BONES OF THE HINDLIMB

COMPOSED OF:

1. PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)
2. THIGH
3. LEG (CRUS)
4. FOOT (PES)
BONES OF THE PELVIC LIMB
(OSSA MEMBRI PELVINI)

PELVIC GIRDLE (CINGULUM MEMBRI PELVINI):
- connection between the pelvic limb and the trunk consists of:

1. two HIP BONES (OSSA COXARUM)

Hip bones of a pig, dorsal aspect

Hip bones of a pig, ventral aspect
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

HIP BONE (OS COXAE):

- in young animals each hip bone comprises three bones:
  1. ILIUM (OS ILII) – craniodorsal
  2. PUBIS (OS PUBIS) – cranioventral
  3. ISHIUM (OS ISCHI) – caudoventral

- all three bones united by a synchondrosis
- the synchondrosis ossifies later in life
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

HIP BONE (OS COXAE):

ACETABULUM:
- ilium, pubis and ischium meet at the acetabulum
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

HIP BONE (OS COXAE):

SYMPHYSIS PELVINA:
- the two hip bones united ventrally at the symphysis pelvina by a fibrocartilaginous joint ossified with advancing age
- in females the fibrocartilage of the symphysis becomes loosened during pregnancy by action of hormones
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

HIP BONE (OS COXAE):

SYMPHYSIS PELVINA:
- in females the fibrocartilage of the symphysis becomes loosened during pregnancy by action of hormones

PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

HIP BONE (OS COXAE):

SYMPHYSIS PELVINA divided into:

1. SYMPHYSIS PUBICA – cranial
2. SYMPHYSIS ISCHIADICA - caudal
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

HIP BONE (OS COXAE):

SYMPHYSIS PELVINA:

CRISTA SYMPHYSIALIS:
- median crest on the ventral surface of symphysis pelvina
- in bo

PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS SACRUM:
- lies dorsally between the two hip bones
- articulates with the two iliac bones
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

BONY PELVIS:
formed by the:
1. two hip bones
2. sacrum
3. first few caudal vertebrae
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS ILIUM:

cconsists of:

1. ALA OSSIS ILII (cranial wing)
2. CORPUS OSSIS ILII:
   – contributes caudally to the formation of acetabulum

Hip bones of the horse, dorsal aspect

Hip bones of an ox, ventrocranial aspect

Hip bones of a horse, ventral aspect
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS ILIUM :

POSITION OF THE ALA OSSIS ILII:

1. in bo, eq – nearly horizontal – so the gluteal surface directed dorsally
2. in small ruminants – sagittal, so the gluteal surface directed dorsolaterally
3. in carnivores – lateral, so the gluteal surface directed laterally
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS ILIUM :

ALA OSSIS ILII:

1. CRISTA ILIACA (iliac crest):
   - the cranial border of the wing
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS ILIUM:

ALA OSSIS ILII:

2. INCISURA ISCHIADICA MAJOR (GREATER ISCHIADIC NOTCH)
– formed by the dorsomedial border

Hip bones of a horse, left lateral aspect

Hip bones of an ox, ventrocranial aspect

Note: The broken lines give the approximate extents of ilium, pubis, and ischium.
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS ILIUM:

ALA OSSIS ILII:

3. TUBER COXAE:

- the lateral angle expanded to form the tuber coxae
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS ILIUM:

- **SPINA ALARIS:**
  - *in ca* the ala ossis ili presents the spina alaris (alar spine)

Hip bones of a dog, right lateral aspect
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS ILIUM:

in ca.

- SPINA ILIACA VENTRALIS CRANIALIS (1.)

https://www.youtube.com/watch?v=I92_W8Gzlh4
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS ILIUM:

ALA OSSIS ILII:

4. TUBER SACRALE:

- the medial angle thickened to form the tuber sacrale

Hip bones of a horse, left lateral aspect

Hip bones of a horse, ventrocranial aspect
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS ILIUM:

ALA OSSIS ILII:

4. TUBER SACRALE:

- in ca the tuber sacrale divides into:

a. Spina iliaca dorsalis cranialis

b. Spina iliaca dorsalis caudalis

https://www.youtube.com/watch?v=J92_W8Gzfh4
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS ILIUM:

ALA OSSIS ILII:

5. FACIES GLUTEA (gluteal surface)
   • outer surface
   • area for attachment of the gluteal muscles

https://www.youtube.com/watch?v=J92_W8Gzlh4
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS ILIUM:

ALA OSSIS ILII:

5. FACIES GLUTEA (gluteal surface)
   • bears the LINEA GLUTEA (gluteal line)

PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS ILIUM:

ALA OSSIS ILII:

6. FACES SACROPELVINA (sacroplevic surface):
   - inner surface
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS ILIUM:
ALĂ OSSIS ILII:

6. FACIES SACROPELVINA
presents:

1. FACIES ILIACA (iliac surface):
   - laterally situated, smooth
   - attachment for the lumbar muscles
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS ILIUM:

ALA OSSIS ILII:

6. FACIES SACROPELVINA

presents:

2. TUBEROSITAS ILIACA (iliac tuberosity):
   - roughened medial part
   - connected to the sacrum

1. Acetabulum
2. Facies iliaca
3. Symphysis pubica
4. Foramen obturatum
5. Tuber ischiadicum
6. Tuber coxae
7. Tuber sacrale
8. Tuberositas iliaca

https://www.youtube.com/watch?v=J92_W8GzlH4
PELVIC GIRDLE
(CINGULUM MEMBRI PELVINI)

OS ILIUM

ALA OSSIS ILII:

6. FACIES SACROPELVINA

presents:

3. FACIES AURICULARIS (auricular surface):
   - ear – shaped articular surface
   - covered by cartilage
   - articulates with the auricular surface of the wing of the sacrum

Sacrum, Eq., lateral aspect

https://hu.pinterest.com/pin/496592296403870116/
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS ILIUM:

CORPUS OSSIS ILII:

- bears LINEA ARCUATA (arcuate line)

Equine pelvis, cranial view: 1. coxal tuber; 2. sacral tuber; 3. wing of the ilium is 1st and 2nd and all the bone in between; 4. body (shaft) of the ilium; 5. ischium; 6. obturator foramen; 8. pelvic symphysis; 7. brim of pelvic (cranial edge of pubic bone); 9. ischial tuberosity; 10. body of first sacral vertebra; 11. wing of sacrum (fused transverse processes); 12. vertebral foramen.

http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-2.html


Hip bones of a horse, ventrocranial aspect
PELVIC GIRDLE
(CINGULUM MEMBRI PELVINI)

