The Equine Distal Limb
An Atlas of Clinical Anatomy and Comparative Imaging

Jean-Marie Denoix
To Nathalie, my wife,
who shared these years of labour
and is a continuing support
in my achievements.

With my admiration and love.
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Foreword

Jean-Marie Denoix is the world’s foremost equine musculoskeletal system anatomist, and using this anatomical knowledge he has become one of the world’s leading equine diagnostic ultrasonographers. No-one is better qualified to compile a reference atlas of clinical anatomy correlated with images obtained by radiography, diagnostic ultrasonography and magnetic resonance imaging.

The diagnosis of lameness depends first and foremost on a detailed clinical evaluation, but it is then necessary to decide on the most appropriate imaging modality (or modalities) to use in order to help in the final diagnosis. Advanced imaging techniques require an in-depth knowledge of anatomy for accurate interpretation; especially when using magnetic resonance imaging this must be a three-dimensional concept of anatomy.

This book is a unique contribution to equine medicine and will be an invaluable reference text. The image quality is extraordinarily high and the multiple views of each area of the distal limb provide an extremely detailed evaluation. The text clearly highlights our current limitations in localizing pain sufficiently accurately to specific anatomical structures. It emphasizes the vital importance of the knowledge of normal anatomy and the need for highly detailed evaluations using a variety of imaging techniques in order to gain maximum information about the normality or otherwise of the structures in the area under investigation.

Magnetic resonance imaging has the potential in the future to enhance greatly our diagnostic capabilities in the distal limb, particularly within the foot. This book provides an excellent database of normal MRI anatomy. This work will therefore be essential for anyone involved in complex lameness evaluations, and those utilizing advanced imaging techniques.

Sue Dyson MA VetMB PhD DEO FRCVS
Preface

In the last ten years, the constant development of imaging modalities has reinforced the need for a better knowledge of anatomy. Diagnostic imaging is now a major part of the clinical examination of lame horses and will be even more important in the future.

Many of the classic books and manuals on the subject provide an anatomical basis for the understanding of the general constitution of the horse’s locomotor apparatus and are very useful for a comprehensive, overall knowledge of the anatomy of the equine limbs. But with the growing importance of diagnostic techniques, there is a need for reference anatomical documents providing immediate support for the interpretation of diagnostic images.

The purpose of this book is to feature a direct source of information based on real, fresh anatomical specimens very close to live anatomy. It provides reference images of the foot, pastern and fetlock – the most commonly involved areas in equine locomotor problems. The reference images include dissections, segmental anatomic sections and diagnostic images (radiographs and ultrasound scans as well as magnetic resonance imaging scans). Following the general approach of morphological sciences, based on relationships of anatomical structures and a direct analogy between images, no text is provided, but there is precise and complete labelling for each specimen or cross-section.

The anatomical specimens presented in this book were prepared using various techniques of fine dissection performed on fresh limbs, as well as on limbs injected with coloured latex into the vessels and/or synovial cavities of joints or tendon sheaths. The anatomical cross-sections were made at regular intervals in the three complementary planes of the space, after injection of coloured latex into the vessels and/or synovial cavities. Since the specimens were prepared, and the latex injected, over a considerable period of time, the colour of the latex may differ between specimens.

The clinical importance of each anatomical section is illustrated by correlated diagnostic imaging documents: plain or contrast radiographic studies, ultrasound scans of sound live horses and magnetic resonance imaging scans performed on sound isolated limbs.

The anatomical terms used in this book are close to those recommended in the Fourth Edition of the Nomina Anatomica Veterinaria (1994) and the illustrated Veterinary Anatomical Nomenclature (Schaller, 1992), but they also take into account usage among English-speaking anatomists and clinicians, which can be found in conventional books. At the end of the book there is an alphabetical index in English, with Latin equivalents for readers in non-English speaking countries.

The objective of this atlas is to provide the clinician with the anatomical basis required for the main steps in the clinical examination of locomotor problems in horses, including:

- Interpretation of local deformity (inspection), based on the topography of subcutaneous structures.
- Regional analgesia (nerve blocks) and intrasynovial analgesia (joint or tendon sheaths blocks), based on precise anatomical landmarks.
- Interpretation of diagnostic analgesia, using nerve and synovial relationships.
- Preparation and interpretation of soft tissue images, especially ultrasound scans.
- Anatomical landmarks for orthopaedic surgery and local injection or treatment.

My priority has been to produce a book that is informative and easy to use; I hope it will be useful in resolving the diagnosis of a large variety of clinical conditions involving the equine distal limb and for the teaching of locomotor diseases in the horse.

Jean-Marie Denoix
Acknowledgements

Many individuals contributed and helped in the production of this book. I would like to thank especially P. Perrot and B. Bousseau for their invaluable help in the preparation of the anatomical sections, in the presentation of the book, as well as in the labelling of the legends.

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Finally, I would like to acknowledge all the equine practitioners and colleagues who regularly encouraged me to complete this book, as they wished to have at their disposal the iconography performed on the anatomy and diagnostic imaging of one of the main parts of the horse’s locomotor system.

Grants and assistance in the production of the book
This work has been completed thanks to the financial support of the INRA (National Institute of Agronomic Research – Department of Animal Health), and of the Haras Nationaux (French Horse Breeding Institute).
General Presentation of the Atlas

Objective
The aim of this book is to show the anatomy of the horse’s distal limb (foot, pastern and fetlock) exclusively in the form of dissected anatomical specimens, anatomical cross-sections and diagnostic imaging documents – radiographs, ultrasonograms, magnetic resonance imaging (MRI) scans – with explanatory legends.

These illustrations should provide:

- Basic anatomical data, as required for physical examination and for carrying out diagnostic analgesia (nerves and synovial blocks).
- Reference images for interpreting diagnostic imaging (radiographs, ultrasonograms and MRI scans).
- Anatomical guidelines, references and illustrations required for actual treatment (e.g. for surgical approaches or local injections into joint cavities and tendon sheaths, as well as in other anatomical locations).

This atlas is focused on the distal parts of the equine forelimb which is the most frequently involved area when osteoarticular and tendon lesions occur in horses.

Materials and methods
The book contains illustrations of reference anatomical specimens and cross-sections, in conjunction with radiographic and ultrasonographic images. MRI scans are also widely used to demonstrate the correlation between anatomy and imaging techniques. Thus, the diagnostic images can easily be compared to the anatomical cross-sections performed in the transverse, frontal and sagittal planes, in order to accurately identify each joint structure, tendon or vessel.

The legends are presented mainly in English according to the recommendations of the International Committee on Veterinary Anatomical Nomenclature (*Nomina Anatomica Veterinaria*, Fourth Edition, 1994). Because of their worldwide use, some Latin names have also been employed, especially for the hoof and corium.

Anatomical illustrations
Detailed photographs of precise and cleaned anatomical dissections of fresh and injected specimens cover all aspects of the areas considered in the book. For each region they are presented from the most superficial anatomical layers to the deepest. Information on the topography of each anatomical structure is provided with these specimens.

There are also highly detailed anatomical cross-sections, performed on isolated frozen limbs after the injection of coloured latex into the vessels (arteries and veins) and/or synovial cavities of joints and tendon sheaths.

The limbs have been clipped to avoid contamination by hair and the cross-sections have been performed in the three complementary planes of the space (sagittal, transverse and frontal planes) in order to accurately define the identity, size and topography of each joint or tendon structure.

All planes of section are defined and illustrated with line drawings by the author.
General Presentation of the Atlas

In each area selected, casting specimens have also been prepared to illustrate the regional vascular supply or synovial cavities.

Diagnostic images
Based on precise and clear anatomical data, the purpose of this atlas is to present, with each anatomical cross-section, correlated diagnostic images:

• Plain and contrast radiographs of sound horses with no history of lameness, as well as normal isolated limbs.
• Reference ultrasound scans made using sound horses.
• MRI scans of isolated limbs with no lesions of the locomotor system.

The radiographs were produced using high definition single emulsion films (Kodak Min R). An 8 ratio grid with parallel lead sheaths was used for dorsopalmar and lateromedial projections of the foot. The exposure varied from 60 to 70 kV and from 12 to 63 mAs.

Sound adult horses with no history of lameness provided reference transverse and longitudinal (sagittal, parasagittal and frontal) ultrasonographic images of the foot, pastern and fetlock; these images were made with a non-portable machine (Aloka 2000) equipped with 7.5 MHz linear and convex linear probes and a 10 MHz sector probe. The skin of the area was clipped and a standoff pad was placed between the skin and probe in order to improve contact with the limb and enhance visualization of superficial structures. All the longitudinal and transverse ultrasound scans were recorded on 3/4 inch U-Matic videotapes to allow complete retrospective analysis and manipulation.

MRI scans were performed on selected normal freshly isolated limbs. These images were produced with a 1.5 Tesla field machine (Magnetom-Siemens) using a T1 weighted sequence. Some of the MRI scans were performed after injection of ‘fat material’ or latex into the arteries or veins in order to highlight the position of these structures.

Legends have been placed consistently on ultrasonograms and occasionally on radiographs. In general, legends have not been added to MRI scans, except when some vessels have undergone specific preparation, as their appearance is closely related to the anatomical sections that accompany them.

Presentation
Sections
For each of the anatomical regions shown – foot, pastern and fetlock – four types of images are provided:

1 Anatomical views (dissected specimens).
2 Sagittal cross-sections (anatomical cross-sections, ultrasound scans, MRI scans) as well as lateromedial radiographs.
3 Transverse cross-sections (anatomical cross-sections, radiographs, ultrasound or MRI scans).
4 Frontal cross-sections (anatomical cross-sections, ultrasound scans, MRI scans) and dorsopalmar radiographs.
General Presentation of the Atlas

Design
The material on each anatomical specimen or cross-section is displayed on a double page. All dissected specimens or sagittal sections are presented with the dorsal aspect facing to the left; the corresponding ultrasound scans are presented with the distal aspect on the right. All transverse sections are presented with the dorsal aspect up; the corresponding transverse ultrasonograms are presented as they are displayed on the monitor, with the superficial structures on the top and the dorsal or medial aspect on the left.
The Equine Foot
Dissections of the Equine Foot
Dissection 1: Corium and Hoof – Dorsal Part

Frontal MRI scan of the foot.

Frontal anatomical section of the foot.
Dissection 1: Corium and Hoof – Dorsal Part

1 Distal phalanx
   1a Foramen of the palmar process
   1b Parietal sulcus
2 Ungual cartilage
3 Corium limbi
4 Corium coronae
5 Corium parietis
   5a Dermal lamellae
6 Corium soleae
7 Pulvinus coronae
8 Periople
9 Hoof wall
   9a Stratum internum
   9b Stratum medium
   9c Stratum externum
10 Sole
11 Skin
12 Shoe

Sagittal MRI scan of the foot after injection of contrast material in the distal interphalangeal joint.

Contrast radiographic study of the arteries (angiography) of the corium, lateromedial view.
Dissection 2: Corium (After Removal of the Hoof) – Collateral Part

Frontal section of the equine foot after injection of latex in the synovial cavities and vessels.

Dorsomedial aspect of the foot after removal of the medial part of the hoof.
**Dissection 2: Corium (After Removal of the Hoof) – Collateral Part**

1. Ungular cartilage
2. Corium coronae
   - 2a. Dermal papillae
3. Corium limbi
4. Corium parietis
   - 4a. Dermal lamellae
5. Corium cunei
6. Corium soleae
   - 6a. Dermal papillae
7. Heel
8. Hoof wall
9. Sole
10. Frog (apex)

Dermal papillae of the corium limbi and corium coronae.

Coronal sulcus: conical depressions of the epidermis coronae that fit with the dermal papillae of the corium coronae.
Dissection 3: Corium Soleae and Corium Cunei – Distal View

Distal aspect of the corium (after removal of the hoof).

Distal aspect of the foot after removal of the lateral part of the hoof.

Distal aspect of the corium (after removal of the hoof).
Dissection 3: Corium Soleae and Corium Cunei – Distal View

1 Corium soleae
   1a Dermal papillae
2 Corium cunei
3 Corium parietis
   3a Dermal lamellae
4 Corium coronae
5 Corium limbi
6 Skin
7 Sole
   7a Body
   7b Branch
   7c Angle
8 Frog
   8a Apex
   8b Body
   8c Branch
   8d Central cuneal sulcus
   8e Paracuneal sulcus
9 Hoof wall
   9a Dorsal part
   9b Collateral part
   9c Heel
   9d Bar (inflex part)
10 Bulb of the heel
11 Shoe

Frontal MRI scan of the foot showing the different parts of the corium.

Proximal aspect of the sole angle showing conical depressions for the dermal papillae of the corium soleae.
Dissection 4: Vessels and Nerves of the Digit – Medial View

Close up view of the digital vessels and nerves (see dotted area in illustration on opposite page).

Dissected specimen showing the proper digital vessels and nerve after partial removal of the ungular cartilage.
Dissection 4: Vessels and Nerves of the Digit – Medial View

1 Fetlock region
2 Proximal phalanx (P1)
3 Dorsal digital extensor tendon
4 Extensor branch of the third interosseous muscle
5 Palmar annular ligament
6 Proximal digital annular ligament
7 Distal digital annular ligament
8 Superficial digital flexor tendon (distal branch)
9 Deep digital flexor tendon
10 Digital cushion
11 Ungular cartilage
12 Ergot ligament
13 Proper palmar digital artery
   13a Ergot ramus
   13b Dorsal ramus of P1
   13c Ramus of the digital torus
14 Proper palmar digital vein
   14a Coronal vein
   14b Superficial ungular plexus
   14c Parietal plexus
   14d Lateromedial palmar anastomosis
   14e Dorsal ramus of P1
15 Proper palmar digital nerve
   15a Dorsal ramus
   15b Intermediate ramus
   15c Ramus of the digital torus (see also page 8)

Arterial supply of the digit (only half is shown after a sagittal section).

Contrast radiographic study of the arteries (arteriography) of the digit, oblique view.
Dissection 5: Veins of the Foot – Medial View
(Hoof Wall and Corium Removed)

Casting preparation of the veins and arteries of the foot.

Contrast radiographic study of the veins (venography) and plexi of the foot, lateromedial view.
Dissection 5: Veins of the Foot – Medial View
(Hoof Wall and Corium Removed)

1 Middle phalanx
2 Distal phalanx
3 Dorsal digital extensor tendon
4 Ungular cartilage
5 Ergot ligament
6 Proper palmar digital artery
7 Proper palmar digital vein
8 Coronal vein
9 Dorsal ramus (vein) of the middle phalanx
10 Superficial ungular plexus
11 Parietal plexus
12 Intermediate ramus of the proper palmer digital nerve

Contrast radiographic study of the arteries (arteriography) of the foot, lateromedial view.

Lateromedial radiographic view of the foot.
Dissected specimen with incomplete removal of the ungular cartilage and deep digital flexor tendon.

Dissected specimen with incomplete removal of the ungular cartilage.
Dissection 6: Vessels and Nerves – Palmarolateral View

1 Proximal phalanx (P1)
2 Extensor branch of the third interosseous muscle
3 Superficial digital flexor tendon (distal branch)
4 Deep digital flexor tendon
5 Palmar wall of the palmar distal recess of the digital sheath
  5a Mesotendon
6 Distal digital annular ligament
7 Digital cushion
8 Ungular cartilage
9 Ergot ligament
10 Proper palmar digital artery
   10a Dorsal ramus of P1
   10b Ramus of the digital torus
11 Proper palmar digital vein
   11a Coronal vein
   11b Superficial ungular plexus
   11c Parietal plexus
   11d Lateromedial palmar anastomosis
12 Proper palmar digital nerve
   12a Dorsal ramus
   12b Intermediate ramus
   12c Ramus of the digital torus
   12d Ramus for the corium and distal phalanx (page 12)
   12e Ramus for the distal sesamoid bone (page 12)
13 Distal interphalangeal joint cavity (page 12)
14 Distal sesamoid bone (page 12)

Contrast radiographic study of the arteries (arteriography) of the foot, oblique view.

Dorsomedial-palmarolateral oblique radiographic view of the foot.
Preparation 7a: Venography of the Foot

Contrast radiographic study of the veins (venography) of the foot, dorsopalmar view.

Casting preparation of the veins and arteries of the foot, dorsal view.

Casting preparation of the veins and arteries of the foot, lateral view.

1 Middle phalanx (P2)
2 Distal phalanx
3 Distal sesamoid bone
4 Proper palmar digital vein
5 Ungular plexus
6 Parietal plexus
7 Coronal vein
8 Dorsal ramus (vein) of P2
9 Palmar ramus (vein) of P2
10 Terminal arch
Preparation 7b: Arteriography of the Foot

Contrast radiographic study of the arteries (arteriography) of the foot, dorsopalmar view.

1. Proximal phalanx
2. Middle phalanx (P2)
3. Distal phalanx (P3)
4. Distal sesamoid bone
5. Proper palmar digital artery
6. Ramus of the digital torus
7. Terminal arch
8. Palmar ramus of P2
9. Dorsal ramus of P2
10. Coronal artery
11. Dorsal ramus of P3
12. Perforating rami
13. Solar marginis artery (circumflex artery)
14. Arteries of the corium parietis
15. Arteries of the corium coronae
16. Distal artery and vein of the distal sesamoid bone (close-up view shown below)

Close-up view from the illustration above (within dotted area).

Casting preparation of the veins and arteries of the foot, distal view.
Dissection 8: Digital Cushion and Ungular Cartilage – Palmaromedial View

Medial view.

Palmaromedial view.
Dissection 8: Digital Cushion and Ungular Cartilage – Palmaromedial View

1 Middle phalanx
2 Distal phalanx
3 Collateral ligament of the distal interphalangeal joint
4 Collateral sesamoidean ligament
5 Dorsal digital extensor tendon
6 Superficial digital flexor tendon (distal branch)
7 Deep digital flexor tendon
8 Distal digital annular ligament
8a Proximal attachment
9 Digital cushion
9a Section plane
9b Proximal attachment
9c Toric part
9d Cuneal part
10 Ungular cartilage
10a Section plane
10b Chondrocompedal ligament
11 Corium cunei
Dissection 9: Interphalangeal Joints – Collateral (Lateral or Medial) View
Dissection 9: Interphalangeal Joints – Collateral (Lateral or Medial) View

1 Proximal phalanx
2 Middle phalanx
   2a Flexor tuberosity
   2b Distal condyle
3 Distal phalanx
4 Distal sesamoid bone
5 Proximal interphalangeal (PIP) joint
6 Distal interphalangeal (DIP) joint
7 Middle scutum
8 Collateral ligament of the PIP joint
9 Abaxial palmar ligament of the PIP joint
10 Collateral sesamoidean ligament
11 Collateral ligament of the DIP joint
12 Dorsal digital extensor tendon
13 Superficial digital flexor tendon (distal branch)
14 Deep digital flexor tendon
15 Distal digital annular ligament
   15a Proximal attachment
   15b Distal attachment
16 Ungular cartilage
   16a Window cut in it
   16b Chondrocoronal ligament
Dissection 10: Distal Interphalangeal Joint and Podotrochlear Apparatus – Collateral View

Collateral (lateral or medial) view.

Casting preparation of the DIP joint cavity, lateral view.

Casting preparation of the DIP joint cavity, lateral view.
Dissection 10: Distal Interphalangeal Joint and Podotrochlear Apparatus – Collateral View

1. Proximal phalanx
2. Middle phalanx
   2a. Flexor tuberosity
   2b. Distal condyle
3. Distal phalanx
4. Distal sesamoid bone
5. Proximal interphalangeal (PIP) joint
6. Distal interphalangeal (DIP) joint
7. Middle scutum
8. Collateral ligament of the PIP joint
9. Collateral ligament of the DIP joint
10. Collateral sesamoidean ligament
11. Proximopalmar recess of the DIP joint
12. Collateral recess of the DIP joint
13. Dorsal recess of the DIP joint
14. Dorsal digital extensor tendon
15. Deep digital flexor tendon
16. Dorsal distal recess of the digital sheath
17. Proximal recess of the podotrochlear bursa
18. Separation between the synovial recesses
19. Needle

Double contrast radiographic study of the DIP joint cavity (arthrography), lateromedial projection.

Contrast radiographic study of the podotrochlear bursa (bursography), lateromedial projection.
Dissection 11: Palmar Structures of the Foot and Distal Pastern – Palmar View

Dissection after coloured latex injection within the digital sheath and DIP joint cavities.

Contrast radiographic study of the digital sheath (tendinography), dorsopalmar view.
Contrast radiographic study of the arterial supply of the digital part of the deep digital flexor tendon.

Contrast radiographic study of the arteries (arteriography) of the digit, dorsopalmar view.

Dissection 11: Palmar Structures of the Foot and Distal Pastern – Palmar View

1 Distal phalanx (palmar process)
2 Superficial digital flexor tendon (distal branch)
3 Deep digital flexor tendon
   3a Distal attachment
   3b Mesotendon
4 Proximal digital annular ligament
5 Distal digital annular ligament (reclined)
   5a Proximal attachment
   5b Distal attachment
6 Palmar wall of the digital sheath (reflected)
   6a Palmar distal recess of the digital sheath
7 Proper palmar digital artery
   7a Palmar ramus of the middle phalanx
8 Proximopalmar recess of the distal interphalangeal joint cavity
   (top right, page 22)
Palmar view of the dissected foot. Half of the deep digital flexor tendon was removed; the other part is reflected.
Dissection 12: Palmar Structures of the Foot – Palmar View

1 Proximal phalanx
2 Middle phalanx
   2a Flexor tuberosity
3 Distal phalanx
   3a Semilunar line
   3b Planum cutaneum
   3c Palmar process
4 Collateral sesamoidean ligament
5 Superficial digital flexor tendon (distal branches)
6 Deep digital flexor tendon
   6a Sagittal distal insertion
   6b Collateral distal insertion
7 Distal digital annular ligament
   7a Proximal attachment
   7b Distal attachment
8 Ungular cartilage
   8a Chondroungular ligament
9 Distal sesamoid bone (page 24)
10 Impar distal sesamoidean ligament (page 24)

Frontal MRI scan of the palmar structures of the digit after injection of latex in the arteries and veins.
Dissection 13: Distal Interphalangeal Joint and Podotrochlear Apparatus – Palmar View

Dorsopalmar (horizontal) radiographic view of the foot.

Contrast radiographic study of the podotrochlear bursa (bursography), dorsopalmar view.
Dissection 13: Distal Interphalangeal Joint and Podotrochlear Apparatus – Palmar View

1 Middle phalanx
   1a Flexor tuberosity
2 Distal phalanx (P3)
   2a Palmar process
3 Distal sesamoid bone
   3a Flexor surface
   3b Sagittal ridge
4 Collateral sesamoidean ligament
   4a Sagittal union
5 Proximopalmar recess of the distal interphalangeal joint
6 Deep digital flexor tendon (DDFT) (reclined)
7 Podotrochlear bursa
8 Ungular cartilage (most of it was removed)
9 Proper palmar digital artery
10 Collateral attachment between the distal sesamoid bone, the DDFT and P3

Frontal MRI scan of the podotrochlear apparatus after injections of latex in the arteries and veins.

Palmarproximal-palmarodistal oblique (sky-line) radiographic view of the palmar structures of the foot.
Dissection 14: Podotrochlear Apparatus

1 Middle phalanx
   1a Flexor tuberosity
2 Distal phalanx
   2a Palmar process
   2b Flexor surface
   2c Semilunar line
   2d Planum cutaneum
   2e Solar sulcus
   2f Solar foramen
3 Distal sesamoid bone
   3a Flexor surface
   3b Proximal articular border
   3c Lateral angle

Proximal view.
Dissection 14: Podotrochlear Apparatus

- **3d** Medial angle
- **3e** Proximal border
- **3f** Distal border
- **3g** Sagittal ridge
- **4** Distal interphalangeal joint
- **5** Collateral sesamoidean ligament
  - **5a** Sagittal union
- **6** Impar distal sesamoidean ligament
- **7** Ungular cartilage
- **8** Chondrosesamoidean ligament

Palmar view.
Dissection 15: Distal Interphalangeal Joint

Casting preparation of the DIP joint cavity, dorsal view.

Dissection after coloured latex injection in the joint cavities, dorsal view.

Casting preparation of the DIP joint cavity, dorsal view.
Dissection 15: Distal Interphalangeal Joint

1. Proximal phalanx
2. Middle phalanx
   2a. Extensor process
3. Distal phalanx
   3a. Extensor process
   3b. Parietal surface
   3c. Articular surface
   3d. Palmar process
4. Distal sesamoid bone
   4a. Articular surface
   4b. Proximal border
5. Proximal interphalangeal (PIP) joint
6. Distal interphalangeal (DIP) joint
7. Collateral ligament of the PIP joint
8. Collateral ligament of the DIP joint
9. Collateral sesamoidean ligament
   9a. Sagittal reunion
10. Dorsal recess of the PIP joint cavity (page 30)
11. Dorsal recess of the DIP joint cavity (page 30)
12. Dorsal digital extensor tendon (page 30)
Dissection 16: Synovial Recesses of the Foot (After Coloured Latex Injections)

Casting preparation of the DIP joint cavity, palmarodistal view.

Casting preparation of the DIP joint cavity, dorsolateral view.

Casting preparation of the DIP joint cavity, palmarodistal view.

Lateral view.
Dissection 16: Synovial Recesses of the Foot
(After Coloured Latex Injections)

1 Proximal phalanx
2 Middle phalanx
3 Distal phalanx
   3a Extensor process
   3b Palmar process
   3c Solar sulcus
   3d Flexor surface
4 Distal sesamoid bone
5 Proximal interphalangeal (PIP) joint
   5a Collateral ligament
   5b Distodorsocollateral recess
6 Distal interphalangeal (DIP) joint
   6a Collateral ligament
   6b Collateral sesamoidean ligament
   6c Impar distal sesamoidean ligament
   6d Dorsal recess
   6e Proximopalmar recess
   6f Distopalmar recess
   6g Collateral recess
7 Deep digital flexor tendon
8 Distal digital annular ligament
   8a Proximal attachment
   8b Distal attachment
9 Digital sheath synovial cavity
   9a Dorsal distal recess
   9b Palmar distal recess
10 Podotrochlear bursa

Palmar view.

Dorsal view.
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Sagittal and Parasagittal Sections of the Equine Foot
S1a: Sagittal Section of the Digit

Sagittal MRI scan of the foot.
S1a: Sagittal Section of the Digit

Sagittal ultrasound scan of the distal pastern, palmar approach (see dotted area in illustration at right).

1 Third metacarpal bone
2 Proximal phalanx
3 Middle phalanx
4 Distal phalanx
5 Distal sesamoid bone
6 Metacarpophalangeal (MP) joint
7 Proximal interphalangeal (PIP) joint
8 Distal interphalangeal (DIP) joint
9 Palmar (intersesamoidean) ligament
10 Cruciate sesamoidean ligament
11 Oblique sesamoidean ligament
12 Straight sesamoidean ligament
13 Dorsal articlar capsule
14 Distopalmar recess of the MP joint
15 Dorsal recess of the MP joint
16 Middle scutum
17 Palmar recess of the PIP joint
18 Dorsal recess of the PIP joint
19 Collateral sesamoidean ligament
20 Impar distal sesamoid ligament
21 Proximopalmar recess of the DIP joint
22 Distopalmar recess of the DIP joint
23 Dorsal recess of the DIP joint
24 Dorsal digital extensor tendon
25 Deep digital flexor tendon
26 Superficial digital flexor tendon
27 Palmar annular ligament
28 Proximal digital annular ligament
29 Distal digital annular ligament
30 Digital sheath cavity
31 Podotroclear bursa
32 Skin
33 Pulvinus coronae
34 Corium coronae
35 Corium parietis
36 Corium soleae
37 Corium cunei
38 Digital cushion
39 Hoof wall
40 Sole
41 Frog
42 Ergot
S1b: Sagittal section of the Foot

Sagittal ultrasound scan of the distal interphalangeal joint, dorsal approach (see dotted area in illustration at top of facing page).

Sagittal MRI scan of the foot.

Sagittal ultrasound scan of the distal interphalangeal joint, dorsal approach (see dotted area in illustration at top of facing page).
### S1b: Sagittal section of the Foot

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<td>36b</td>
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<td>36d</td>
<td>Base</td>
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<td>36e</td>
<td>Central cuneal sulcus</td>
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<tr>
<td>37</td>
<td>Heel</td>
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</table>
Lateromedial radiographic view of the interphalangeal joints.

Sagittal section of the foot after injection of coloured latex in the synovial cavities.
S1c: Sagittal Section of the Interphalangeal Joints

1 Proximal phalanx
2 Middle phalanx (P2)
   2a Flexor tuberosity
   2b Distal condyle
3 Distal phalanx
   3a Articular surface
   3b Sesamoidean articular surface
   3c Flexor surface
   3d Distopalmar compact bone
4 Distal sesamoid bone
5 Proximal interphalangeal joint
6 Distal interphalangeal (DIP) joint
7 Middle scutum
8 Collateral sesamoidean ligament
9 Impar distal sesamoidean ligament
10 Proximopalmar recess of the DIP joint
11 Distopalmar recess of the DIP joint
12 Deep digital flexor tendon
   12a Fibrous parts
   12b Fibrocartilaginous parts
13 Distal digital annular ligament
14 Digital sheath (dorsal distal recess)
15 Podotrochlear bursa
   15a Proximal recess
   15b Distal recess
16 Palmar ramus (artery) of P2
17 Digital cushion
18 Skin
19 Corium cunei
20 Frog

Sagittal MRI scan of the foot after injection of contrast material into the distal interphalangeal joint.

Sagittal ultrasound scan of the distal interphalangeal joint, palmar approach (see box above).
Lateromedial radiographic view of the distal sesamoid bone.

Double contrast radiographic study of the podotrochlear bursa (bursography), lateromedial view.

Lateromedial radiographic view of the distal sesamoid bone.
S1d: Sagittal Section of the Podotrochlear Apparatus

Sagittal ultrasound scan of the podotrochlear apparatus, palmarodistal (transcuneal) approach (see dotted area in illustration at left).

Sagittal MRI scan of the podotrochlear apparatus after injection of contrast material into the distal interphalangeal joint.

Sagittal ultrasound scan of the podotrochlear apparatus, palmarodistal (transcuneal) approach (see dotted area in illustration at left).

