

Infracranial Skeleton Review

Reading: Byers (2005) pages 38-59; Byers & Myster (Ch. 2).

Objectives: Review and learn: basic anatomical terminology for directional orientation of skeletal elements, the names of the bones of the infracranial human skeleton, how to determine side, and identify special morphological features in each of the major bones of the infracranial skeleton (see attached list).

In the laboratory:

1. Working in pairs, identify and lay out (in anatomical position) an entire study skeleton (on bubble paper to protect the bones from damage). Once the bones have been anatomically sorted, examine each for the special features indicated on the attached list. Follow Exercises 2.2, 2.3, & 2.4 in Byers & Myer (2005)
2. Complete Exercise Worksheets 2.2 – 2.4 in Byers & Myer (2005).

Outside of the Lab:

Identify (by making a list that corresponds to the numbers indicated in this attached diagram) the major bones of the infracranial skeleton and identify where all the special features are located on this (or a more detailed) diagram.

Visit the following web site (OsteoInteractive) for a thorough review of human osteology: <http://library.med.utah.edu/kw/osteo/osteology>

Morphological Features

- Clavicle:
 - medial end of clavicle, sternal end of clavicle, deltoid tuberosity, acromial facet, trapezoid ridge, conoid tubercle, costoclavicular ligament attachment
- Scapula:
 - scapular notch, coracoid process, glenoid fossa, axillary border, body, vertebral border, acromion process, spine
- Sternum, manubrium and xiphoid:
 - clavicular notch, 1st costal notch, 2nd costal notch, 3rd costal notch, 4th costal notch, 5th costal notch, 6th/7th costal notches 1st (atlas) cervical, 2nd (axis) cervical, thoracic, lumbar, sacrum, coccyx
- Humerus:
 - head, neck, shaft, nutrient foramen, lateral epicondyle, medial epicondyle, olecranon fossa, trochlea, capitulum, greater tubercle, lesser tubercle
- Radius:
 - head, neck, radial tuberosity, interosseous border, styloid process, ulnar notch
- Ulna:

- olecranon process, coronoid process, semilunar notch, radial notch, shaft, head, styloid process
- Carpal bones:
 - proximal row: scapoid, lunate, triquetrum, pisiform distal row: trapezium (greater multiangular), trapezoid (lesser multiangular), capitate, hamate
 - metacarpals I to V, proximal phalanges, medial phalanges, distal phalanges
- Os coxae:
 - iliac crest, anterior superior iliac spine, anterior iliac spine, pubic symphysis, auricular surface, posterior superior iliac spine, posterior inferior iliac spine, greater sciatic notch, ischial spine, lesser sciatic notch, ischial tuberosity, acetabulum, pubic tubercle, ischiopubic ramus
- Femur:
 - head, fovea capitis, greater trochanter, lesser trochanter, anatomical and surgical neck, shaft, nutrient foramen, linea aspera, lateral condyle, medial condyle, intercondylar fossa, patellar surface
- Tibia:
 - intercondylar eminence, anterior tuberosity, nutrient foramen, facet for fibula, medial and lateral articular surfaces, medial malleolus, anterior crest, articular surface for talus
- Fibula:
 - facet for tibia, head, shaft, interosseous crest, lateral malleolus, facet for tibia
- Patella:
 - femoral articular surface
- Foot:
 - calcaneus, talus, cuboid, navicular, 1st, 2nd & 3rd cuneiforms, metatarsals, phalanges