OS ILIUM:
CORPUS OSSIS ILII:
1. LINEA ARCUATA:
   - a ventral border
   - in its middle there is the TUBERCULUM MUSCULI PSAOS MINORIS (psoas minor tubercle)

https://hu.pinterest.com/pin/496592296403870116/
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS ILIUM:

CORPUS OSSIS ILII:

2. TUBERCULUM MUSCULI PSOAS MINORIS:

- in ca missing
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

OS ILIUM:

CORPUS OSSIS ILII:

3. AREA LATERALIS MUSCULI RECTI FEMORIS

4. AREA MEDIALIS MUSCULI RECTI FEMORIS

Eq, lateral aspect

Hip bones of a horse, ventral aspect

PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

PUBIS (OS PUBIS):
consists of:

1. CORPUS OSSIS PUBIS
2. RAMUS CRANIALIS OSSIS PUBIS
3. RAMUS CAUDALIS OSSIS PUBIS

Hip bones of a horse, ventral aspect

Hip bones of an ox, ventrocranial aspect

Hip bones of a horse, ventrocranial aspect
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

PUBIS (OS PUBIS):

CORPUS OSSIS PUBIS:
- forms the acetabulum

Canine: Hip Bone (Left Lateral View)

1. Wing of ilium
2. Coxaetuberosity
3. Sacral tuberosity
4. Greater sciatic notch
5. Ischiial spine
6. Pubis
7. Obturator foramen
8. Ischium
9. Ischiial tuber

Note: The broken lines give the approximate extents of ilium, pubis, and ischium.
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

PUBIS (OS PUBIS):

RAMUS CRANIALIS OSSIS PUBIS:
- its cranial border knows as the:

PECTEN OSSIS PUBIS
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

PUBIS (OS PUBIS):

EMINENTIA ILIOPUBICA:

- situated laterally on the pecten ossis pubis

Hip bones of an ox, ventrocranial aspect
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

PUBIS (OS PUBIS):

SULCUS LIGAMENTI ACCESSORII OSSIS FEMORIS:
- in eq
- on the ventral surface of the pecten ossis pubis

Ventral lateral view of equine pelvis. 1, acetabulum; 2, acetabular notch; 3, shallow groove for the accessory ligament of the femoral head; 4, body (shaft) of the ilium; 5, pubis; 6, ischium; 7, obturator foramen; 8, pelvic brim.

http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-5.html
PELVIC GIRDLE
(CINGULUM MEMBRI PELVINI)

PUBIS (OS PUBIS):

TUBERCULUM PUBLICUM VENTRALE:
- on the cranial ramus ventrally

https://hu.pinterest.com/pin/496592296403870116/
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

PUBIS (OS PUBIS):

TUBERCULUM PUBICUM DORSALE:
- in stallion
- on the cranial ramus dorsally
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

PUBIS (OS PUBIS):

RAMUS CAUDALIS OSSIS PUBIS:
- beard the FACIES SYMPHYSEALIS
- unites with the caudal ramus of the opposite side to form the SYMPHYSIS PUBIS
- continues caudally into the ramus of the ischium

Hip bones of a horse, ventrocranial aspect

Hip bones of an ox, ventrocranial aspect
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

ISCHIUM (OS ISCHII):

consists of:

1. CORPUS OSSIS ISCHII
2. TABULA OSSIS ISCHII
3. RAMUS OSSIS ISCHII
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

ISCHIUM (OS ISCHII):

CORPUS OSSIS ISCHII:

- participates in the formation of acetabulum

Hip bones of an ox, ventrocranial aspect

Hip bones of a dog, right lateral aspect

Canine: Hip Bone
(Left Lateral View)

1. Wing of ilium
2. Coxal tuberosity
3. Sacral tuberosity
4. Greater sciatic notch
5. Ischial spine
6. Pubs
7. Obturator foramen
8. Ischium
9. Ischial tuber

Note: The broken lines give the approximate extents of ilium, pubis, and ischium.
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

SPINA ISCHIADICA:

- the corpus expanded dorsally to form the spina ischiadica
- situated caudal to the incisura ischiadica major
- behind it lies the INCISURA ISCHIADICA MINOR (lesser sciatic notch)
PELVIC GIRDLE
(CINGULUM MEMBRI PELVINI)

ISCHIUM (OS ISCHII):

RAMUS OSSIS ISCHII:
- cranially unites with the caudal ramus of pubis
- Facies symphysealis – unite at the Symphysis ischiadica

PELVIC GIRDLE
(CINGULUM MEMBRI PELVINI)

ISCHIUM (OS ISCHII):

TABULA OSSIS ISCHII:
- form the TUBER ISCHIADICUM


http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-16.html

Hip bones of a dog, ventrocranial aspect
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

ISCHIUM (OS ISCHII):

TUBER ISCHIADICUM:

1. in eq, ca – presents a thickened ridge
2. in bo it is trituberculate
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

ISCHIUM (OS ISCHII):

ARCUS ISCHIADICUS (ischial arch):

- the two ischial tables form the concave arcus ischiadicus

Bovine pelvis with femurs, dorsal view: 1. coxal tuber; 2. sacral tuber; [the wing of the ilium is 1=2 and all the bone in between]; 3. shaft or body of the ilium; 4. pubis; 5. ischium; 6. ischial tuber; 7. ischial arch; 8. pelvic symphysis; 9. fused sacral spines; 10. pelvic inlet; 11. obturator foramen; 12. greater trochanter; 13. medial ridge of trochanters; 14. lateral ridge of trochanters.

http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-16.html
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

ACETABULUM:
- the three pelvic bones unite to form the acetabulum
- a hemispherical cavity
- directed backwards and to side
- the cartilaginous junctions of three bones seen in young animals – gradually ossify with age
- forms the bony socket for the head of the femur to form the hip joint

Hip bones of a dog, right lateral aspect
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

PARTS OF THE ACETABULUM:
1. MARGO ACETABULI
2. FACIES LUNATA:
   – ring-like articular part
   - covered by cartilage
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

PARTS OF THE ACETABULUM:

2. FACIES LUNATA:
   - in bo divided into:
   a. PARS MAJOR
   b. PARS MINOR
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

PARTS OF THE ACETABULUM:

3. FOSSA ACETABULI
- for ligamentous attachment

4. LABRUM ACETABULARE:
- the ring raised by cartilaginous rim
PELVIC GIRDLE (CINGULUM MEMBRI PELVINI)

PARTS OF THE ACETABULUM:

5. INCISURA ACETABULI (acetabular notch)
   - in the region of the acetabular fossa
   - for passage of ligaments
PELVIC GIRDLE
(CINGULUM MEMBRI PELVINI)

PUBIS (OS PUBIS):

FORAMEN OBTURATUM (obturator foramen):
formed by:

a) the corpus and the ramus cranialis of pubis form the cranial margin
b) the ramus caudalis ossis pubis form the medial margin
c) Ischium forms the caudal, medial, lateral boundaries

- SULCUS OBTURATORIUS

Hip bones of a dog, ventrocranial aspect
http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-16.html
BONY PELVIS

forms:

1. the osseous wall of the pelvic cavity
2. the osseous portion of the birth canal

Hip bones of an ox, ventrocranial aspect

Figure 2. Normal position of a foal during foaling. The forelegs are extended and the head and neck rest on the forelegs. The hind legs are extended backward as the body passes outward. (From Evans, *The Horse*, 1990.)