1 Middle phalanx (P2)
2 Distal phalanx (P3)
   2a Sesamoidean articular surface
3 Distal sesamoid bone
   3a Spongy bone
   3b Palmar compact bone
   3c Flexor surface
   3d Proximopalmar border
   3e Proximodorsal border
   3f Articular surface with P2
   3g Distodorsal border
   3h Articular surface with P3
   3i Synovial groove
   3j Distopalmar border
4 Distal interphalangeal (DIP) joint
   4a Synovial membrane and villi
5 Collateral sesamoidean ligament (sagittal reunion)
6 Impar distal sesamoidean ligament
7 Recesses of the DIP joint
   7a Proximopalmar recess
   7b Distopalmar recess
8 Deep digital flexor tendon
   8a Sagittal arterial supply
9 Podotrochlear bursa
   9a Proximal recess
   9b Distal recess
10 Synovial membranes of the podotrochlear bursa, DIP joint and digital sheath
11 Distal digital annular ligament
12 Proximal ramus (artery) of the distal sesamoid bone
13 Distal rami (artery and vein) of the distal sesamoid bone
14 Digital cushion (cuneal part)
S2: Parasagittal Section of the Foot

Parasagittal MRI scan of the foot after injection of contrast material into the distal interphalangeal joint.

Contrast radiographic study of the distal interphalangeal joint (arthrography) lateromedial view.

Parasagittal MRI scan of the foot after injection of contrast material into the distal interphalangeal joint.
### S2: Parasagittal Section of the Foot

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<td>Middle phalanx (P2)</td>
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<td>Collateral sesamoidean ligament</td>
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<td>Impar distal sesamoidean ligament</td>
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<td>Articular recesses of the DIP joint cavity</td>
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<td>Palmar recess of the PIP joint</td>
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<td>Dorsal digital sesamoidean ligament</td>
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<td>Distal digital annular ligament</td>
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<td>16a</td>
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<td>16b</td>
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<td>Digital sheath (dorsal distal recess)</td>
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<td>Dorsal ramus (vein) of P2</td>
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<td>Palmar rami (artery and vein) of P2</td>
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<td>Hoof wall</td>
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<td>34</td>
<td>Zona alba (white zone)</td>
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<tr>
<td>35</td>
<td>Sole</td>
</tr>
<tr>
<td>36</td>
<td>Frog</td>
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Parasagittal section of the foot after injection of coloured latex in the synovial cavities.

Parasagittal MRI scan of the foot.
**S3: Parasagittal Section of the Foot**

1. Proximal phalanx
2. Middle phalanx (P2)
3. Distal phalanx
4. Distal sesamoid bone
5. Proximal interphalangeal (PIP) joint
6. Distal interphalangeal (DIP) joint
7. Collateral sesamoidean ligament
8. Impar distal sesamoidean ligament
9. Articular recesses of the DIP joint cavity
   - 9a Dorsal recess
   - 9b Proximopalmar recess
   - 9c Distopalmar recess
10. Middle scutum
11. Palmar recess of the PIP joint
12. Straight sesamoidean ligament
13. Dorsal digital extensor tendon
14. Superficial digital flexor tendon (distal branch)
15. Deep digital flexor tendon
16. Distal digital annular ligament
17. Podotrochlear bursa
   - 17a Proximal recess
   - 17b Distal recess
18. Digital sheath (dorsal distal recess)
19. Dorsal rami (artery and vein) of P2
20. Palmar rami (artery and vein) of P2
21. Coronal artery and vein
22. Ramus of the digital torus
23. Distal rami (artery and vein) of the distal sesamoid bone
24. Terminal arch
25. Digital cushion
   - 25a Toric part
   - 25b Cuneal part
26. Skin
27. Pulvinus coronae
28. Corium coronae
29. Corium parietis
30. Dermal and epidermal lamellae
31. Solar subcutaneous layer
32. Corium soleae
33. Corium cunei
34. Hoof wall
35. Zona alba (white zone)
36. Sole
37. Frog
Parasagittal ultrasound scan of the distal interphalangeal joint, dorsal approach (see dotted area in illustration on facing page).

Parasagittal MRI scan of the foot after injection of contrast material in the distal interphalangeal joint.
1 Proximal phalanx
2 Middle phalanx (P2)
3 Distal phalanx
   3a Coronal border
   3b Spongious bone
   3c Distopalmar compact bone
   3d Solar border
   3e Subchondral bone
   3f Solar canal
   3g Solar foramen
4 Distal sesamoid bone
5 Proximal interphalangeal (PIP) joint
6 Distal interphalangeal (DIP) joint
7 Collateral sesamoidean ligament
8 Impar distal sesamoidean ligament
9 Articular recesses of the DIP joint cavity
   9a Dorsal recess
   9b Proximopalmar recess
   9c Distopalmar recess
10 Middle scutum
11 Palmar recess of the PIP joint
12 Distodorsocollateral recess of the PIP joint
13 Dorsal digital extensor tendon
14 Superficial digital flexor tendon (distal branch)
15 Deep digital flexor tendon
16 Distal digital annular ligament
17 Podotrochlear bursa
   17a Proximal recess
   17b Distal recess
18 Digital sheath (palmar distal recess)
19 Dorsal rami (artery and vein) of P2
20 Coronal artery and vein
21 Ramus (artery) of the digital torus
22 Proper palmar digital artery and terminal arch within the solar canal
23 Perforating ramus
24 Digital cushion
25 Skin
26 Corium limbi
27 Pulvinus coronae
28 Corium coronae
29 Corium parietis
30 Dermal and epidermal lamellae
31 Solar subcutaneous layer
32 Corium soleae
33 Corium cunei
34 Periople
35 Hoof wall
36 Zona alba (white zone)
37 Sole
38 Frog
Parasagittal section of the foot after injection of coloured latex into the synovial cavities (a Dorsal distal recess of the digital sheath).

Parasagittal MRI scan of the foot.
S5: Parasagittal Section of the Foot

1 Proximal phalanx
2 Middle phalanx
3 Distal phalanx (P3)
4 Distal sesamoid bone
5 Proximal interphalangeal joint
   5a Distodorsocollateral recess
6 Distal interphalangeal (DIP) joint
   6a Collateral ligament
7 Collateral sesamoidean ligament
8 Impar distal sesamoidean ligament
9 Articular recesses of the DIP joint cavity
   9a Dorsal recess
   9b Proximopalmar recess
   9c Distopalmar recess
10 Middle scutum
11 Dorsal digital extensor tendon
12 Superficial digital flexor tendon (distal insertion)
13 Proximal digital annular ligament (distal insertion)
14 Deep digital flexor tendon
15 Distal digital annular ligament
16 Podotrochlear bursa
   16a Proximal recess
   16b Distal recess
17 Dorsal rami (artery and vein) of P2
18 Palmar rami (artery and vein) of P2
19 Ramus of the digital torus
20 Proper palmar digital artery
21 Perforating ramus
22 Deep ungular plexus
23 Digital cushion
24 Ungular cartilage
25 Skin
26 Corium limbi
27 Pulvinus coronae
28 Corium coronae
29 Corium parietis
30 Dermal and epidermal lamellae
31 Solar subcutaneous layer
32 Corium soleae
33 Corium cunei
34 Periople
35 Hoof wall
36 Sole (branch)
37 Frog (paracuneal sulcus)
Parasagittal section of the foot after injection of coloured latex in the synovial cavities.

Parasagittal MRI scan of the foot.
1. Proximal phalanx
2. Middle phalanx (P2)
3. Distal phalanx
   3a. Spongious bone
   3b. Distopalmar compact bone
   3c. Solar border
   3d. Subchondral bone
4. Distal sesamoid bone
5. Proximal interphalangeal (PIP) joint
6. Distal interphalangeal (DIP) joint
7. Collateral ligament of the DIP joint
8. Collateral sesamoidean ligament
9. Impar distal sesamoidean ligament
10. Articular recesses of the DIP joint cavity
    10a. Synovial membrane
    10a’. Synovial plica
    10b. Dorsal recess
    10c. Proximopalmar recess
    10d. Distopalmar recess
11. Middle scutum
12. PIP joint cavity
13. Dorsal digital extensor tendon
14. Deep digital flexor tendon
15. Podotrochlear bursa
    15a. Distal recess
16. Digital sheath (dorsal distal recess)
17. Dorsal rami (artery and vein) of P2
18. Coronal artery and vein
19. Palmar rami (artery and vein) of P2
20. Ramus of the digital torus
21. Proper palmar digital artery
22. Perforating ramus (from the terminal arch)
23. Deep ungular plexus
24. Digital cushion
25. Ungular cartilage
26. Skin
27. Pulvinus coronae
28. Corium coronae
29. Corium parietis
30. Dermal and epidermal lamellae
31. Solar subcutaneous layer
32. Corium soleae
33. Corium cunei
34. Hoof wall
35. Sole
36. Frog
Parasagittal section of the foot after injection of coloured latex in the synovial cavities:

- **a** Distal interphalangeal joint cavity (collateral recess);
- **b** Podotrochlear bursa.

Parasagittal MRI scan of the foot.
S7: Parasagittal Section of the Foot

1 Proximal phalanx
2 Middle phalanx (P2)
   2a Flexor tuberosity
   2b Distal condyle
3 Distal phalanx (P3)
4 Collateral ligament of the distal interphalangeal joint
5 Collateral sesamoidean ligament
6 Ungular cartilage
7 Proper palmar digital artery
8 Perforating ramus
9 Dorsal rami (artery and vein) of P2
10 Palmar rami (artery and vein) of P2
11 Proper palmar digital vein
12 Deep ungular plexus
13 Skin
14 Corium limbi
15 Pulvinus coronae
16 Corium coronae
17 Corium parietis
18 Dermal and epidermal lamellae
19 Solar subcutaneous layer
20 Corium soleae
21 Periople
22 Hoof wall
   22a Collateral part (quarter)
   22b Inflex part (bar)
   22c Heel
23 Sole
24 Zona alba (white zone)

Parasagittal MRI scan of the foot after injection of fat material in the arteries and latex in the veins.
Parasagittal MRI scan of the foot.

Proximolateral-distomedial oblique radiographic view of the palmar process of the distal phalanx.

Parasagittal MRI scan of the foot.
Parasagittal MRI scan of the foot after injection of latex into the arteries and fat material into the veins.

Parasagittal MRI scan of the foot.

Parasagittal MRI scan of the foot after injection of latex into the arteries and fat material into the veins.

S8: Parasagittal Section of the Foot

1 Distal phalanx (P3)
   1a Palmar process
2 Collateral ligament of the distal interphalangeal joint
3 Ungular cartilage
4 Dorsal ramus (artery) of the middle phalanx
5 Coronal artery
6 Dorsal ramus (artery) of P3
7 Perforating ramus (from the terminal arch)
8 Coronal vein
9 Deep ungular plexus
10 Skin

11 Corium limbi
12 Pulvinus coronae
13 Corium coronae
14 Corium parietis
15 Dermal and epidermal lamellae
16 Solar subcutaneous layer
17 Corium soleae
18 Periople
19 Hoof wall
   19a Collateral part (quarter)
   19b Inflex part (bar)
20 Sole (angle)
S9: Parasagittal Sections of the Foot

1 Distal phalanx
2 Ungular cartilage
3 Dorsal ramus of the distal phalanx
4 Coronal vein and artery
5 Ungular plexus
6 Circumflex artery and vein
7 Skin
8 Corium limbi
9 Pulvinus coronae
10 Corium coronae
11 Corium parietis with its venous plexus
12 Dermal and epidermal lamellae
13 Solar subcutaneous layer with its venous plexus
14 Corium soleae
15 Periole
16 Hoof wall
   16a Collateral part (quarter)
   16b Heel
   16c Inflex part (bar)
17 Sole (angle)
S10: Parasagittal Sections of the Foot
S11: Parasagittal Section of the Foot

Parasagittal anatomical section.

Parasagittal MRI scan of the foot.
Parasagittal MRI scan of the foot after injection of latex into the arteries and fat material into the veins.

Parasagittal MRI scan of the foot after injection of latex into the arteries and fat material into the veins.

**S11: Parasagittal Section of the Foot**

1. Distal phalanx
2. Ungular cartilage
3. Perforating ramus from the terminal arch
4. Skin
5. Corium limbi
6. Pulvinus coronae
7. Corium coronae with its venous plexus
8. Corium parietis with its venous plexus
9. Dermal and epidermal lamellae
10. Solar subcutaneous layer with its venous plexus
11. Corium soleae
12. Periople
13. Hoof wall (collateral part)
   - 13a Stratum internum
   - 13b Stratum medium
14. Sole (angle)
Transverse Sections of the Equine Foot

Sections perpendicular to the bone axis

Sections parallel to the coronal region
T1: Transverse Section of the Foot

Transverse anatomical section after injection of coloured latex into the vessels.
**T1: Transverse Section of the Foot**

1 Distal phalanx (solar border)
   1a Parietal surface
   1b Planum cutaneum
2 Perforating ramus
3 Solar marginal artery (circumflex artery)
4 Corium parietis
5 Dermal and epidermal lamellae
6 Solar subcutaneous layer
7 Corium soleae
   7a Dermal papillae
8 Hoof wall
   8a Stratum internum
   8b Stratum medium
   8c Stratum externum
9 Zona alba (white zone)
10 Sole
11 Frog (apex)
12 Paracuneal sulcus

Parasagittal MRI scan of the foot after injection of latex into the arteries and veins.

Dorsopalmar underexposed radiographic view of the solar border of the distal phalanx.

Contrast radiographic study (arteriography) of the solar marginal ('circumflex') artery, dorsopalmar view.
T2: Transverse Section of the Foot

Close-up view of the lamellae (area A in illustration at top of facing page).

Histological section of the lamellae (area B in picture at left).
Transverse MRI scan of the foot after injection of fat material into the arteries and latex into the veins.

Transverse MRI scan of the foot after injection of latex into the arteries and veins.

**T2: Transverse Section of the Foot**

1 Distal phalanx
   1a Spongious bone
   1b Distopalmar compact bone
   1c Planum cutaneum
   1d Parietal surface
   1e Solar canal
2 Terminal arch
   2a Perforating ramus
3 Circumflex artery
4 Digital cushion (cuneal part)
5 Corium parietis
6 Dermal and epidermal lamellae
7 Solar subcutaneous layer
8 Corium soleae
   8a Dermal papillae
9 Corium cunei
   9a Dermal papillae
10 Hoof wall
   10a Stratum internum
   10b Stratum medium
   10c Stratum externum
11 Zone alba (white zone)
12 Sole
13 Frog (body)
14 Paracuneal sulcus
T3: Transverse Section of the Foot
Transverse MRI scan of the foot after injection of latex into the arteries and veins.

Transverse MRI scan of the foot after injection of fat material into the arteries and latex into the veins.

1 Distal phalanx  
   1a Spongy bone  
   1b Distopalmar compact bone  
   1c Planum cutaneum  
   1d Parietal surface  
   1e Solar canal  
2 Terminal arch  
   2a Perforating rami  
3 Circumflex artery  
4 Digital cushion (cuneal part)  
5 Corium parietis  
6 Dermal and epidermal lamellae  
7 Solar subcutaneous layer  
8 Corium soleae  
   8a Dermal papillae  
9 Corium cunei  
   9a Dermal papillae  
10 Hoof wall  
   10a Dorsal part (toe)  
   10b Collateral part (quarter)  
   10c Heel  
   10d Inflex part (bar)  
11 Sole  
12 Frog  
   12a Spine  
   12b Branch  
   12c Base  
13 Central cuneal sulcus  
14 Paracuneal sulcus

T3: Transverse Section of the Foot
Transverse anatomical section of the foot after injection of coloured latex into the vessels.

Transverse MRI scan of the foot after injection of latex into the arteries and veins.

Transverse anatomical section of the foot after injection of coloured latex into the vessels.
T4: Transverse Section of the Foot

1 Distal phalanx
   1a Spongious bone
   1b Distopalmar compact bone
   1c Solar canal with terminal arch
   1d Solar foramen
   1e Palmar process
   1f Planum cutaneum
   1g Flexor surface
   1h Parietal surface
2 Deep digital flexor tendon
3 Proper palmar digital artery
4 Digital cushion (cuneal part)
5 Corium parietis
6 Dermal and epidermal lamellae
7 Solar subcutaneous layer
8 Corium soleae
   8a Dermal papillae
9 Corium cunei
10 Hoof wall
   10a Stratum internum
   10b Stratum medium
   10c Stratum externum
11 Sole
12 Frog (body)
   12a Spine
13 Paracuneal sulcus

Transverse MRI scan of the foot.
Contrast radiographic study of the arteries (arteriography) of the foot, dorsopalmar view.
T5: Transverse Section of the Foot

Transverse MRI scan of the foot after injection of latex into the arteries and veins.

Transverse MRI scan of the foot after injection of fat material into the arteries and latex into the veins.
T5: Transverse Section of the Foot

1 Distal phalanx (P3)
   1a Palmar process
   1b Parietal surface
   1c Insertion fossa for the collateral ligament
2 Collateral ligament of the distal interphalangeal joint
3 Impar distal sesamoidean ligament
4 Distopalmar recess of the distal interphalangeal joint
5 Deep digital flexor tendon
6 Podotrochlear bursa (distal recess)
7 Digital cushion (cuneal part)
8 Ungular cartilage
9 Proper palmar digital artery and vein
10 Dorsal ramus of P3
11 Corium parietis
12 Corium cunei
13 Hoof wall
   13a Dorsal part (toe)
   13b Collateral part (quarter)
   13c Heel
   13d Inflex part (bar)
14 Frog
   14a Spine
   14b Base
15 Bulb of the heel

Transverse section of the foot after injection of coloured latex into the synovial cavities.
Transverse anatomical section of the foot after injection of coloured latex into the synovial cavities.
T6: Transverse Section of the Foot

1 Distal phalanx (P3)
   1a Subchondral bone
   1b Palmar process
   1c Parietal surface
   1d Insertion fossa for the collateral ligament
2 Distal sesamoid bone (distal border)
3 Distal interphalangeal (DIP) joint (distopalmar recess)
4 Collateral ligament of the DIP joint
5 Deep digital flexor tendon
6 Podotrochlear bursa
7 Digital cushion
   7a Toric part
   7b Cuneal part
8 Ungular cartilage
9 Proper palmar digital artery and vein
10 Dorsal ramus of P3 (in the foramen of the palmar process)
11 Proper palmar digital nerve
12 Corium parietis
13 Dermal and epidermal lamellae
14 Hoof wall
   14a Dorsal part (toe)
   14b Collateral part (quarter)
   14c Heel
   14d Inflex part (bar)
15 Corium cunei
16 Frog
   16a Spine
   16b Base
17 Central cuneal sulcus
18 Paracuneal sulcus

Transverse MRI scan of the foot after injection of fat material into the arteries and latex into the veins.
Transverse section of the foot after injection of coloured latex into the synovial cavities and vessels.

Transverse section of the foot after injection of coloured latex into the synovial cavities and vessels.
Transverse MRI scan of the foot after injection of fat material into the arteries and latex into the veins.

Transverse MRI scan of the foot.

**T7: Transverse Section of the Foot**

1. Distal phalanx (P3)
   - 1a. Subchondral bone
   - 1b. Articular cartilage of the DIP joint
   - 1c. Palmar process

2. Distal sesamoid bone (distal border)
   - 2a. Synovial fossa
   - 2b. Flexor surface

3. Distal interphalangeal (DIP) joint
   - 3a. Distopalmar recess
   - 3b. Collateral recess

4. Collateral ligament of the DIP joint

5. Impar distal sesamoidean ligament

6. Deep digital flexor tendon

7. Podotrochlear bursa

8. Distal digital annular ligament
   - 8a. Distal attachment

9. Digital cushion

10. Ungular cartilage

11. Proper palmar digital artery

12. Dorsal ramus of P3

13. Distal ramus (artery) of the distal sesamoid bone

14. Circumflex artery

15. Proper palmar digital nerve

16. Corium parietis

17. Dermal and epidermal lamellae

18. Corium cunei

19. Dermal papillae

20. Hoof wall
   - 20a. Collateral part (quarter)
   - 20b. Inflex part (bar)

21. Frog
   - 21a. Spine
Transverse section of the foot after injection of coloured latex into the synovial cavities and vessels.
**T8: Transverse Section of the Foot**

1. Distal phalanx
   1a. Subchondral bone  
   1b. Articular cartilage
2. Distal condyle of the middle phalanx
3. Distal sesamoid bone  
   3a. Synovial fossa (enlarged)  
   3b. Flexor surface
4. Distal interphalangeal (DIP) joint  
   4a. Collateral recess  
   4b. Distopalmar recess
5. Collateral ligament of the DIP joint
6. Dorsal digital extensor tendon
7. Deep digital flexor tendon
8. Podotrochlear bursa
9. Distal digital annular ligament  
   9a. Distal attachment
10. Digital cushion  
    10a. Toric part  
    10b. Cuneal part
11. Ungular cartilage
12. Proper palmar digital artery and vein
13. Ramus of the digital torus
14. Proper palmar digital nerve
15. Corium coronae
16. Dermal papillae
17. Corium parietis
18. Corium cunei
19. Hoof wall  
   19a. Collateral part (quarter)  
   19b. Heel  
   19c. Inflex part (bar)
20. Frog  
    20a. Spine  
    20b. Base
21. Central cuneal sulcus
22. Paracuneal sulcus

Transverse MRI scan of the foot.
Transverse section of the foot after injection of coloured latex into the synovial cavities.

Transverse MRI scan of the foot after injection of contrast material into the DIP joint.
T9: Transverse Section of the Foot

1 Distal phalanx
   1a Extensor process
   1b Articular cartilage
2 Middle phalanx (distal condyle)
   2a Articular cartilage
3 Distal sesamoid bone
   3a Articular surface
   3b Flexor surface
4 Distal interphalangeal (DIP) joint
   4a Collateral recess
5 Collateral ligament of the DIP joint
6 Dorsal digital extensor tendon
7 Deep digital flexor tendon
8 Podotrochlear bursa
   8a Collateral recess
9 Distal digital annular ligament
   9a Distal attachment
10 Digital cushion (toric part)
11 Ungular cartilage
12 Proper palmar digital artery, vein and nerve
13 Ramus of the digital torus
14 Superficial ungular plexus
15 Pulvinus coronae
16 Corium coronae
17 Dermal papillae
18 Corium parietis
19 Dermal and epidermal lamellae
20 Corium cunei
21 Hoof wall
22 Spine of the frog
23 Bulb of the heel

Transverse ultrasound scan, dorsal approach (see dotted area in illustration above, right).

Proximopalmar-distodorsal radiographic projection (skyline view) of the palmar part of the foot.
Transverse MRI scan of the foot after injection of latex into the arteries and veins.

Transverse section of the foot after injection of coloured latex into the synovial cavities.

Transverse MRI scan of the foot after injection of latex into the arteries and veins.
T10: Transverse Section of the Foot

1 Middle phalanx
2 Distal phalanx
   2a Extensor process
   2b Palmar process
3 Distal sesamoid bone
   3a Spongyous bone
   3b Palmar compact bone
   3c Flexor surface
4 Distal interphalangeal (DIP) joint
5 Collateral ligament of the DIP joint
6 Recesses of the DIP joint
   6a Dorsal recess
   6b Collaterall recess
7 Dorsal digital extensor tendon
8 Deep digital flexor tendon
9 Podotrochlear bursa
10 Distal digital annular ligament
   10a Distal attachment
11 Digital cushion (toric part)
12 Ungular cartilage
13 Proper palmar digital artery and vein
14 Deep ungular plexus
15 Superficial ungular plexus
16 Proper palmar digital nerve
17 Corium limbi
18 Pulvinus coronae
19 Corium coronae
20 Corium parietis
21 Corium cunei
22 Periople
23 Hoof wall
24 Spine of the frog
25 Bulb of the heel

Transverse ultrasound scan of the collateral ligament of the DIP joint (see dotted area in illustration above, right).
Transverse MRI scan of the foot after injection of latex into the arteries and veins.

Transverse anatomical section of the foot after injection of coloured latex into the synovial cavities and vessels.
T11a: Transverse Section of the Foot

1 Middle phalanx
2 Distal sesamoid bone
   2a Proximal border
   2b Flexor surface
3 Distal interphalangeal (DIP) joint
4 Collateral ligament of the DIP joint
5 Collateral sesamoidean ligament
6 Recesses of the DIP joint
   6a Dorsal recess
   6b Collateral recess
7 Dorsal digital extensor tendon
8 Deep digital flexor tendon
9 Podotrochlear bursa
10 Distal digital annular ligament
11 Digital cushion (toric part)
12 Ungular cartilage
   12a Chondrosesamoidean ligament
13 Proper palmar digital artery (vein not injected)
14 Ramus of the digital torus
15 Deep ungular plexus
16 Superficial ungular plexus
17 Proper palmar digital nerve
18 Corium limbi
19 Pulvinus coronae
20 Corium coronae
21 Periople
22 Hoof wall
23 Spine of the frog
24 Central cuneal sulcus
25 Bulb of the heel

A Transverse ultrasound scan, dorsal approach (see dotted area in illustration above, right). Crosses show the articular cartilage.

B Transverse ultrasound scan, dorsolateral approach (see dotted area in illustration above).
Transverse anatomical section of the foot after injection of coloured latex into the synovial cavities.

Transverse ultrasound scan of the coronet, dorsolateral approach (see dotted area in illustration on facing page).
Transverse MRI scan of the foot.

Transverse MRI scan of the foot after injection of fat material into the arteries and latex into the veins.

**T11b: Transverse Section of the Foot**

1. Middle phalanx
   - 1a Distal condyle
2. Distal sesamoid bone
   - 2a Spongious bone
   - 2b Palmar compact bone
   - 2c Flexor surface
3. Distal interphalangeal (DIP) joint
4. Collateral ligament of the DIP joint
5. Collateral sesamoidean ligament
6. Chondrosesamoidean ligament
7. Collateral recess of the DIP joint
8. Deep digital flexor tendon
9. Podotrochlear bursa
10. Distal digital annular ligament
   - 10a Distal attachment
11. Digital cushion (toric part)
12. Ungular cartilage
13. Proper palmar digital artery
14. Proper palmar digital vein (non-injected)
15. Deep ungular plexus
16. Superficial ungular plexus
17. Proper palmar digital nerve
18. Pulvinus coronae
Transverse section of the foot after injection of coloured latex into the synovial cavities.

Transverse MRI scan of the foot.
T12: Transverse Section of the Foot

1 Middle phalanx  
   1a Distal condyle  
2 Distal sesamoid bone (proximal border)  
3 Distal interphalangeal (DIP) joint  
4 Collateral ligament of the DIP joint  
5 Collateral sesamoidean ligament  
6 Recesses of the DIP joint  
   6a Dorsal recess  
   6b Proximopalmar recess  
   6c Collateral recess  
7 Dorsal digital extensor tendon  
8 Deep digital flexor tendon  
9 Podotrochlear bursa  
   9a Collateral recess  
10 Distal digital annular ligament  
11 Digital cushion (toric part)  
12 Ungular cartilage  
13 Proper palmar digital artery  
14 Ramus of the digital torus  
15 Proper palmar digital vein  
16 Deep ungular plexus  
17 Superficial ungular plexus  
18 Proper palmar digital nerve  
19 Skin  
20 Corium limbi  
21 Pulvinus coronae  
22 Corium coronae  
23 Corium parietis  
24 Periople  
25 Hoof wall  
26 Bulb of the heel

Transverse ultrasound scan oblique dorsodistally of the palmar part of the foot (see dotted area in illustration above right).

Transverse MRI scan of the foot after injection of fat material into the arteries and latex into the veins.
Transverse section of the foot after injection of coloured latex into the synovial cavities.

Transverse MRI scan of the foot after injection of latex into the arteries and fat material into the veins.
**T13: Transverse Section of the Foot**

1. Middle phalanx (P2)
2. Collateral ligament of the distal interphalangeal (DIP) joint
3. Collateral sesamoidean ligament
4. Recesses of the DIP joint
   - 4a Dorsal recess
   - 4b Proximopalmar recess
   - 4c Collateral recess
5. Dorsal digital extensor tendon
6. Deep digital flexor tendon
   - 6a Fibrous part
   - 6b Fibrocartilaginous part
7. Podotrochlear bursa (proximal recess)
8. Distal digital annular ligament
9. Digital cushion (toric part)
10. Ungular cartilage
11. Proper palmar digital artery
12. Ramus of the digital torus
13. Palmar ramus of P2
14. Coronal artery
15. Deep ungular plexus
16. Proper palmar digital nerve
17. Skin
18. Corium limbi
19. Pulvinus coronae
20. Corium coronae
21. Periople
22. Hoof wall
23. Bulb of the heel

Transverse ultrasound scan of the dorsal part of the coronet, dorsal approach (see dotted area in illustration above, right).

Transverse MRI scan of the foot after injection of latex into the arteries and fat material into the veins.
Transverse MRI scan of the foot.

Transverse section of the foot after injection of coloured latex into the synovial cavities.

Transverse MRI scan of the foot.
### T14: Transverse Section of the Foot

1. Middle phalanx (P2)
2. Collateral sesamoidean ligament
3. Chondrocoronal ligament
4. Recesses of the distal interphalangeal joint
   - 4a Dorsal recess
   - 4b Proximopalmar recess
   - 4c Collateral recess
5. Dorsal digital extensor tendon
6. Deep digital flexor tendon
   - 6a Fibrous part
   - 6b Fibrocartilaginous part
7. Distal digital annular ligament
8. Dorsal distal recess of the digital sheath
9. Digital cushion (toric part)
10. Ungular cartilage
11. Proper palmar digital artery
12. Ramus of the digital torus
13. Dorsal ramus of P2
14. Deep ungular plexus
15. Superficial ungular plexus
16. Proper palmar digital nerve
17. Skin
18. Periople
19. Bulb of the heel

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Transverse ultrasound scan of the coronet, palmarolateral approach (see dotted area in illustration above, right).

Transverse MRI scan of the foot after injection of fat material into the arteries and latex into the veins.
Transverse MRI scan of the foot after injection of fat material into the arteries and latex into the veins.

Transverse MRI scan of the foot after injection of latex into the arteries and fat material into the veins.
**T15: Transverse Section of the Foot**

![Transverse MRI scan of the foot.](image1)

| 1 | Middle phalanx (P2)       |
|   | 1a Flexor tuberosity     |
| 2 | Collateral sesamoidean ligament |
| 3 | Recesses of the distal interphalangeal joint |
|   | 3a Dorsal recess         |
|   | 3b Proximopalmar recess |
| 4 | Distodorsocollateral recess of the proximal interphalangeal joint |
| 5 | Dorsal digital extensor tendon |
| 6 | Deep digital flexor tendon |
|   | 6a Fibrous part           |
|   | 6b Fibrocartilaginous part |
| 7 | Distal digital annular ligament |
| 8 | Dorsal distal recess of the digital sheath |
| 9 | Digital cushion (toric part) |
|   | 9a Proximal attachment |
| 10 | Ungular cartilage       |
| 11 | Proper palmar digital artery |
| 12 | Proper palmar digital vein |
| 13 | Rami (artery and vein) of the digital torus |
| 14 | Palmar rami (artery and vein) of P2 |
| 15 | Dorsal rami (artery and vein) of P2 |
| 16 | Deep ungular plexus     |
| 17 | Proper palmar digital nerve |
| 18 | Skin                    |
| 19 | Bulb of the heel        |
| 20 | Coronal region          |

Transverse ultrasound scan of the deep digital flexor tendon, palmar approach (see dotted area in illustration above).

