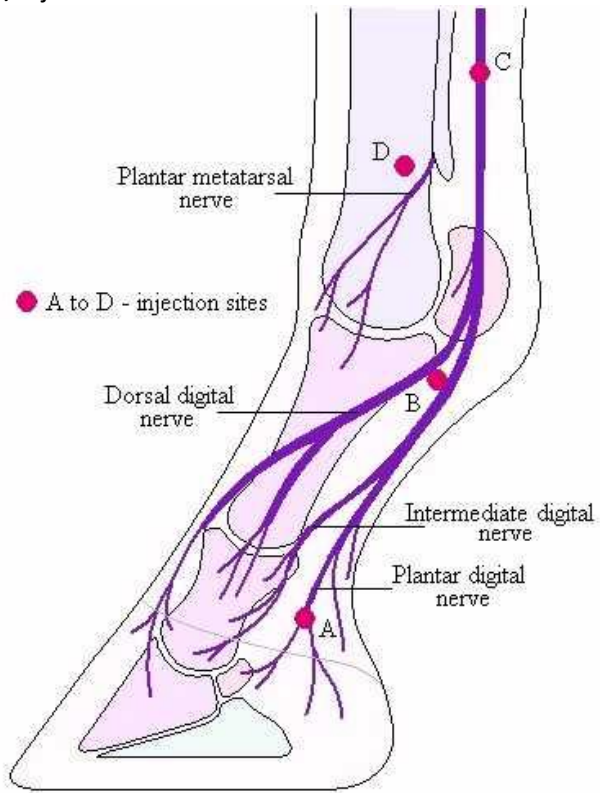
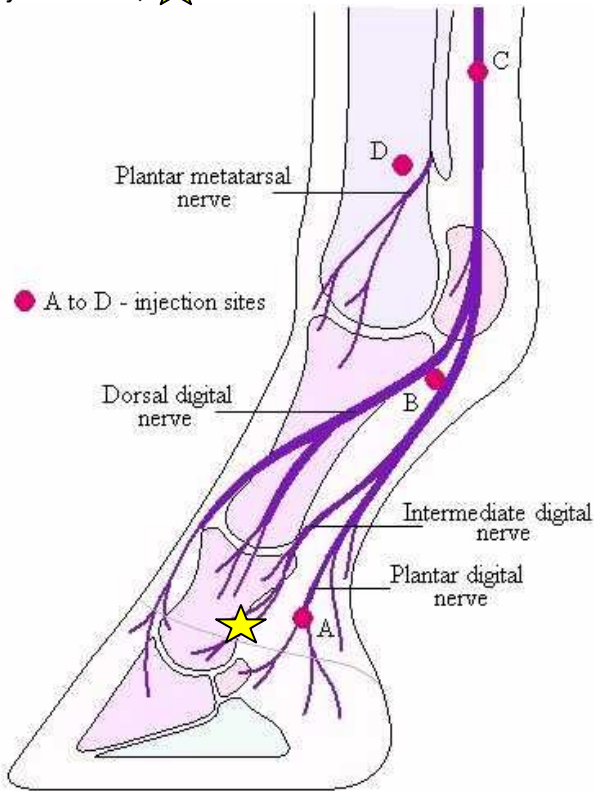


PERINEURAL ANAESTHESIA – HINDLIMB

Nerve Block	General Information	Technique	Structures Anaesthetized	Common conditions Diagnosed
<p>Plantar Digital Nerve Block A; injection site</p> 	<p>Nerves blocked;</p> <ul style="list-style-type: none"> - Medial plantar digital nerve - Lateral plantar digital nerve <p>Position;</p> <ul style="list-style-type: none"> - Standing or foot elevated - Facing back, one hand holding limb - Facing forwards with foot between your legs <p>Needle;</p> <ul style="list-style-type: none"> - 25 gauge - 5/8" (1.6 cm) <p>Amount of anaesthetic;</p> <ul style="list-style-type: none"> - 2-3mL mepivacaine <p>Time;</p> <ul style="list-style-type: none"> - 5-10 minutes 	<ul style="list-style-type: none"> - Palpate neurovascular bundles abaxial to the floor tendons - Insert needle on axial side of neurovascular bundle - Point needle slightly abaxial and distal - Insert at the level of the collateral cartilages - Attach syringe to needle - Aspirate - Inject at site <p>Loss of skin sensation over the heel indicates a successful block</p>	<ul style="list-style-type: none"> - Navicular bone - Navicular bursa - Distal sesamoidean ligaments - Deep Digital Flexor tendon and sheath - Digital cushion - Corium of frog - Plantar 1/3 - 2/3 of sole - Plantar pastern and coffin joints - Plantar distal phalanx / wings of coffin bone - Plantar Skin 	<ul style="list-style-type: none"> - Navicular Syndrome - Heel Pain Syndrome - Wing Fractures of P3 - Subsolar abscess - +/-Pedal osteitis

