

# The Skeletal System (“Bone Handout”)

Bone Markings - as in Table 6.1, know categories, names, descriptions and categories of bone markings

Common Fractures - as in Table 6.2, identify type from pictures

## The Axial Skeleton

### Skull

#### Cranial bones

frontal (*supraorbital foramen*)

parietal

temporal (*mastoid process, external auditory(acoustic) meatus, styloid process, zygomatic process, stylo mastoid foramen*)

occipital (*foramen magnum, hypoglossal canal, occipital condyles*)

sphenoid (*optic canal, superior orbital fissure, sella turcica, foramen rotundum, foramen ovale, foramen spinosum, greater wings, lesser wings*)

ethmoid (*olfactory foramina*)

Relevant Figures: 7.4, 7.6, 7.7a, 7.9

#### Facial bones

nasal

maxilla (*infraorbital foramen, inferior orbital fissure*)

zygomatic

mandible (*mental foramen, body, ramus, mandibular condyle*)

lacrima (*lacrima fossa*)

palatine

inferior nasal conchae

vomer

Relevant Figures: 7.4, 7.6, 7.7a

#### Sutures

coronal

sagittal

lambdoid

squamous

Relevant Figures: 7.4, 7.5

#### Paranasal Sinuses

frontal

sphenoidal

maxillary

ethmoidal

Relevant Figures: 7.15

#### Fontanel

anterior

posterior

sphenoidal

mastoid

Relevant Figures: 7.28

#### Hyoid bone

Relevant Figures: 7.17

## Vertebrae

### Parts of a "typical vertebra" using thoracic as example

body  
vertebral arch (pedicle, lamina, vertebral foramen)  
intervertebral foramen  
transverse process  
spinous process  
superior articular process  
inferior articular process

### Divisions of vertebral column

cervical (*transverse foramina*)  
thoracic (*transverse costal facet - for tubercle of rib, superior and inferior costal facets - for head of rib*)  
lumbar  
sacrum (*sacral foramina*)  
coccyx

### Specific vertebrae

atlas (*superior articular facets*)  
axis (*dens (odontoid process)*)

Relevant Figures: 7.20, 7.21, 7.22

## Bones of the thorax

sternum (*body, manubrium, xiphoid process*)  
ribs (*true ribs, false ribs, costal cartilages, floating ribs, head, facets, shaft*)

Relevant Figures: 7.24, 7.25

# The Appendicular Skeleton

## Pectoral Girdle

clavicle  
scapula (*acromion, coracoid process, glenoid cavity, spine*)

Relevant Figures: 8.1, 8.2

## Upper Limb

humerus (*head, greater tubercle, lesser tubercle, capitulum, trochlea, coronoid fossa, olecranon fossa, medial & lateral epicondyles*)  
ulna (*olecranon process, coronoid process, radial notch, styloid process, head*)  
radius (*head, radial tuberosity, ulnar notch, styloid process*)  
carpals  
metacarpals  
phalanges

Relevant Figures: 8.3, 8.4, 8.6

## Pelvic Girdle

coxal bones  
acetabulum  
ilium (*greater sciatic notch, iliac crest*)  
ischium (*lesser sciatic notch, ischial tuberosity, obturator foramen*)  
pubis (*pubic symphysis, differences between male & female*)

Relevant Figures: 8.8

## Lower Limb

femur (*head, greater trochanter, lesser trochanter, medial & lateral condyles, medial & lateral epicondyles, patellar surface*)  
patella  
tibia (*tibial tuberosity, medial malleolus*)  
fibula (*head, lateral malleolus*)  
tarsals (*talus, calcaneus*)  
metatarsals  
phalanges

Relevant Figures: 8.10, 8.11, 8.12