Transverse MRI scan of the foot.
T16: Transverse Section of the Foot

Transverse MRI scan of the foot.

Transverse section of the foot after injection of coloured latex into the synovial cavities.
**T16: Transverse Section of the Foot**

1 Middle phalanx (P2)
   - 1a Flexor tuberosity
2 Collateral ligament of the proximal interphalangeal joint
3 Deep digital flexor tendon
   - 3a Fibrous part
   - 3b Fibrocartilaginous part
4 Distal digital annular ligament
   - 4a Proximal attachment
5 Dorsal distal recess of the digital sheath
6 Digital cushion (toric part)
   - 6a Proximal attachment
7 Ungular cartilage
8 Proper palmar digital artery
9 Ramus of the digital torus
10 Coronal artery
11 Palmar ramus of P2
12 Proper palmar digital vein
13 Ungular plexus
14 Proper palmar digital nerve
15 Skin
16 Coronal region

Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration at top of page).

Transverse MRI scan of the foot after injection of latex into the arteries and fat material into the veins.
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Frontal Sections of the Equine Foot
F1: Frontal Section of the Foot

Frontal anatomical section of the equine foot, dorsal view.
**F1: Frontal Section of the Foot**

1 Digital cushion  
   1a Cuneal part  
2 Ungular cartilage  
3 Ramus of the digital torus  
4 Lateromedial palmar anastomosis  
5 Deep ungular plexus  
6 Skin  
7 Corium limbi  
8 Pulvinus coronae  
9 Corium coronae  
10 Dermal papillae  
11 Corium cunei  
12 Periople  
13 Hoof wall (heel)  
14 Frog  
   14a Spine  
   14b Base  
15 Central cuneal sulcus  
16 Paracuneal sulcus

Frontal ultrasound scan of the palmar part of the foot, proximopalmar approach (see dotted area in illustration at top of page).

Frontal MRI scan of the foot after injection of latex into the arteries and fat material into the veins.
F2: Frontal Section of the Foot

Frontal anatomical section of the equine foot after injection of coloured latex into the vessels, dorsal view.

Frontal ultrasound scan of the palmar part of the foot, proximopalmar approach (see dotted area in illustration at top of facing page).
F2: Frontal Section of the Foot

1 Digital cushion
   1a Toric part
   1b Cuneal part
2 Ungular cartilage
3 Ramus of the digital torus
4 Lateromedial palmar anastomosis
5 Deep ungular plexus
6 Skin
7 Corium limbi
8 Pulvinus coronae
9 Corium coronae
10 Corium parietis

11 Dermal and epidermal lamellae
12 Corium cunei
13 Periople
14 Hoof wall
   14a Collateral part (quarter)
   14b Inflex part (bar)
   14c Heel
15 Frog
   15a Spine
   15b Branch
16 Central cuneal sulcus
17 Paracuneal sulcus

Frontal MRI scan of the foot after injection of latex into the arteries and fat material into the veins.

Frontal MRI scan of the foot.
F3: Frontal Section of the Foot

Frontal MRI scan of the foot.

Frontal anatomical section of the foot after injection of coloured latex into the vessels, palmar view.
F3: Frontal Section of the Foot

1 Digital cushion
   1a Toric part
   1b Cuneal part
2 Ungular cartilage
3 Ramus of the digital torus
4 Coronal artery
5 Deep ungular plexus
6 Superficial ungular plexus
7 Skin
8 Corium limbi
9 Pulvinus coronae
10 Corium coronae
11 Corium parietis
12 Dermal and epidermal lamellae
13 Corium soleae
14 Corium cunei
15 Periople
16 Hoof wall
   16a Collateral part (quarter)
   16b Inflex part (bar)
17 Sole (angle)
18 Frog
   18a Spine
   18b Branch
19 Central cuneal sulcus
20 Paracuneal sulcus

Frontal MRI scan of the foot after injection of fat material into the arteries and latex into the veins.

Frontal MRI scan of the foot after injection of latex into the arteries and fat material into the veins.
F4: Frontal Section of the Foot

Frontal MRI scan of the foot after injection of latex into the arteries and veins.

Frontal anatomical section of the foot after injection of coloured latex into the vessels and synovial cavities.
### F4: Frontal Section of the Foot

Frontal MRI scan of the foot after injection of fat material into the arteries and latex into the veins.

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
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<tbody>
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<td>Palmar process of the distal phalanx (P3)</td>
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<td>Middle scutum</td>
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<td>3</td>
<td>Superficial digital flexor tendon (distal branch)</td>
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<td>4</td>
<td>Deep digital flexor tendon</td>
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<td>4a</td>
<td>Fibrous part</td>
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<td>4b</td>
<td>Fibrocartilaginous part</td>
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<td>5</td>
<td>Distal digital annular ligament</td>
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<td>5a</td>
<td>Proximal attachment</td>
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<td>6</td>
<td>Podotrochlear bursa (proximal recess)</td>
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<td>7</td>
<td>Dorsal distal recess of the digital sheath</td>
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<td>8</td>
<td>Digital cushion</td>
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<td>8a</td>
<td>Proximal attachment</td>
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<td>Toric part</td>
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<td>8c</td>
<td>Cuneal part</td>
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<td>9</td>
<td>Ungular cartilage</td>
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<td>Proper palmar digital artery</td>
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<td>Circumflex artery</td>
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<td>Coronal artery</td>
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<td>Dorsal ramus of P3</td>
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<td>Coronal vein</td>
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<td>Deep ungular plexus</td>
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<td>Superficial ungular plexus</td>
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<td>18</td>
<td>Proper palmar digital nerve</td>
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<td>Skin</td>
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<td>Corium limbi</td>
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<td>Pulvinus coronae</td>
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<td>Corium parietis</td>
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<td>24</td>
<td>Solar subcutaneous layer</td>
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<td>25</td>
<td>Corium solae</td>
</tr>
<tr>
<td>26</td>
<td>Corium cunei</td>
</tr>
<tr>
<td>27</td>
<td>Periople</td>
</tr>
<tr>
<td>28</td>
<td>Hoof wall</td>
</tr>
<tr>
<td>28a</td>
<td>Collateral part (quarter)</td>
</tr>
<tr>
<td>28b</td>
<td>Inflex part (bar)</td>
</tr>
<tr>
<td>29</td>
<td>Zona alba</td>
</tr>
<tr>
<td>30</td>
<td>Sole (branch)</td>
</tr>
<tr>
<td>31</td>
<td>Frog (body)</td>
</tr>
<tr>
<td>32</td>
<td>Paracuneal sulcus</td>
</tr>
</tbody>
</table>
F5: Frontal Section of the Foot

Frontal MRI scan of the foot after injection of fat material into the arteries and latex into the veins.

Dissected specimen, palmar aspect.
F5: Frontal Section of the Foot

1 Palmar process of the distal phalanx
2 Superficial digital flexor tendon (distal branch)
3 Deep digital flexor tendon (fibrous part)
4 Distal digital annular ligament
  4a Proximal attachment
  4b Distal attachment
5 Dorsal distal recess of the digital sheath
6 Digital cushion
  6a Proximal insertion
  6b Cuneal part
7 Ungual cartilage
8 Proper palmar digital artery
9 Dorsal ramus of the distal phalanx
10 Proper palmar digital vein
11 Deep ungular plexus
12 Superficial ungular plexus
13 Proper palmar digital nerve
14 Skin
15 Corium limbi
16 Pulvinus coronae
17 Corium coronae
18 Corium parietis
19 Solar subcutaneous layer
20 Corium soleae
21 Corium cunei
22 Periople
23 Hoof wall (quarter)
24 Sole (branch)
25 Frog (body)
26 Paracuneal sulcus

Frontal MRI scan of the foot.

Frontal ultrasound scan of the deep digital flexor tendon, lateral approach (see dotted area in illustration at top of page).
Frontal anatomical section of the foot after injection of coloured latex into the vessels and synovial cavities. a Digital sheath (dorsal distal recess).
F6: Frontal Section of the Foot

1 Palmar process of the distal phalanx (P3)
2 Proximal palmar recess of the distal interphalangeal joint
3 Deep digital flexor tendon
   3a Fibrous part
   3b Fibrocartilaginous part
4 Distal digital annular ligament
5 Podotrochlear bursa
6 Digital cushion (cuneal part)
7 Ungular cartilage
8 Proper palmar digital artery
9 Palmar ramus (artery) of middle phalanx
10 Dorsal ramus of P3
11 Circumflex artery
12 Proper palmar digital vein
13 Deep ungular plexus
14 Superficial ungular plexus
15 Palmar ramus (vein) of middle phalanx
16 Proper palmar digital nerve
17 Skin
18 Corium limbi
19 Pulvinus coronae
20 Corium coronae
21 Corium parietis
22 Dermal and epidermal lamellae
23 Solar subcutaneous layer
24 Corium soleae
25 Corium cunei
26 Hoof wall (collateral part – quarter)
27 Sole (branch)
28 Frog (body)
29 Paracuneal sulcus

Contrast radiographic study of the podotrochlear bursa (bursography), dorsopalmar view.

Frontal MRI scan of the foot.
F7: Frontal Section of the Foot

Frontal MRI scan of the foot after injection of latex into the arteries and fat material into the veins.

Frontal anatomical section of the foot after injection of coloured latex into the vessels and synovial cavities.
F7: Frontal Section of the Foot

1 Middle phalanx (flexor tuberosity)
2 Palmar process of the distal phalanx
3 Distal sesamoid bone
4 Collateral sesamoidean ligament
5 Proximopalmar recess of the distal interphalangeal joint
6 Deep digital flexor tendon
7 Distal digital annular ligament (distal attachment)
8 Podotrochlear bursa
8a Proximal recess
9 Digital cushion (cuneal part)
10 Ungular cartilage
11 Proper palmar digital artery
12 Dorsal ramus of the middle phalanx
13 Dorsal ramus of the distal phalanx
14 Circumflex artery
15 Proper palmar digital vein
16 Deep ungular plexus
17 Superficial ungular plexus
18 Proper palmar digital nerve
19 Skin
20 Corium limbi
21 Pulvinus coronae
22 Corium coronae
23 Corium parietis
24 Solar subcutaneous layer
25 Corium soleae
26 Corium cunei
27 Hoof wall (quarter)
28 Zona alba
29 Sole (branch)
30 Frog (body)
31 Paracuneal sulcus

Frontal MRI scan of the foot after injection of latex into the arteries and veins.
Frontal MRI scan of the foot after injection of fat material into the arteries and latex into the veins.
Frontal MRI scan of the foot after injection of fat material into the arteries and latex into the veins.

Frontal MRI scan of the foot.
F8: Frontal Section of the Foot

1 Middle phalanx, P2 (flexor tuberosity)
2 Palmar process of the distal phalanx (P3)
3 Distal sesamoid bone
4 Collateral sesamoidean ligament
5 Impar distal sesamoidean ligament
6 Proximal palmar recess of the distal interphalangeal joint
7 Deep digital flexor tendon
8 Podotrochlear bursa (distal recess)
9 Digital cushion (cuneal part)
10 Ungual cartilage
11 Proper palmar digital artery
12 Coronal artery
13 Dorsal ramus of P2
14 Dorsal ramus of P3
15 Circumflex artery
16 Proper palmar digital vein
17 Deep ungular plexus
18 Superficial ungular plexus
19 Palmar ramus (vein) of P2
20 Skin
21 Corium limbi
22 Pulvinus coronae
23 Corium coronae
24 Corium parietis
25 Solar subcutaneous layer
26 Corium soleae
27 Corium cunei
28 Periople
29 Hoof wall (quarter)
30 Sole (branch)
31 Frog (body)

Frontal MRI scan of the foot.

Frontal ultrasound scan of the foot, collateral approach (see dotted area in illustration at top of page).
F9: Frontal Section of the Foot

Frontal MRI scan of the foot after injection of latex into the arteries and fat material into the veins.

Frontal anatomical section of the foot after injection of coloured latex in the vessels and synovial cavities.
F9: Frontal Section of the Foot

1 Middle phalanx (P2)
   1a Distal condyle
2 Distal phalanx (P3)
   2a Palmar process
   2b Articular surface
   2c Solar sulcus
3 Distal sesamoid bone
4 Collateral sesamoidean ligament
5 Impar distal sesamoidean ligament
6 Recesses of the distal interphalangeal joint
   6a Proximopalmar recess
   6b Distopalmar recess
   6c Collateral recess
7 Deep digital flexor tendon
8 Podotrochlear bursa (distal recess)
9 Digital cushion (cuneal part)
10 Ungular cartilage
11 Proper palmar digital artery
12 Dorsal ramus of P2
13 Dorsal ramus of P3
14 Circumflex artery
15 Proper palmar digital vein
16 Superficial ungular plexus
17 Skin
18 Corium limbi
19 Pulvinus coronae
20 Corium coronae
21 Corium parietis
22 Dermal and epidermal lamellae
23 Solar subcutaneous layer
24 Corium soleae
   24a Dermal papillae
25 Corium cunei
26 Periople
27 Hoof wall (quarter)
28 Zona alba
29 Sole (branch)
30 Frog (apex)
31 Paracuneal sulcus
F10: Frontal Section of the Foot

Frontal MRI scan of the foot after injection of latex into the arteries and veins.

Frontal anatomical section of the foot after injection of coloured latex into the vessels and synovial cavities.
F10: Frontal Section of the Foot

Frontal ultrasound scan of the foot, collateral approach (see dotted area in illustration at top of page).
F11: Frontal Section of the Foot

Frontal MRI scan of the foot after injection of latex into the arteries and veins.

Frontal anatomical section of the foot after injection of coloured latex into the vessels and synovial cavities.

Frontal MRI scan of the foot after injection of latex into the arteries and veins.
F11: Frontal Section of the Foot

1 Middle phalanx (P2)
2 Distal phalanx (P3)
   2a Subchondral bone
   2b Solar canal
   2c Distopalmar compact bone
   2d Parietal surface
   2e Solar border
   2f Planum cutaneum
3 Distal interphalangeal (DIP) joint
4 Collateral ligament of the DIP joint
5 Collateral sesamoidean ligament
6 Collateral recess of the DIP joint
7 Digital cushion (cuneal part)
8 Ungular cartilage
   8a Chondrocoronal ligament
9 Proper palmar digital artery (terminal arch)
10 Dorsal ramus (artery) of P2
11 Dorsal ramus (artery) of P3
12 Circumflex artery
13 Dorsal ramus (vein) of P2
14 Coronal vein
15 Skin
16 Corium limbi
17 Pulvinus coronae
18 Corium coronae
19 Corium parietis
20 Dermal and epidermal lamellae
21 Solar subcutaneous layer
22 Corium soleae
23 Corium cunei
24 Periople
25 Hoof wall (quarter)
26 Sole
27 Frog (apex)

Double contrast radiographic study of the DIP joint (arthrography), dorsopalmar projection.

Frontal MRI scan of the foot.
Frontal anatomical section of the foot after injection of coloured latex into the vessels and synovial cavities.

Frontal MRI scan of the foot after injection of latex into the arteries and veins.

Frontal anatomical section of the foot after injection of coloured latex into the vessels and synovial cavities.
F12: Frontal Section of the Foot

1 Middle phalanx (P2)
   1a Distal condyle
2 Distal phalanx (P3)
   2a Subchondral bone
   2b Solar canal
   2c Distopalmar compact bone
   2d Articular surface
   2e Parietal surface
   2f Planum cutaneum
   2g Solar border
3 Collateral ligament of the proximal interphalangeal joint joint and collateral sesamoidean ligament
4 Distal interphalangeal (DIP) joint
5 Collateral ligament of the DIP joint
6 Collateral recess of the DIP joint
7 Ungual cartilage
8 Chondrocoronal ligament
9 Proper palmar digital artery (terminal arch)
10 Dorsal ramus of P2
11 Perforating ramus
12 Circumflex artery
13 Dorsal ramus (vein) of P2
14 Coronal vein
15 Skin
16 Corium limbi
17 Pulvinus coronae
18 Corium coronae
19 Corium parietis
20 Dermal and epidermal lamellae
21 Solar subcutaneous layer
22 Corium soleae
23 Periople
24 Hoof wall (quarter)
25 Zona alba
26 Sole (body)

Frontal ultrasound scan of the coronet, collateral approach (see dotted area in illustration at top of page).
F13: Frontal Section of the Foot

Anatomical specimen after injection of coloured latex into the synovial cavities, dorsal view.

Frontal anatomical section of the foot after injection of coloured latex into the vessels and synovial cavities.
### F13: Frontal Section of the Foot

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Middle phalanx, P2 (distal condyle)</td>
</tr>
<tr>
<td>2</td>
<td>Distal phalanx</td>
</tr>
<tr>
<td>2a</td>
<td>Articular surface</td>
</tr>
<tr>
<td>2b</td>
<td>Parietal surface</td>
</tr>
<tr>
<td>2c</td>
<td>Planum cutaneum</td>
</tr>
<tr>
<td>2d</td>
<td>Solar border</td>
</tr>
<tr>
<td>2e</td>
<td>Solar canal</td>
</tr>
<tr>
<td>3</td>
<td>Distal interphalangeal (DIP) joint</td>
</tr>
<tr>
<td>4</td>
<td>Collateral ligament of the DIP joint</td>
</tr>
<tr>
<td>5</td>
<td>Dorsal recess of the DIP joint</td>
</tr>
<tr>
<td>6</td>
<td>Dorsal digital extensor tendon</td>
</tr>
<tr>
<td>7</td>
<td>Chondrocoronal ligament</td>
</tr>
<tr>
<td>8</td>
<td>Proper palmar digital artery (terminal arch)</td>
</tr>
<tr>
<td>9</td>
<td>Perforating ramus</td>
</tr>
<tr>
<td>10</td>
<td>Circumflex artery</td>
</tr>
<tr>
<td>11</td>
<td>Coronal artery and vein</td>
</tr>
<tr>
<td>12</td>
<td>Dorsal ramus (artery and vein) of P2</td>
</tr>
<tr>
<td>13</td>
<td>Skin</td>
</tr>
<tr>
<td>14</td>
<td>Pulvinus limbi</td>
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<td>Corium limbi</td>
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<td>Pulvinus coronae</td>
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<td>Dermal papillae</td>
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<td>Corium parietis</td>
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<td>20</td>
<td>Dermal and epidermal lamellae</td>
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<td>21</td>
<td>Solar subcutaneous layer</td>
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<td>22</td>
<td>Corium soleae</td>
</tr>
<tr>
<td>23</td>
<td>Dermal papillae</td>
</tr>
<tr>
<td>24</td>
<td>Periople</td>
</tr>
<tr>
<td>25</td>
<td>Hoof wall</td>
</tr>
<tr>
<td>26</td>
<td>Zona alba</td>
</tr>
<tr>
<td>27</td>
<td>Sole (body)</td>
</tr>
</tbody>
</table>

Frontal MRI scan of the foot.

Frontal MRI scan of the foot after injection of latex into the arteries and veins.
F14: Frontal Section of the Foot

Frontal MRI scan of the foot.

Frontal anatomical section of the foot after injection of coloured latex into the vessels.

Frontal MRI scan of the foot.
F14: Frontal Section of the Foot

1 Distal phalanx
   1a Parietal surface
   1b Planum cutaneum
2 Perforating ramus
3 Circumflex artery
4 Coronal vein
5 Skin
6 Pulvinus limbi
7 Corium limbi
8 Pulvinus coronae
9 Corium coronae
10 Dermal papillae
11 Corium parietis
12 Dermal and epidermal lamellae
13 Solar subcutaneous layer
14 Corium solae
15 Dermal papillae
16 Periople
17 Hoof wall
   17a Stratum externum
   17b Stratum medium
   17c Stratum internum
18 Sole (body)

Frontal MRI scan of the foot after injection of latex into the arteries and veins.
The Equine Pastern
Dissections of the Equine Pastern
Dissection 1: Vessels and Nerves of the Digit – Dorsomedial View

Contrast radiographic study of the arteries (arteriography) of the digit, lateromedial view.

Vessels and nerves of the pastern, lateral view.
Dissection 1: Vessels and Nerves of the Digit – Dorsomedial View

1 Third metacarpal bone
2 Proximal phalanx (P1)
3 Middle phalanx (P2)
4 Distal phalanx (P3)
  4a Parietal surface
  4b Solar border
5 Metacarpophalangeal (MP) joint
6 Proximal interphalangeal (PIP) joint
7 Dorsal capsule of the MP joint
8 Dorsal digital extensor tendon
9 Extensor branch of the third interosseus muscle
10 Proper palmar digital artery
  10a Dorsal ramus of P1
11 Proper palmar digital vein
  11a Parietal plexus
  11b Superficial ungular plexus
  11c Coronal vein
  11d Dorsal ramus of P2
  11e Dorsal ramus of P1
12 Proper palmar digital nerve
  12a Dorsal ramus
13 Ergot ligament
14 Ungular cartilage
15 Heel

Contrast radiographic study of the digital veins demonstrating numerous valves, lateromedial view.

Frontal ultrasound scan of the proper palmar digital vein (see dotted area in illustration above, right). a Superficial digital flexor tendon (distal branch).
Dissection 2: Vessels of the Digit – Palmar View

Dissected specimen after removal of the flexor tendons, palmar view.

Contrast radiographic study of the arteries (arteriography) of the digit, dorsopalmar view.
Dissection 2: Vessels of the Digit – Palmar View

1. Proximal phalanx (P1), palmar eminence
2. Third interosseus muscle extensor branch
3. Superficial digital flexor tendon
   3a. Distal branch
4. Deep digital flexor tendon
5. Palmar annular ligament
6. Proximal digital annular ligament
   6a. With window cut into it
7. Distal digital annular ligament
8. Digital sheath
   8a. Wall
   8b. Cavity
   8c. Mesotendon
9. Proper palmar digital artery
   9a. Ergot ramus
   9b. Ramus of the digital torus
10. Proper palmar digital vein
    10a. Superficial ungular plexus
    10b. Lateromedial palmar anastomosis
11. Ergot ligament
12. Digital cushion
13. Ungular cartilage
14. Palmar rami (artery and vein) of P1
15. Palmar rami (artery and vein) of the middle phalanx
16. Proximal ramus of the distal sesamoid bone
17. Distal ramus of the distal sesamoid bone
18. Proximopalmar recess of the distal interphalangeal joint

Frontal ultrasound scan of the proper palmar digital artery (see dotted area in illustration above, right).

Contrast radiographic study of the veins (venography) of the digit, dorsopalmar view (see the valves).

a. Proximal interphalangeal joint.
Palmarolateral aspect of the pastern after latex injection into the synovial cavities.
Dissection 3: Annular Ligaments

1 Third metacarpal bone
2 Proximal phalanx
   2a Palmar eminence
3 Middle phalanx
4 Collateral ligament of the metacarpophalangeal joint
5 Third interosseus muscle
   5a Distal branch
   5b Extensor branch
6 Oblique sesamoidean ligament
7 Straight sesamoidean ligament
8 Superficial digital flexor tendon (distal branch)
9 Deep digital flexor tendon
10 Palmar annular ligament
   10a Attachment to the proximal sesamoid bone
11 Proximal digital annular ligament
   11a Proximal attachment
   11b Distal attachment
12 Distal digital annular ligament
   12a Proximal attachment
13 Digital cushion
14 Ungular cartilage
15 Canulated probe
16 Digital sheath synovial cavity
   16a Collateral recess
   16b Palmar distal recess
   16c Dorsal distal recess
17 Palmar recess of the proximal interphalangeal joint

Transverse ultrasound scan of the pastern, palmar approach (see arrow on illustration at right).

Palmarolateral aspect.

Palmar aspect.
Dissection 4: Flexor Tendons in the Digit – Palmar View
(With Annular Ligaments Removed)

Contrast radiographic study of the arterial supply of the superficial digital flexor tendon, dorsopalmar view.

Dorsopalmar radiographic view of the digit.

Contrast radiographic study of the arterial supply of the superficial digital flexor tendon, dorsopalmar view.
Dissection 4: Flexor Tendons in the Digit – Palmar View
(With Annular Ligaments Removed)

1. Proximal sesamoid bone (palmar border)
2. Middle phalanx, P2 (flexor tuberosity)
3. Distal phalanx (palmar process)
4. Superficial digital flexor tendon
   4a. Sagittal part
   4b. Distal branch
5. Deep digital flexor tendon
   5a. Distal attachment
6. Palmar annular ligament insertion
7. Distal digital annular ligament (proximal insertion, reflected)
8. Proper palmar digital artery
   8a. Ergot ramus
   8b. Ramus of the digital torus
   8c. Dorsal ramus of the proximal phalanx
   8d. Palmar ramus of P2
9. Third interosseous muscle
   9a. Distal branch
   9b. Extensor branch

Ultrasound scans A and B below, and radiograph on facing page:
a. Proximal phalanx
b. Distal sesamoid bone
c. Proximal interphalangeal joint
d. Distal interphalangeal joint
e. Straight sesamoidean ligament
f. Oblique sesamoidean ligament

A. Transverse ultrasound scan of the pastern, palmar approach (see arrow on illustration above, right).
B. Parasagittal ultrasound scan of the pastern, palmaro-lateral approach (see arrow on illustration above).
Contrast radiographic study of the arteries of the digit, oblique dorsolateral view.

A Transverse ultrasound scan of the pastern, palmarolateral approach (see arrow on illustration on facing page).
Dissection 5: Flexor Tendons in the Digit – Palmarolateral View
(With Annular Ligaments, Nerves and Major Part of Blood Vessels Removed)

1 Third metacarpal bone
2 Proximal sesamoid bone (palmar border)
3 Proximal phalanx (P1)
4 Middle phalanx (P2)
  4a Flexor tuberosity
5 Distal phalanx (palmar process)
6 Metacarpophalangeal (MP) joint
7 Proximal interphalangeal (PIP) joint
  7a Middle scutum
8 Distal interphalangeal joint
9 Palmar (intersesamoidean) ligament
10 Collateral sesamoidean ligament
11 Oblique sesamoidean ligament
12 Collateral ligament of the MP joint
13 Collateral ligament of the PIP joint
14 Abaxial palmar ligament of the PIP joint
15 Superficial digital flexor tendon
  15a Manica flexoria
  15b Distal branch
16 Deep digital flexor tendon
17 Digital synovial sheath
  17a Proximal dorsal recess
  17b Collateral recess
  17c Dorsal distal recess
18 Third interosseus muscle
  18a Distal branch
  18b Extensor branch
19 Proper palmar digital artery
  19a Dorsal ramus of P1
  19b Palmar ramus of P1
  19c Ramus of the digital torus
  19d Dorsal ramus of P2
  19e Palmar ramus of P2
a Straight sesamoidean ligament

B Transverse ultrasound scan of the pastern, palmarolateral approach (see arrow on illustration at top right).

C Transverse ultrasound scan of the pastern, palmarolateral approach (see arrow on illustration above).
Dissection 6: Isolated Flexor Tendons – Dorsal View

Contrast radiographic study of the arterial supply of the digital part of the DDFT, dorsopalmar view.
Dissection 6: Isolated Flexor Tendons – Dorsal View

1 Deep digital flexor tendon (DDFT)
   1a Phalangeal fibrocartilaginous part in contact with the flexor tuberosity of the middle phalanx
   1b Distal part in contact with the distal sesamoid bone
2 Superficial digital flexor tendon (SDFT)
   2a Manica flexoria
   2b Distal branch
3 Synovial fold between the 2 SDFT distal branches
4 Synovial membranes of the digital sheath and podotrochlear bursa inserted on the DDFT

Ultrasound scans A, B and C:
   a Straight sesamoidean ligament
   b Oblique sesamoidean ligament
   c Middle scutum
   d Proximal digital annular ligament
Isolated digital flexor tendons with latex injected into the digital sheath cavity, dorsolateral view.

Contrast radiographic study of the digital sheath (tenography), lateromedial view.
Dissection 7: Digital Sheath

A Transverse ultrasound scan of the pastern, palmarolateral approach (see arrow on illustration at left).

B Transverse ultrasound scan of the pastern palmarolateral approach (see arrow on illustration at left).

1 Third metacarpal bone  
1a Metacarpal condyle  
2 Fourth metacarpal bone  
3 Proximal phalanx  
4 Middle phalanx  
5 Metacarpophalangeal joint  
5a Collateral ligament  
5b Proximopalmar recess  
5c Collateral recess  
5d Collateral sesamoidean ligament  
6 Proximal interphalangeal joint  
6a Collateral ligament  
6b Collateral sesamoidean ligament  
6c Abaxial palmar ligament  
6d Axial palmar ligament  
7 Third interosseous muscle  
7a Distal branch  
7b Extensor branch  
8 Oblique sesamoidean ligament  
9 Superficial digital flexor tendon  
9a Manica flexoria  
9b Distal branch  
10 Deep digital flexor tendon  
11 Palmar annular ligament  
12 Proximal digital annular ligament  
12a Proximal attachment  
12b Distal attachment  
13 Distal digital annular ligament  
13a Proximal attachment  
14 Digital sheath  
14a Dorsal proximal recess  
14b Palmar proximal recess  
14c Collateral recess  
14d Palmar distal recess  
14e Dorsal distal recess  

Ultrasound scans A and B:  
a Proper palmar digital artery  
b Straight sesamoidean ligament
Isolated digital flexor tendons with latex injected into the digital sheath cavity, dorsal aspect.

Contrast radiographic study of the digital sheath (tenography), dorsopalmar view.
Dissection 8: Digital Sheath

1. Third metacarpal bone
2. Proximal phalanx
3. Middle phalanx
4. Distal phalanx (palmar process)
5. Third interosseus muscle
   5a. Distal branch
   5b. Extensor branch
6. Superficial digital flexor tendon
   6a. Digital sagittal part
   6b. Distal branch
7. Deep digital flexor tendon
8. Palmar annular ligament
9. Proximal digital annular ligament
10. Distal digital annular ligament
    10a. Proximal attachment
11. Digital sheath
    11a. Dorsal proximal recess
    11b. Palmar proximal recess
    11c. Collateral recess
    11d. Palmar distal recess
    11e. Dorsal distal recess
12. Ungular cartilage
13. Collateral recess of the metacarpophalangeal joint
14. Proximopalmar recess of the distal interphalangeal joint

A. Transverse ultrasound scan of the pastern, palmar approach (see arrow on illustration above right).

B. Transverse ultrasound scan of the pastern, palmar approach (see arrow on illustration above).
Dissection 9: Palmar Aspect of the Pastern
(After Removal of the Flexor Tendons)

Dissected specimen after latex injection into the PIP joint, palmar view.

Contrast radiographic study of the PIP joint (arthrography), dorsopalmar view.