Complete Plantar Digital and Ring Nerve Block

Injection site; ★



Nerves blocked;

- Medial plantar digital nerve
- Lateral plantar digital nerve

Position;

- Standing or foot elevated
- Facing back, one hand holding limb
- Facing forwards with foot between your legs

Needle;

- 25 gauge
- 5/8" (1.6 cm)

Amount of anaesthetic;

- 5-8mL mepivacaine

Time;

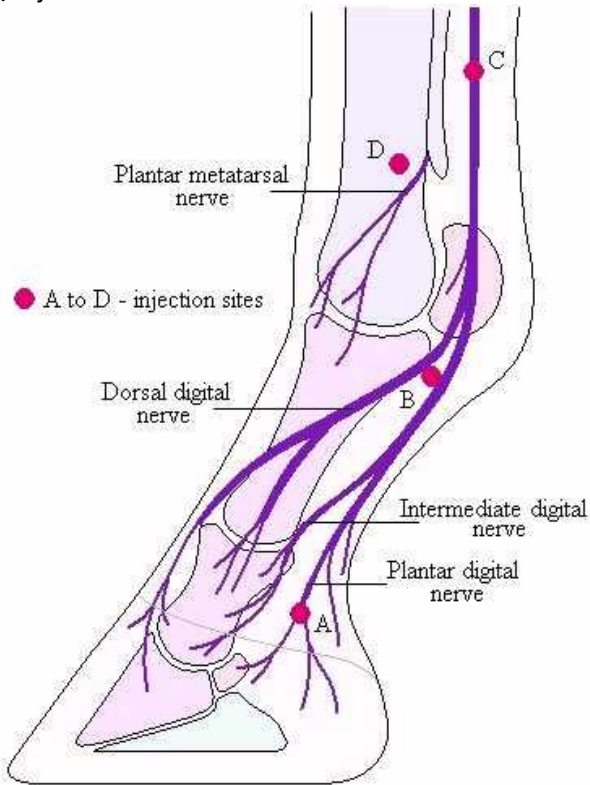
- Insert needle through plantar digital site
- Place a subcutaneous line of anaesthetic agent proximal to the coronet band that extends dorsally
- Extend the ring by replacing the needle through the anaesthetized skin until it goes 2/3rd of the way around the pastern
- Aspirate
- Inject at site

- P 2, 3
- Pastern Joint
- Coffin Joint
- Entire corium
- Dorsal branch of the suspensory ligament
- Extensor tendon insertion
- Entire foot

- Laminitis
- Ring Bone
- P3 Fractures
- Solar Pain
- Subsolar Abscess
- Pedal Osteitis

Abaxial (Basisesamoid) Nerve Block

B; injection site



Position:

- Standing or foot elevated
- Facing back, 1 hand holding limb
- Or facing forward with foot between your knees

Nerves blocked;

- Medial Plantar digital nerve
- Lateral Plantar digital nerve

Landmarks;

- Distal border of proximal sesamoid bones
- Palpate VAN
- Nerve axial to vein and artery

Needle;

- 25 gauge, 5/8"

Amount of anesthetic:

- 1.5 – 2cc/each nerve

Time:

- 5-10 mins

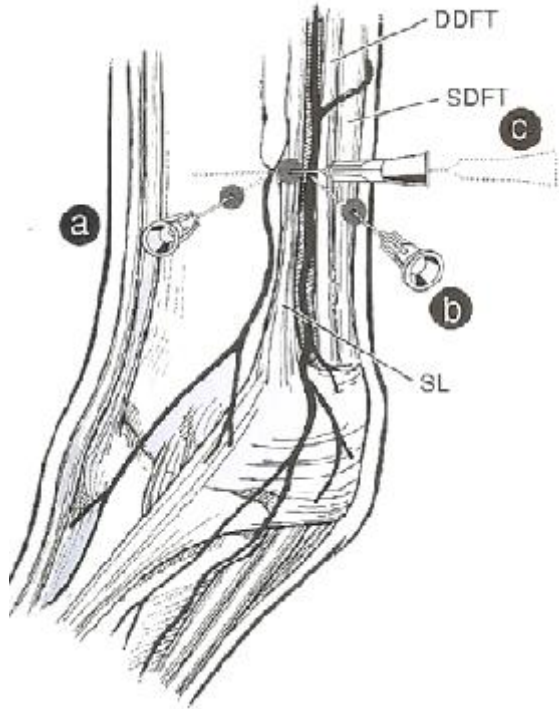
- Elevate foot
- Palpate neurovascular bundle as it courses over the abaxial surfaces of the proximal sesamoid bones
- Insert needle at basisesamoid level on axial side of n-v bundle
- Point needle slightly abaxial and distally. Do medial and lateral nerves.
- Attach needle to syringe
- With one hand support the hub of the needle and with the other hand check for blood and then inject mepivacaine per site
- Wait 5-10 minutes

Loss of skin sensation at the dorsal coronary band indicates a successful block.