BONY PELVIS

demarcated:

a. dorsally by:
   • the sacrum
   • the first 3-4 caudal vertebrae

b. ventrally by:
   • the pubis,
   • the ischium

c. on either side by:
   • the ilium
   • the body of the ischium
   • the spina ischiadica

Hip bones of a horse, left lateral aspect
BONY PELVIS

demarcated:

d. the broad pelvic ligament

- absent in ca

e. musculature

http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-17.html

Plastinated specimen, equine pelvis, lateral view: 1, coxal tuber; 2, sacral tuber; [the wing of the ilium is 1=2 and all the bone in between]; 3, body (shaft) of the ilium; 4, ischial tuber; 5, cranial cusp of the greater trochanter; 6, caudal cusp of the greater trochanter; [insertion of middle gluteal m.]; 7, iliopectineal bead (not completely within the acetabulum); 8, caudal part of sacrum; 9, first caudal vertebrae; 10, sacrosciatic ligament; 11, greater sciatic foramen; 12, lesser sciatic foramen; 13, dorsal sacroiliac ligament.

http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-1.html

http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-17.html
BONY PELVIS

I. APERTURA PELVIS CRANIALIS - entrance

II. CAVUM PELVIS - cavity

III. APERTURA PELVIS CAUDALIS - exit

BONY PELVIS

I. APERTURA PELVIS CRANIALIS:
- the inlet of the pelvic cavity
- formed by the LINEA TERMINALIS


23. Linea terminalis. Circular line from the Promontorium, across Ala ossis sacri, along Linea arcuata and Pecten ossis pubis. D


Hip bones of a horse, ventrocranial aspect
BONY PELVIS

LINEA TERMINALIS:
- has an oblique position
- bony circle

build by the:
1. promontorium
2. ala ossis sacrii
3. linea arcuata
4. pecten ossis pubis

https://www.tankonyvtar.hu/hu/tartalom/tkt/haziallatok/ch02.html
BONY PELVIS

II. CAVUM PELVIS:

- lies behind the linea terminalis
- not separated from the abdominal cavity

Hip bones of a horse, ventrocranial aspect
BONY PELVIS

III. APERTURA PELVIS CAUDALIS:

- the pelvic outlet
- narrower than the inlet

bounded ventrally by the:

a. arcus ischiadicus

b. tuberculum ischiadicum

http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-16.html

https://commons.wikimedia.org/wiki/File:Horse_pelvis_02.jpg
BONY PELVIS

III. APERTURA PELVIS CAUDALIS:
bordered dorsally by the:
a. 3rd or 4th caudal vertebrae

https://hu.pinterest.com/pin/175077504244558544/
https://www.tankonyvtar.hu/hu/tartalom/tkt/haziallatok/ch02.html
III. APERTURA PELVIS CAUDALIS:

Bordered laterally by the:

a. broad pelvic ligament in bo, eq
b. ligamentum sacrotuberale in ca

http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-1.html

http://www.onliveveterinaryanatomy.net/content/canine-pelvis-modelled-sacrotuberous-ligament

https://twitter.com/juancarpalacio/status/457464399868227584

Plastinated specimen, equine pelvis, lateral view: 1. coxal tuber; 2. sacral tuber; 3. body (shaft) of the ilium; 4. ischial tuber; 5. cranial cusp of the greater trochanter; 6. caudal cusp of the greater trochanter (insertion of middle gluteal m.); 7. femoral head (just completely within the acetabulum); 8. caudal part of sacrum; 9. first caudal vertebrae; 10. sacrosacral ligament; 11. greater sciatic foramen; 12. lesser sciatic foramen; 13. dorsal sacrotubercular ligament.
III. APERTURA PELVIS CAUDALIS:
closed by:
- the DIAPHRAGMA PELVIS

Anal and urogenital muscues

Legend:
A. Rectococcygeus m.
B. Anus part
C. Clitorid or penile part
D. Rectal part
E. Sphincter ani ext. m.
F. Urethral part
G. Perineal sinus
H. Longitudinal pericoval currenous m.
I. Isthmiourethralis m.
J. Isthmoovernotous m.
K. Bladder posterior m.
L. Constrictor vestibuli m.
M. Constrictor vulvae m.
N. Urethral hiatus [coccygeus]
O. Dorsal caudal
P. Intertransverse m.
Q. Levator ani m.
R. Pud. gluteal m.
S. Middle gluteal m.
T. Sartorius m.
U. Obturator int. m.
V. Semimembranosus m.
W. Semitendinosus m.
X. Biceps femoris m.
BONY PELVIS

DIAPHRAGMA PELVIS:
- musculomembranous structure
- closes the aptertura pelvis caudalis
BONY PELVIS

SOLUM PELVIS OSSEUM (FLOOR OF THE PELVIS):

formed by the:

a. pubis
b. ischium

contains the:

1. foramen obturatum
DIAMETERS OF THE BONY PELVIS

important for evaluation of the functional structure of the pelvis

1. CONJUGATA VERA

2. CONJUGATA DIAGONALIS

3. DIAMETER VERTICALIS

4. DIAMETER TRANSVERSA

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28 Diameter conjugata. Line from the Promontorium to the cranial end of the symphysis. E

29 Diameter transversa. Greatest transverse diameter of Apertura pelvis cranialis. D

30 Diameter verticalis. Line from the cranial end of the symphysis to the pelvic surface of sacrum or a caudal vertebra, perpendicular to the Solum pelvis osseum. E

31 Inclinatio pelvis. Angle between Diameter conjugata and Diameter verticalis. E
DIAMETERS OF THE BONY PELVIS

CONJUGATA VERA (diameter conjugata):

- the median line taken from the promontorium to cranial end of the pelvic symphysis
- provides an indication of the height of the pelvic inlet
DIAMETERS OF THE BONY PELVIS

CONJUGATA DIAGONALIS:

- a median line drawn from the promontorium to the caudal end of the symphysis
DIAMETERS OF THE BONY PELVIS

DIAMETER VERTICALIS:
- a vertical line taken from the cranial end of the pelvic symphysis to the ventral surface of the sacrum or the caudal vertebrae
- gives the true height of the pelvic cavity
DIAMETERS OF THE BONY PELVIS