Dissected specimen after latex injection into the PIP joint, palmar view.
Dissection 9: Palmar Aspect of the Pastern
(After Removal of the Flexor Tendons)

1 Proximal phalanx (P1)
   1a Palmar eminence
2 Middle phalanx
   2a Flexor tuberosity
3 Proximal interphalangeal (PIP) joint
4 Palmar (intersesamoidean) ligament
5 Oblique sesamoidean ligament
6 Straight sesamoidean ligament
7 Middle scutum
8 Axial palmar ligament of the PIP joint
9 Abaxial palmar ligament of the PIP joint
10 Palmar recess of the PIP joint
11 Superficial digital flexor tendon (distal branch)
12 Proximal digital annular ligament (proximal attachment)
13 Proper palmar digital artery
   13a Palmar ramus of P1
   13b Dorsal ramus of P1
   13c Ramus of the digital torus
14 Proper palmar digital vein
   14a Palmar ramus of P1
15 Ergot ligament
16 Extensor branch of the third interosseus muscle

Ultrasound scans A and B:
   a Deep digital flexor tendon
   5a Sagittal part of the oblique sesamoidean ligament

A Transverse ultrasound scan of the pastern, palmar approach (see arrow on illustration above, right).
B Frontal ultrasound scan of the pastern (see arrow on illustration above).
Dissection 10: Palmarolateral View of the Pastern
(After Removal of the Flexor Tendons)

Dissected specimen after latex injection in the PIP joint, palmarolateral view.

Anatomical specimen with casting preparation of the proximal interphalangeal joint cavity, palmarolateral view.
Dissection 10: Palmarolateral View of the Pastern
(After Removal of the Flexor Tendons)

1 Proximal phalanx (P1)
2 Middle phalanx
   2a Flexor tuberosity
3 Proximal interphalangeal (PIP) joint
4 Palmar (intersesamoidean) ligament
5 Oblique sesamoidean ligament
6 Straight sesamoidean ligament
7 Middle scutum
   7a Insertion on P1
8 Axial palmar ligament of the PIP joint
9 Abaxial palmar ligament of the PIP joint
10 Collateral ligament of the PIP joint
11 Palmar recess of the PIP joint
12 Superficial digital flexor tendon (distal branch)
13 Extensor branch of the third interosseous muscle
14 Proximal attachment of the distal digital annular ligament and digital cushion (on the dissected specimen, facing page)

Ultrasound scan A:
   a Proper palmar digital artery

A Transverse ultrasound scan of the pastern, oblique palmarolateral approach (see arrow on illustration, above right).
B Frontal ultrasound scan of the pastern, lateral approach (see arrow on illustration above).
Transverse MRI scan of the proximal pastern showing the cruciate sesamoidean ligaments.
### Dissection 11: Sesamoidean Ligaments

**Palmar aspect.**

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1</td>
<td>Third metacarpal bone</td>
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<tr>
<td>2</td>
<td>Proximal phalanx</td>
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<td>Proximal sesamoid bone</td>
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<td>Interosseous face</td>
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<tr>
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<td>Collateral (main) part</td>
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<td>Superficial digital flexor tendon</td>
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<td>Proximal digital annular ligament (proximal attachment)</td>
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<td>Collateral ligament of the metacarpophalangeal joint</td>
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<td>Recesses of the metacarpophalangeal joint</td>
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<tr>
<td>12a</td>
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<td>Proximopalmar recess</td>
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<td>13</td>
<td>Extensor branch of the third interosseus muscle</td>
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Sagittofrontal oblique ultrasound scan of the oblique sesamoidean ligament (see arrow on illustration at left). **a** Proximal attachment of the proximal digital annular ligament.

Lateral aspect (the metacarpophalangeal joint is flexed).
Dissected specimen after injection of coloured latex in the interphalangeal joints, dorsolateral view.
Dissection 12: Proximal Interphalangeal Joint – Lateral View

Angulation of the interphalangeal joints on a isolated limb under compression (pressure on the radius = 10 000 N).

Flexed joints.

1 Proximal phalanx
2 Middle phalanx
   2a Extensor process
   2b Flexor tuberosity
   2c Distal condyle
3 Distal phalanx
   3a Extensor process
4 Distal sesamoid bone
5 Proximal interphalangeal (PIP) joint
6 Middle scutum
7 Collateral ligament of the PIP joint
8 Abaxial palmar ligament of the PIP joint
9 Distal interphalangeal (DIP) joint
10 Collateral ligament of the DIP joint
11 Collateral sesamoidean ligament
12 Dorsal recess of the PIP joint
13 Palmar recess of the PIP joint
14 Dorsal recess of the DIP joint
Dissection 13: Recesses of the Proximal Interphalangeal Joint – Dorsal View

Dissected digit, dorsal view.
Dissection 13: Recesses of the Proximal Interphalangeal Joint – Dorsal View

1 Proximal phalanx
2 Middle phalanx (P2)
3 Distal phalanx
  3a Extensor process
  3b Palmar process
4 Proximal interphalangeal (PIP) joint
5 Distal interphalangeal (DIP) joint
6 Collateral ligament of the PIP joint
7 Collateral sesamoidean ligament
8 Dorsal recess of the PIP joint
9 Distodorsocollateral recess of the PIP joint
10 Collateral ligament of the DIP joint
11 Dorsal recess of the DIP joint
12 Dorsal digital extensor tendon
13 Third interosseus muscle extensor branch
14 Coronal artery and vein
15 Dorsal rami (artery and vein) of P2

Anatomical relationships between the dorsal recesses and vessels.
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Sagittal and Parasagittal Sections of the Equine Pastern
Double contrast radiographic study of the PIP joint (arthrography), lateromedial view.
S1a: Sagittal Section of the Pastern

1 Metacarpal condyle  
   1a Sagittal ridge  
2 Proximal phalanx (P1)  
   2a Proximal sagittal groove  
   2b Distal sagittal groove  
3 Middle phalanx (P2)  
   3a Sagittal ridge  
   3b Flexor tuberosity  
4 Distal phalanx, P3 (extensor process)  
5 Distal sesamoid bone  
6 Metacarpophalangeal (MP) joint  
7 Dorsal articular capsule  
8 Palmar (intersesamoidean) ligament  
9 Cruciate sesamoidean ligament  
10 Oblique sesamoidean ligament  
11 Straight sesamoidean ligament  
12 Distopalmar recess of the MP joint  
13 Proximal interphalangeal (PIP) joint  
14 Middle scutum  
15 Palmar recess of the PIP joint  
16 Dorsal recess of the PIP joint  
17 Distal interphalangeal (DIP) joint  
18 Collateral sesamoidean ligament  
19 Proximopalmar recess of the DIP joint  
20 Dorsal recess of the DIP joint  
21 Dorsal digital extensor tendon  
   21a Insertion on P1  
   21b Insertion on the extensor process of P2  
   21c Insertion on the extensor process of P3  
22 Superficial digital flexor tendon  
23 Deep digital flexor tendon  
   23a MP fibrocartilaginous part  
   23b Phalangeal fibrocartilaginous part  
24 Palmar annular ligament  
25 Proximal digital annular ligament  
26 Distal digital annular ligament  
27 Digital sheath cavity  
   27a Synovial fold  
   27b Palmar distal recess  
   27c Dorsal distal recess  
28 Proximal recess of the podotrochlear bursa  
29 Palmar rami (artery and vein) of P1  
30 Dorsal ramus (artery) of P1  
31 Dorsal rami (artery and vein) of P2  
32 Digital cushion  
33 Ergot  
34 Skin

Sagittal MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.
S1b: Sagittal Section of the Palmar Pastern – Proximal Part

Section of the proximal pastern after latex injection in the MP joint and digital sheath cavities.

Sagittal MRI scan of the pastern.
**S1b: Sagittal Section of the Palmar Pastern – Proximal Part**

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<td>Proximal sagittal groove</td>
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<td>Collateral part</td>
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<td>8</td>
<td>Distopalmar recess of the MP joint</td>
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<td>9</td>
<td>Superficial digital flexor tendon</td>
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<td>MP fibrocartilaginous part</td>
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<td>12</td>
<td>Proximal digital annular ligament</td>
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<td>13</td>
<td>Digital sheath cavity</td>
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<tr>
<td>13a</td>
<td>Synovial fold</td>
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<td>Palmar ramus (vein) of P1</td>
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<td>15</td>
<td>Ergot cushion</td>
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<td>16</td>
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Sagittal ultrasound scan of the proximal pastern, palmar approach (7.5 MHz linear probe).

Sagittal ultrasound scan of the proximal pastern, palmar approach (10 MHz sector probe).
S1c: Sagittal Section of the Palmar Pastern – Proximal Part

Section of the middle pastern after latex injection into the joints and digital sheath cavities.

Sagittal MRI scan of the pastern.
S1c: Sagittal Section of the Palmar Pastern – Middle Part

1 Proximal phalanx (P1)
   1a Distal condyle
   1b Trigone of P1
2 Oblique sesamoidean ligament
3 Straight sesamoidean ligament
4 Middle scutum
5 Proximal interphalangeal (PIP) joint
6 Palmar recess of the PIP joint
7 Superficial digital flexor tendon
8 Deep digital flexor tendon
9 Proximal digital annular ligament
10 Distal digital annular ligament
11 Digital sheath cavity
   11a Dorsal distal recess
   11b Palmar distal recess
12 Synovial fold
13 Palmar rami (artery and vein) of P1
14 Skin

Sagittal ultrasound scan of the middle pastern, palmar approach (7.5 MHz linear probe).

Sagittal ultrasound scan of the middle pastern, palmar approach (10 MHz sector probe).
S1d: Sagittal Section of the Palmar Pastern – Distal Part

Section of the distal pastern after latex injection into the digital sheath and PIP joint cavities.

Sagittal MRI scan of the pastern.
**S1d: Sagittal Section of the Palmar Pastern – Distal Part**

1. Proximal phalanx (P1)
   - 1a Distal sagittal groove
   - 1b Trigone of P1
2. Middle phalanx
   - 2a Sagittal ridge
   - 2b Flexor tuberosity
3. Collateral sesamoidean ligament
4. Oblique sesamoidean ligament
5. Straight sesamoidean ligament
6. Middle scutum
7. Proximal interphalangeal (PIP) joint
8. Palmar recess of the PIP joint
9. Proximopalmar recess of the distal interphalangeal joint
10. Superficial digital flexor tendon
11. Deep digital flexor tendon
   - 11a Phalangeal fibrocartilaginous part
12. Proximal digital annular ligament
13. Distal digital annular ligament
14. Digital sheath cavity
   - 14a Dorsal distal recess
   - 14b Palmar distal recess
15. Proximal recess of the podotrochlear bursa
16. Palmar rami (artery and vein) of P1
17. Digital cushion (toric part)
18. Skin

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Sagittal ultrasound scan of the distal pastern, palmar approach (7.5 MHz linear probe).

Sagittal ultrasound scan of the distal pastern, palmar approach (10 MHz sector probe).
S1e: Sagittal Section of the Dorsal Pastern – Middle Part

Section of the pastern after latex injection into the dorsal recess of the PIP joint.

Dissected specimen after latex injection into the recesses of the interphalangeal joints.
S1e: Sagittal Section of the Dorsal Pastern – Middle Part

1 Proximal phalanx
   1a Distal sagittal groove
2 Middle phalanx (P2)
   2a Sagittal ridge
   2b Extensor process
3 Proximal interphalangeal (PIP) joint
4 Synovial membrane
   4a Synovial plica
5 Dorsal recess of the PIP joint
6 Dorsal recess of the distal interphalangeal joint
7 Dorsal digital extensor tendon
   7a Insertion on the extensor process of P2
8 Dorsal ramus (artery) of P1
9 Dorsal rami (artery and vein) of P2
10 Skin

Sagittal ultrasound scan of the pastern, dorsal approach.
S1f: Sagittal Section of the Dorsal Pastern – Distal Part

Sagittal section of the coronet after latex injection into the DIP joint.

Parasagittal MRI scan of the pastern.
S1f: Sagittal Section of the Dorsal Pastern – Distal Part

1 Proximal phalanx (P1)
   1a Distal sagittal groove
2 Middle phalanx (P2)
   2a Sagittal ridge
   2b Extensor process
   2c Sagittal groove
   2d Dorsal margin of the distal articular surface
3 Distal phalanx (P3)
   3a Sagittal ridge
   3b Extensor process
   3c Parietal surface
4 Proximal interphalangeal (PIP) joint
5 Distal interphalangeal (DIP) joint
6 Synovial membrane
   6a Synovial plica
7 Dorsal recess of the DIP joint
8 Dorsal digital extensor tendon
   8a Insertion on the extensor process of P2
   8b Insertion on the extensor process of P3
9 Dorsal rami (artery and vein) of P2
10 Coronal artery and vein
11 Pulvinus coronae
12 Corium limbi
13 Corium coronae
14 Corium parietis
15 Periople
16 Hoof wall
17 Skin

Sagittal ultrasound scan of the distal pastern and coronet, dorsal approach (7.5 MHz linear probe).

Sagittal ultrasound scan of the distal pastern and coronet, dorsal approach (10 MHz sector probe).
S2: Parasagittal Section of the Pastern

Parasagittal MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.
Parasagittal ultrasound scan of the pastern, palmar approach (see dotted area in illustration above).

1 Metacarpal bone
   1a Metacarpal condyle
2 Proximal phalanx (P1)
   2a Proximal sagittal groove
   2b Distal sagittal groove
3 Middle phalanx (P2)
   3a Sagittal ridge
   3b Flexor tuberosity
4 Proximal sesamoid bone
5 Metacarpophalangeal (MP) joint
6 Dorsal articular capsule
7 Palmar (intersesamoidean) ligament
8 Cruciate sesamoidean ligament
9 Oblique sesamoidean ligament
10 Straight sesamoidean ligament
11 Proximopalmar recess of the MP joint
12 Distopalmar recess of the MP joint
13 Dorsal recess of the MP joint
14 Proximal interphalangeal (PIP) joint
15 Middle scutum
16 Palmar recess of the PIP joint
17 Dorsal recess of the PIP joint
18 Dorsal digital extensor tendon
   18a Insertion on P1
   18b Insertion on the extensor process of P2
19 Superficial digital flexor tendon
20 Deep digital flexor tendon
21 Palmar annular ligament
22 Proximal digital annular ligament
23 Digital sheath
   23a Synovial membrane
24 Common palmar digital artery
25 Common palmar digital vein
26 Palmar metacarpal arteries
27 Palmar metacarpal veins
28 Ergot
29 Skin
S3: Parasagittal Section of the Pastern

Parasagittal MRI scan of the pastern after injection of latex into the arteries and veins.
**S3: Parasagittal Section of the Pastern**

1. Metacarpal condyle (medial part)
2. Proximal phalanx (P1)
   - 2a. Medial glenoid cavity
   - 2b. Medial condyle
   - 2c. Trigone of P1
3. Middle phalanx (flexor tuberosity)
4. Metacarpophalangeal joint (MP joint)
5. Cruciate sesamoidean ligament
6. Oblique sesamoidean ligament
7. Straight sesamoidean ligament
8. Distopalmar recess of the MP joint
9. Proximal interphalangeal (PIP) joint
10. Middle scutum
11. Axial palmar ligament of the PIP joint
12. Palmar recess of the PIP joint
13. Dorsal recess of the PIP joint
14. Dorsal digital extensor tendon
15. Superficial digital flexor tendon
16. Deep digital flexor tendon
   - 16a. Phalangeal fibrocartilaginous part
17. Palmar annular ligament
18. Proximal digital annular ligament
19. Digital sheath
20. Synovial fold
21. Connective tissue
22. Palmar rami (artery and vein) of P1
23. Dorsal rami (artery and vein) of P1
24. Skin

A. Parasagittal ultrasound scan of the proximal pastern, palmar approach (see dotted area in illustration above, right).

B. Parasagittal ultrasound scan of the middle pastern, palmar approach (see dotted area in illustration above).
Parasagittal MRI scan of the pastern after injection of latex into the arteries and veins.
S4: Parasagittal Section of the Pastern

1 Metacarpal condyle (medial part)
2 Proximal phalanx (P1)
2a Medial glenoid cavity
2b Medial condyle
2c Trigone of P1
3 Middle phalanx (P2)
3a Flexor tuberosity
4 Metacarpophalangeal (MP) joint
5 Cruciate sesamoidean ligament
6 Oblique sesamoidean ligament
7 Straight sesamoidean ligament
8 Distopalmar recess of the MP joint
9 Proximal interphalangeal (PIP) joint
10 Middle scutum
11 Axial palmar ligament of the PIP joint
12 Palmar recess of the PIP joint
13 Distal interphalangeal (DIP) joint, proximopalmar recess
14 Collateral sesamoidean ligament
15 Proximopalmar recess of the DIP joint
16 Dorsal digital extensor tendon
17 Superficial digital flexor tendon
17a Distal branch
18 Deep digital flexor tendon
19 Palmar annular ligament
20 Proximal digital annular ligament
21 Digital sheath
21a Collateral recess
21b Dorsal distal recess
22 Proximal recess of the podotrochlear bursa
23 Palmar rami (artery and vein) of P1
24 Dorsal rami (artery and vein) of P2
25 Digital cushion (pars torica)
26 Skin

A Parasagittal ultrasound scan of the pastern, palmar approach (see dotted area in illustration above).

B Parasagittal ultrasound scan of the pastern, palmar approach (see dotted area in illustration above, right).
S5: Parasagittal Section of the Pastern

Parasagittal section of the pastern after injection of coloured latex into the synovial cavities.

Parasagittal MRI scan of the pastern.
Parasagittal scan of the pastern, palmar approach (see dotted area in illustration above).

1 Metacarpal condyle
   1a Medial part

2 Proximal phalanx (P1)
   2a Medial glenoid cavity
   2b Medial condyle
   2c Trigone of P1

3 Middle phalanx (P2)
   3a Medial glenoid cavity
   3b Flexor tuberosity

4 Medial proximal sesamoid bone

5 Metacarpophalangeal (MP) joint

6 Dorsal articular capsule

7 Cruciate sesamoidean ligament

8 Oblique sesamoidean ligament

9 Straight sesamoidean ligament

10 Dorsal recess of the MP joint

11 Distopalmar recess of the MP joint

12 Proximal interphalangeal (PIP) joint

13 Middle scutum
   13a Insertion on P1

14 Palmar recess of the PIP joint

15 Distodorsocollateral recess of the PIP joint

16 Dorsal digital extensor tendon

17 Superficial digital flexor tendon
   17a Distal branch

18 Deep digital flexor tendon

19 Palmar annular ligament

20 Proximal digital annular ligament

21 Distal digital annular ligament

22 Digital sheath
   22a Collateral recess
   22b Palmar distal recess

23 Palmar ramus (artery) of P1

24 Dorsal ramus (artery) of P1

25 Proper palmar digital vein

26 Digital cushion (toric part)

27 Ergot

28 Skin

B Parasagittal ultrasound scan of the pastern, palmar approach (see dotted area in illustration above).

A Parasagittal ultrasound scan of the pastern, palmar approach (see dotted area in illustration above, right).
Parasagittal MRI scan of the pastern after injection of latex into the arteries and veins.
Contrast radiographic study of the arteries (arteriography) of the digit, lateromedial view.

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<td>Ungular cartilage</td>
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Parasagittal MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.
S7: Parasagittal Section of the Pastern

1 Proximal phalanx (P1)
   1a Medial condyle
2 Middle phalanx
   2a Medial glenoid cavity
   2b Flexor tuberosity
3 Proximal interphalangeal joint
   3a Distodorsocollateral recess
   3b Abaxial palmar ligament
4 Middle scutum
5 Collateral sesamoidean ligament (of the distal interphalangeal joint)
6 Dorsal digital extensor tendon
7 Extensor branch of the third interosseus muscle
8 Distal digital annular ligament (proximal attachment)
9 Proper palmar digital artery
10 Proper palmar digital vein
11 Dorsal ramus (vein) of P1
12 Palmar ramus (artery) of P1
13 Palmar ramus (vein) of P1
14 Dorsal rami (artery and vein) of P2
15 Ramus of the digital torus
16 Proper palmar digital nerve
17 Digital cushion
18 Skin

Parasagittal ultrasound scan of the pastern, palmar approach (see dotted area in illustration above).

Parasagittal MRI scan of the pastern.
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Transverse Sections of the Equine Pastern
T1: Transverse Section of the Pastern

Transverse anatomical section after latex injection into the digital sheath cavity and arteries.

Transverse MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.
**T1: Transverse Section of the Pastern**

1. Middle phalanx (P2)
   - 1a Flexor tuberosity
   - 1b Fibrocartilaginous surface
2. Collateral ligament of the proximal interphalangeal (PIP) joint
3. Collateral sesamoidean ligament
4. Distodorsocollateral recess of the PIP joint
5. Dorsal digital extensor tendon
6. Deep digital flexor tendon
   - 6a Fibrous part
   - 6b Phalangeal fibrocartilaginous part
7. Distal digital annular ligament
8. Digital sheath (dorsal distal recess)
9. Ungular cartilage
10. Digital cushion
   - 10a Proximal attachment
11. Proper palmar digital artery
12. Ramus of digital torus
13. Proper palmar digital vein
14. Dorsal ramus (vein) of P2
15. Deep ungular plexus
16. Proper palmar digital nerve
17. Skin

Transverse MRI scan of the pastern after injection of fat material into the arteries and latex into the veins.

Transverse ultrasound scan of the distal pastern, palmar approach (see dotted area in illustration at top of page).
Transverse MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.

Transverse anatomical section after latex injection into the synovial cavities and arteries.
Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration at top of page).

T2a: Transverse Section of the Pastern

1 Middle phalanx (P2)
   1a Extensor process
   1b Articular cartilage of the proximal interphalangeal (PIP) joint
   1c Flexor tuberosity
2 Articular cartilage of the proximal phalanx
3 Proximal interphalangeal (PIP) joint space
4 Middle scutum
5 Distodorsocollateral recess of the PIP joint
6 Collateral ligament of the PIP joint
7 Collateral sesamoidean ligament
8 Dorsal digital extensor tendon
9 Deep digital flexor tendon
   9a Fibrous part
   9b Phalangeal fibrocartilaginous part
10 Distal digital annular ligament
11 Dorsal distal recess of the digital sheath
12 Digital cushion
   12a Proximal attachment
13 Ungular cartilage
14 Proper palmar digital artery
15 Proper palmar digital vein
16 Ungular plexus
17 Dorsal ramus (vein) of P2
18 Proper palmar digital nerve
19 Skin

Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration above).
Transverse MRI scan of the pastern after injection of fat material into the arteries and latex into the veins.
T2b: Transverse Section of the Pastern

1 Middle phalanx (P2)
   1a Flexor tuberosity
2 Middle scutum
3 Deep digital flexor tendon
   3a Fibrous part
   3b Phalangeal fibrocartilaginous part
4 Distal digital annular ligament
5 Digital sheath
   5a Dorsal distal recess
   5b Mesotendon
6 Ungular cartilage
7 Proximal attachment of the digital cushion
8 Proper palmar digital artery
9 Ramus of the digital torus
10 Coronal artery
11 Proper palmar digital vein
12 Coronal vein and dorsal ramus of P2
13 Ungular plexus
14 Proper palmar digital nerve
15 Ramus of the digital torus
16 Skin
17 Heel

A Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration above).

B Transverse ultrasound scan of the pastern, palmar approach (see dotted line in illustration above).
**T3: Transverse Section of the Pastern**

Transverse anatomical section after latex injection into the synovial cavities and arteries.

Transverse MRI scan of the pastern.
**T3: Transverse Section of the Pastern**

1 Proximal phalanx (distal extremity)
   - 1a Medial condyle
   - 1b Lateral condyle
   - 1c Distal sagittal groove
2 Middle phalanx (P2)
   - 2a Extensor process
   - 2b Flexor tuberosity
3 Proximal interphalangeal (PIP) joint
4 Middle scutum
5 Collateral ligament of the PIP joint
6 Collateral sesamoidean ligament
7 Distodorsocollateral recess of the PIP joint
8 Dorsal digital extensor tendon
   - 8a Insertion on the extensor process of P2
9 Deep digital flexor tendon
   - 9a Fibrous part
   - 9b Phalangeal fibrocartilaginous part
10 Distal digital annular ligament
   - 10a Proximal attachment
11 Digital sheath
12 Proper palmar digital artery
13 Proper palmar digital vein
14 Dorsal ramus (vein) of P2
15 Ungular plexus
16 Proper palmar digital nerve
17 Ungular cartilage
18 Proximal attachment of the digital cushion
19 Skin

Transverse MRI scan of the pastern after injection of fat material into the arteries and latex into the veins.

Transverse MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.
T4: Transverse Section of the Pastern

Transverse MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.

Transverse anatomical section after latex injection into the synovial cavities and vessels.
**T4: Transverse Section of the Pastern**

A Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration above).

B Transverse ultrasound scan of the pastern, palmarolateral approach (see dotted area in illustration above).

1 Proximal phalanx  
   1a Medial condyle  
   1b Lateral condyle  
2 Proximal interphalangeal (PIP) joint  
3 Middle scutum  
4 Collateral ligament of the PIP joint  
5 Collateral sesamoidean ligament  
6 Palmar recess of the PIP joint  
7 Dorsal recess of the PIP joint  
8 Dorsal digital extensor tendon  
9 Deep digital flexor tendon  
10 Distal digital annular ligament  
   10a Proximal attachment  
11 Digital sheath cavity  
12 Mesotendon  
13 Proper palmar digital artery  
14 Proper palmar digital vein  
15 Proper palmar digital nerve  
16 Proximal attachment of the digital cushion  
17 Skin  
18 Heel
T5: Transverse Section of the Pastern

Transverse MRI scan of the pastern after injection of fat material into the arteries and latex into the veins.

Transverse MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.
T5: Transverse Section of the Pastern

1. Proximal phalanx
2. Middle scutum
3. Collateral ligament of the proximal interphalangeal (PIP) joint
4. Collateral sesamoidean ligament
5. Palmar recess of the PIP joint
6. Dorsal recess of the PIP joint
7. Dorsal digital extensor tendon
   7a. Fibrous part
   7b. Fibrocartilaginous part
8. Deep digital flexor tendon
9. Superficial digital flexor tendon (distal branch)
10. Distal digital annular ligament
11. Digital sheath cavity (palmar distal recess)
12. Proper palmar digital artery
13. Proper palmar digital vein
14. Proper palmar digital nerve
15. Proximal attachment of the digital cushion and distal digital annular ligament
16. Skin

A. Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration above).
B. Transverse ultrasound scan of the pastern, dorsal approach (see dotted area in illustration above).
T6: Transverse Section of the Pastern

Transverse MRI scan of the pastern after injection of fat material into the arteries and latex into the veins.

Transverse MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.
A Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration above).

B Transverse ultrasound scan of the pastern, palmarolateral approach (see dotted area in illustration above).
T7: Transverse Section of the Pastern

Transverse MRI scan of the pastern after injection of fat material into the arteries and latex into the veins.

Transverse MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.
T7: Transverse Section of the Pastern

1 Proximal phalanx (P1)
2 Middle scutum
   2a Insertion on P1
3 Collateral sesamoidean ligament
4 Collateral ligament of the proximal interphalangeal (PIP) joint
5 Palmar recess of the PIP joint
6 Dorsal recess of the PIP joint
7 Dorsal digital extensor tendon
8 Extensor branch of the third interosseus muscle
9 Superficial digital flexor tendon (distal branch)
10 Deep digital flexor tendon
11 Digital sheath
   11a Wall
   11b Cavity
12 Proper palmar digital artery
13 Proper palmar digital vein
14 Proper palmar digital nerve
15 Abaxial palmar ligament of the PIP joint, proximal attachment of the digital cushion and distal digital annular ligament
16 Skin

A Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration above).

B Transverse ultrasound scan of the pastern, palmarolateral approach (see dotted area in illustration above).
Transverse MRI scan of the pastern after injection of fat material into the arteries and latex into the veins.

Transverse anatomical section after latex injection into the synovial cavities and vessels.

Transverse MRI scan of the pastern after injection of fat material into the arteries and latex into the veins.

T8: Transverse Section of the Pastern
T8: Transverse Section of the Pastern

1. Proximal phalanx (P1)
2. Axial palmar ligament of the proximal interphalangeal (PIP) joint
3. Abaxial palmar ligament of the PIP joint
4. Sagittal palmar recess of the PIP joint
5. Collateral palmar recess of the PIP joint
6. Dorsal recess of the PIP joint
7. Straight sesamoidean ligament
8. Dorsal digital extensor tendon
9. Extensor branch of the third interosseus muscle
10. Superficial digital flexor tendon (distal branch)
11. Deep digital flexor tendon
12. Digital sheath cavity
13. Proper palmar digital artery
14. Dorsal ramus of P1
15. Proper palmar digital vein
16. Dorsal ramus of P1
17. Palmar rami of P1
18. Proper palmar digital nerve
   18a. Intermediate ramus
19. Ergot ligament
20. Proximal attachment of the digital cushion and distal digital annular ligament
21. Skin

Transverse MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.

Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration above).
T9: Transverse Section of the Pastern

Transverse anatomical section after latex injection into the synovial cavities and vessels.

Transverse anatomical section after latex injection into the synovial cavities and arteries.

Transverse MRI scan of the pastern.
T9: Transverse Section of the Pastern

1 Proximal phalanx (P1)
2 Oblique sesamoidean ligament
3 Straight sesamoidean ligament
4 Axial palmar ligament of the proximal interphalangeal (PIP) joint
5 Abaxial palmar ligament of the PIP joint
6 Sagittal palmar recess of the PIP joint
7 Dorsal digital extensor tendon
8 Extensor branch of the third interosseus muscle
9 Superficial digital flexor tendon (distal branch)
10 Deep digital flexor tendon
11 Proximal digital annular ligament
12 Digital sheath
   12a Wall
   12b Cavity
13 Proper palmar digital artery
14 Dorsal ramus of P1
15 Palmar ramus of P1
16 Proper palmar digital vein
17 Dorsal ramus of P1
18 Palmar ramus of P1
19 Proper palmar digital nerve
   19a Intermediate ramus
20 Proximal attachment of the digital cushion and distal digital annular ligament
21 Skin

Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration above, right).

Transverse MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.
T10: Transverse Section of the Pastern

Transverse MRI scan of the pastern after injection of fat material into the arteries and latex into the veins.

Transverse anatomical section after latex injection into the synovial cavities and vessels.

Transverse MRI scan of the pastern after injection of fat material into the arteries and latex into the veins.
T10: Transverse Section of the Pastern

1 Proximal phalanx (P1)
2 Oblique sesamoidean ligament
3 Straight sesamoidean ligament
4 Axial palmar ligament of the proximal interphalangeal (PIP) joint
5 Abaxial palmar ligament of the PIP joint
6 Dorsal recess of the PIP joint
7 Sagittal palmar recess of the PIP joint
8 Dorsal digital extensor tendon
9 Extensor branch of the third interosseus muscle
10 Superficial digital flexor tendon
   10a Distal branch
   10b Sagittal part
11 Deep digital flexor tendon
12 Proximal digital annular ligament
13 Digital sheath
   13a Cavity
   13b Synovial fold (mesotendon)
14 Proper palmar digital artery
15 Palmar ramus of P1
16 Proper palmar digital vein
17 Palmar ramus of P1
18 Proper palmar digital nerve
   18a Intermediate ramus
19 Proximal attachment of the digital cushion and distal digital annular ligament
20 Skin
21 Artefact: subcutaneous reflux of latex

Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration above, right).