- All of structures anaesthetized by PD n.block
- Three phalanges
- Coffin and Pastern joints
- Entire corium
- Entire sole
- Dorsal branches of suspensory ligament
- Digital extensor tendon
- Distal sesamoidean ligaments
- +/- Proximal sesamoid bones
- +/- Plantar fetlock joint

- Laminitis
- Ring bone
- Soft tissue injuries of pastern
- Occasionally block fetlock or sesamoid problems

Low 6 Point Nerve Block



Position: Standing

Nerves blocked

- Lateral Plantar metacarpal nerve
- Medial Plantar metacarpal nerve
- Lateral Plantar nerve
- Medial Plantar nerve
- Lateral and Medial dorsal metatarsal nerve

Location

- Plantar metacarpal / metatarsal nerves just distal/axial to button of splint bone, adjacent to MCIII/MTIII
- Plantar nerves between DDFT and suspensory lig., 3-5cm proximal to button of splint
- Dorsal metatarsal nerves Either side of extensor tendon s.c. dorsal ring at level of plantar metatarsal nerve

Needle: 25g /22g , 5/8"

Amount of anesthetic:

3mL / each nerve

Time: 10 mins

- With the horse bearing weight, one needle is inserted into the palpable groove between the plantar aspect of the suspensory ligament and the dorsal surface of the deep digital flexor tendon, just distal to the ramus communicans.
- A second needle is inserted proximally and medially from the distal end of the second or fourth metacarpal/metatarsal bone onto the plantar periosteum of the third metacarpal/metatarsal bone.

Insensitivity of skin over the dorsal pastern and, usually, the dorsal fetlock indicates a successful block

- All structure of previous block (all of structures distal to the location of nerve block)
- Navicular structures
- Soft tissue structures of pastern and foot
- Sole, Laminae
- Three phalanges
- Coffin and Pastern and Fetlock joint
- Distal Digital tendon Sheath

High Plantar Nerve Block



Position:

- Standing

Nerve blocked:

- Plantar metatarsal nerves
- Medial and lateral plantar nerves
- Dorsal metatarsal nerves

Landmarks:

- Deep digital flexor tendon
- Suspensory ligament

Needle:

- 20- to 22- gauge, 1.5"

Amount of anaesthetic;

- 3mL per site

Site 1: 3ml distal to the head of the splint bone and axial to the 2nd or 4th metatarsal bone until its point contacts the 3rd metacarpal bone

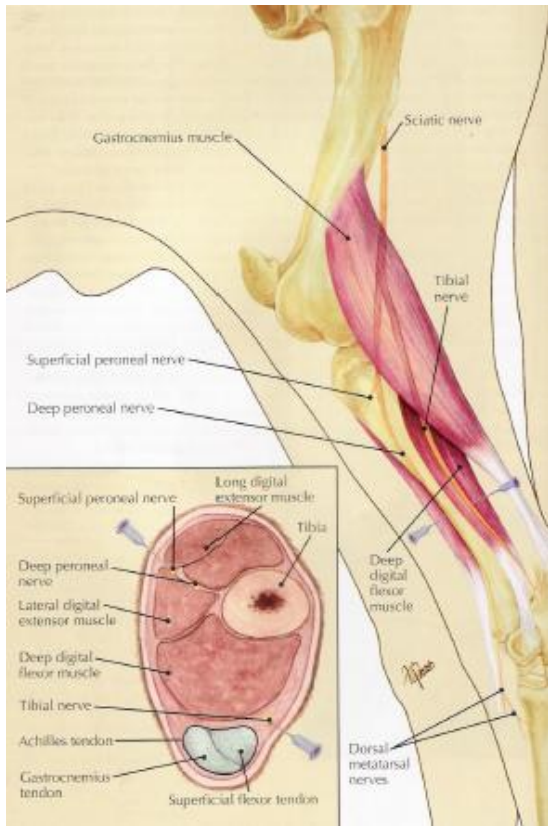
Site 2: 3ml through the heavy fascia to where each plantar nerves lies adjacent to the dorsal surface of the deep digital flexor tendon

