Appendicular Skeleton 2

Pelvic Girdle

Objectives
1. Identify on a skeleton or diagram the bones and bone markings of the pelvic girdle
2. Identify coxal bone structure and markings
3. Describe important differences between a male and female pelvis

PELVIC GIRDLE

IMPORTANCE:
- BEARS THE WEIGHT OF THE TORSO
- PROTECTION OF ORGANS

The pelvis is a composite structure that includes the coxae AND the sacrum and coccyx of the axial skeleton

COXAL BONE STRUCTURE

- 3 separate components which fuse together
- Ilium, ischium & pubis

ILIUM

- "Flaring bone"
- Connects posteriorly with sacrum
1. Iliac crest – superior edge
2. Anterior superior spine – anterior end of crest
3. Posterior superior spine – posterior end of crest
4. **greater sciatic notch** – large indentation for passage of blood vessels & sciatic nerve
5. **iliac fossa** – depression on the internal surface of ilium; muscle attachment
6. **iliac tuberosity** – roughened area; forms iliosacral joint

**ISCHIUM**

- Most inferior portion of coxal bone
  1. **ischial spine** – prominent projection between greater & lesser sciatic notch
  2. **ischial tuberosity** – roughened area that bears weight when sitting
  3. **lesser sciatic notch** – small indentation inferior to iliac spine

**PUBIS** - Most anterior portion

1. **obturator foramen** – opening formed by fusion of pubis & ischium; nerve & bv passage
2. **pubic symphysis** – anterior cartilaginous joint that fuses two coxal bones; separates during birth
3. **acetabulum** – deep socket that receives the head of the femur

**MALE PELVIS** (Larger bones, more distinct tuberosities, ridges & crest due to larger muscles)

- Pubic arch less than 90°
- Iliac crest directed anteriorly
- Acetabulum & obturator foramen larger
- Pelvic inlet heart shaped
- Girdle as a whole is deep
FEMALE PELVIS

- Pubic arch greater than 90°
- Iliac crest flared laterally
- Acetabulum & obturator foramen smaller
- Pelvic inlet oval shaped
- Girdle is shallow