Transverse MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.
T11: Transverse Section of the Pastern

Transverse anatomical section after latex injection into the synovial cavities and vessels.

Transverse anatomical section after latex injection into the synovial cavities and vessels.
T11: Transverse Section of the Pastern

1 Proximal phalanx (P1)
2 Oblique sesamoidean ligament
3 Straight sesamoidean ligament
4 Abaxial palmar ligament of the proximal interphalangeal joint
5 Dorsal digital extensor tendon
6 Extensor branch of the third interosseus muscle
7 Superficial digital flexor tendon
   7a Distal branch
   7b Sagittal part
8 Deep digital flexor tendon
9 Proximal digital annular ligament
10 Digital sheath cavity
11 Proper palmar digital artery
12 Dorsal ramus (artery) of P1
13 Proper palmar digital vein
14 Palmar ramus (vein) of P1
15 Proper palmar digital nerve
16 Skin

Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration above, right).

Transverse MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.
Transverse anatomical section after latex injection into the synovial cavities and vessels.

Transverse MRI scan of the pastern after injection of fat material into the arteries and latex into the veins.

Transverse anatomical section after latex injection into the synovial cavities and vessels.
T12: Transverse Section of the Pastern

1 Proximal phalanx (P1)
2 Oblique sesamoidean ligament
3 Straight sesamoidean ligament
4 Dorsal recess of the proximal interphalangeal joint
5 Dorsal digital extensor tendon
6 Extensor branch of the third interosseus muscle
7 Superficial digital flexor tendon
   7a Distal branch
   7b Sagittal part
8 Deep digital flexor tendon
9 Proximal digital annular ligament
10 Digital sheath
   10a Cavity (collateral recess)
   10b Synovial fold
11 Proper palmar digital artery
12 Dorsal ramus (artery) of P1
13 Proper palmar digital vein
14 Dorsal ramus (vein) of P1
15 Palmar ramus (vein) of P1
16 Proper palmar digital nerve
17 Skin

Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration above, right).

Transverse MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.
T13: Transverse Section of the Pastern

Transverse anatomical section after injection of latex into the arteries.

Transverse anatomical section after latex injection into the synovial cavities and vessels.

Transverse MRI scan of the pastern.
Transverse MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.

Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration above, right).

T13: Transverse Section of the Pastern

1  Proximal phalanx (P1)
2  Oblique sesamoidean ligament
   2a  Sagittal part
3  Straight sesamoidean ligament
4  Distal insertion of the collateral ligament
   of the metacarpophalangeal joint
5  Dorsal digital extensor tendon
6  Extensor branch of the third interosseus
   muscle
7  Superficial digital flexor tendon
8  Deep digital flexor tendon
9  Proximal digital annular ligament
10 Digital sheath cavity
   10a  Collateral recess
   10b  Synovial fold
11 Proper palmar digital artery
12 Dorsal ramus (artery) of P1
13 Palmar ramus (artery) of P1
14 Proper palmar digital vein
15 Palmar ramus (vein) of P1
16 Proper palmar digital nerve
17 Skin
T14: Transverse Section of the Pastern

Transverse MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.

Transverse anatomical section after latex injection into the synovial cavities and vessels.
1 Proximal phalanx (P1)
2 Distal insertion of the collateral ligament of the metacarpophalangeal (MP) joint
3 Distal insertion of the dorsal articular capsule of the MP joint
4 Cruciate sesamoidean ligament
5 Oblique sesamoidean ligament
   5a Sagittal part
6 Straight sesamoidean ligament
7 Distopalmar recess of the MP joint
8 Dorsal digital extensor tendon
9 Extensor branch of the third interosseus muscle
10 Superficial digital flexor tendon
11 Deep digital flexor tendon
12 Proximal digital annular ligament
13 Digital sheath cavity
   13a Collateral recess
   13b Palmar middle recess
14 Proper palmar digital artery
15 Palmar ramus (artery) of P1
16 Proper palmar digital vein
17 Palmar ramus (vein) of P1
18 Proper palmar digital nerve
   18a Dorsal ramus
   18b Intermediate ramus
19 Ergot
   19a Ergot cushion
20 Skin

A Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration above, right).

B Transverse ultrasound scan of the pastern, palmarolateral approach (see dotted area in illustration above).
**T15: Transverse Section of the Pastern**

Transverse MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.

Transverse anatomical section after latex injection into the synovial cavities and vessels.
**T15: Transverse Section of the Pastern**

1. Proximal phalanx (P1)
2. Distal insertion of the collateral ligament of the metacarpophalangeal (MP) joint
3. Distal insertion of the dorsal articular capsule of the MP joint
4. Cruciate sesamoidean ligament
5. Oblique sesamoidean ligament
   - 5a Sagittal part
6. Straight sesamoidean ligament
7. Distopalmar recess of the MP joint
8. Dorsal digital extensor tendon
9. Extensor branch of the third interosseus muscle
10. Superficial digital flexor tendon
11. Deep digital flexor tendon
12. Proximal digital annular ligament
13. Digital sheath cavity
14. Proper palmar digital artery
15. Dorsal ramus (artery) of P1
16. Palmar ramus (artery) of P1
17. Ergot ramus
18. Proper palmar digital vein
19. Proper palmar digital nerve
20. Ergot cushion
21. Skin

**A** Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration above, right).

**B** Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration above).
T16: Transverse Section of the Pastern

Transverse MRI scan of the pastern after injection of latex into the arteries and fat material into the veins.

Transverse anatomical section after latex injection into the synovial cavities and vessels.
**T16: Transverse Section of the Pastern**

1. Metacarpal condyle
   - 1a Sagittal ridge
   - 1b Medial part
   - 1c Lateral part
2. Proximal phalanx
   - 2a Medial palmar eminence
   - 2b Lateral palmar eminence
3. Metacarpophalangeal (MP) joint
4. Dorsal articular capsule of the MP joint
5. Collateral ligament of the MP joint
6. Palmar (intersesamoidean) ligament
7. Cruciate sesamoidean ligament
8. Short sesamoidean ligament
9. Oblique sesamoidean ligament
10. Straight sesamoidean ligament
11. Distopalmar recess of the MP joint
12. Collateral recess of the MP joint
13. Dorsal digital extensor tendon
14. Lateral digital extensor tendon
15. Extensor branch of the third interosseus muscle
16. Superficial digital flexor tendon
17. Deep digital flexor tendon
18. Proximal digital annular ligament
19. Digital sheath cavity
20. Proper palmar digital artery
21. Ergot ramus
22. Proper palmar digital vein
23. Proper palmar digital nerve
24. Ergot cushion
25. Skin

**A** Transverse ultrasound scan of the pastern, palmar approach (see dotted area in illustration above, right).

**B** Transverse ultrasound scan of the pastern, palmaromedial approach (see dotted area in illustration above).
Frontal Sections of the Equine Pastern

Frontal sections parallel to the deep digital flexor and dorsal digital extensor tendons

Frontal sections parallel to the dorsal aspect of the proximal phalanx
F1: Frontal Section of the Pastern

Frontal MRI scan of the pastern after injection of fat material into the arteries and latex into the veins.

Frontal anatomical section of the pastern and foot after injection of coloured latex into the vessels.
F1: Frontal Section of the Pastern

1 Lateral proximal sesamoid bone
2 Medial proximal sesamoid bone
3 Superficial digital flexor tendon
   3a Distal branch
4 Deep digital flexor tendon
   4a Vascular supply
5 Proximal digital annular ligament
6 Distal digital annular ligament
7 Digital sheath cavity
   7a Collateral recess
8 Digital cushion
   8a Proximal attachment
9 Ungular cartilage
10 Lateral proper palmar digital artery
11 Medial proper palmar digital artery
12 Ramus of the digital cushion
13 Ergot ramus (vein)
14 Deep ungular plexus
15 Lateral proper palmar digital nerve
16 Ergot ramus (nerve)
17 Skin

Frontal ultrasound scan of the deep digital flexor tendon, lateral approach (see dotted area in illustration above, right).

Frontal MRI scan of the pastern.
F2: Frontal Section of the Pastern

Frontal anatomical section after injection of coloured latex into the synovial cavities and vessels.

Frontal MRI scan of the pastern.
F2: Frontal Section of the Pastern

1. Palmar (interosseous) ligament
2. Middle scutum
3. Superficial digital flexor tendon
   3a. Distal branch
4. Deep digital flexor tendon
   4a. Phalangeal fibrocartilaginous part
   4b. Metacarpophalangeal fibrocartilaginous part
5. Digital sheath cavity
   5a. Collateral recess
   5b. Dorsal distal recess
6. Proper palmar digital artery
7. Ergot ramus (artery)
8. Ergot ramus (vein)
9. Proximal attachment of the digital cushion
10. Skin

Frontal MRI scan of the pastern after injection of fat material into the arteries and latex into the veins.

Frontal ultrasound scan of the digital flexor tendons, lateral approach (see dotted area in illustration above).
In vivo contrast radiographic study (tenography) of the digital sheath, dorsopalmar projection.
F3: Frontal Section of the Pastern

1 Palmar eminence of the proximal phalanx (P1)
2 Palmar (intersesamoidean) ligament
3 Oblique sesamoidean ligament
4 Straight sesamoidean ligament
5 Distocollateral recess of the metacarpophalangeal joint
6 Superficial digital flexor tendon (distal branches)
7 Deep digital flexor tendon
8 Proximal digital annular ligament
   8a Proximal insertion
   8b Distal insertion
9 Distal digital annular ligament
10 Digital sheath
   10a Collateral recess
   10b Synovial fold
   10c Palmar distal recess
11 Digital cushion (toric part)
   11a Proximal attachment
12 Ungular cartilage
13 Proper palmar digital artery
14 Ramus of the digital torus
15 Proper palmar digital vein
16 Palmar rami (artery and vein) of P1
17 Ungular plexus
   17a Deep ungular plexus
   17b Superficial ungular plexus
18 Proper palmar digital nerve
19 Skin
Frontal anatomical section after injection of coloured latex into the synovial cavities and vessels.
F4: Frontal Section of the Pastern

1. Lateral proximal sesamoid bone
2. Medial proximal sesamoid bone
3. Middle phalanx (flexor tuberosity)
4. Palmar (intersesamoidean) ligament
5. Oblique sesamoidean ligament
6. Straight sesamoidean ligament
7. Middle scutum
8. Deep digital flexor tendon
9. Superficial digital flexor tendon
   9a. Distal branch
10. Proximal digital annular ligament
11. Digital sheath (synovial cavity)
12. Lateral proper digital artery
13. Medial proper digital artery
14. Medial proper palmar digital vein
15. Palmar ramus (vein) of the proximal phalanx
16. Proximal attachment of the digital cushion
17. Skin

A. Frontal ultrasound scan of the digital flexor tendons, lateral approach (see dotted area in illustration above, right).
B. Frontal ultrasound scan of the digital flexor tendons, lateral approach (see dotted area in illustration above).
Frontal anatomical section after injection of coloured latex into the synovial cavities and vessels.
Frontal MRI scan of the pastern after injection of fat material into the arteries and latex into the veins.
F6: Frontal Section of the Pastern

Frontal MRI scan of the pastern.

Frontal anatomical section after injection of coloured latex into the synovial cavities and vessels.
F6: Frontal Section of the Pastern

1. Metacarpal condyle
2. Proximal phalanx (P1)
3. Middle phalanx (P2) (flexor tuberosity)
4. Metacarpophalangeal (MP) joint
5. Collateral ligament of the MP joint
6. Oblique sesamoidean ligament
7. Straight sesamoidean ligament
8. Middle scutum
9. Axial palmar ligament of the PIP joint
10. Sagittal palmar recess of the proximal interphalangeal (PIP) joint
11. Collateral palmar recess of the PIP joint
12. Superficial digital flexor tendon (distal branches)
13. Deep digital flexor tendon
   13a. Phalangeal fibrocartilaginous part
   13b. Fibrous part
14. Proximal digital annular ligament
   14a. Proximal attachment
   14b. Distal attachment
15. Distal digital annular ligament
16. Digital sheath (dorsal distal recess)
17. Proximopalmar recess of the distal interphalangeal joint
18. Proximal recess of the podotrochlear bursa
19. Ungual cartilage
20. Proximal attachment of the digital cushion
21. Proper palmar digital artery
22. Dorsal ramus (artery) of P1
23. Dorsal ramus (artery) of P2
24. Palmar ramus (artery) of P2
25. Proper palmar digital vein
26. Palmar ramus (vein) of P1
27. Palmar ramus (vein) of P2
28. Deep ungular plexus
29. Skin

Frontal ultrasound scan of the pastern, lateral approach (see dotted area on illustration above, right).

Contrast radiographic study (arthrography) of the PIP joint, dorsopalmar projection.
F7: Frontal Section of the Pastern

Frontal MRI scan of the pastern.

Frontal anatomical section after injection of coloured latex into the synovial cavities and vessels.
**F7: Frontal Section of the Pastern**

1. Metacarpal condyle
2. Proximal phalanx (P1)
3. Middle phalanx (P2) (flexor tuberosity)
4. Metacarpophalangeal (MP) joint
5. Collateral ligament of the MP joint
6. Oblique sesamoidean ligament
7. Middle scutum
8. Axial palmar ligament of the proximal interphalangeal (PIP) joint
9. Abaxial palmar ligament of the PIP joint
10. Sagittal palmar recess of the PIP joint
11. Collateral palmar recess of the PIP joint
12. Proximopalmar recess of the distal interphalangeal joint
13. Extensor branch of the third interosseus muscle
14. Dorsal distal recess of the digital sheath
15. Ungular cartilage
16. Proximal attachment of the digital cushion
17. Dorsal ramus (artery) of P1
18. Dorsal ramus (artery) of P2
19. Proper palmar digital vein
20. Deep ungular plexus
21. Skin

Frontal ultrasound scan of the pastern, lateral approach (see dotted area in illustration above, right).

Frontal MRI scan of the pastern after injection of fat material into the arteries and latex into the veins.
F8: Frontal Section of the Pastern

Frontal anatomical section after injection of coloured latex into the synovial cavities and vessels.

Frontal MRI scan of the pastern.
F8: Frontal Section of the Pastern

1 Metacarpal condyle
   1a Sagittal ridge
2 Proximal phalanx (P1)
   2a Proximal sagittal groove
   2b Medial glenoid cavity
   2c Lateral glenoid cavity
   2d Medial condyle
   2e Lateral condyle
   2f Distal sagittal groove
3 Middle phalanx
   3a Medial glenoid cavity
   3b Lateral glenoid cavity
4 Metacarpophalangeal (MP) joint
5 Collateral ligament of the MP joint
6 Proximal interphalangeal (PIP) joint
7 Collateral ligament of the PIP joint
8 Abaxial palmar ligament of the PIP joint
9 Extensor branch of the third interosseus muscle
10 Proximal attachment of the digital cushion and distal digital annular ligament
11 Dorsal ramus (artery) of P1
12 Dorsal ramus (vein) of P1
13 Coronal vein
14 Skin

Frontal ultrasound scan of the equine pastern, lateral approach (see dotted area in illustration above, right).

Frontal MRI scan of the pastern after injection of latex into the arteries and veins.
Frontal MRI scan of the pastern after injection of latex into the arteries and veins.
F9: Frontal Section of the Pastern

1 Metacarpal condyle
   1a Sagittal ridge
2 Proximal phalanx (P1)
   2a Proximal sagittal groove
   2b Medial glenoid cavity
   2c Lateral glenoid cavity
   2d Medial condyle
   2e Lateral condyle
   2f Distal sagittal groove
3 Middle phalanx
   3a Medial glenoid cavity
   3b Lateral glenoid cavity
4 Metacarpophalangeal (MP) joint
5 Collateral ligament of the MP joint
6 Collateral recess of the MP joint
7 Proximal interphalangeal (PIP) joint
8 Collateral ligament of the PIP joint
9 Abaxial palmar ligament of the PIP joint
10 Extensor branch of the third interosseus muscle
11 Dorsal ramus (artery) of P1
12 Dorsal ramus (vein) of P1
13 Coronal vein
14 Ungular cartilage
15 Skin

A Frontal ultrasound scan of the equine pastern, medial approach (see dotted area in illustration above, right).
B Frontal ultrasound scan of the equine pastern, medial approach (see dotted area in illustration above).
Frontal MRI scan of the pastern after injection of latex into the arteries and veins.

Frontal MRI scan of the pastern.
**F10: Frontal Section of the Pastern**

1. Metacarpal condyle (sagittal ridge)
2. Proximal phalanx
   - 2a Dorsal cortex
   - 2b Medial condyle
   - 2c Lateral condyle
   - 2d Distal sagittal groove
3. Middle phalanx (P2)
   - 3a Extensor process
4. Metacarpophalangeal (MP) joint
   - 4a Dorsal articular capsule
   - 4b Dorsal recess
   - 4c Distodorsal recess
   - 4d Distodorsal synovial fold
   - 4e Dorsal metacarpophalangeal fascia
5. Proximal interphalangeal (PIP) joint
   - 5a Collateral sesamoidean ligament
   - 5b Dorsal recess
   - 5c Distodorsocollateral recess
   - 5d Synovial membrane
6. Dorsal digital extensor tendon
7. Extensor branch of the third interosseus muscle
8. Dorsal ramus (artery) of P1
9. Dorsal ramus (artery) of P2
10. Dorsal ramus (vein) of P2
11. Coronal vein
12. Skin

A Transverse ultrasound scan of the pastern, dorsal approach (see dotted area in illustration above, right).

B Transverse ultrasound scan of the pastern, dorsal approach (see dotted area in illustration above).
F11: Frontal Section of the Pastern

Frontal MRI scan of the pastern.
F11: Frontal Section of the Pastern

1 Proximal phalanx (P1)
   1a Medial distal condyle
   1b Lateral distal condyle
2 Middle phalanx (P2)
   2a Extensor process
   2b Medial distal condyle
   2c Dorsal articular margin
3 Distal phalanx
   3a Extensor process
4 Metacarpophalangeal joint
   4a Dorsal articular capsule
   4b Dorsal recess
   4c Distodorsal recess
   4d Lateral digital extensor tendon
   4e Dorsal metacarpophalangeal fascia
5 Proximal interphalangeal joint
   5a Collateral sesamoidean ligament
   5b Dorsal recess
   5c Distodorsocollateral recess
6 Distal interphalangeal joint
   6a Collateral ligament
   6b Dorsal recess
7 Dorsal digital extensor tendon
8 Extensor branch of the third interosseus muscle
9 Dorsal rami (artery and vein) of P1
10 Dorsal rami (artery and vein) of P2
11 Coronal artery
12 Coronal vein
13 Coronal cushion
14 Corium coronae
15 Corium parietis
16 Hoof wall
17 Skin

Transverse ultrasound scan of the pastern, dorsal approach (see arrows in illustration at right).
The Equine Fetlock
Dissections of the Equine Fetlock
Dissection 1: Fetlock Area – Medial Aspect
(Superficial Elements)

Digital and metacarpal vessels and nerves of the fetlock, medial aspect.

Contrast radiographic study of the arteries (arteriography) of the fetlock, lateromedial projection.
Dissection 1: Fetlock Area – Medial Aspect
(Superficial Elements)

1. Third metacarpal bone
2. Proximal phalanx (P1)
3. Medial proximal sesamoid bone
4. Dorsal capsule of the metacarpophalangeal joint
5. Metacarpophalangeal fascia
6. Dorsal digital extensor tendon
7. Third interosseus muscle
   - 7a Medial branch
   - 7b Medial extensor branch
8. Superficial digital flexor tendon (medial branch)
9. Deep digital flexor tendon (covered by the digital sheath wall)
10. Palmar annular ligament
11. Proximal digital annular ligament
12. Digital sheath wall
13. Vascular network of the metacarpophalangeal joint
14. Medial proper palmar digital artery
   - 14a Ergot ramus
   - 14b Dorsal ramus of P1
15. Medial common palmar digital vein
16. Medial proper palmar digital vein
   - 16a Dorsal ramus of P1
17. Medial common palmar digital nerve
18. Medial proper palmar digital nerve
   - 18a Dorsal ramus
   - 18b Intermediate ramus
19. Ergot ligament

A. Transverse ultrasound scan of the vessels and nerves of the fetlock, palmaromedial approach (see arrow in illustration above, right).

B. Longitudinal ultrasound scan of the proper palmar digital artery (see arrow in illustration above).
Dissection 2: Fetlock Area – Medial Aspect

Dissected specimen after injection of coloured latex into the synovial cavities, medial aspect.

Dissected specimen after injection of coloured latex into the dorsal subtendinous bursa, lateral aspect.

Dissected specimen after injection of coloured latex into the vessels.
Dissection 2: Fetlock Area – Medial Aspect

1 Third metacarpal bone
2 Second metacarpal bone
3 Proximal phalanx
4 Dorsal metacarpophalangeal fascia
5 Dorsal capsule of the metacarpophalangeal joint
6 Medial collateral ligament (superficial part)
7 Palmar (intersesamoidean) ligament
8 Straight sesamoidean ligament
9 Medial oblique sesamoidean ligament
10 Abaxial palmar ligament of the proximal interphalangeal joint
11 Dorsal digital extensor tendon
12 Third interosseus muscle
   12a Medial branch
   12b Medial extensor branch
13 Superficial digital flexor tendon
   13a Manica flexoria
   13b Medial branch
14 Deep digital flexor tendon
15 Palmar annular ligament
16 Proximal digital annular ligament
   16a Proximal attachment
17 Digital sheath cavity
   17a Collateral recess

Ultrasound scans A and B below:

a Medial proper palmar digital artery
b Medial proper palmar digital vein (collapsed)
c Medial proper palmar digital nerve
d Medial proximal sesamoid bone

A Longitudinal ultrasound scan of the fetlock, dorsomedial approach (see arrow in illustration above, right).

B Transverse ultrasound scan of the fetlock, medial approach (see arrow in illustration above).
Flexor tendons and suspensory apparatus on the flexed fetlock after injection of coloured latex into the synovial cavities.

1 Third metacarpal bone
1a Metacarpal condyle
2 Second metacarpal bone
3 Fourth metacarpal bone
4 Proximal phalanx
4a Palmar eminence
5 Proximal sesamoid bone
5a Interoseus face
5b Articular surface
6 Collateral ligament of the metacarpophalangeal joint
6a Superficial part
6b Deep part
Dissection 3: Fetlock Area (Flexor Tendons)

Extended joint.

Flexed joint.

7 Palmar (intersesamoidean) ligament
8 Collateral sesamoidean ligament
9 Oblique sesamoidean ligament
10 Straight sesamoidean ligament
11 Superficial digital flexor tendon
   11a Manica flexoria
   11b Distal branch
12 Deep digital flexor tendon
13 Palmar annular ligament
14 Proximal digital annular ligament
   14a Proximal attachment
15 Distal digital annular ligament (proximal attachment)

Single contrast radiographic study (tenography) of the digital sheath, lateromedial view.
Dissection 4: Metacarpophalangeal Joint – Medial Aspect
(Deep Elements)

Dissected specimen after injection of coloured latex into the synovial cavities.

Sagittal section of the fetlock after injection of coloured latex into the synovial cavities.
Dissection 4: Metacarpophalangeal Joint – Medial Aspect
(Deep Elements)

1 Third metacarpal bone
   1a Metacarpal condyle
2 Second metacarpal bone
3 Fourth metacarpal bone
4 Proximal phalanx
   4a Palmar eminence
5 Medial proximal sesamoid bone
6 Dorsal capsule of the metacarpophalangeal joint
7 Medial collateral ligament (superficial part)
8 Palmar (intersesamoidean) ligament
9 Straight sesamoidean ligament
10 Medial oblique sesamoidean ligament
11 Dorsal digital extensor tendon
12 Third interosseus muscle
   12a Medial branch
   12b Medial extensor branch
13 Proximal attachment of the proximal digital annular ligament

A Longitudinal ultrasound scan of the medial collateral ligament (see arrow in illustration above, right).

B Longitudinal ultrasound scan of the extensor branch of the third interosseus muscle (see arrow in illustration above).
Dissection 5: Metacarpophalangeal Joint
(Extended Joint – Collateral and Sesamoidean Ligaments)

Casting preparation of the metacarpophalangeal joint synovial cavity.
Dissection 5: Metacarpophalangeal Joint
(Extended Joint – Collateral and Sesamoidean Ligaments)

1 Third metacarpal bone
   1a Metacarpal condyle
2 Second metacarpal bone
3 Fourth metacarpal bone
4 Proximal phalanx
   4a Medial palmar eminence
5 Medial proximal sesamoid bone
   5a Interosseus face
   5b Articular surface
6 Dorsal capsule of the metacarpophalangeal joint
7 Medial collateral ligament
   7a Superficial part
   7b Deep part
8 Medial collateral sesamoidean ligament
9 Palmar (intersesamoidean) ligament
10 Straight sesamoidean ligament
11 Medial oblique sesamoidean ligament
12 Third interosseus muscle
   12a Medial branch
   12b Medial extensor branch
      (sectioned and removed)

Contrast arthrography of the metacarpophalangeal joint, lateromedial projection.
Dissection 6: Metacarpophalangeal Joint
(Flexed Joint – Collateral and Sesamoidean Ligaments)

Deep part of the lateral collateral ligament.
Lateromedial radiographic view of the flexed fetlock.

**Dissection 6: Metacarpophalangeal Joint**
*(Flexed Joint – Collateral and Sesamoidean Ligaments)*

1. Third metacarpal bone
   - 1a Metacarpal condyle
   - 1b Sagittal ridge
2. Fourth metacarpal bone
3. Proximal phalanx
   - 3a Lateral palmar eminence
4. Lateral proximal sesamoid bone
   - 4a Articular surface
   - 4b Interosseous face
   - 4c Apex
   - 4d Base
5. Lateral collateral ligament
   - 5a Superficial part
   - 5b Deep part
6. Palmar (intersesamoidean) ligament
7. Straight sesamoidean ligament
8. Oblique sesamoidean ligament
9. Lateral collateral sesamoidean ligament
10. Third interosseus muscle medial branch

Lateromedial radiographic view of the flexed fetlock.
Dissection 7: Metacarpophalangeal Joint
(Collateral Ligament)
Dissection 7: Metacarpophalangeal Joint
(Collateral Ligament)

1 Third metacarpal bone
   1a Metacarpal condyle
   1b Sagittal ridge
2 Fourth metacarpal bone
3 Proximal phalanx
   3a Lateral palmar eminence
4 Lateral proximal sesamoid bone
   4a Apex
   4b Body
   4c Base
   4d Interosseus face
   4e Articular surface
5 Lateral collateral ligament
   5a Superficial part (↔ section)
   5b Deep part
6 Palmar (intersesamoidean) ligament
7 Straight sesamoidean ligament
8 Lateral oblique sesamoidean ligament
9 Collateral sesamoidean ligament (sectioned)
Dissection 8: Fetlock Area – Palmarolateral Aspect

Dorsomedial-palmarolateral oblique radiographic view of the metacarpophalangeal joint.

Dissected fetlock with injection of coloured latex into the synovial cavities.
Dissection 8: Fetlock Area – Palmarolateral Aspect

1 Third metacarpal bone
2 Fourth metacarpal bone
3 Proximal phalanx
4 Dorsal capsule of the metacarpophalangeal joint
5 Lateral collateral ligament (superficial part)
6 Collateral sesamoidean ligament
7 Palmar (intersesamoidean) ligament
8 Straight sesamoidean ligament
9 Oblique sesamoidean ligament
10 Lateral digital extensor tendon
11 Dorsal digital extensor tendon
12 Third interosseus muscle
   12a Lateral branch
   12b Medial branch
   12c Lateral extensor branch
13 Superficial digital flexor tendon
   13a Manica flexoria
   13b Lateral branch
14 Deep digital flexor tendon
15 Palmar annular ligament
16 Proximal digital annular ligament
   16a Proximal attachment

Ultrasound scans A and B below:
- a Lateral proper palmar digital artery
- b Lateral proper palmar digital vein
- c Lateral proper palmar digital nerve

A Transverse ultrasound scan of the lateral oblique sesamoidean ligament, palmarolateral approach (see arrow in illustration above, right).

B Transverse ultrasound scan of the proximal pastern, palmarolateral approach (see arrow in illustration above).
Injection of coloured latex into the synovial cavity demonstrating the palmar recesses of the joint.

1 Third metacarpal bone
   1a Metacarpal condyle
   1b Sagittal ridge
2 Second metacarpal bone
3 Proximal phalanx
   3a Palmar eminence
4 Lateral proximal sesamoid bone
   4a Apex
   4b Base
   4c Interosseus face
5 Lateral collateral ligament
   5a Superficial part
   5b Deep part
Dissection 9: Metacarpophalangeal Joint – Palmarolateral Aspect

6 Palmar (intersesamoidean) ligament
7 Collateral sesamoidean ligament
8 Straight sesamoidean ligament
9 Oblique sesamoidean ligament

Ultrasound scans A, B and C:
a Lateral proper palmar digital artery
b Lateral proper palmar digital vein
c Lateral proper palmar digital nerve
d Proximal digital annular ligament (proximal attachment)

A Transverse ultrasound scan of the fetlock imaging the collateral sesamoidean ligament, palmarolateral approach (see arrow in illustration at left).

B Transverse ultrasound scan of the proximal pastern, palmarolateral approach (see arrow in illustration above, left).

C Longitudinal ultrasound scan of the oblique sesamoidean ligament (proximal attachment), palmarolateral approach (see arrow in illustration above, left).
Dissection 10: Metacarpophalangeal Joint – Palmar Aspect

Contrast radiographic study of the arteries (arteriography) of the fetlock, dorsopalmar view.

Dissected specimen after injection of coloured latex into the digital sheath cavity.
Dissection 10: Metacarpophalangeal Joint – Palmar Aspect

1 Third interosseus muscle  
   1a Lateral branch  
   1b Lateral extensor branch  
2 Superficial digital flexor tendon (SDFT)  
   2a Lateral branch  
   2b Medial branch (covered by the proximal digital annular ligament)  
3 Deep digital flexor tendon (covered by the digital sheath wall)  
4 Palmar annular ligament  
5 Proximal digital annular ligament  
   5a Window dissected at the junction between the palmar annular ligament and the proximal digital annular ligament  
6 Digital sheath wall  
7 Lateral proper palmar digital artery  
8 Medial proper palmar digital artery  
   8a Ergot ramus  
9 Distal metacarpal arterial anastomosis of the SDFT  
10 Proximal digital arterial anastomosis of the SDFT  
11 Medial proper palmar digital vein  
12 Ergot ligament

Ultrasound scans A and B:  
a Proximal sesamoid bone  
b Medial proper palmar digital nerve

A Transverse ultrasound scan of the fetlock, palmarolateral approach (see arrow in illustration above, right).