INCLINATIO PELVIS:

- the angle formed by the union of the true conjugate and vertical diameters

Hip bones of a dog, ventrocranial aspect
DIAMETERS OF THE BONY PELVIS

a. DIAMETER TRANSVERSA of the Apertura pelvis cranialis
- represents the greatest diameter of the terminal line
- taken between the two psoas tubercules

b. DIAMETER TRANSVERSA of the Apertura pelvis caudalis:
- the distance between the medial ends of the two ischiatic tuberosities

https://www.tankonyvtar.hu/hu/tartalom/tkt/haziallatok/ch02.html
SEXUAL DIFFERENCE OF PELVIS

Comparison of pelvic specimens to illustrate the larger pelvic inlet area of the female (1). 2, wing of the ilium; 3, wing of the sacrum; 4, sacroiliac joint (pathologic fusion of most of the joint of the bull); 5, coxal tuber; 6, ischial tuber; 7, acetabulum; 8, obturator foramen.

http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-4.html
SKELETON OF THE THIGH (SKELETON FEMORIS)

- formed by the OS FEMORIS (FEMUR)
- distally the femur related in front to the patella

FEMUR:
- largest, long bone
  1. PROXIMAL EPIPHYSIS
  2. SHAFT (DIAPHYSIS, CORPUS FEMORIS)
  3. DISTAL EPIPHYSIS

Ca, right femur, cranial aspect
Ca, right femur, caudal aspect

http://www.boneid.net/product/dog-canis-lupus-familiaris-right-femur-posterior-view/
OS FEMORIS (FEMUR)
SKELETON OF THE THIGH (SKELETON FEMORIS)

FEMUR:

PROXIMAL EPIPHYSIS presents:

1. CAPUT OSSIS FEMORIS:
   - hemispherical
   - projects medially
FEMUR:

PROXIMAL EPIPHYYSIS presents:

1. CAPUT OSSIS FEMORIS:
   - bears the FOVEA CAPITIS:
   - attachment for the ligamentum capitis femoris

![Proximal extremity of a left femur of a dog, cranial aspect, caudal aspect](http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-6.html)

Comparison of right femoral heads, medial view. 1. femoral head; 2. fovea capitis [ligament(s) of the femoral head]; 3. greater trochanter; 4. cranial cusp of greater trochanter; 5. caudal cusp of greater trochanter; 6. lesser trochanter.

http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-6.html
SKELETON OF THE THIGH (SKELETON FEMORIS)

FEMUR:

PROXIMAL EPIPHYSIS presents:

2. COLLUM FEMORIS:

- in ca
SKELETON OF THE THIGH (SKELETON FEMORIS)

FEMUR:

PROXIMAL EPIPHYSIS presents:

3. TROCHANTER MAJOR:
- lies lateral to the head

IN HORSE divides into:

a. Pars cranialis
b. Pars caudalis

Proximal extremity of a left femur of a dog, cranial aspect, caudal aspect

Comparison of right femoral heads, medial view. 1. femoral head; 2. fovea capitis [ligament(s) of the femoral head]; 3. greater trochanter; 4. cranial esp of greater trochanter; 5. caudal esp of greater trochanter; 6. lesser trochanter.

http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-6.html
SKELETON OF THE THIGH (SKELETON FEMORIS)

FEMUR:

PROXIMAL EPIPHYSIS presents:

3. TROCHANTER MAJOR:
   ❖ FOSSA TROCHANTERICA
   - on the medial surface of the major trochanter

Proximal extremity of a left femur of a dog caudal aspect

Caudal and medial views of an equine femur: 1. head of femur; 2. fovea capitis; 3. caudal cusp of greater trochanter; 4. lesser trochanter; 5. third trochanter; 6. medial ridge of femoral trochlea; 7. lateral condyle; 8. medial condyle; 9. supracondylar fossa.

http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-8.html
SKELETON OF THE THIGH (SKELETON FEMORIS)

FEMUR:

PROXIMAL EPIPHYSIS presents:

4. TROCHANTER MINOR:
- located on the medial aspect of the shaft
- located distal to the head

http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-8.html
SKELETON OF THE THIGH (SKELETON FEMORIS)

FEMUR:

PROXIMAL EPIPHYSIS presents:

5. LINEA INTERTROCHANTERICA:
- between the major and minor trochanter
- cranially
- poorly marked

http://qu.edu.iq/el/pluginfile.php/85109/mod_resource/content/1/The%20femur.pdf
FEMUR:

PROXIMAL EPIPHYSIS presents:

6. CRISTA INTERTROCHANTERICA:

- caudally
- between the two trochanters
SKELETON OF THE THIGH (SKELETON FEMORIS)

FEMUR:

CORPUS OSSIS FEMORIS presents:

TUBEROSITAS GLUTEA:
- in carnovores

Proximal extremity of a left femur of a dog caudal aspect
SKELETON OF THE THIGH (SKELETON FEMORIS)

FEMUR:

CORPUS OSSIS FEMORIS presents:

IN HORSE:

TROCHANTER TERTIUS:
- on the lateral surface of the shaft
- distal to the greater trochanter

http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-8.html

http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-7.html
CORPUS OSSIS FEMORIS presents:

1. FACIES ASPERA:
   - on the caudal surface of the shaft

bordered by a:

a. LABIUM MEDIALE
b. LABIUM LATERALS
FEMUR:

CORPUS OSSIS FEMORIS presents:

2. FACIES POPLITEA:

- the labium med. et lat. diverge at the distal end of the shaft to form the outline the facies poplitea
SKELETON OF THE THIGH (SKELETON FEMORIS)

FEMUR:
CORPUS OSSIS FEMORIS presents:

IN HORSE:
TUBEROSITAS MUSCULI BICIPITIS:
- lies caudal to the trochanter tertius
SKELETON OF THE THIGH (SKELETON FEMORIS)

FEMUR:

CORPUS OSSIS FEMORIS presents:

IN HORSE:

FOSSA SUPRACONDYLARIS:
- lies on the lateral aspect of the distal shaft
- increases the area of origin of the superficial digital flexor muscle

http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-8.html

Distal extremity of the right femur of a horse

distolateral aspect
SKELETON OF THE THIGH (SKELETON FEMORIS)

FEMUR:

CORPUS OSSIS FEMORIS presents:

4. TUBEROSITAS SUPRACONDYLARIS MEDIALIS et LATERALIS
   - roughened area

Distal extremity of the right femur of a horse
distolateral aspect
FEMUR

DISTAL EPIPHYSIS presents:

1. CONDYLUS MEDIALIS
2. CONDYLUS LATERALIS
3. FOSSA INTERCONDYLARIS:
   - between the two condyles

Distal extremity of the right femur of a horse
  distolateral aspect

Distal extremity of the left femur of a dog, cranial aspect
caudal aspect

Caudal and medial views of an equine femur: 1. head of femur; 2. fovea capitis; 3. caudal cusp of greater trochanter; 4. lesser trochanter; 5. third trochanter; 6. medial ridge of femoral trochlea; 7. lateral condyle; 8. medial condyle; 9. supracondylar fossa.

http://vanat.cvm.umn.edu/ungDissect/Lab05/Img5-8.html
SKELETON OF THE THIGH (SKELETON FEMORIS)

FEMUR

DISTAL EPIPHYSIS presents:

1. CONDYLYS MEDIALIS IN CARNIVORES:
   - bears the Facies articularis sesamoidea medialis - for ossa sesamoidea m. gastrocnemii (Vesalius)

2. CONDYLYS LATERALIS IN CARNIVORES:
   - bears the Facies articularis sesamoidea lateralis - for ossa sesamoidea m. gastrocnemii (Vesalius)
SKELETON OF THE THIGH (SKELETON FEMORIS)

FEMUR

DISTAL EPIPHYSIS presents:

1. CONDYLOS MEDIALIS:
   - has the EPICONDYLOS MEDIALIS

Distal extremity of the left femur of a dog, cranial aspect caudal aspect
SKELETON OF THE THIGH (SKELETON FEMORIS)

FEMUR
DISTAL EPIPHYSIS presents:

2. CONDYLUS LATERALIS has:
- the EPICONDYLUS LATERALIS
- distally the FOSSA MUSCULI POPLITEI
- distally the FOSSA EXTENSORIA
SKELETON OF THE THIGH (SKELETON FEMORIS)

FEMUR

DISTAL EPIPHYSIS presents:

5. LINEA INTERCONDYLARIS:

Caudal and medial views of an equine femur. 1, head of femur; 2, fovea capitis; 3, caudal cusp of greater trochanter; 4, lesser trochanter; 5, third trochanter; 6, medial ridge of femoral trochlea; 7, lateral condyle; 8, medial condyle; 9, supracondylar fossa.

http://vanat.cvm.umn.edu/ungDissect/Lab05/img5-8.html
SKELETON OF THE THIGH (SKELETON FEMORIS)

FEMUR

DISTAL EPIPHYSIS presents:

6. TROCHLEA OSSIS FEMORIS:
   - cranially
   - comprises two ridges separated by a groove

Distal extremity of the left femur of a dog, cranial aspect
caudal aspect

http://qu.edu.iq/el/pluginfile.php/85109/mod_resource/content/1/The%20femur.pdf
SKELETON OF THE THIGH (SKELETON FEMORIS)

FEMUR

DISTAL EPIPHYSIS presents:

6. TROCHLEA OSSIS FEMORIS:
   - the medial ridge is larger on bo, eq
   - in eq the medial ridge extends as the TUBERCULUM TROCHLEAE OSSIS FEMORIS
SKELETON OF THE THIGH
(SKELETON FEMORIS)

PATELLA:
- a sesamoid bone
- embedded in the ligamentum patellae

Skeleton of the right stifle joint of a dog, cranial aspect

Distal extremity of the left femur, patella, proximal extremity of the tibia of a horse

Ligamentous specimen, equine stifle joint region. 1. patella; 2. medial ridge of femoral trochlea; 3. lateral ridge of femoral trochlea; 4. tubial tuberosity; 5. medial patellar ligament; 6. adductor patellar ligament; 7. lateral patellar ligament; 8. fibularis (peroneus) tertius m. [originates from the extensor fossa of the femur]; 9. superficial digital flexor tendon [originates from the extensor fossa]; 10. lateral collateral ligament; 11. fibula; 12. lateral meniscus; 13. medial collateral ligament; 14. medial meniscus.

http://vanat.cvm.umn.edu/ungDissect/Lab06/Img6-2.html
SKELETON OF THE THIGH (SKELETON FEMORIS)

PARTS OF THE PATELLA:

1. FACIES CRANIALIS:
   - cranially
   - roughened surface
   - covered by skin

http://vanat.cvm.umn.edu/ungDissect/Lab06/Img6-1.html

http://vanat.cvm.umn.edu/ungDissect/Lab06/Img6-2.html

http://vanat.cvm.umn.edu/ungDissect/Lab06/Img6-3.html

Ligamentous specimen: equine stifle joint region. 1. patella; 2. medial ridge of femoral trochlea; 3. lateral ridge of femoral trochlea; 4. tibial tuberosity; 5. medial patellar ligament; 6. middle patellar ligament; 7. lateral patellar ligament; 8. fibularis (peroneus) teres m. (originates from the extensor fossa of the femur); 9. superficial digital flexor tendon; 10. lateral collateral ligament; 11. fibula; 12. lateral meniscus; 13. medial collateral ligament; 14. medial meniscus.

Lateral view of equine stifle region. 1. patella; 2. supraspinous fossa; 3. femoral trochlea; 4. extensor fossa; 5. lateral condyle; 6. medial condyle; 7. intercondylar eminence; 8. extensor groove (the long digital extensor and the fibularis tertius tendons originate from the extensor fossa and pass through the extensor groove); 8. fibula.
SKELETON OF THE THIGH (SKELETON FEMORIS)

PARTS OF THE PATELLA:

eq, facies cranialis, right    bo, facies cranialis, right
SKELETON OF THE THIGH (SKELETON FEMORIS)

PARTS OF THE PATELLA:

2. BASIS:
   - proximally
   - attachment for muscles
SKELETON OF THE THIGH (SKELETON FEMORIS)

PARTS OF THE PATELLA:

3. APEX:
- distally
- attachment for muscles

https://www.tankonyvtar.hu/hu/tartalom/tkt/haziallatok/ch02.html
SKELETON OF THE THIGH (SKELETON FEMORIS)

PARTS OF THE PATELLA:

4. **ANGULUS MEDIALIS et LATERALIS**

5. **PROCESSUS CARTILAGINEOUS:**
   - near the base
   - in eq, bo
   - attachment for the fibrocartilago parapatellaris med.

https://www.tankonyvtar.hu/hu/tartalom/tkt/haziallatok/ch02.html
SKELETON OF THE LEG (SKELETON CRURIS)

formed by two long bones:

1. the medial one the TIBIA
2. the lateral one the FIBULA

http://www.boneid.net/product/cattle-bos-taurus-left-tibia-anterior-view/
TIBIA:

- bears the weight of the body
SKELETON OF THE LEG (SKELETON CRURIS)

FIBULA:

in ca:

- the fibula is as long as the tibia


http://www.boneid.net/product/dog-canis-lupus-familiaris-left-fibula-lateral-view/

