Appendicular skeleton: bones of the limbs, and the “girdles”

Bones of the Pectoral Girdle

Supports the articulation of the arm with the trunk

Clavicle
Sterno-clavicular joint

Acromio-clavicular joint
Scapula
Clavicle

Paired Bones

Conoid Tubercle

Acromial End

Sternal End

Posterior

Anterior
Scapula (2)

- Triangular shaped bone
- Acromion process
- Coracoid process
- Glenoid fossa or cavity
- Subscapular fossa
- Lateral Border
- Medial Border

(d) Right scapula, anterior aspect

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Scapula: Poster aspect

- Acromion
- Superspinous fossa
- Spine
- Infraspinous
Scapula: lateral aspect

Glenoid cavity (fossa)

Acromion

Coracoid process
Bones of the Upper Arm (Brachium)

- Humerus
  - Intertubercular Groove or Sulcus
  - Surgical Neck
  - Greater Tubercle
  - Lesser Tubercle
  - Anatomical Neck
  - Body or Shaft
  - Deltoid Tuberosity
  - Capitulum
  - Medial Epicondyle
  - Coronoid Fossa
  - Alecranon Fossa
  - Trochlea

(a) Anterior view
(b) Posterior view
Bones of the forearm (Antibrachium)

The ulna and radius

- Head
- Olecranon process
- Trochlear notch
- Coronoid process
- Ulna
- Radial notch
- Radial tuberosity
- Radius
- Interosseous Membrane

- Styloid process
- Ulnar notch
Bones of the wrist and hand

Eight CARPAL bones divided into two rows

Phalanges

Metacarpals
Pelvic Girdle

Sacraliloac joint

Coxal Bone

Pubic Symphysis
COXAL BONE

Composed of three fused bones

- Illum
- Greater sciatic notch
- Acetabulum
- Ischium
- Ischial tuberosity
- Obturator foramen
- Iliac crest
- Pubic crest
- Pubis
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>General structure and functional</td>
<td>Tilted forward; adapted for childbearing; true pelvis defines the</td>
<td>Tilted less far forward; adapted for support of a male’s heavier</td>
</tr>
<tr>
<td>modifications</td>
<td>birth canal; cavity of the true pelvis is broad, shallow, and has a</td>
<td>build and stronger muscles; cavity of the true pelvis is narrow and</td>
</tr>
<tr>
<td></td>
<td>greater capacity</td>
<td>deep</td>
</tr>
<tr>
<td>Bone thickness</td>
<td>Less; bones lighter, thinner, and smoother</td>
<td>Greater; bones heavier and thicker, and markings are more prominent</td>
</tr>
<tr>
<td>Acetabula</td>
<td>Smaller; farther apart</td>
<td>Larger; closer</td>
</tr>
<tr>
<td>Pubic arch/angle</td>
<td>Broader (80–90°); more rounded</td>
<td>More acute (50–60°)</td>
</tr>
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</tr>
</tbody>
</table>

**Anterior view**

- Pelvic brim
- Pubic arch

**Sacrum**

- Wider; shorter; sacral curvature is accentuated
- Narrow; longer; sacral promontory more ventral

**Coccyx**

- More movable; straighter
- Less movable; curves ventrally
Bone of the thigh
Femur

Articulations:
Coxal
Tibia

Greater trochanter
Lesser trochanter
Gluteal tuberosity
Linea aspera
Epicondyles
Condyles, medial & lateral

Head
Neck
Patellar surface

Anterior view
Posterior view
Bones of the leg

Tibia and Fibula

- Tibiofibular joint
- Tibial tuberosity
- Anterior crest
- Interosseous Crest
- Medial malleolus
- Lateral malleolus

Articular surfaces

Medial condyle

Fibula

Anterior view

Posterior view
Tibia and Fibula

Articulations of tibia and fibula

Tibia: Proximally With femur

Distally With talus and fibula

Fibula: Proximally With tibia

Distally With tibia and talus
Patella

Base

Apex

Anterior

Facets

Posterior
Bones of the Ankle and Foot

- Phalanges
- Metatarsals
- Tarsals
- Calcaneous
- Talus
- Facet for lateral malleolus