B Transverse ultrasound scan of the proper palmar digital vessels, palmarolateral approach (see arrow in illustration above).
Dissection 11: Fetlock Area – Palmar Aspect

Dorsopalmar radiographic projection of the metacarpophalangeal joint.

Contrast radiographic study of the digital sheath (tenography), dorsopalmar view.
Dissection 11: Fetlock Area – Palmar Aspect

1. Third metacarpal bone
2. Proximal phalanx
3. Superficial digital flexor tendon
   3a. Distal branch
4. Palmar annular ligament
5. Proximal digital annular ligament
   5a. Proximal attachment
6. Third interosseus muscle
   6a. Distal branch
   6b. Extensor branch
7. Collateral sesamoidean ligament
8. Oblique sesamoidean ligament
9. Digital sheath wall

Ultrasound scans A and B:
   a. Proximal sesamoid bone
   b. Palmar (intersesamoidean) ligament
   c. Deep digital flexor tendon
Dissection 12: Fetlock Area – Palmar Aspect
(Palmar Ligament Reflected)

Dissected specimen after injection of coloured latex into the digital sheath cavity.

Contrast radiographic study of the digital sheath (tenography), dorsopalmar view.
Dissection 12: Fetlock Area – Palmar Aspect
(Palmar Ligament Reflected)

1. Superficial digital flexor tendon (SDFT)
2. Palmar annular ligament
   2a. Medial part
   2b. Lateral part (reclined)
3. Proximal digital annular ligament
   3a. Proximal attachment
4. Digital sheath cavity
   4a. Cavity
   4b. Synovial membrane
5. Third interosseus muscle
   5a. Distal branch
   5b. Extensor branch
6. Medial palmar proper digital artery
7. Lateral palmar proper digital artery
8. Distal metacarpal arterial anastomosis of the SDFT
9. Proximal digital arterial anastomosis of the SDFT
10. Ergot ramus

Contrast radiographic study of the arteries (arteriography) of the isolated superficial digital flexor tendon.
Dissection 13: Fetlock Area – Metacarpophalangeal Joint
Palmar Aspect (Suspensory Apparatus)

Dissected specimen after injection of coloured latex into the metacarpophalangeal joint cavity.

Casting preparation of the palmar recesses of the metacarpophalangeal joint, palmar aspect.

Contrast radiographic study of the arteries of the suspensory apparatus, dorsopalmar view.
Dissection 13: Fetlock Area – Metacarpophalangeal Joint
Palmar Aspect (Suspensory Apparatus)

1 Third metacarpal bone
2 Second metacarpal bone
3 Fourth metacarpal bone
4 Proximal phalanx (palmar eminence)
5 Medial proximal sesamoid bone
6 Lateral proximal sesamoid bone
7 Palmar (intersetosamoid) ligament
8 Straight sesamoid ligament
9 Medial oblique sesamoid ligament
10 Lateral oblique sesamoid ligament
11 Third interosseus muscle
   11a Medial branch
   11b Lateral branch
   11c Medial extensor branch
12 Fibrous union between the third interosseus muscle and the palmar ligament

**Ultrasound scans A and B:**
- a Superficial digital flexor tendon
- b Deep digital flexor tendon
A Transverse ultrasound scan of the distal fetlock, palmar approach (see arrow on illustration opposite).
Dissection 14: Metacarpophalangeal Joint – Palmar Aspect
(Oblique and Cruciate Sesamoidean Ligaments)

1 Proximal phalanx
   1a Palmar eminence
2 Lateral proximal sesamoid bone
3 Palmar (intersesamoidean) ligament
4 Collateral sesamoidean ligament
5 Sagittal bundle of the oblique sesamoidean ligament
6 Medial oblique sesamoidean ligament
7 Lateral oblique sesamoidean ligament
8 Cruciate sesamoidean ligament
9 Distopalmar recess of the metacarpophalangeal joint
10 Third interosseus muscle
   10a Medial branch
   10b Medial extensor branch

Ultrasound scans A (left) and B (right):
   a Sagittal ridge of the third metacarpal bone
   b Deep digital flexor tendon
   c Superficial digital flexor tendon
   d Straight sesamoidean ligament

B Transverse ultrasound scan of the distal fetlock, palmar approach (see arrow in illustration above, left).
Dissection 15: Metacarpophalangeal Joint  
(Deep Palmar Structures)

Contrast radiographic study of the metacarpophalangeal joint cavity (arthrography), dorsopalmar view.
Dissection 15: Metacarpophalangeal Joint
(Deep Palmar Structures)

1. Metacarpal condyle
2. Proximal phalanx (PI)
   2a. Palmar eminence
   2b. Insertion surface of the oblique sesamoidean ligament (trigone of PI)
3. Medial proximal sesamoid bone
4. Lateral proximal sesamoid bone
5. Palmar (intersesamoidean) ligament
6. Cruciate sesamoidean ligament
7. Short sesamoidean ligament
8. Distopalmar recess of the metacarpophalangeal joint
9. Oblique sesamoidean ligament
10. Collateral sesamoidean ligament
11. Collateral ligament of the metacarpophalangeal joint
12. Distal branch of the third interosseus muscle

Palmar aspect.

Dorsal aspect.
Dissection 16: Fetlock Area – Dorsal Aspect
(Superficial Structures)

Dissected specimen after injection of coloured latex into the subtendinous extensor bursa.
Dissection 16: Fetlock Area – Dorsal Aspect
(Superficial Structures)

1. Third metacarpal bone
2. Proximal phalanx
3. Dorsal metacarpophalangeal fascia
4. Dorsal articular capsule
5. Medial collateral ligament (superficial part)
6. Lateral collateral ligament (superficial part)
7. Dorsal digital extensor tendon
8. Lateral digital extensor tendon
9. Accessory digital extensor tendon
10. Third interosseus muscle
   10a. Medial extensor branch
   10b. Lateral extensor branch
   10c. Lateral branch

Dorsal aspect.

Dorsolateral aspect.

Transverse ultrasound scan of the extensor tendons, dorsal approach (see arrow above).
Dissection 17: Fetlock Area – Metacarpophalangeal Joint
(Dorsal Aspect – Deep Structures)

Dissected specimen with injection of coloured latex into the metacarpophalangeal cavity.

Metacarpophalangeal joint in flexion, dorsal aspect.

A Transverse ultrasound scan of the flexed fetlock, dorsal approach (see arrow on illustration opposite).
Dissection 17: Fetlock Area – Metacarpophalangeal Joint
(Dorsal Aspect – Deep Structures)

1 Third metacarpal bone
   1a Metacarpal condyle sagittal ridge
   1b Metacarpal condyle medial part
   1c Metacarpal condyle lateral part
   1d Metacarpal condyle dorsal margin
2 Proximal phalanx
3 Metacarpophalangeal joint
4 Medial collateral ligament (superficial part)
5 Lateral collateral ligament (superficial part)

Ultrasound scans A and B:
   a Subchondral bone
   b Articular cartilage
   c Dorsal articular capsule
   d Dorsal digital extensor tendon
   e Lateral digital extensor tendon
   f Skin

A Transverse ultrasound scan of the fetlock, dorsal approach (see arrow in illustration above, right).

B Transverse ultrasound scan of the fetlock, dorsolateral approach (see arrow in illustration above).
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Sagittal and Parasagittal Sections of the Equine Fetlock
Sagittal MRI scan of the digit after injection of latex into the arteries and fat material into the veins.
**S1a: Sagittal Section of the Digit**

1. Third metacarpal bone
   - 1a Metacarpal condyle (sagittal ridge)
2. Proximal phalanx
   - 2a Proximal sagittal groove
   - 2b Distal sagittal groove
3. Middle phalanx
   - 3a Flexor tuberosity
4. Distal phalanx
5. Distal sesamoid bone
6. Dorsal capsule of the metacarpophalangeal joint
7. Synovial cavity of the metacarpophalangeal joint
   - 7a Dorsal recess
   - 7b Proximopalmar recess
   - 7c Distopalmar recess
8. Palmar (intersesamoidean) ligament
9. Synovial cavity of the proximal interphalangeal joint
   - 9a Dorsal recess
   - 9b Sagittal palmar recess
10. Middle scutum
11. Synovial cavity of the distal interphalangeal joint
   - 11a Dorsal recess
   - 11b Proximopalmar recess
12. Collateral sesamoidean ligament
13. Straight sesamoidean ligament
14. Oblique sesamoidean ligament
15. Cruciate sesamoidean ligaments
16. Dorsal digital extensor tendon
17. Superficial digital flexor tendon
   - 17a Manica flexoria
18. Deep digital flexor tendon
19. Palmar annular ligament
20. Digital sheath cavity
21. Skin
22. Ergot
23. Digital cushion
24. Hoof wall
25. Sole
26. Frog

Sagittal ultrasound scan of the fetlock, palmar approach (see dotted area in illustration above).
S1b: Sagittal Section of the Metacarpophalangeal Joint

Sagittal MRI scan of the fetlock.

Sagittal MRI scan of the fetlock.
### S1b: Sagittal Section of the Metacarpophalangeal Joint

1. Third metacarpal bone  
2. Metacarpal condyle  
   - 2a Sagittal ridge  
   - 2b Dorsal margin  
   - 2c Palmar margin  
3. Proximal phalanx  
   - 3a Proximal sagittal groove  
   - 3b Proximodorsal articular margin  
   - 3c Proximopalmar articular margin  
4. Dorsal capsule of the metacarpophalangeal joint  
5. Synovial membrane  
   - 5a Proximodorsal synovial fold  
   - 5b Distodorsal synovial fold  
6. Synovial cavity  
   - 6a Dorsal recess  
   - 6b Distodorsal recess  
   - 6c Proximopalmar recess  
   - 6d Synovial villi  
   - 6e Distopalmar recess  
7. Palmar (intersesamoidean) ligament  
8. Proximal scutum (palmar surface)  
9. Straight sesamoidean ligament  
10. Oblique sesamoidean ligament  
11. Cruciate sesamoidean ligaments  
12. Dorsal digital extensor tendon  
13. Subtendinous bursa  
14. Superficial digital flexor tendon  
   - 14a Manica flexoria  
15. Deep digital flexor tendon  
   - 15a Metacarpophalangeal fibrocartilaginous part  
16. Palmar annular ligament  
17. Digital sheath  
   - 17a Synovial membrane  
   - 17b Synovial cavity  
18. Common palmar digital artery  
19. Common palmar digital vein  
20. Palmar metacarpal artery  
21. Ergot  
22. Skin

**A** Sagittal ultrasound scan of the fetlock, palmar approach (see dotted area in illustration above).

**B** Sagittal ultrasound scan of the fetlock, dorsal approach (see dotted area in illustration at top of page).
Parasagittal section of the fetlock after injection of coloured latex into the synovial cavities.

Parasagittal MRI scan of the fetlock.

Parasagittal section of the fetlock after injection of coloured latex into the synovial cavities.
S2: Parasagittal Section of the Metacarpophalangeal Joint

1. Third metacarpal bone
2. Metacarpal condyle
   - 2a. Base of the sagittal ridge
   - 2b. Dorsal margin
   - 2c. Palmar margin
3. Proximal phalanx
   - 3a. Border of the proximal sagittal groove
   - 3b. Proximodorsal articular margin
   - 3c. Proximopalmar articular margin
4. Proximal sesamoid bone (axial border)
5. Dorsal capsule of the metacarpophalangeal joint
6. Synovial membrane
   - 6a. Proximodorsal synovial fold
   - 6b. Distodorsal synovial fold
7. Synovial cavity
   - 7a. Dorsal recess
   - 7b. Distodorsal recess
   - 7c. Proximopalmar recess
   - 7d. Synovial villi
   - 7e. Distopalmar recess
8. Palmar (intersesamoidean) ligament
9. Proximal scutum (palmar surface)
10. Straight sesamoidean ligament
11. Oblique sesamoidean ligament
12. Cruciate sesamoidean ligaments
13. Dorsal digital extensor tendon
14. Subtendinous bursa
15. Superficial digital flexor tendon
   - 15a. Manica flexoria
16. Deep digital flexor tendon
   - 16a. Metacarpophalangeal fibrocartilaginous part
17. Palmar annular ligament
18. Digital sheath
   - 18a. Synovial membrane
   - 18b. Synovial cavity
19. Medial common palmar digital artery
20. Lateral proper palmar digital artery
21. Palmar metacarpal artery
22. Medial common palmar digital vein
23. Ergot
24. Skin

Parasagittal ultrasound scan of the fetlock, palmar approach (see dotted area in illustration above).
S3a: Parasagittal Section of the Metacarpophalangeal Joint

Parasagittal MRI scan of the fetlock.

Parasagittal MRI scan of the fetlock.
Parasagittal ultrasound scan of the distal fetlock, palmar approach (see dotted area in illustration above).

**S3a: Parasagittal Section of the Metacarpophalangeal Joint**

1. Third metacarpal bone
   - 1a. Metacarpal condyle (lateral part)
2. Fourth metacarpal bone
3. Proximal phalanx
   - 3a. Lateral glenoidal cavity
   - 3b. Dorsal margin
   - 3c. Palmar margin
4. Lateral proximal sesamoid bone
   - 4a. Base
   - 4b. Apex
   - 4c. Articular surface
   - 4d. Flexor surface
5. Dorsal capsule of the metacarpophalangeal joint
6. Synovial membrane
   - 6a. Proximodorsal synovial fold
   - 6b. Distodorsal synovial fold
7. Synovial cavity
   - 7a. Dorsal recess
   - 7b. Proximopalmar recess
   - 7c. Synovial villi
   - 7d. Distopalmar recess
8. Palmar (intersesamoidean) ligament
9. Proximal scutum (palmar surface)
10. Straight sesamoidean ligament
11. Oblique sesamoidean ligament
12. Cruciate sesamoidean ligaments
13. Third interosseus muscle (lateral branch)
14. Lateral digital extensor tendon
15. Superficial digital flexor tendon
   - 15a. Manica flexoria
16. Deep digital flexor tendon
17. Palmar annular ligament
18. Digital sheath
   - 18a. Synovial membrane
   - 18b. Synovial cavity
19. Lateral proper palmar digital artery
20. Lateral proper palmar digital vein
21. Palmar metacarpal artery and vein
22. Ergot
23. Skin
Parasagittal section of the fetlock after injection of coloured latex into the synovial cavities and vessels.

Parasagittal MRI scan of the fetlock.

Parasagittal section of the fetlock after injection of coloured latex into the synovial cavities and vessels.

S3b: Parasagittal Section of the Metacarpophalangeal Joint
S3b: Parasagittal Section of the Metacarpophalangeal Joint

1 Third metacarpal bone
   1a Metacarpal condyle (lateral part)
2 Fourth metacarpal bone
3 Proximal phalanx
   3a Lateral glenoidal cavity
   3b Proximodorsal articular margin
   3c Proximopalmar articular margin
4 Lateral proximal sesamoid bone
   4a Base
   4b Articular surface
   4c Flexor surface
   4d Interosseous face
5 Dorsal capsule of the metacarpophalangeal joint
6 Synovial membrane
   6a Proximodorsal synovial fold
   6b Distodorsal synovial fold
7 Synovial cavity
   7a Dorsal recess
   7b Proximopalmar recess
   7c Synovial villi
   7d Distopalmar recess
8 Palmar (intersesamoidean) ligament
9 Proximal scutum (palmar surface)
10 Straight sesamoidean ligament
11 Oblique sesamoidean ligament
12 Cruciate sesamoidean ligaments
13 Third interosseus muscle (lateral branch)
14 Lateral digital extensor tendon
15 Superficial digital flexor tendon
16 Palmar annular ligament
17 Digital sheath
   17a Synovial membrane
   17b Synovial cavity
18 Lateral proper palmar digital artery
19 Lateral proper palmar digital vein
20 Palmar metacarpal artery and vein
21 Skin
Parasagittal MRI scan of the fetlock.

Parasagittal MRI scan of the fetlock.
S4: Parasagittal Section of the Metacarpophalangeal Joint

1. Third metacarpal bone
   - 1a. Metacarpal condyle (medial part)
2. Second metacarpal bone
3. Proximal phalanx
   - 3a. Medial glenoidal cavity
   - 3b. Dorsal margin
   - 3c. Palmar margin
   - 3d. Medial palmar eminence
4. Medial proximal sesamoid bone
   - 4a. Base
   - 4b. Articular surface
   - 4c. Interosseus face
   - 4d. Palmar border
   - 4e. Flexor surface
5. Dorsal capsule of the metacarpophalangeal joint
6. Synovial membrane
   - 6a. Proximodorsal synovial fold
7. Synovial cavity
   - 7a. Dorsal recess
   - 7b. Proximopalmar recess
   - 7c. Synovial villi
   - 7d. Distopalmar recess
8. Palmar (intersesamoidean) ligament
9. Proximal scutum
10. Oblique sesamoidean ligament
11. Short sesamoidean ligament
12. Third interosseus muscle
   - 12a. Medial branch
   - 12b. Medial extensor branch
13. Superficial digital flexor tendon
14. Palmar annular ligament
15. Digital sheath (collateral recess)
16. Medial proper palmar digital artery
17. Medial proper palmar digital vein
18. Medial proper palmar digital nerve
19. Palmar metacarpal vein and artery
20. Ergot
21. Skin

A. Parasagittal ultrasound scan of the distal fetlock, palmar approach (see dotted area in illustration above, right).

B. Parasagittal ultrasound scan of the distal fetlock, palmar approach (see dotted area in illustration above).
Parasagittal MRI scan of the fetlock after injection of latex into the arteries and fat material into the veins.

Parasagittal MRI scan of the fetlock.
**S5: Parasagittal Section of the Metacarpophalangeal Joint**

1. Third metacarpal bone
   - 1a Metacarpal condyle (medial part)
2. Second metacarpal bone
3. Proximal phalanx (P1)
   - 3a Medial glenoidal cavity
   - 3b Proximodorsal articular margin
   - 3c Proximopalmar articular margin
   - 3d Palmar eminence
4. Medial proximal sesamoid bone
   - 4a Base
   - 4b Articular surface
   - 4c Interosseus face
   - 4d Palmar border
   - 4e Flexor surface
5. Dorsal capsule of the metacarpophalangeal joint
6. Synovial membrane
7. Synovial cavity
   - 7a Dorsal recess
   - 7b Proximopalmar recess
   - 7c Synovial villi
   - 7d Distopalmar recess
8. Palmar (intersesamoidean) ligament
9. Oblique sesamoidean ligament
10. Short sesamoidean ligament
11. Third interosseus muscle
   - 11a Medial branch
   - 11b Medial extensor branch
12. Palmar annular ligament
13. Digital sheath (collateral recess)
14. Medial proper palmar digital artery
   - 14a Palmar ramus of P1
   - 14b Ramus of the proximal sesamoid bone
15. Medial proper palmar digital vein
   - 15a Palmar ramus of P1
   - 15b Dorsal ramus of P1
16. Medial palmar metacarpal artery and vein
17. Medial proper palmar digital nerve
18. Skin

**A** Parasagittal ultrasound scan of the fetlock, palmar approach (see dotted area in illustration above, right).

**B** Parasagittal ultrasound scan of the fetlock, palmar approach (see dotted area in illustration above).
A Parasagittal ultrasound scan of the fetlock, dorsal approach (see dotted area in illustration on facing page).

Parasagittal MRI scan of the fetlock.
S6: Parasagittal Section of the Metacarpophalangeal Joint

1 Third metacarpal bone
   1a Metacarpal condyle (lateral part)
2 Fourth metacarpal bone
3 Proximal phalanx
   3a Lateral glenoidal cavity
   3b Proximodorsal articular margin
   3c Proximopalmar articular margin
   3d Lateral palmar eminence
4 Lateral proximal sesamoid bone
   4a Base
   4b Articular surface
   4c Interoosseus face
   4d Palmar border
5 Dorsal capsule of the metacarpophalangeal joint
6 Lateral collateral ligament
7 Synovial cavity
   7a Dorsal recess
   7b Proximopalmar recess
   7c Synovial villi
   7d Distopalmar recess
8 Palmar (interosseous) ligament
9 Oblique sesamoidean ligament
10 Short sesamoidean ligament
11 Third interosseus muscle
   11a Lateral branch
   11b Lateral extensor branch
12 Lateral digital extensor tendon
13 Lateral proper palmar digital artery
   13a Ramus for the proximal sesamoid bone
14 Lateral proper palmar digital vein
15 Lateral proper palmar digital nerve
16 Lateral palmar metacarpal artery
17 Lateral palmar metacarpal vein
18 Dorsal metacarpophalangeal fascia
19 Skin

C Parasagittal ultrasound scan of the fetlock, palmar approach (see dotted area in illustration above).

B Parasagittal ultrasound scan of the fetlock, palmar approach (see dotted area in illustration at top, right).
S7: Parasagittal Section of the Metacarpophalangeal Joint

Parasagittal MRI scan of the fetlock.
A Parasagittal ultrasound scan of the half-flexed fetlock, dorsal approach (see dotted area in illustration above).

B Parasagittal ultrasound scan of the fetlock, palmar approach (see dotted area in illustration at top, right).
S8: Parasagittal Section of the Metacarpophalangeal Joint
(The Joint is Half-flexed)

Parasagittal MRI scan of the fetlock after injection of latex into the arteries and fat material into the veins.

Parasagittal MRI scan of the fetlock.
S8: Parasagittal Section of the Metacarpophalangeal Joint
(The Joint is Half-flexed)

1 Third metacarpal bone
   1a Metacarpal condyle (lateral part)
2 Proximal phalanx
   2a Lateral glenoidal cavity
   2b Lateral palmar eminence
3 Lateral proximal sesamoid bone
   3a Articular surface
   3b Interosseus face
   3c Palmar border
   3d Base
4 Dorsal capsule of the metacarpophalangeal joint
5 Synovial membrane (distodorsal synovial fold)
6 Synovial cavity
   6a Proximopalmar recess
   6b Synovial villi
7 Palmar (intersesamoidean) ligament
8 Lateral oblique sesamoidean ligament
9 Third interosseus muscle
   9a Lateral branch
   9b Lateral extensor branch
10 Lateral digital extensor tendon
11 Lateral proper palmar digital artery
   11a Articular branch
12 Lateral palmar common digital vein
13 Lateral palmar proper digital vein
14 Lateral palmar proper digital nerve
15 Lateral palmar metacarpal artery
16 Ergot ligament
17 Skin

Contrast radiographic study of the arteries (arteriography) of the fetlock, lateromedial projection.

Parasagittal ultrasound scan of the fetlock, palmar approach (see dotted area in illustration above).
Parasagittal section of the fetlock after injection of coloured latex into the vessels.

Parasagittal MRI scan of the fetlock.

Parasagittal section of the fetlock after injection of coloured latex into the vessels.

S9: Parasagittal Section of the Metacarpophalangeal Joint
**S9: Parasagittal Section of the Metacarpophalangeal Joint**

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<thead>
<tr>
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<tbody>
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<td>1</td>
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<td>Proximal phalanx</td>
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<tr>
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<td>Glenoidal cavity</td>
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<td>Dorsal margin</td>
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<td>Proximal sesamoid bone</td>
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<td>3a</td>
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<td>Collateral ligament of the metacarpophalangeal joint</td>
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<tr>
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<td>Oblique sesamoidean ligament</td>
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<td>Extensor branch</td>
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<td>Proper palmar digital artery</td>
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<td>Proper palmar digital vein</td>
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<td>11</td>
<td>Proper palmar digital nerve</td>
</tr>
<tr>
<td>12</td>
<td>Metacarpal artery</td>
</tr>
<tr>
<td>13</td>
<td>Dorsal metacarpophalangeal fascia</td>
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<tr>
<td>14</td>
<td>Skin</td>
</tr>
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<td>14a</td>
<td>Skin section</td>
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Parasagittal MRI scan of the fetlock after injection of latex into the arteries and fat material into the veins.
S10: Parasagittal Section of the Metacarpophalangeal Joint

Parasagittal MRI scan of the fetlock.

Dorsopalmar radiograph of the sectioned structures.
**S10: Parasagittal Section of the Metacarpophalangeal Joint**

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<tr>
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<td>Collateral ligament of the metacarpophalangeal joint (deep part)</td>
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<tr>
<td>3</td>
<td>Third interosseus muscle</td>
</tr>
<tr>
<td>3a</td>
<td>Distal branch</td>
</tr>
<tr>
<td>3b</td>
<td>Extensor branch</td>
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<td>4</td>
<td>Proper palmar digital vein</td>
</tr>
<tr>
<td>5</td>
<td>Vascular network of the metacarpophalangeal joint</td>
</tr>
<tr>
<td>6</td>
<td>Dorsal metacarpophalangeal fascia</td>
</tr>
<tr>
<td>7</td>
<td>Skin</td>
</tr>
<tr>
<td>7a</td>
<td>Skin section</td>
</tr>
</tbody>
</table>

Parasagittal MRI scan of the fetlock.
Transverse Sections of the Equine Fetlock
Transverse anatomical section of the fetlock area after injection of coloured latex into the synovial cavities and vessels.
**Transverse Section of the Metacarpophalangeal Joint**

- 1 Third metacarpal bone
- 2 Second metacarpal bone
- 3 Fourth metacarpal bone
- 4 Proximopalmar recess of the metacarpophalangeal joint cavity
  - 4a Synovial plica
- 5 Dorsal digital extensor tendon
- 6 Lateral digital extensor tendon
- 7 Accessory digital extensor tendon
- 8 Superficial digital flexor tendon
- 9 Deep digital flexor tendon
- 10 Third interosseus muscle (branches)
- 11 Digital sheath (synovial cavity)
  - 11a Synovial membrane
  - 11b Dorsal proximal recess
- 12 Medial common palmar digital artery
- 13 Common palmar digital veins
- 14 Common palmar digital nerves
- 15 Palmar metacarpal arteries
- 16 Palmar metacarpal veins
- 17 Dorsal metacarpal fascia
- 18 Palmar metacarpal fascia
- 19 Skin

*Ultrasound scans A and B:*
- a Proper palmar digital artery
- b Proper palmar digital vein

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**A** Transverse ultrasound scan of the fetlock, palmar approach (see dotted area in illustration above, right).

**B** Transverse ultrasound scan of the fetlock area, lateral approach (see dotted area in illustration above).
Transverse anatomical section of the fetlock area after injection of coloured latex into the synovial cavities and vessels.

T2: Transverse Section of the Metacarpophalangeal Joint

Transverse MRI scan of the fetlock.
**T2: Transverse Section of the Metacarpophalangeal Joint**

1. Third metacarpal bone  
   1a. Cancellous bone  
   1b. Cortical bone  
   1c. Periosteum  
2. Fourth metacarpal bone  
3. Proximopalmar recess of the metacarpophalangeal joint cavity  
   3a. Synovial plica  
4. Dorsal digital extensor tendon  
5. Lateral digital extensor tendon  
6. Accessory digital extensor tendon  
7. Superficial digital flexor tendon  
8. Deep digital flexor tendon  
9. Third interosseus muscle (branches)  
10. Digital sheath (synovial cavity)  
   10a. Synovial membrane  
   10b. Dorsal proximal recess  
11. Common palmar digital artery (bifurcation)  
12. Common palmar digital vein  
13. Common palmar digital nerve  
14. Palmar metacarpal arteries  
   14a. Anastomosis with the digital arteries  
15. Palmar metacarpal veins  
16. Dorsal metacarpal fascia  
17. Palmar metacarpal fascia  
18. Skin

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**A** Transverse ultrasound scan of the fetlock, palmar approach (see dotted area in illustration above, right).

**B** Transverse ultrasound scan of the fetlock, medial approach (see dotted area in illustration above).
Transverse section of the fetlock after injection of
coloured latex into the vessels.

Transverse section of the fetlock after injection of
coloured latex into the synovial cavities and vessels.
**T3: Transverse Section of the Metacarpophalangeal Joint**

1. Third metacarpal bone
   - 1a Cancellous bone
   - 1b Cortical bone
   - 1c Periosteum
2. Dorsal capsule of the metacarpophalangeal (MP) joint
3. Synovial membrane
   - 3a Synovial plica
   - 3b Synovial villi
4. Proximopalmar recess of the MP joint cavity
5. Palmar (interosseous) ligament
6. Proximal scutum (palmar surface)
7. Dorsal digital extensor tendon
8. Lateral digital extensor tendon
9. Accessory digital extensor tendon
10. Third interosseus muscle
    - 10a Lateral branch
    - 10b Medial branch
11. Superficial digital flexor tendon
    - 11a Manica flexoria
12. Deep digital flexor tendon
13. Digital sheath
    - 13a Synovial membrane
    - 13b Dorsal proximal recess
14. Lateral proper palmar digital artery
15. Medial proper palmar digital artery
16. Palmar metacarpal artery
17. Lateral proper palmar digital vein
18. Medial proper palmar digital vein
19. Palmar metacarpal vein
20. Vascular network of the MP joint
21. Lateral proper palmar digital nerve
22. Medial palmar proper digital nerve
23. Dorsal metacarpal fascia
24. Palmar metacarpal fascia
25. Skin

Transverse ultrasound scan of the fetlock area, palmar approach (see dotted area in illustration above, right).

Transverse MRI scan of the fetlock.
Transverse section of the fetlock after injection of coloured latex into the synovial cavities and vessels.

Transverse MRI scan of the fetlock.

Transverse section of the fetlock after injection of coloured latex into the synovial cavities and vessels.
T4: Transverse Section of the Metacarpophalangeal Joint

1 Third metacarpal bone
   1a Cancellous bone
   1b Cortical bone
2 Dorsal capsule of the metacarpophalangeal (MP) joint
3 Synovial membrane
   3a Synovial villi
4 Proximopalmar recess of the MP joint cavity
5 Palmar (interosseous) ligament
6 Proximal scutum (palmar surface)
7 Lateral collateral ligament (superficial part)
8 Medial collateral ligament (superficial part)
9 Dorsal digital extensor tendon
10 Lateral digital extensor tendon
11 Accessory digital extensor tendon
12 Third interosseus muscle
   12a Lateral branch
   12b Medial branch
13 Superficial digital flexor tendon
   13a Manica flexoria
14 Deep digital flexor tendon
15 Palmar annular ligament
16 Digital sheath (synovial cavity)
17 Lateral proper palmar digital artery
18 Medial proper palmar digital artery
19 Lateral proper palmar digital vein
20 Medial proper palmar digital vein
21 Vascular network of the MP joint
22 Lateral proper palmar digital nerve
23 Medial proper palmar digital nerve
24 Dorsal metacarpophalangeal fascia
25 Skin

A Transverse ultrasound scan of the fetlock area, palmar approach (see dotted area in illustration above, right).