FIBULA:

in bo:

- the shaft of the fibula is rudimentary (processus fibularis)
- the proximal epiphysis fused to the tibia
- the distal epiphysis reduced to an independent OS MALLEOLARE

http://vanat.cvm.umn.edu/ungDissect/Lab07/img7-1.html
SKELETON OF THE LEG (SKELETON CRURIS)

FIBULA:

in eq:

- extends as a free splint – like bone as far as the middle of the shaft of the tibia
- the distal epiphysis represented by a fusion with the tibia as the LATERAL MALLEOLUS

http://vanat.cvm.umn.edu/ungDissect/Lab07/Img7-1.html
SKELETON OF THE LEG (SKELETON CRURIS)

SPATIUM INTEROSSEUM CRURIS:
- separates the two bones
a) in cat - wide
b) in dog – narrow
c) in eq – the space presents only proximally
d) in bo – no fibula = no space

Ca.  Eq.  Bo.
SKELETON OF THE LEG (SKELETON CRURIS)

TIBIA:
1. PROXIMAL EPIPHYSIS
2. SHAFT (DIAPHYSIS, CORPUS)
3. DISTAL EPIPHYSIS

SKELETON OF THE LEG (SKELETON CRURIS)

TIBIA:

PROXIMAL EPIPHYSIS presents:

1. CONDYLUS MEDIALIS
2. CONDYLUS LATERALIS
3. INCISURA POPLITEA

- the condyles separated behind by this incisura
TIBIA:

PROXIMAL EPIPHYSIS presents:

CONDYLUS LATERALIS:
- bears the FACIES ARTICULARIS FIBULARIS
- in bo there is no facies articularis fibularis
SKELETON OF THE LEG (SKELETON CRURIS)

TIBIA:

PROXIMAL EPIPHYSIS presents:

4. FACIES ARTICULARIS PROXIMALIS:
   - on the condyles
   - incongruent articular surface
   - articulates via the menisci with the condyli femoris

Proximal extremity of the left tibia of a horse caudal aspect
SKELETON OF THE LEG (SKELETON CRURIS)

TIBIA:

PROXIMAL EPIPHYSIS presents:

5. EMINENTIA INTERCONDYLARIS:
   - between the condyles

Proximal extremity of the left tibia of a horse caudal aspect
SKELETON OF THE LEG (SKELETON CRURIS)

TIBIA:

PROXIMAL EPIPHYSIS presents:

5. EMINENTIA INTERCONDYLARIS:

bears the:

a. TUBERCULUM INTERCONYLARE LATERALE
b. TUBERCULUM INTERCONDYLARE MEDIALE
SKELETON OF THE LEG (SKELETON CRURIS)

TIBIA:

PROXIMAL EPIPHYYSIS presents:

6. AREA INTERCONDYLARIS CENRALIS:
- separates the med. et lat. intercondyle tuberculum

Proximal extremity of the left tibia of a horse caudal aspect

Proximal extremity of the right tibia of a horse end view
TIBIA:

PROXIMAL EPIPHYSIS presents:

7. AREA INTERCONDYLARIS CRANIALIS – subdivided: medial, lateral

8. AREA INTERCONDYLARIS CAUDALIS:
SKELETON OF THE LEG (SKELETON CRURIS)

TIBIA:

PROXIMAL EPIPHYSIS presents:

8. SULCUS EXTENSORIUS
- passage for tendons
- craniolateral notch
- for the m. extensor digitorum long.
SKELETON OF THE LEG (SKELETON CRURIS)

TIBIA:

PROXIMAL EPIPHYSIS presents:

9. CRISTA TIBIAE
TIBIA:

PROXIMAL EPIPHYSIS presents:

IN RUMINANTS:

PROCESSUS FIBULARIS

- caput fibulae rudiment, and fused with the tibia
SKELETON OF THE LEG (SKELETON CRURIS)

CORPUS TIBIAE presents:

1. TUBEROSITAS TIBIAE
   - covered by skin
   - palpable
   - cranially
   - attachment lig. patellae


Bo, right tibia, cranial aspect
https://www.flickr.com/photos/jrochester/38736449362
SKELETON OF THE LEG (SKELETON CRURIS)

CORPUS TIBIAE presents:

SULCUS TUBEROSITAS TIBIAE:
- in eq

Eq.

Left tibia and fibula of the horse, cranial aspect
SKELETON OF THE LEG (SKELETON CRURIS)

CORPUS TIBIAE presents:

2. MARGO CRANIALIS (Crista tibiae)

3. FACIES MEDIALIS

4. FACIES LATERALIS

5. FACIES CAUDALIS

1. Facies lateralis. Cranialateral surface. A
2. Margo cranialis. Cranial border, formerly Crista tibiae. A
3. Margo medialis. Medial border. A
4. Margo lateralis [Margo interosseus]. Lateral border facing fibula in Car, su and partly eq. attachment of Membrana interossea. A
5. Cochlea tibiae. Distal articular surface, facing the talus. A B D
6. Malleolus medialis. A B D
7. Sulcus malleolaris. Flat groove in the caudal part of Malleolus medialis for the tendon of M. flexor digit. med. (and M. tibialis caud. in Car). B D
8. Incisura fibularis. Fibular notch on lateral surface of distal extremity in Car, sa, and Ru, facet for fibula. D
SKELETON OF THE LEG (SKELETON CRURIS)

CORPUS TIBIAE presents:

5. FACIES CAUDALIS bears:

a. LINEA M. POPLITEI – running mediodistally

b. LINEAE MUSCULARES

http://www.boneid.net/product/horse-equus-caballus-left-tibia-posterior-view/
SKELETON OF THE LEG (SKELETON CRURIS)

DISTAL EPIPHYSIS presents:

1. **COCHLEA TIBIAE**

- forms the articular surface between the tibia and the tarsal bones

[Images of various bones and diagrams highlighting the cochlea tibiae]

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**eq., cochlea tibiae**

**Bo, cochlea tibiae**

SKELETON OF THE LEG (SKELETON CRURIS)

DISTAL EPIPHYSIS presents:

2. MALLEOLUS MEDIALIS:
   - on the medial aspect
   - extends distally beyond the cochlea
   - bears a SULCUS MALLEOLARIS (malleolar groove)

Left tibia and fibula of the horse, cranial (A), caudal (B) aspect

http://www.boneid.net/product/horse-equus-caballus-left-tibia-posterior-view/
DISTAL EPIPHYSIS presents:

3. INCISURA FIBULARIS:
   - laterally
   - for articulation with the fibula
   - in eq, bo no incisura fibularis

Distal extremity of the right tibia and fibula of a dog caudal aspect

SKELETON OF THE LEG (SKELETON CRURIS)

