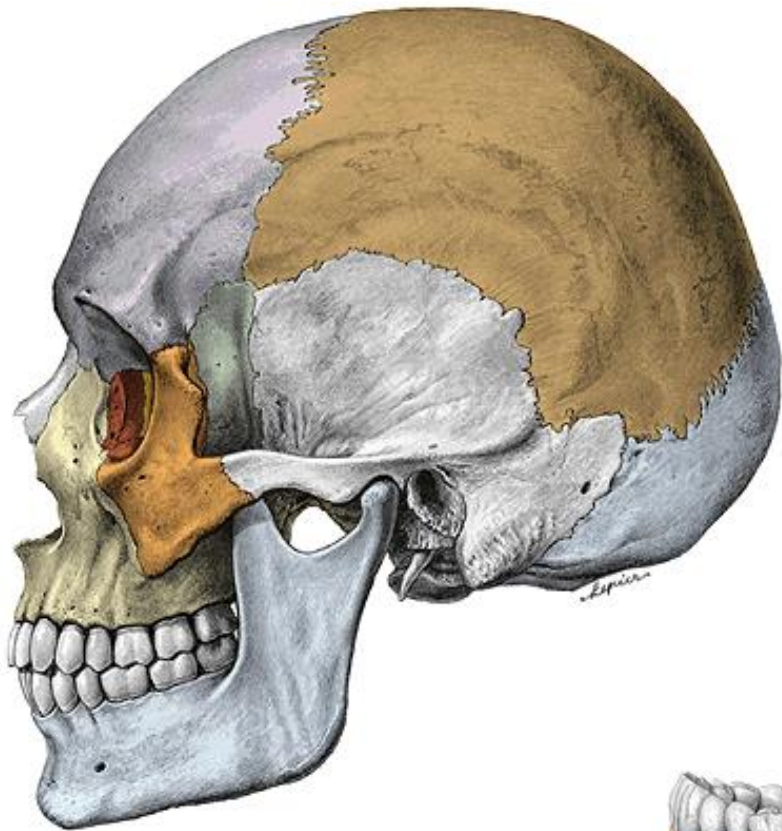


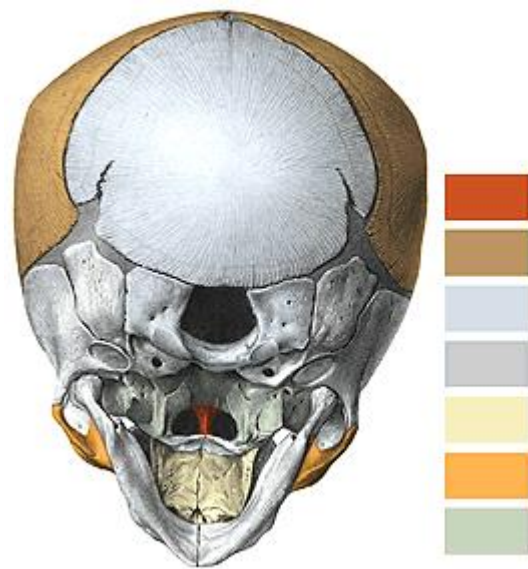
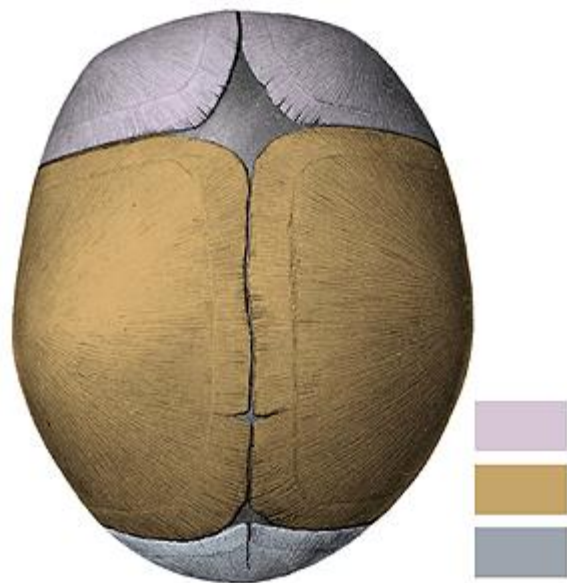
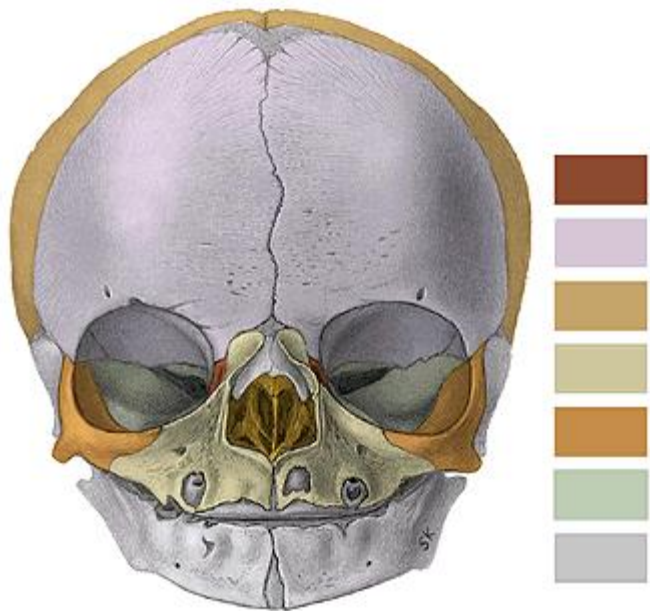














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VANČATA, Václav a Jaroslav MALINA. *Panoráma biologické a sociokulturní antropologie 13: Paleoantropologie - přehled fylogeneze člověka a jeho předků.*

Editor: Jaroslav Malina. Brno (CZ): Nadace Universitas Masarykiana v Brně, nakladatelství a vydavatelství Nauma v Brně, 2003. 212 s. Modulové učební texty pro studenty antropologie. ISBN 80-210-3049-6. (zvláště kap. 7).

Dostupné online:

[https://is.muni.cz/do/1499/el/estud/prif/js10/panorama/web/modules/13\\_anthropo\\_vancata.pdf](https://is.muni.cz/do/1499/el/estud/prif/js10/panorama/web/modules/13_anthropo_vancata.pdf)

HORÁČKOVÁ, Ladislava. *Anatomie pro antropology I. Pohybový systém.* 1. vyd.

Brno: Nadace Universitas; Akademické nakladatelství CERM, 2007. 170 s.

Panoráma antropologie - biologické - sociální - kulturní. Modulové učební texty pro studenty antropologie a "příbuzných oborů"; sv. 34. ISBN 978-80-7204-558-7. (zvláště kap. 2).

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