B Transverse ultrasound scan of the fetlock area, medial approach (see dotted area in illustration above).
Transverse section of the fetlock after injection of coloured latex into the synovial cavities and vessels.
T5: Transverse Section of the Metacarpophalangeal Joint

1 Third metacarpal bone
   1a Cancellous bone
   1b Cortical bone
2 Dorsal capsule of the metacarpophalangeal (MP) joint
3 Synovial membrane
   3a Synovial villi
4 Proximal palmar recess of the MP joint cavity
5 Palmar (interosseous) ligament
6 Proximal scutum (palmar surface)
7 Lateral collateral ligament (superficial part)
8 Medial collateral ligament (superficial part)
9 Dorsal digital extensor tendon
10 Lateral digital extensor tendon
11 Accessory digital extensor tendon
12 Subtendinous bursa
13 Third interosseus muscle
   13a Lateral branch
   13b Medial branch
14 Superficial digital flexor tendon
   14a Manica flexoria
15 Deep digital flexor tendon
16 Palmar annular ligament
17 Digital sheath (synovial cavity)
18 Lateral proper palmar digital artery
19 Medial proper palmar digital artery
20 Lateral proper palmar digital vein
21 Medial proper palmar digital vein
22 Vascular network of the MP joint
23 Lateral proper palmar digital nerve
24 Medial proper palmar digital nerve
25 Dorsal metacarpophalangeal fascia
26 Skin

Transverse ultrasound scan of the fetlock area, palmar approach (see dotted area in illustration above, right).

Transverse MRI scan of the fetlock.
Transverse section of the fetlock after injection of coloured latex into the synovial cavities and vessels.

Transverse section of the fetlock after injection of latex into the synovial cavities and vessels.
T6: Transverse Section of the Metacarpophalangeal Joint

1. Third metacarpal bone
2. Sagittal ridge of the metacarpal condyle
3. Dorsal capsule of the metacarpophalangeal (MP) joint
4. Synovial membrane
   - 4a. Proximodorsal synovial fold
   - 4b. Synovial villi
5. Synovial cavity of the MP joint
   - 5a. Dorsal recess
   - 5b. Proximopalmar recess
6. Palmar (intersesamoidean) ligament
7. Proximal scutum (palmar surface)
8. Lateral collateral ligament (superficial part)
9. Medial collateral ligament (superficial part)
10. Dorsal digital extensor tendon
11. Lateral digital extensor tendon
12. Accessory digital extensor tendon
13. Subtendinous bursa
14. Third interosseous muscle
   - 14a. Lateral branch
   - 14b. Medial branch
15. Superficial digital flexor tendon
   - 15a. Manica flexoria
16. Deep digital flexor tendon
17. Palmar annular ligament
18. Digital sheath
   - 18a. Synovial membrane
   - 18b. Synovial cavity
   - 18c. Loose connective mesotendon
19. Lateral proper palmar digital artery
20. Medial proper palmar digital artery
21. Lateral proper palmar digital vein
22. Medial proper palmar digital vein
23. Vascular network of the MP joint
24. Lateral proper palmar digital nerve
25. Medial proper palmar digital nerve
26. Dorsal metacarpophalangeal fascia
27. Skin

Transverse ultrasound scan of the fetlock, palmar approach (see dotted area on illustration above, right).

Transverse MRI scan of the fetlock.
A Transverse ultrasound scan of the fetlock, dorsal approach (see dotted area in illustration on facing page).

Transverse MRI scan of the fetlock after injection of latex into the arteries and fat material into the veins.
**T7: Transverse Section of the Metacarpophalangeal Joint**

**A** Transverse ultrasound scan of the fetlock, medial approach (see dotted area in illustration left).

**B** Transverse ultrasound scan of the fetlock, palmar approach (see dotted area in illustration left).

**C** Transverse ultrasound scan of the fetlock, medial approach (see dotted area in illustration left).

1. Third metacarpal bone
2. Metacarpal condyle
   - 2a Sagittal ridge
   - 2b Dorsal margin
3. Lateral proximal sesamoid bone (apex)
4. Medial proximal sesamoid bone (apex)
5. Dorsal capsule of the metacarpophalangeal (MP) joint
6. Synovial membrane of the MP joint
   - 6a Proximodorsal synovial fold
   - 6b Synovial villi
7. Synovial cavity of the MP joint
   - 7a Dorsal recess
   - 7b Proximopalmar recess
8. Palmar (intersesamoidean) ligament
9. Proximal scutum (palmar surface)
10. Lateral collateral ligament
11. Medial collateral ligament
12. Dorsal digital extensor tendon
13. Lateral digital extensor tendon
14. Accessory digital extensor tendon
15. Subtendinous bursa
16. Third interosseus muscle
   - 16a Lateral branch
   - 16b Medial branch
17. Superficial digital flexor tendon
   - 17a Manica flexoria
18. Deep digital flexor tendon
19. Palmar annular ligament
20. Digital sheath
   - 20a Synovial membrane
   - 20b Synovial cavity
   - 20c Loose connective mesotendon
21. Lateral proper palmar digital artery
22. Medial proper palmar digital artery
23. Lateral proper palmar digital vein
24. Medial proper palmar digital vein
25. Lateral proper palmar digital nerve
26. Medial proper palmar digital nerve
27. Dorsal metacarpophalangeal fascia
28. Skin
Transverse section of the fetlock after injection of coloured latex into the synovial cavities and vessels.

Transverse MRI scan of the fetlock.

Transverse section of the fetlock after injection of coloured latex into the synovial cavities and vessels.
T8: Transverse Section of the Metacarpophalangeal Joint

1 Third metacarpal bone
2 Metacarpal condyle
   2a Sagittal ridge
   2b Palmar margin
3 Lateral proximal sesamoid bone
4 Medial proximal sesamoid bone
5 Dorsal capsule of the metacarpophalangeal (MP) joint
6 Synovial membrane of the MP joint
   6a Proximodorsal synovial fold
   6b Synovial villi
7 Synovial cavity of the MP joint
   7a Dorsal recess
   7b Proximopalmar recess
8 Palmar (intersesamoidean) ligament
9 Proximal scutum (palmar surface)
10 Lateral collateral ligament (superficial part)
11 Medial collateral ligament (superficial part)
12 Dorsal digital extensor tendon
13 Lateral digital extensor tendon
14 Accessory digital extensor tendon
15 Subtendinous bursa
16 Third interosseous muscle
   16a Lateral branch
   16b Medial branch
17 Superficial digital flexor tendon
   17a Manica flexoria
18 Deep digital flexor tendon
19 Palmar annular ligament
20 Digital sheath
   20a Synovial cavity
   20b Synovial membrane
   20c Loose connective mesotendon
21 Lateral proper palmar digital artery
22 Medial proper palmar digital artery
23 Lateral proper palmar digital vein
24 Medial proper palmar digital vein
   24a Ergot ramus
25 Lateral proper palmar digital nerve
26 Medial proper palmar digital nerve
27 Skin
Transverse section of the fetlock after injection of coloured latex into the synovial cavities and vessels.

Transverse MRI scan of the fetlock.
### T9: Transverse Section of the Metacarpophalangeal Joint

1. **Metacarpal condyle**
   - 1a Lateral part (lateral condyle)
   - 1b Medial part (medial condyle)
   - 1c Sagittal ridge
2. **Lateral proximal sesamoid bone**
3. **Medial proximal sesamoid bone**
   - 3a Body
   - 3b Articular surface
   - 3c Flexor surface
   - 3d Interosseous face
   - 3e Palmar border
4. **Dorsal capsule of the MP joint**
5. **Synovial membrane**
   - 5a Proximodorsal synovial fold
   - 5b Synovial villi
6. **Synovial cavity**
   - 6a Dorsal recess
   - 6b Proximopalmar recess
7. **Palmar (intersesamoidean) ligament**
8. **Proximal scutum (palmar surface)**
9. **Lateral collateral ligament (superficial part)**
10. **Medial collateral ligament (superficial part)**
11. **Dorsal digital extensor tendon**
12. **Lateral digital extensor tendon**
13. **Accessory digital extensor tendon**
14. **Subtendinous bursa**
15. **Third interosseus muscle**
   - 15a Lateral branch
   - 15b Lateral extensor branch
   - 15c Medial branch
   - 15d Medial extensor branch
16. **Superficial digital flexor tendon**
17. **Deep digital flexor tendon**
18. **Palmar annular ligament**
19. **Digital sheath cavity**
20. **Lateral proper palmar digital artery**
21. **Medial proper palmar digital artery**
22. **Lateral proper palmar digital vein**
23. **Medial proper palmar digital vein**
24. **Lateral proper palmar digital nerve**
25. **Medial proper palmar digital nerve**
26. **Nutrient vessels for the metacarpal condyle**
27. **Dorsal metacarpophalangeal fascia**
28. **Skin**

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**A** Transverse ultrasound scan of the fetlock, palmar approach (see dotted area in illustration left).

**B** Transverse ultrasound scan of the fetlock, medial approach (see dotted area in illustration left).
Transverse MRI scan of the fetlock after injection of latex into the arteries and fat material into the veins.

Transverse section of the fetlock after injection of coloured latex into the synovial cavities and vessels.

A Transverse ultrasound scan of the fetlock (zoom), palmar approach (see dotted area in illustration on facing page).
1 Metacarpal condyle
   1a Lateral part (lateral condyle)
   1b Medial part (medial condyle)
   1c Sagittal ridge
2 Lateral proximal sesamoid bone
3 Medial proximal sesamoid bone
   3a Body
   3b Articular surface
   3c Flexor surface
   3d Interosseus face
   3e Palmar border
4 Dorsal capsule of the metacarpophalangeal joint
5 Synovial membrane
6 Synovial cavity
   6a Dorsal recess
   6b Palmar recess
7 Palmar (intersesamoidean) ligament
8 Proximal scutum (palmar surface)
9 Lateral collateral ligament
10 Medial collateral ligament
   10a Superficial part
   10b Deep part
11 Lateral collateral sesamoidean ligament
12 Medial collateral sesamoidean ligament
13 Dorsal digital extensor tendon
14 Lateral digital extensor tendon
15 Accessory digital extensor tendon
16 Subtendinous bursa
17 Third interosseus muscle
   17a Lateral branch
   17b Lateral extensor branch
18 Superficial digital flexor tendon
19 Deep digital flexor tendon
20 Palmar annular ligament
21 Digital sheath cavity
22 Lateral proper palmar digital artery
23 Medial proper palmar digital artery
24 Lateral proper palmar digital vein
25 Medial proper palmar digital vein
26 Lateral proper palmar digital nerve
27 Medial proper palmar digital nerve
28 Metacarpophalangeal fascia
29 Skin

B Transverse ultrasound scan of the fetlock, medial approach (see dotted area in illustration above).
Transverse ultrasound scan of the fetlock, dorsal approach (see dotted area in illustration on facing page).

Transverse MRI scan of the fetlock after injection of latex into the arteries and fat material into the veins.

Transverse section of the fetlock after injection of coloured latex into the synovial cavities and vessels.

A Transverse ultrasound scan of the fetlock, dorsal approach (see dotted area in illustration on facing page).
**T11: Transverse Section of the Metacarpophalangeal Joint**

1 Metacarpal condyle  
   1a Sagittal ridge  
   1b Collateral fossa  
2 Lateral proximal sesamoid bone  
3 Medial proximal sesamoid bone  
   3a Body  
   3b Articular surface  
   3c Flexor surface  
   3d Palmar border  
4 Dorsal capsule of the metacarpophalangeal joint  
5 Synovial membrane  
6 Synovial cavity  
   6a Dorsal recess  
   6b Palmar recess  
7 Palmar (intersesamoidean) ligament  
8 Proximal scutum (palmar surface)  
9 Lateral collateral ligament  
10 Medial collateral ligament  
   10a Superficial part  
   10b Deep part  
11 Lateral collateral sesamoidean ligament  
12 Medial collateral sesamoidean  
13 Dorsal digital extensor tendon  
14 Lateral digital extensor tendon  
15 Accessory digital extensor tendon  
16 Third interosseus muscle  
   16a Lateral extensor branch  
   16b Medial extensor branch  
17 Superficial digital flexor tendon  
18 Deep digital flexor tendon  
19 Palmar annular ligament  
20 Digital sheath cavity  
21 Lateral proper palmar digital artery  
22 Medial proper palmar digital artery  
23 Lateral proper palmar digital vein  
24 Medial proper palmar digital vein  
25 Lateral proper palmar digital nerve  
26 Medial proper palmar digital nerve  
27 Dorsal metacarpophalangeal fascia  
28 Skin

**B** Transverse ultrasound scan of the fetlock, palmar approach (see dotted area in illustration above).
**T12: Transverse Section of the Metacarpophalangeal Joint**

A Transverse ultrasound scan of the fetlock, dorsolateral approach (see dotted area in illustration on facing page).

Transverse MRI scan of the fetlock after injection of latex into the arteries and fat material into the veins.

Transverse section of the fetlock after injection of coloured latex into the synovial cavities and vessels.
T12: Transverse Section of the Metacarpophalangeal Joint

1 Metacarpal condyle
   1a Lateral part (lateral condyle)
   1b Medial part (medial condyle)
   1c Sagittal ridge
   1d Collateral fossa
2 Lateral proximal sesamoid bone (base)
3 Medial proximal sesamoid bone (base)
4 Dorsal capsule of the metacarpophalangeal (MP) joint
5 Synovial cavity of the MP joint
   5a Dorsal recess
   5b Palmar recess
   5c Collateral recess
6 Palmar (intersesamoidean) ligament
7 Proximal scutum (palmar surface)
8 Lateral collateral ligament
    8a Superficial part
    8b Deep part
9 Medial collateral ligament
10 Lateral collateral sesamoidean ligament
11 Medial collateral sesamoidean ligament
12 Medial oblique sesamoidean ligament
13 Medial short sesamoidean ligament
14 Dorsal digital extensor tendon
15 Lateral digital extensor tendon
16 Accessory digital extensor tendon
17 Subtendinous bursa
18 Third interosseous muscle
    18a Lateral extensor branch
    18b Medial extensor branch
19 Superficial digital flexor tendon
20 Deep digital flexor tendon
21 Palmar annular ligament
22 Digital sheath cavity
23 Lateral proper palmar digital artery
24 Medial proper palmar digital artery
25 Lateral proper palmar digital vein
26 Medial proper palmar digital vein
27 Lateral proper palmar digital nerve
28 Medial proper palmar digital nerve
29 Ergot cushion
30 Skin

B Transverse ultrasound scan of the fetlock, palmar approach (see dotted area in illustration above).
A Transverse ultrasound scan of the fetlock, dorsal approach (see dotted area in illustration on facing page).

B Transverse ultrasound scan of the fetlock, dorsomedial approach (see dotted area in illustration on facing page).

Transverse MRI scan of the fetlock after injection of latex into the arteries and fat material into the veins.

T13: Transverse Section of the Metacarpophalangeal Joint
T13: Transverse Section of the Metacarpophalangeal Joint

1 Metacarpal condyle
   1a Lateral part (lateral condyle)
   1b Medial part (medial condyle)
   1c Sagittal ridge
   1d Collateral fossa
2 Lateral proximal sesamoid bone (base)
3 Medial proximal sesamoid bone (base)
4 Dorsal capsule of the metacarpophalangeal (MP) joint
5 Synovial cavity of the MP joint
   5a Dorsal recess
   5b Palmar recess
   5c Collateral recess
6 Palmar (intersesamoidean) ligament
7 Proximal scutum (palmar surface)
8 Lateral collateral ligament
   8a Superficial part
   8b Deep part
9 Medial collateral ligament
10 Lateral collateral sesamoidean ligament
11 Medial collateral sesamoidean ligament
12 Lateral oblique sesamoidean ligament
13 Medial oblique sesamoidean ligament
14 Lateral short sesamoidean ligament
15 Medial short sesamoidean ligament
16 Dorsal digital extensor tendon
17 Lateral digital extensor tendon
18 Third interosseus muscle
   18a Lateral extensor branch
   18b Medial extensor branch
19 Superficial digital flexor tendon
20 Deep digital flexor tendon
21 Palmar annular ligament
22 Digital sheath cavity
23 Lateral proper palmar digital artery
24 Medial proper palmar digital artery
25 Lateral proper palmar digital vein
26 Medial proper palmar digital vein
27 Lateral proper palmar digital nerve
28 Medial proper palmar digital nerve
29 Ergot cushion
30 Skin

C Transverse ultrasound scan of the fetlock, palmaromedial approach (see dotted area in illustration above).
T14: Transverse Section of the Metacarpophalangeal Joint

1 Metacarpal condyle
2 Proximal phalanx
   2a Sagittal groove
   2b Proximodorsal articular margin
   2c Proximopalmar articular margin
   2d Medial palmar eminence
3 Dorsal capsule of the metacarpophalangeal joint
4 Synovial cavity
   4a Distodorsal recess
   4b Distopalmar recess
5 Lateral collateral ligament
   5a Superficial part
   5b Deep part
6 Medial collateral ligament
7 Lateral collateral sesamoidean ligament
8 Medial collateral sesamoidean ligament
9 Straight sesamoidean ligament

Transverse MRI scan of the fetlock.
T14: Transverse Section of the Metacarpophalangeal Joint

10 Lateral oblique sesamoidean ligament
11 Medial oblique sesamoidean ligament
12 Cruciate sesamoidean ligaments
13 Lateral short sesamoidean ligament
14 Medial short sesamoidean ligament
15 Dorsal digital extensor tendon
16 Lateral digital extensor tendon
17 Third interosseous muscle
   17a Lateral extensor branch
   17b Medial extensor branch
18 Superficial digital flexor tendon
19 Deep digital flexor tendon
20 Palmar annular ligament
21 Digital sheath cavity
22 Medial proper palmar digital artery
23 Medial proper palmar digital vein
24 Medial proper palmar digital nerve
25 Ergot cushion
26 Skin
Transverse MRI scan of the fetlock after injection of latex into the arteries and fat material into the veins.

Transverse section of the fetlock after injection of coloured latex into the synovial cavities and vessels.
T15: Transverse Section of the Metacarpophalangeal Joint

1 Metacarpal condyle
   1a Lateral part (lateral condyle)
   1b Medial part (medial condyle)
   1c Sagittal ridge
2 Proximal phalanx
   2a Proximodorsal articular margin
   2b Sagittal groove
   2c Lateral palmar eminence
   2d Medial palmar eminence
3 Dorsal capsule of the metacarpophalangeal joint
4 Synovial membrane (synovial villi)
5 Synovial cavity
   5a Distodorsal recess
   5b Distopalmar recess
6 Lateral collateral ligament
7 Medial collateral ligament
8 Straight sesamoidean ligament
9 Lateral oblique sesamoidean ligament
10 Medial oblique sesamoidean ligament
11 Cruciate sesamoidean ligaments
12 Lateral short sesamoidean ligament
13 Medial short sesamoidean ligament
14 Dorsal digital extensor tendon
15 Lateral digital extensor tendon
16 Third interosseous muscle
   16a Lateral extensor branch
   16b Medial extensor branch
17 Superficial digital flexor tendon
18 Deep digital flexor tendon
19 Palmar annular ligament
20 Digital sheath cavity
21 Lateral proper palmar digital artery
22 Medial proper palmar digital artery
23 Lateral proper palmar digital vein
24 Medial proper palmar digital vein
25 Lateral proper palmar digital nerve
26 Medial proper palmar digital nerve
27 Ergot cushion
28 Skin
Transverse Section of the Metacarpophalangeal Joint

Transverse MRI scan of the fetlock after injection of latex into the arteries and fat material into the veins.

Transverse section of the fetlock after injection of coloured latex into the synovial cavities and vessels.
**T16: Transverse Section of the Metacarpophalangeal Joint**

1. Metacarpal condyle (sagittal ridge)
2. Proximal phalanx
   - 2a Sagittal groove
   - 2b Lateral palmar eminence
   - 2c Medial palmar eminence
3. Dorsal capsule of the metacarpophalangeal joint
4. Synovial cavity
   - 4a Distodorsal recess
   - 4b Distopalmar recess
   - 4c Collateral recess
5. Lateral collateral ligament
   - 5a Superficial part
   - 5b Deep part
6. Medial collateral ligament
7. Straight sesamoidean ligament
8. Lateral oblique sesamoidean ligament
9. Medial oblique sesamoidean ligament
10. Cruciate sesamoidean ligaments
11. Lateral short sesamoidean ligament
12. Medial short sesamoidean ligament
13. Dorsal digital extensor tendon
14. Lateral digital extensor tendon
15. Third interosseus muscle
   - 15a Lateral extensor branch
   - 15b Medial extensor branch
16. Superficial digital flexor tendon
17. Deep digital flexor tendon
18. Palmar annular ligament
19. Digital sheath cavity
   - 19a Collateral recess
20. Lateral proper palmar digital artery
   - 20a Ergot ramus
21. Medial proper palmar digital artery
22. Lateral proper palmar digital vein
23. Medial proper palmar digital vein
24. Lateral proper palmar digital nerve
25. Medial proper palmar digital nerve
26. Ergot cushion
27. Skin
Transverse section of the fetlock after injection of coloured latex into the vessels.

Transverse MRI scan of the fetlock after injection of latex into the arteries and fat material into the veins.

Transverse section of the fetlock after injection of coloured latex into the vessels.
T17: Transverse Section of the Metacarpophalangeal Joint

1 Proximal phalanx
   1a Lateral palmar eminence
   1b Medial palmar eminence
2 Dorsal capsule of the metacarpophalangeal (MP) joint
3 Distopalmar recess of the MP joint
4 Lateral collateral ligament (superficial part)
5 Medial collateral ligament (superficial part)
6 Straight sesamoidean ligament
7 Lateral oblique sesamoidean ligament
8 Medial oblique sesamoidean ligament
9 Cruciate sesamoidean ligament
10 Dorsal digital extensor tendon
11 Third interosseus muscle
   11a Lateral extensor branch
   11b Medial extensor branch
12 Superficial digital flexor tendon
13 Deep digital flexor tendon
14 Proximal digital annular ligament
15 Digital sheath cavity
   15a Collateral recess
16 Lateral proper palmar digital artery
   16a Ergot ramus
17 Medial proper palmar digital artery
18 Lateral proper palmar digital vein
19 Medial proper palmar digital vein
20 Lateral proper palmar digital nerve
21 Medial proper palmar digital nerve
22 Ergot
   22a Ergot cushion
23 Skin

A Transverse ultrasound scan of the fetlock, palmar approach (see dotted area in illustration above, right).
B Transverse ultrasound scan of the fetlock, palmaromedial approach (see dotted area in illustration above).
Frontal Sections of the Equine Fetlock
Frontal MRI scan of the fetlock after injection of latex into the arteries and fat material into the veins.
F1: Frontal Section of the Fetlock

1 Superficial digital flexor tendon
2 Deep digital flexor tendon
3 Palmar annular ligament
4 Digital sheath
   4a Synovial membrane
   4b Synovial cavity
   4c Proximal recess
5 Ergot ramus of the proper palmar digital vein
6 Ergot cushion
7 Skin
   7a Skin section

Frontal ultrasound scan of the fetlock area, lateral approach (see dotted area in illustration above, left).
F2 and F3: Frontal Sections of the Fetlock

Frontal MRI scan of the fetlock after injection of latex into the arteries and fat material into the veins.
**F2 and F3: Frontal Sections of the Fetlock**

1. **Superficial digital flexor tendon**  
   1a. Manica flexoria
2. **Deep digital flexor tendon**
3. **Palmar annular ligament**
4. **Digital sheath**  
   4a. Synovial membrane  
   4b. Synovial cavity  
   4c. Proximal recess
5. **Proper palmar digital artery**  
   5a. Ergot ramus  
   5b. Rami for the flexor tendons
6. **Proper palmar digital nerve**
7. **Ergot cushion**
8. **Skin**

Frontal ultrasound scan of the fetlock area, lateral approach (see dotted area on illustration above).
F4: Frontal Section of the Fetlock

Frontal section of the fetlock after injection of coloured latex into the vessels.

Frontal MRI scan of the fetlock.
F4: Frontal Section of the Fetlock

1. Lateral proximal sesamoid bone (palmar border)
2. Palmar (intersesamoidean) ligament
3. Superficial digital flexor tendon
   3a. Manica flexoria
4. Deep digital flexor tendon
5. Palmar annular ligament
6. Digital sheath cavity
   6a. Synovial membrane
   6b. Collateral recess
   6c. Proximal recess (uncompletly filled)
7. Ramus of the lateral proper palmar digital vein
8. Ramus of the medial proper palmar digital vein
9. Ergot rami (artery and vein)
10. Ergot cushion
11. Skin

A. Frontal ultrasound scan of the fetlock area, medial approach (see dotted area in illustration above, right).

B. Frontal ultrasound scan of the fetlock area, medial approach (see dotted area in illustration above).
Frontal section of the fetlock after injection of coloured latex into the synovial cavities and vessels.
F5: Frontal Section of the Fetlock

1. Lateral proximal sesamoid bone (palmar border)
2. Medial proximal sesamoid bone (palmar border)
3. Palmar (intersesamoidean) ligament
4. Superficial digital flexor tendon
   4a. Manica flexoria
5. Deep digital flexor tendon
6. Palmar annular ligament
7. Proximal digital annular ligament
8. Digital sheath
   8a. Synovial membrane
   8b. Proximal recess (incompletely filled)
   8c. Collateral recess
9. Lateral proper palmar digital artery
   9a. Ergot ramus
10. Ramus of the lateral proper palmar digital vein
11. Ramus of the medial proper palmar digital vein
12. Lateral proper palmar digital nerve
13. Skin
   13a. Skin section

Frontal MRI scan of the fetlock.

Frontal ultrasound scan of the fetlock area demonstrating the proper palmar digital artery (a) and vein (b).
F6: Frontal Section of the Fetlock

1 Lateral proximal sesamoid bone
   1a Apex
   1b Base
   1c Interosseus face
   1d Flexor surface
2 Medial proximal sesamoid bone
3 Palmar (intersesamoidean) ligament
4 Straight sesamoidean ligament
5 Third interosseus muscle (distal branch insertion)
6 Superficial digital flexor tendon

Frontal MRI scan of the fetlock.
F6: Frontal Section of the Fetlock

7 Deep digital flexor tendon
8 Proximal digital annular ligament
9 Digital sheath
  9a Synovial membrane
  9b Proximal recess
  9c Collateral recess
10 Medial common palmar digital artery
  10a Bifurcation
11 Lateral proper palmar digital artery
12 Medial proper palmar digital artery
13 Lateral common palmar digital vein
14 Lateral proper palmar digital vein
15 Medial proper palmar digital vein
16 Lateral proper palmar digital nerve
17 Medial proper palmar digital nerve
18 Skin
  18a Skin section

Frontal MRI scan of the fetlock.
F7: Frontal Section of the Fetlock

1 Lateral proximal sesamoid bone
   1a Apex
   1b Base
   1c Interosseus face
   1d Flexor surface
2 Medial proximal sesamoid bone
3 Proximopalmar recess of the metacarpophalangeal joint
4 Palmar (intersesamoidean) ligament
5 Straight sesamoidean ligament
6 Lateral oblique sesamoidean ligament
7 Medial oblique sesamoidean ligament
8 Third interosseus muscle
   8a Lateral branch
   8b Medial branch
F7: Frontal Section of the Fetlock

- **8c** Attachment to palmar ligament
- **9** Metacarpointersesamoidean ligament
- **10** Superficial digital flexor tendon
- **11** Deep digital flexor tendon
- **12** Proximal attachment of the proximal digital annular ligament
- **13** Digital sheath
  - **13a** Synovial membrane
  - **13b** Synovial cavity
  - **13c** Collateral recess
  - **13d** Synovial fold
- **14** Anastomosis between the common palmar digital and metacarpal arteries
- **15** Lateral proper palmar digital artery
- **16** Medial proper palmar digital artery
- **17** Anastomosis between the common palmar digital and metacarpal veins
- **18** Lateral proper palmar digital vein
- **19** Medial proper palmar digital vein
- **20** Lateral proper palmar digital nerve
- **21** Medial proper digital nerve
- **22** Skin

Frontal ultrasound scan of the fetlock area, medial approach (see dotted area in illustration above).
F8: Frontal Section of the Fetlock

1 Metacarpal condyle (sagittal ridge)
2 Lateral proximal sesamoid bone
   2a Apex
   2b Base
   2c Interosseus face
   2d Articular surface
3 Medial proximal sesamoid bone
4 Recesses of the metacarpophalangeal joint
   4a Proximopalmar recess
   4b Distocollateral recess
5 Palmar (intersesamoidean) ligament
6 Metacarpointersesamoidean ligament
7 Straight sesamoidean ligament
8 Lateral oblique sesamoidean ligament

Frontal MRI scan of the fetlock.
F8: Frontal Section of the Fetlock

9 Medial oblique sesamoidean ligament
10 Cruciate sesamoidean ligament
11 Short sesamoidean ligament
12 Third interosseus muscle
   12a Medial branch
   12b Lateral branch
13 Superficial digital flexor tendon
14 Deep digital flexor tendon
15 Proximal digital annular ligament (proximal attachment)
16 Digital sheath
   16a Synovial cavity
   16b Synovial fold
   16c Collateral recess
17 Palmar metacarpal arteries
18 Palmar metacarpal veins
19 Lateral proper palmar digital artery
20 Medial proper palmar digital artery
21 Lateral proper palmar digital vein
22 Medial proper palmar digital vein
23 Lateral proper palmar digital nerve
24 Medial proper palmar digital nerve
25 Skin

Frontal ultrasound scan of the fetlock area, medial approach (see dotted area in illustration above, left).
F9: Frontal Section of the Metacarpophalangeal Joint

Frontal section of the fetlock after injection of coloured latex into the vessels.

Dissected specimen after injection of coloured latex into the metacarpophalangeal joint cavity.
F9: Frontal Section of the Metacarpophalangeal Joint

1 Metacarpal condyle (sagittal ridge)
2 Second metacarpal bone
3 Fourth metacarpal bone
4 Proximal phalanx
   4a Lateral palmar eminence
   4b Medial palmar eminence
5 Lateral proximal sesamoid bone
   5a Apex
   5b Base
   5c Articular surface
   5d Interosseus face
6 Medial proximal sesamoid bone
7 Synovial cavity of the metacarpophalangeal joint
   7a Proximopalmar recess
   7b Synovial villi
8 Palmar (intersesamoidean) ligament
9 Lateral collateral sesamoidean ligament
10 Medial collateral sesamoidean ligament
11 Metacarpointersesamoidean ligament
12 Straight sesamoidean ligament
13 Medial oblique sesamoidean ligament
14 Lateral oblique sesamoidean ligament
15 Cruciate sesamoidean ligament
16 Short sesamoidean ligament
17 Third interosseus muscle
   17a Lateral branch
   17b Medial branch
   17c Lateral extensor branch
   17d Medial extensor branch
18 Superficial digital flexor tendon
   18a Lateral branch
   18b Medial branch
19 Proximal digital annular ligament (proximal attachment)
20 Digital sheath (collateral recess)
21 Medial common palmar digital artery
22 Palmar metacarpal artery
23 Lateral proper palmar digital artery
24 Medial proper palmar digital artery
25 Palmar metacarpal vein
26 Lateral proper palmar digital vein
27 Medial proper palmar digital vein
28 Skin

A Frontal ultrasound scan of the fetlock area, palmaromedial approach (see dotted area in illustration above).