DISTAL EPIPHYYSIS presents:

4. MALLEOLUS LATERALIS IN HORSE:
- the fibula fused with the tibia during the 1st year of life
- formed by the distal epiphysis of tibia
- beras the SULCUS MALLEOLARIS
SKELETON OF THE LEG (SKELETON CRURIS)

DISTAL EPIPHYSIS presents:

IN RUMINANTS:

- FACIES ARTICULARIS LATERALIS – articulates with the lateral malleolus – OS MALLEOLARE
- the lateral malleolus is the distal rudiment of the fibula

Maleolar bone in cow (B)


Os malleolare

Bo, right tibia, cranial aspect

32. Processus fibulae
35. Os malleolare

https://www.flickr.com/photos/jrochester/38736449362
SKELETON OF THE LEG (SKELETON CRURIS)

FIBULA:

1. PROXIMAL EPIPHYSIS
2. SHAFT (DIAPHYSIS, CORPUS)
3. DISTAL EPIPHYSIS

http://www.boneid.net/product/dog-canis-lupus-familiaris-left-fibula-lateral-view/
SKELETON OF THE LEG (SKELETON CRURIS)

FIBULA:

PROXIMAL EPIPHYSIS forms the CAPUT FIBULAE

CAPUT FIBULAE beras:

- **FACIES ARTICULARIS CAPITIS FIBULAE** – for the articulation with the lateral condyle of the tibia
SKELETON OF THE LEG (SKELETON CRURIS)

THE SHAFT of the FIBULA:

1. completely developed in ca
2. in ruminants replaced by the lig. fibulare – can be ossified in ox
3. in horse only the proximal half of the shaft remains, and it tapers distally

Bo, right tibia, cranial aspect
https://www.flickr.com/photos/jrochester/38736449362
SKELETON OF THE LEG (SKELETON CRURIS)

FIBULA:

DISTAL EPIPHYYSIS froms the MALLEOLUS LATERALIS in ca

Distal extremity of the right tibia and fibula of a dog caudal aspect

Ca.
SKELETON OF THE LEG (SKELETON CRURIS)

FIBULA:

MALLEOLUS LATERALIS bears:

a. SULCUS MALLEOLARIS in ru.

b. SULCUS TENDINIS M. PERONEI LONGI in ca.

c. SULCUS TENDINUM MM. EXTENSORIS DIGIT. LAT. et PERONEUS BREVIS in ca.

Su, left fibula
Caudomedial aspect
SKELETON OF THE PES (SKELETON PEDIS)

from proximal to distal there are the:

1. BASIPODIUM (TARSUS) consisting of the OSSA TARSI
2. METAPODIUM (METATARSUS) consisting the OSSA METATARSALIA
3. ACROPODIUM (FOOT, PES) consisting the OSSA DIGITORUM PEDIS
SKELETON OF THE PES (SKELETON PEDIS)

4. PLANTA PEDIS

5. DORSUM PEDIS
SKELETON OF THE TARSUS

consists of three rows of the tarsal bones:

1. PROXIMAL or CRURAL ROW
2. MIDDLE or INTERTARSAL ROW
3. DISTAL or METATARSAL ROW
SKELETON OF THE TARSUS

PROXIMAL or CRURAL ROW consists of:

1. TALUS
2. CALCANEUS
SKELETON OF THE TARSUS

METATARSAL ROW consists of from medial to lateral:

1. **OS TARSALE PRIMUM** (Os cuneiforme mediale, T1)
2. **OS TARSALE SECUNDUM** (Os cuneiforme intermedium, T2)
3. **OS TARSALE TERTIUM** (Os cuneiforme laterale, T3)
4. **OS TARSALE QUARTUM** (Os cuboideum, T4)

http://vanat.cvm.umn.edu/ungDissect/Lab07/Img7-3.html

Skeleton of the right tarsus of a dog, plantar aspect
SKELETON OF THE TARSUS

INTERTARSAL ROW:
- incomplete
- has a medial bone – OS TARSI CENTRALE (Os naviculare, Tc)
- between the proximal and the distal rows

http://vanat.cvm.umn.edu/ungDissect/Lab07/Img7-3.html

Skeleton of the right tarsus of a dog, plantar aspect
SKELETON OF THE TARSUS

THE NUMBER OF TARSAL BONES:

in ca 7
SKELETON OF THE TARSUS

THE NUMBER OF TARSAL BONES:

- Os tarsale I et II fused – Os cuneiforme mediointermedium

http://vanat.cvm.umn.edu/ungDissect/Lab07/Img7-3.html
https://slideplayer.com/slide/3898358/
SKELETON OF THE TARSUS

THE NUMBER OF TARSAL BONES:

in bo – 5
- Os tarsale II et III fused – Os cuneiforme intermediolaterale
- Os Tc and T4 fused – Os centroquartale (Os naviculocuboideum)
SKELETON OF THE TARSUS

https://slideplayer.com/slide/3898358/
SKELETON OF THE TARSUS

TALUS
- on the medial side

PARTS OF THE TALUS:
1. CORPUS TALI
2. CAPUT TALI
3. COLLUM TALI in ca, between the caput and corpus tali

http://www.boneid.net/product/bobcat-lynx-rufus-left-astragalus-superior-view/
SKELETON OF THE TARSUS

PARTS OF THE TALUS:

5. TROCHLEA TALI:

- proximally
- in ca, eq

1. Lateral ridge of the trochlea
2. Medial ridge of the trochlea
dorsal aspect

http://vanat.cvm.umn.edu/ungDissect/Lab07/Img7-2.html

http://www.boneid.net/product/bobcat-lynx-rufus-left-astragalus-superior-view/
SKELETON OF THE TARSUS

PARTS OF THE TALUS:

5. TROCHLEA TALI PROXIMALIS:
- proximally
- in bo

6. TROCHLEA TALI DISTALIS:
- in bo

3. Trochlea tali prox.
4. Trochlea tali distalis
dorsal aspect

http://vanat.cvm.umn.edu/ungDissect/Lab07/Img7-2.html
SKELETON OF THE TARSUS

PARTS OF THE TALUS:

6. FACEIS ARTICULARIS CALCANEAE:
- on the plantar and lateral surface
- articulates with the bones of the intertarsal row

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4. Caput tali. Head of talus in Car, articulates with Os tarsi centrale. D
5. Collum tali. Neck of talus, distinct in Car, absent in eq. D
7. Trochlea tali. Proximal part for articulation with the tibia in eq. tibia and fibula in Car. C D
8. Trochlea tali proximalis. Proximal part for articulation with tibia and fibula in eq. D
10. Sulcus tarsi. Proximodistally running groove between plantar articular surfaces in Car and eq. D
11. Tuberculum tali. Medial tubercle in eq. for ligament attachment. C
12. Facies articularis navicularis. Distal articular surface for Os tarsi centrale in Car and eq. D

http://www.boneid.net/product/dog-canis-lupus-familiaris-left-astragalus-inferior-view/
SKELETON OF THE TARSUS

