

How Joint Blocks are done in Equine Medicine

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PURPOSE OF DOING JOINT BLOCKS

- To remove a sample for visualization (e.g viscosity of synovial fluid)
- To administer therapeutic drugs
- To administer a diagnostic substance for radiographic contrast studies
- To administer an anesthetic

PREPARATION OF THE SITE

- Aseptic preparation of the skin required since the joint is being infiltrated
- Aseptic technique required
- New bottle of local anaesthetic

GENERAL CONSIDERATIONS

- To locate the level of the joint palpate the regional structures
- To locate the injection sites palpate their boundaries
- When inserting the needle, aspirate synovial fluid, when injecting large quantities of local anesthetic remove the same amount of synovial fluid before injection
- A lame horse receiving anesthetic injection into a joint goes sound as the problem is localized. If it remains lame after an injection of anesthetic into a joint the joint is not the problem or it was not properly anesthetized

COMMON SITES OF JOINT BLOCKS

- Distal interphalangeal Joint (Coffin Joint) Block
- Fetlock Joint Block

Distal Interphalangeal Joint (Coffin Joint) Block

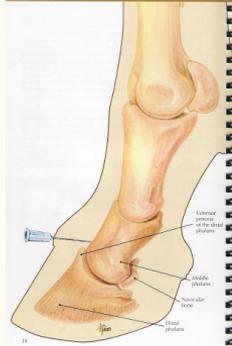
Needle: 1 1/2inch, 20G

Volume: 5mL

Borders:

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- Dorsal pouches
 - Proximal to the joint
- Obliquely under the extensor tendon
- Above the coronet, lateral to and under the extensor tendons into the dorsal pouch



Distal Interphalangeal Joint (Coffin Joint) Block

Technique:

- Dorsal approach - Insert the needle proximal to the joint under the common/long digital extensor tendon laterally and pass obliquely into the dorsal pouch. Inject 5mL of local anesthetic

DISADVANTAGES OF THE DISTAL INTERPHALANGEAL BLOCK

- The coffin joint is within the hoof wall and cannot be palpated. It can only be mentally visualized
- A negative response to intra-articular analgesia of the distal interphalangeal joint may not eliminate the navicular bone and its related structures as the source of lameness.

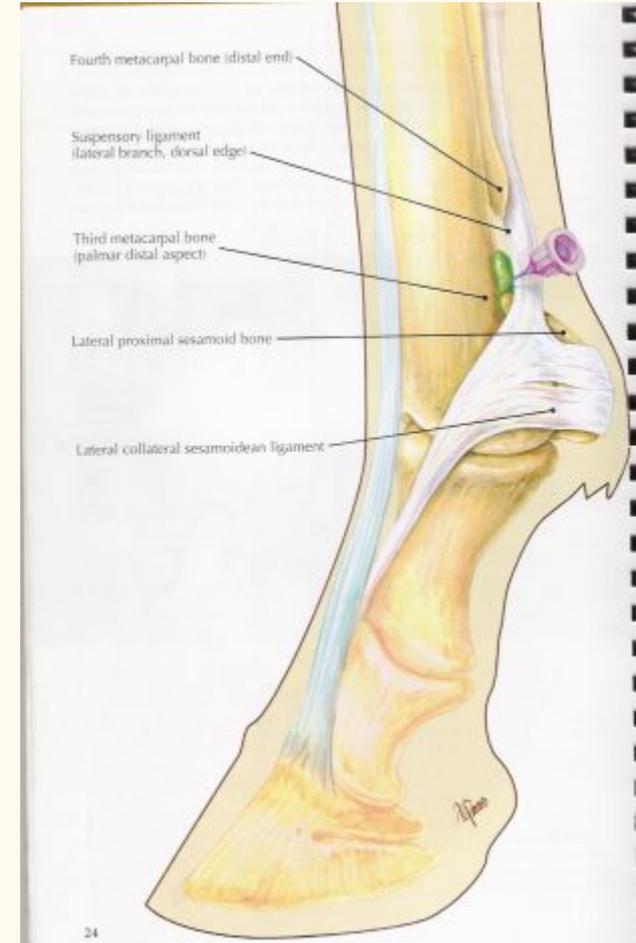
Fetlock Joint Block

Needle: 1 inch, 18G

Volume: 5mL

Borders:

- Palmar pouch of fetlock
 - Proximal - button of splint bone
 - Dorsal - cannon bone
 - Distal - proximal sesamoid bone
 - Palmar - suspensory ligament



Fetlock Joint Block

Technique:

- Palpate the boundaries of the palmar pouch (susp ligament and cannon bone just proximal to the joint)
- Insert the needle into the lateral aspect of the palmar/plantar pouch of the fetlock joint
- Inject 5mL local anesthetic

COMPLICATIONS OF JOINT BLOCKS

- There is a danger of damaging articular cartilage causing degenerative joint disease or acute arthritis
- Synovitis - septic and non-septic

RESOURCES:

- Moyer WW. Guide to equine joint injection and regional anesthesia. Chadds Ford: Academic Veterinary Solutions; 2007. Pg 14, 25-25
- Pasquini C, Spurgeon TL, Pasquini S. Anatomy of domestic animals: systemic and regional approach. Pilot Point, TX: Sudz Pub.; 2003. Pg 597