B Frontal ultrasound scan of the fetlock area, palmaromedial approach (see dotted area in illustration at top).
Frontal section of the fetlock after injection of coloured latex into the synovial cavities and vessels.

Frontal section of the fetlock after injection of coloured latex into the synovial cavities and vessels.
F10: Frontal Section of the Metacarpophalangeal Joint

1 Metacarpal condyle
   1a Sagittal ridge
   1b Lateral part
   1c Medial part
2 Proximal phalanx (P1)
   2a Lateral palmar eminence
   2b Medial palmar eminence
3 Lateral proximal sesamoid bone (apex)
4 Medial proximal sesamoid bone
   4a Apex
   4b Base
5 Synovial cavity of the metacarpophalangeal joint
   5a Proximopalmar recess
   5b Distopalmar recess
6 Palmar (intersesamoidean) ligament
7 Straight sesamoidean ligament
8 Lateral oblique sesamoidean ligament
9 Medial oblique sesamoidean ligament
10 Lateral collateral sesamoidean ligament
11 Medial collateral sesamoidean ligament
12 Lateral collateral ligament (deep part)
13 Medial collateral ligament (deep part)
14 Third interosseus muscle
   14a Lateral branch
   14b Medial branch
   14c Lateral extensor branch
   14d Medial extensor branch
15 Proximal digital annular ligament (proximal attachment)
16 Digital sheath (collateral recess)
17 Palmar metacarpal artery
18 Palmar metacarpal vein
19 Ramus (artery) of P1
20 Lateral proper palmar digital vein
   20a Ramus (artery and vein) of P1
21 Medial proper palmar digital vein
   21a Ramus (artery and vein) of P1
22 Skin

Frontal ultrasound scan of the fetlock, medial approach (see dotted area in picture above).

Frontal MRI scan of the fetlock.
Frontal section of the fetlock after injection of latex into the synovial cavities and vessels.

Frontal MRI scan of the fetlock.
F11: Frontal Section of the Metacarpophalangeal Joint

1. Third metacarpal bone
2. Metacarpal condyle
   2a. Lateral part (lateral condyle)
   2b. Medial part (medial condyle)
   2c. Sagittal ridge
3. Proximal phalanx (P1)
   3a. Lateral glenoid cavity
   3b. Medial glenoid cavity
   3c. Sagittal groove
4. Synovial membrane of the metacarpophalangeal (MP) joint
   4a. Synovial fold
5. Synovial cavity of the MP joint
   5a. Proximopalmar recess
6. Lateral collateral ligament (deep part)
7. Medial collateral ligament (deep part)
8. Lateral collateral sesamoidean ligament
9. Medial collateral sesamoidean ligament
10. Lateral oblique sesamoidean ligament
11. Medial oblique sesamoidean ligament
12. Lateral third interosseus extensor branch
13. Medial third interosseus extensor branch
14. Palmar metacarpal artery
15. Palmar metacarpal vein
16. Ramus (artery) of P1
17. Lateral proper palmar digital vein
   17a. Palmar ramus of P1
18. Medial proper palmar digital vein
19. Palmar recess of the proximal interphalangeal joint
20. Skin

Frontal ultrasound scan of the fetlock, medial approach (see dotted area in illustration above, right).

Frontal MRI scan of the fetlock.
Frontal section of the fetlock after injection of coloured latex into the vessels.

Frontal MRI scan of the fetlock.

Frontal section of the fetlock after injection of coloured latex into the vessels.
F12: Frontal Section of the Metacarpophalangeal Joint

1 Third metacarpal bone
2 Metacarpal condyle
   2a Lateral part (lateral condyle)
   2b Medial part (medial condyle)
   2c Sagittal ridge
3 Proximal phalanx (P1)
   3a Lateral glenoid cavity
   3b Medial glenoid cavity
   3c Sagittal groove
4 Synovial membrane of the metacarpophalangeal (MP) joint
   4a Metacarpophalangeal synovial fold
5 Synovial cavity of the MP joint
6 Lateral collateral ligament (deep part)
7 Medial collateral ligament (deep part)
8 Lateral collateral sesamoidean ligament
9 Medial collateral sesamoidean ligament
10 Lateral oblique sesamoidean ligament
11 Medial oblique sesamoidean ligament
12 Lateral third interosseus muscle extensor branch
13 Medial third interosseus muscle extensor branch
14 Proximal digital annular ligament
15 Palmar metacarpal artery
16 Palmar metacarpal vein
17 Palmar ramus of P1
18 Lateral proper palmar digital vein
19 Medial proper palmar digital vein
20 Palmar ramus of P1
21 Skin

A Frontal ultrasound scan of the fetlock, medial approach (see dotted area in illustration above, right).

B Frontal ultrasound scan of the fetlock, medial approach (see dotted area in illustration above).
Frontal section of the fetlock after injection of coloured latex into the synovial cavities and vessels.

Frontal MRI scan of the fetlock.
F13: Frontal Section of the Metacarpophalangeal Joint

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Third metacarpal bone</td>
</tr>
<tr>
<td>1a</td>
<td>Lateral cortex</td>
</tr>
<tr>
<td>1b</td>
<td>Medial cortex</td>
</tr>
<tr>
<td>2</td>
<td>Metacarpal condyle</td>
</tr>
<tr>
<td>2a</td>
<td>Lateral part (lateral condyle)</td>
</tr>
<tr>
<td>2b</td>
<td>Medial part (medial condyle)</td>
</tr>
<tr>
<td>2c</td>
<td>Sagittal ridge</td>
</tr>
<tr>
<td>2d</td>
<td>Lateral collateral fossa</td>
</tr>
<tr>
<td>2e</td>
<td>Medial collateral fossa</td>
</tr>
<tr>
<td>3</td>
<td>Proximal phalanx (P1)</td>
</tr>
<tr>
<td>3a</td>
<td>Lateral glenoid cavity</td>
</tr>
<tr>
<td>3b</td>
<td>Medial glenoid cavity</td>
</tr>
<tr>
<td>3c</td>
<td>Sagittal groove</td>
</tr>
<tr>
<td>4</td>
<td>Synovial membrane of the metacarpophalangeal (MP) joint</td>
</tr>
<tr>
<td>4a</td>
<td>Metacarpophalangeal synovial fold</td>
</tr>
<tr>
<td>5</td>
<td>Synovial cavity of the MP joint</td>
</tr>
<tr>
<td>6</td>
<td>Lateral collateral ligament</td>
</tr>
<tr>
<td>6a</td>
<td>Superficial part</td>
</tr>
<tr>
<td>6b</td>
<td>Deep part</td>
</tr>
<tr>
<td>7</td>
<td>Medial collateral ligament</td>
</tr>
<tr>
<td>7a</td>
<td>Superficial part</td>
</tr>
<tr>
<td>7b</td>
<td>Deep part</td>
</tr>
<tr>
<td>8</td>
<td>Lateral collateral sesamoidean ligament</td>
</tr>
<tr>
<td>9</td>
<td>Medial collateral sesamoidean ligament</td>
</tr>
<tr>
<td>10</td>
<td>Third interosseus muscle</td>
</tr>
<tr>
<td>10a</td>
<td>Lateral extensor branch</td>
</tr>
<tr>
<td>10b</td>
<td>Medial extensor branch</td>
</tr>
<tr>
<td>11</td>
<td>Vascular network of the MP joint</td>
</tr>
<tr>
<td>12</td>
<td>Lateral dorsal ramus of P1</td>
</tr>
<tr>
<td>13</td>
<td>Medial dorsal rami (artery and vein) of P1</td>
</tr>
<tr>
<td>14</td>
<td>Lateral proper palmar digital vein</td>
</tr>
<tr>
<td>15</td>
<td>Dorsal metacarpal fascia</td>
</tr>
<tr>
<td>16</td>
<td>Skin</td>
</tr>
</tbody>
</table>

Frontal ultrasound scan of the fetlock, medial approach (see dotted area in illustration above, right).

Frontal MRI scan of the fetlock.
F14: Frontal Section of the Metacarpophalangeal Joint

Frontal section of the fetlock after injection of coloured latex into the synovial cavities and vessels.
Frontal ultrasound scan of the fetlock, medial approach (see dotted area in illustration above, right).

Frontal MRI scan of the fetlock.

F14: Frontal Section of the Metacarpophalangeal Joint

1 Third metacarpal bone
2 Metacarpal condyle
   2a Medial part (medial condyle)
   2b Sagittal ridge
   2c Medial collateral fossa
3 Proximal phalanx (P1)
   3a Medial glenoid cavity
   3b Sagittal groove
4 Synovial membrane of the metacarpophalangeal (MP) joint
   4a Metacarpophalangeal synovial fold
5 Synovial cavity of the MP joint
6 Medial collateral ligament
   6a Superficial part
   6b Deep part
7 Dorsal capsule of the MP joint
8 Medial collateral sesamoidean ligament
9 Medial extensor branch of the third interosseus muscle
10 Dorsal ramus (artery) of P1
11 Dorsal metacarpophalangeal fascia
12 Skin
Frontal MRI scan of the fetlock after injection of latex into the arteries and fat material into the veins.

Frontal section of the fetlock after injection of coloured latex into the synovial cavities and vessels.

Frontal MRI scan of the fetlock after injection of latex into the arteries and fat material into the veins.
F15: Frontal Section of the Metacarpophalangeal Joint

1 Third metacarpal bone
2 Metacarpal condyle
   2a Lateral part (lateral condyle)
   2b Medial part (medial condyle)
   2c Sagittal ridge
   2d Lateral collateral fossa
   2e Medial collateral fossa
3 Proximal phalanx (P1)
   3a Lateral glenoid cavity
   3b Medial glenoid cavity
   3c Sagittal groove
4 Synovial membrane and capsule of the metacarpophalangeal (MP) joint
   4a Metacarpophalangeal synovial fold
5 Synovial cavity of the MP joint
6 Lateral collateral ligament
   6a Superficial part
   6b Deep part
7 Medial collateral ligament
   7a Superficial part
   7b Deep part
8 Third interosseus muscle
   8a Lateral extensor branch
   8b Medial extensor branch
9 Vascular network of the MP joint
10 Dorsal ramus (artery) of P1
11 Dorsal metacarpophalangeal fascia
12 Skin

A Frontal ultrasound scan of the fetlock, medial approach (see dotted area in illustration above, right).

B Frontal ultrasound scan of the fetlock, medial approach (see dotted area in illustration above).
Frontal MRI scan of the fetlock after injection of latex into the arteries and fat material into the veins.

Frontal section of the fetlock after injection of coloured latex into the vessels.

Frontal MRI scan of the fetlock after injection of latex into the arteries and fat material into the veins.
F16: Frontal Section of the Metacarpophalangeal Joint

1 Metacarpal condyle
   1a Medial part (medial condyle)
   1b Sagittal ridge
2 Proximal phalanx
   2a Sagittal groove
   2b Proximodorsal articular margin
3 Dorsal capsule of the metacarpophalangeal (MP) joint
4 Synovial membrane of the MP joint
   4a Proximodorsal synovial fold
   4b Metacarpophalangeal synovial fold
5 Synovial cavity of the MP joint
6 Dorsal digital extensor tendon
7 Lateral digital extensor tendon
8 Subtendinous bursa
9 Third interosseus muscle
   9a Lateral extensor branch
   9b Medial extensor branch
10 Dorsal metacarpophalangeal fascia
11 Skin
   11a Skin section

Frontal ultrasound scan of the fetlock, medial approach (see dotted area in illustration above, right).

Frontal MRI scan of the fetlock.
Casting preparation of the dorsal recess of the metacarpophalangeal joint, dorsal view.
F17: Frontal Section of the Metacarpophalangeal Joint

1 Metacarpal condyle
   1a Medial part (medial condyle)
   1b Sagittal ridge
2 Proximal phalanx
3 Dorsal capsule of the metacarpophalangeal (MP) joint
4 Synovial membrane of the MP joint
   4a Proximodorsal synovial fold
   4b Metacarpophalangeal synovial fold
5 Synovial cavity of the MP joint
   5a Dorsal recess
   5b Distodorsal recess
6 Dorsal digital extensor tendon
7 Lateral digital extensor tendon
8 Accessory digital extensor tendon
9 Third interosseus muscle
   9a Lateral extensor branch
   9b Medial extensor branch
10 Dorsal metacarpal fascia
11 Dorsal metacarpophalangeal fascia
12 Skin
   12a Skin section

Frontal MRI scan of the fetlock.
Glossary of English and Latin Equivalents

Note: not every English name has a Latin equivalent; asterisks indicate names that are used only rarely to identify structures of the equine distal limb.

### English

<table>
<thead>
<tr>
<th>Regions</th>
<th>Latin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metacarpophalangeal region (fetlock)</td>
<td>Regio metacarpophalangea</td>
</tr>
<tr>
<td>Pastern region</td>
<td>Regio compedis</td>
</tr>
<tr>
<td>Coronal region (coronet)</td>
<td>Regio coronalis</td>
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<table>
<thead>
<tr>
<th>Bones</th>
<th>OSSA</th>
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</thead>
<tbody>
<tr>
<td>Cortical bone</td>
<td>Substantia corticalis</td>
</tr>
<tr>
<td>Compact bone</td>
<td>Substantia compacta</td>
</tr>
<tr>
<td>Spongious (cancellous) bone</td>
<td>Substantia spongiosa</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Metacarpal bones II, III, IV</th>
<th>Os metacarpalia II, III, IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>Corpus</td>
</tr>
<tr>
<td>Dorsal surface</td>
<td>Facies dorsalis</td>
</tr>
<tr>
<td>Palmar surface</td>
<td>Facies palmaris</td>
</tr>
<tr>
<td>Medial border</td>
<td>Margo medialis</td>
</tr>
<tr>
<td>Lateral border</td>
<td>Margo lateralis</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Head (metacarpal condyle)</th>
<th>Caput</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sagittal ridge</td>
<td></td>
</tr>
<tr>
<td>Lateral part (lateral condyle)</td>
<td></td>
</tr>
<tr>
<td>Medial part (medial condyle)</td>
<td></td>
</tr>
<tr>
<td>Dorsal margin</td>
<td></td>
</tr>
<tr>
<td>Palmar margin</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Proximal phalanx</th>
<th>Phalanx proximalis (os compedale)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base of the proximal phalanx (proximal end)</td>
<td>Basis phalangis proximalis</td>
</tr>
<tr>
<td>Articular fossa</td>
<td>Fovea articularis</td>
</tr>
<tr>
<td>Proximal sagittal groove</td>
<td></td>
</tr>
<tr>
<td>Medial glenoid cavity</td>
<td></td>
</tr>
<tr>
<td>Lateral glenoid cavity</td>
<td></td>
</tr>
<tr>
<td>Dorsal margin</td>
<td></td>
</tr>
<tr>
<td>Palmar margin</td>
<td></td>
</tr>
<tr>
<td>Medial palmar eminence</td>
<td></td>
</tr>
<tr>
<td>Lateral palmar eminence</td>
<td></td>
</tr>
<tr>
<td>Body of the proximal phalanx</td>
<td></td>
</tr>
<tr>
<td>Trigone of the proximal phalanx</td>
<td></td>
</tr>
<tr>
<td>Head of the proximal phalanx (distal condyle)</td>
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</tr>
<tr>
<td>Distal sagittal (intercondylar) groove</td>
<td></td>
</tr>
<tr>
<td>Medial distal condyle</td>
<td></td>
</tr>
<tr>
<td>Lateral distal condyle</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Middle phalanx</th>
<th>Phalanx media (os coronale)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base of the middle phalanx (proximal end)</td>
<td>Basis phalangis mediae</td>
</tr>
<tr>
<td>Articular fossa</td>
<td>Fovea articularis</td>
</tr>
<tr>
<td>Medial glenoid cavity</td>
<td></td>
</tr>
<tr>
<td>Lateral glenoid cavity</td>
<td></td>
</tr>
<tr>
<td>Extensor process</td>
<td></td>
</tr>
<tr>
<td>Flexor tuberosity</td>
<td></td>
</tr>
<tr>
<td>Body of the middle phalanx</td>
<td></td>
</tr>
<tr>
<td>Head of the middle phalanx (distal condyle)</td>
<td></td>
</tr>
<tr>
<td>Processus extensorius</td>
<td></td>
</tr>
<tr>
<td>Tuberositas flexoria</td>
<td></td>
</tr>
<tr>
<td>Corpus phalangis mediae</td>
<td></td>
</tr>
<tr>
<td>Caput phalangis mediae</td>
<td></td>
</tr>
</tbody>
</table>
Glossary of English and Latin Equivalents

Distal phalanx
- Spongious bone*
- Subchondral bone*
- Distopalmar compact bone*
- Insertion fossa for the collateral ligament*

Articular surface
- Sesamoidean articular surface

Parietal surface
- Medial part
  - Medial parietal sulcus (groove)
  - Medial palmar process
    - Foramen of the medial palmar process
    - Incisura ( notch ) of the medial palmar process
- Dorsal part
- Lateral part
  - Lateral parietal sulcus (groove)
  - Lateral palmar process
    - Foramen of the lateral palmar process
    - Incisura ( notch ) of the lateral palmar process

Solar surface
- Flexor surface
- Semilunar line
- Planum cutaneum
- Medial solar sulcus
- Lateral solar sulcus
- Medial solar foramen
- Lateral solar foramen
- Solar canal
- Coronal (coronary) border
  - Extensor process
- Solar (distal) border
  - (Crena marginis solearis)

Medial ungular cartilage

Lateral ungular cartilage

Proximal sesamoid bone
- Articular surface
- Flexor surface
- Interosseus face
- Apex
- Body
- Base
- Palmar border

Distal sesamoid bone
- Spongious bone*
- Compact bone*
- Flexor surface
  - Sagittal ridge
- Articular surface
- Proximal border
- Distal border
- Lateral angle
- Medial angle

JOINTS
- Articular cartilage
- Synovial fossa
- Articular ( joint ) cavity
- Articular ( joint ) margin

Phalanx distalis ( os ungulare )

Facies articularis
- Facies articularis sesamoidea

Facies parietalis
- Pars medialis
  - Sulcus parietalis medialis
  - Processus palmaris medialis
  - Foramen processus palmaris medialis
  - Incisura processus palmaris medialis
- Pars dorsalis
- Pars lateralis
  - Sulcus parietalis lateralis
  - Processus palmaris lateralis
  - Foramen processus palmaris lateralis
  - Incisura processus palmaris lateralis

Facies solearis
- Facies flexoria
- Linea semilunaris
- Planum cutaneum
- Sulcus solearis medialis
- Sulcus solearis lateralis
- Foramen soleare mediale
- Foramen soleare laterale
- Canalis solearis
- Margo coronalis
- Processus extensorius
- Margo solearis
  - (Crena marginis solearis)

Cartilago ungularis medialis
- Cartilago ungularis lateralis

Ossa sesamoidea proximalia
- Facies articularis
- Facies flexoria
- Facies musculus interossei

Os sesamoideum distale
- Facies flexoria
- Margo articularis
- Margo proximalis
- Margo distalis

ARTICULATIONES
- Cartilago articularis
- Fossae synoviales
- Cavum articulare
- Labrum articulare
Glossary of English and Latin Equivalents

Articular (joint) capsule
- Capsula articularis
- Stratum fibrosum
  - Stratum synoviale
  - Plica synovialis
  - Villi synoviales
- Synovia
- Ligamenta

Fibrous layer
- Ligamentum collateralia
- Ligamentum palmaria

Synovial layer (synovial membrane)
- Ligamentum sesamoidea collateralia
- Ligamentum metacarpointer sesamoideum
- Ligamentum sesamoideum rectum
- Ligamentum sesamoidea obliqua

Synovial plica (fold)
- Ligamentum sesamoidea brevia
- Ligamentum sesamoidea cruciata

Synovial villi
- Ligamentum sesamoidea distale impar

Synovial fluid
- Articulatio metacarpophalangea proximalis manus
- Recessus dorsales
- Recessus palmares

Ligament
- Articulatio metacarpophalangea distalis manus
- Recessus dorsales
- Recessus palmares

Metacarpophalangeal joint
- Capsula articularis
- Articulatio interphalangea proximalis manus
- Articulatio interphalangea distalis manus

Joint (articular) capsule (dorsal capsule)
- Recessus dorsales

Dorsal recess (pouch)
- Palmar recess (pouch)
- Collateral recess

Proximodorsal synovial fold*
- Sagittal part *
- Short sesamoidean ligament

Distodorsal recess*
- Distodorsocollateral recess*
- Sagittal palmar recess*
- Collateral palmar recess*

Collateral ligament
- Palmar ligament
- Axial palmar ligament*
- Abaxial palmar ligament*

Distal sesamoidean ligament
- Collateral sesamoidean ligament

(Impar) distal sesamoidean ligament
- Chondrocompedal ligament
- Chondrocoronal ligament
- Chondrosesamoidean ligament

Collateral chondroungular ligament
- Cruciate chondroungular ligament

MUSCLES

Superficial digital flexor muscle
- Musculus flexor digitalis superficialis
- Manica flexoria
Glossary of English and Latin Equivalents

Deep digital flexor muscle
  · Metacarpophalangeal fibrocartilaginous part*
  · Phalangeal fibrocartilaginous part*
Dorsal digital extensor muscle
Lateral digital extensor muscle
Accessory digital extensor tendon*

Third interosseus muscle
  · Distal branch
  · Extensor branch
Dorsal fascia of the manus
  · Dorsal metacarpal fascia*
  · Dorsal metacarpophalangeal fascia*
Palmar fascia
  · Palmar metacarpal fascia*
Digital fascia
  · Dorsal digital fascia*
Palmar annular ligament

Digital sheath fibrous wall

Proximal digital annular ligament
  · (2 pars anulares + 1 pars cruciformis)
  · Proximal attachment*
  · Distal attachment*
Distal digital annular ligament
  · (1 pars anularis + 1 pars cruciformis)
  · Proximal attachment*
  · Distal attachment*
Proximal scutum
  · Middle scutum
  · Distal scutum

Digital synovial tendon sheath
  · Dorsal proximal recess*
  · Palmar proximal recess*
  · Collateral metacarpal recess*
  · Palmar middle recess*
  · Collateral digital recess*
  · Palmar distal recess*
  · Dorsal distal recess*
Tendon vincula
  · Loose connective mesotendon*
Subtendinous bursa of the third interosseus muscle
Podotrochlear bursa
  · Proximal recess
  · Distal recess
  · Collateral recess*

ARTERIES
Palmar metacarpal arteries II and III
Lateral common palmar digital artery III
Medial common palmar digital artery II

Medial (proper palmar) digital artery
  · Ergot ramus*
  · Palmar ramus of the proximal phalanx
  · Dorsal ramus of the proximal phalanx
  · Palmar ramus of the middle phalanx
  · Dorsal ramus of the middle phalanx

Musculus flexor digitalis profundus
Musculus extensor digitalis communis
Musculus extensor digitalis lateralis
Musculus interosseus III
Fascia dorsalis manus
Fascia palmaris
Fascia digitii
Ligamentum metacarpeum transversum superficiale (ligamentum anulare palmare)
Vaginae fibrosae digitorum manus
  · Pars anularis vaginae fibrosae (ligamentum anulare digitii)
  · Pars cruciformis vaginae fibrosae
Scutum proximale
Scutum medium
Scutum distale
Vagina synovialis tendinum digitorum manus
Vincula tendinum
Bursa subtendinea musculus interosseus III
Bursa podotrochlearis manus

ARTERIAE
Arteriae metacarpeae palmares II et III
Arteria digitalis palmaris communis III
Arteria digitalis palmaris communis II
Arteria digitalis (palmaris propria III) medialis
Ramus palmaris phalangis proximalis
Ramus dorsalis phalangis proximalis
Ramus palmaris phalangis mediae
Ramus dorsalis phalangis mediae
Glossary of English and Latin Equivalents

Ramus of the digital torus
  Arteria coronalis
  Ramus dorsalis phalangis distalis
  Arcus terminalis
  Arteria marginis solearis

Lateral (proper palmar) digital artery
  Palmar ramus of the proximal phalanx
  Intermediate ramus*
  Palmar ramus of the middle phalanx
  Dorsal ramus of the middle phalanx
  Ramus of the digital torus
  Coronar artery
  Dorsal ramus of the distal phalanx

Arteria digitalis (palmaris propria III) lateralis
  Ramus palmaris phalangis proximalis
  Ramus dorsalis phalangis proximalis
  Ramus palmaris phalangis mediae
  Ramus dorsalis phalangis mediae
  Ramus tori digitalis
  Arteria coronalis
  Ramus dorsalis phalangis distalis

INTEGUMENT
  Ergot
    Ergot cushion*
    Ergot ligament*

CORIUM HOOF AND PAD
  Limbus
    Periople (stratum externum of the hoof wall)
    Horn (epidermal) tubules
    Limbic (perioplic) dermis (limbic corium)
    Dermal (corial) papillae
    Limbic cushion

VENAE
  Vena digitalis palmaris communis III
  Vena digitalis (palmaris propria III) lateralis
  Vena coronalis
  Arcus terminalis
  Venae metacarpeae palmares II et III
  Arcus palmaris profundus distalis
  Vena digitalis palmaris communis II
  Vena digitalis (palmaris propria III) medialis
  Vena coronalis
  Plexus unguaris

NERVI
  Nervus palmaris medialis (nervus digitalis palmaris communis II)
  Nervus digitalis palmaris (proprius) medialis
  Ramus dorsalis
  Nervus palmaris lateralis (nervus digitalis palmaris communis III)
  Nervus metacarpeus palmaris medialis
  Nervus metacarpeus palmaris lateralis
  Nervus digitalis palmaris (proprius) lateralis
  Ramus dorsalis

UNGULA
  Limbus
  Epidermis limbi (perioplum)
  Tubuli epidermales
  Dermis (corium) limbi
  Papillae dermales (coriales)
  Tela subcutanea limbi (pulvinus limbi)
Glossary of English and Latin Equivalents

Corona
Coronal (coronary) epidermis
Horn (epidermal) tubules
Coronal (coronary) dermis
Dermal (corial) papillae
Coronal cushion

Paries (hoof wall)
Parietal epidermis (stratum internum of the hoof wall)
Epidermal lamellae
Parietal dermis (parietal corium)
Dermal (corial) lamellae

Horny wall
Limbic (perioplic) horn
Coronal (coronary) horn
Parietal horn
White zone
Collateral (lateral) part (quarter)
Collateral (medial) part (quarter)
Dorsal part (toe)
Lateral inflex part (lateral bar)
Medial inflex part (medial bar)
Lateral palmar border (lateral heel)
Medial palmar border (medial heel)
Lateral palmar parietal angle
Medial palmar parietal angle
Coronal (coronary) border (proximal border)
Solar border (distal border)
External face
Internal face
Limbic sulcus (groove)
Coronal (coronary) sulcus (groove)

Sole
Epidermis of the sole
Horn (epidermal) tubules
Dermis (corium) of the sole
Dermal (corial) papillae
Solar subcutaneous layer
Horny sole
Body of the sole
Lateral branch of the sole
Medial branch of the sole
Parietal border
Central border
Lateral angle of the sole
Medial angle of the sole
External face
Internal face

Hoof (digital) pad
Epidermis of the hoof (digital) pad
Epidermal tubules
Dermis (corium) of the hoof (digital) pad
Dermal (corial) papillae

Digital cushion
Proximal attachment (suspensory ligament)*
Toric (proximal) part of the digital cushion (bulb of the heels)
Horny part of the hoof pad
Bulb of the lateral heel
Bulb of the medial heel
External face
Internal face

Corona
Epidermis coronae
Tubuli epidermales
Dermis (corium) coronae
Papillae dermales (coriales)
Tela subcutanea coronae (pulvinus coronae)

Paries
Epidermis parietis
Lamellae epidermales
Dermis (corium) parietis
Lamellae dermales (coriales)
Paries corneus (lamina)
Stratum externum
Stratum medium
Stratum internum
Zona alba
Pars lateralis
Pars medialis
Pars dorsalis
Pars inflexa lateralis
Pars inflexa medialis
Margo palmaris lateralis
Margo palmaris medialis
Angulus parietis palmaris lateralis
Angulus parietis palmaris medialis
Margo coronalis
Margo solearis
Facies externa
Facies interna
Sulcus limbalis
Sulcus coronalis

Sole
Epidermis soleae
Tubuli epidermales
Dermis (corium) soleae
Papillae dermales (coriales)
Tela subcutanea soleae
Solea cornea
Corpus soleae
Crus soleae laterale
Crus soleae mediale
Margo parietalis
Margo centralis
Angulus soleae lateralis
Angulus soleae medialis
Facies externa
Facies interna

Torus ungualae
Epidermis tori
Tubuli epidermales
Dermis (corium) tori
Papillae dermales (coriales)

Tela subcutanea tori (pulvinus digitalis)
Pars torica pulvinis digitalis
Torus corneus
Pars lateralis
Pars medialis
Facies externa
Facies interna
Glossary of English and Latin Equivalents

Frog
Epidermis of the frog
Horn (epidermal) tubules
Dermis (corium) of the frog
Dermal (corial) papillae
Cuneal (distal) part of the digital cushion
Horny frog
Apex of the frog
Base of the frog
Lateral crus (branch) of the frog
Medial crus (branch) of the frog
External face
Internal face
Lateral paracuneal sulcus (groove)
Medial paracuneal sulcus (groove)
Central cuneal sulcus (groove)
Spine of the frog

Horny hoof, hoof capsule
Solear face
Contact face
Fornix face
Dorsal angle
Lateral angle
Medial angle
Lateral palmar angle
Medial palmar angle

Cuneus ungulae
Epidermis cunei
Tubuli epidermales
Dermis (corium) cunei
Papillae dermales (coriales)
Tela subcutanea cunei (pars cunealis pulvini digitalis)
Cuneus corneus
Apex cunei
Basis cunei
Crus cunei laterale
Crus cunei mediale
Facies externa
Facies interna
Sulcus paracunealis lateralis
Sulcus paracunealis medialis
Sulcus cunealis centralis
Spina cunei

Capsula ungulae
Facies solearis
Facies contactus
Facies fornicis
Angulus dorsalis
Angulus lateralis
Angulus medialis
Angulus palmaris lateralis
Angulus palmaris medialis

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