PARTS OF THE TALUS:

7. FACEIS ARTICULARIS NAVICULARIS:

- in eq, ca
- articulates with the navicular bone

http://vanat.cvm.umn.edu/ungDissect/Lab07/Img7-3.html
PARTS OF THE TALUS:

8. SULCUS TALI:
- in eq, ca
- on the plantar surface
- forms with the sulcus calcanei the SINUS TARSI

http://www.boneid.net/product/dog-canis-lupus-familiaris-left-astragalus-inferior-view/
SKELETON OF THE TARSUS

PARTS OF THE TALUS:

TUBERCULUM TALI:

- in eq
- medial tubercle for ligament attachment

1. Lateral ridge of the trochlea
dorsal aspect

2. Medial ridge of the trochlea
dorsal aspect

http://vanat.cvm.umn.edu/ungDissect/Lab07/Img7-2.html
SKELETON OF THE TARSUS

PROXIMAL or CRURAL ROW consists of:

2. CALCANEUS:
   - on the lateral side
   - behind the talus
   - forms the basis of the heel

Skeleton of the left tarsus of a horse
lateral aspect  medial aspect

Ca., plantar aspect

Ca., dorsal aspect

eq
SKELETON OF THE TARSUS

PARTS OF THE CALCANEUS:

1. TUBER CALCANEI

Skeleton of the left tarsus of a horse
lateral aspect
medial aspect

Ca., plantar aspect

Ca., dorsal aspect

http://www.boneid.net/product/superior-view-left-dog-calcaneus/
SKELETON OF THE TARSUS

PARTS OF THE CALCANEUS:

2. SUSTENTACULUM TALI:
- medial surface of the body

Skeleton of the left tarsus of a horse,
medial aspect

Ca., plantar aspect

Ca., dorsal aspect

Eq, plantar aspect

Sustentaculum tali
SKELETON OF THE TARSUS

PARTS OF THE CALCANEUS:

3. SULCUS TENDINIS M. FLEXORI HALLUCIS LONGI

- on the plantar surface

http://www.boneid.net/product/lateral-view-left-dog-calcaneus/

Eq, plantar aspect
SKELETON OF THE TARSUS

PARTS OF THE CALCANEUS:

4. PROCESSUS CORACOIDES:
- projects toward the talus

Tarsal osteology: 1, calcaneus tuber; 2, sustentaculum tali; 3, medial malleolus; 4, medial ridge of trochlea; 5, lateral ridge of trochlea; 6, central tarsal bone (Tc); 7, tarsal bone 1–2 (T 1–2); 8, third tarsal bone (T3); 9, fourth tarsal bone (T4); 10, vascular canal for perforating tarsal artery; 11, M2; 12, M3; 13, M4.

http://vanat.cvm.umn.edu/ungDissect/Lab07/Img7-3.html
SKELETON OF THE TARSUS

PARTS OF THE CALCANEUS:

5. FACIES ARTICULARES TALARES:
   - on its dorsal and medial surface

6. FACIES ARTICULARIS CUBOIDEA

7. FACIES ARTICULARIS MALLEOLARIS

8. SULCUS CALCANEI – sinus tarsi

http://vanat.cvm.umn.edu/ungDissect/Lab07/Img7-3.html
SKELETON OF THE TARSUS

SINUS Tarsi:
- space between talus and calcaneus
  - build by sulcus tali et calcanei

CANALIS Tarsi:
- vascular canal for the perforating tarsal vessels
- in Un
- between 3rd and 4th tarsal bones

20. Sinus tarsi
33. Canalis tarsi
SKELETON OF THE METATARSUS

OSSA METATARSALIA (Mtt)
numered from medial to lateral as the:
- short, long bones
1. BASIS - proximal
2. CORPUS - middle
3. CAPUT - distal

Skeleton of the left plantar (A), left lateral (B), and left dorsal (C) hindpaw of the dog.
https://veteriankey.com/canine-anatomy/
NUMBER OF THE OSSA METATARSALIA (Mt):

in ca:

– 5 (Mt1 – Mt5)

- Mt1 rudimentary
NUMBER OF THE OSSA METATARSALIA (Mt): 

in bo:
- Mt3 and Mt4 fused - chief metatarsal bone
- square in section (while the metacarpus oval in section), longer than the metacarpus
- Mt5 rudimentary and attached to the fused Mt3+Mt4
SKELETON OF THE METATARSUS

NUMBER OF THE OSSA METATARSALIA (Mtt):

in bo:

on chief metatarsal bone:

1. Sulcus longitudinalis dorsalis
2. Sulcus longitudinalis plantaris
3. Canalis metatarsi proximalis
4. Canalis metatarsi distalis
5. Incisura intertrochlearis
SKELETON OF THE METATARSUS

NUMBER OF THE OSSA METATARSALIA (Mt): 

- Mt3 the largest, full developed – chief metatarsal bone
- Mt3 longer than the metacarpal bone
- Mt3 is round in cross section (while the metacarpal bone is oval in section)
- Mt2 and Mt4 show less fusion with the Mt3
SKELETON OF THE DIGITS OF THE PES

- the digits of the hind foot – DIGITI PEDIS are same an is thoracic limb
- each pedal digit consists of the OSSA DIGITORUM PEDIS comprising three PHALANGES (Phh)
- only the 1st digit of dog if present at all – has only two phalanges (Ph1 and Ph3)

Bovine distal forelimb. 1, proximal phalanx = P1; 2, middle phalanx = P2; 3, distal phalanx = P3 – pedal bone; 4, fused metacarpal 3-4 = Mc 3-4; 5, rudimentary Mc5; 6, abaxial proximal sesamoid bone; 7, axial proximal sesamoid bone; 8, distal sesamoid bone; 9, extensor process of pedal bone; 10, interdigital space.

Feal osteology, distal limb bones (A,B) and a sagittal section (C). 1, P1; 2, P2; 3, P3; 4, Metacarpal 3 (Mc3); 5, proximal sesamoid bone; 6, distal sesamoid (navicular) bone; 7, sagittal ridge of Mc3; 8, distal physis of Mc3; 9, proximal physis of P1; 10, distal physis of P1; 11, proximal physis of P2.

http://vanat.cvm.umn.edu/ungDissect/Lab03/Img3-7.html
http://vanat.cvm.umn.edu/ungDissect/Lab03/Img3-4.html
THANK YOU FOR YOUR ATTENTION.
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