Site 3: 2ml at the dorsomedial and the dorsolateral aspects of the metatarsus at this level

Completion of the block occurs by blocking the dorsal metacarpal nerves at the dorsolateral and dorsomedial aspects of the third metatarsal bone

- This block will desensitize the limb distal to the tarsometatarsal joint

Deep Branch of the Lateral Plantar Nerve Block:



Position

- Standing or flexed

Landmarks

- 2 cm distal to head of MTIV (lateral splint)
- 2 cm distal to head of MTIV (lateral splint)
- Axial to MTIV 1.5 cm deep

Nerves blocked

- Tibial and deep and superficial peroneal nerves

Needle: 20- to 22-gauge, 1.5"

Amount of anesthetic: 5 ml

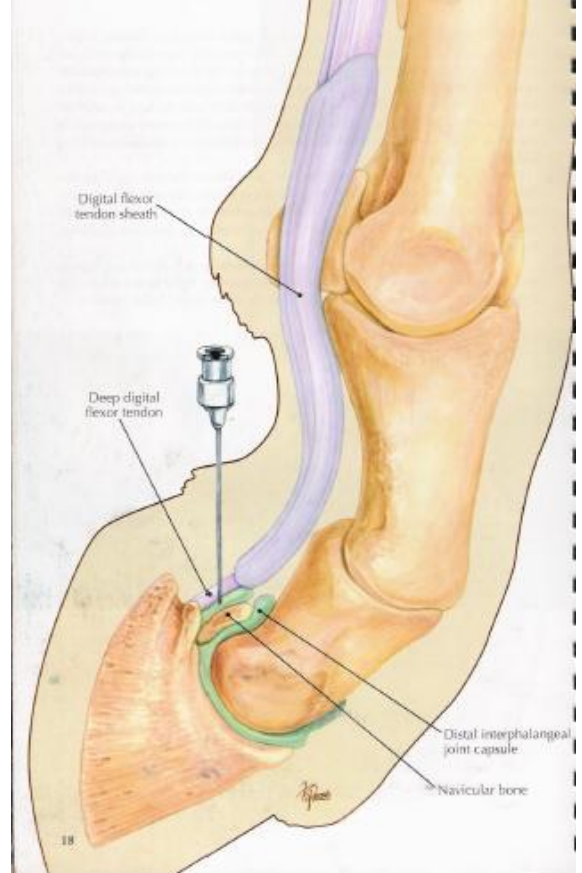
Site 1; 4 " above the point of the hock in the groove formed by the lateral and long digital extensor muscles

Site 2; caudal to the groove formed by the lateral and long digital extensor muscles until contact is made with the edge of the tibia

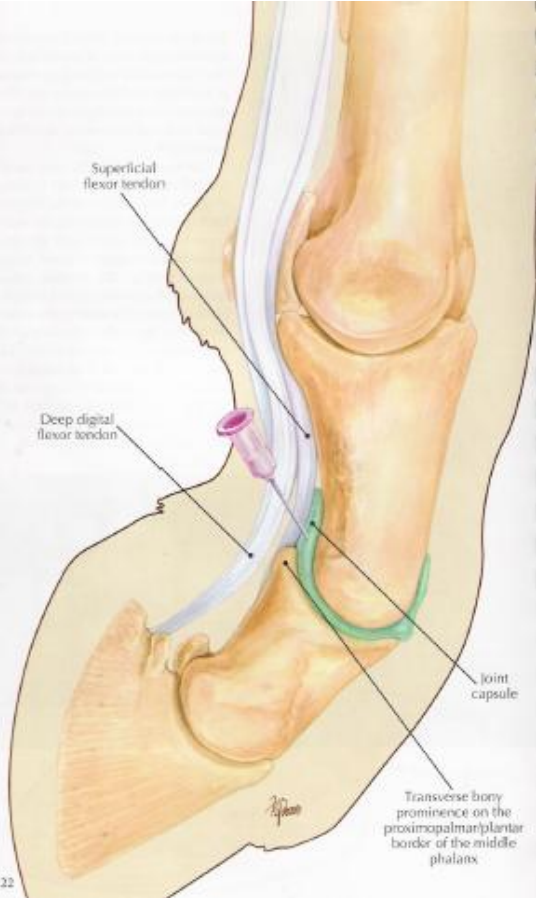
Loss of skin sensation over the plantar aspect of the pastern and the heels indicates that the block was successful

- This block will reliably desensitize the proximal suspensory ligament

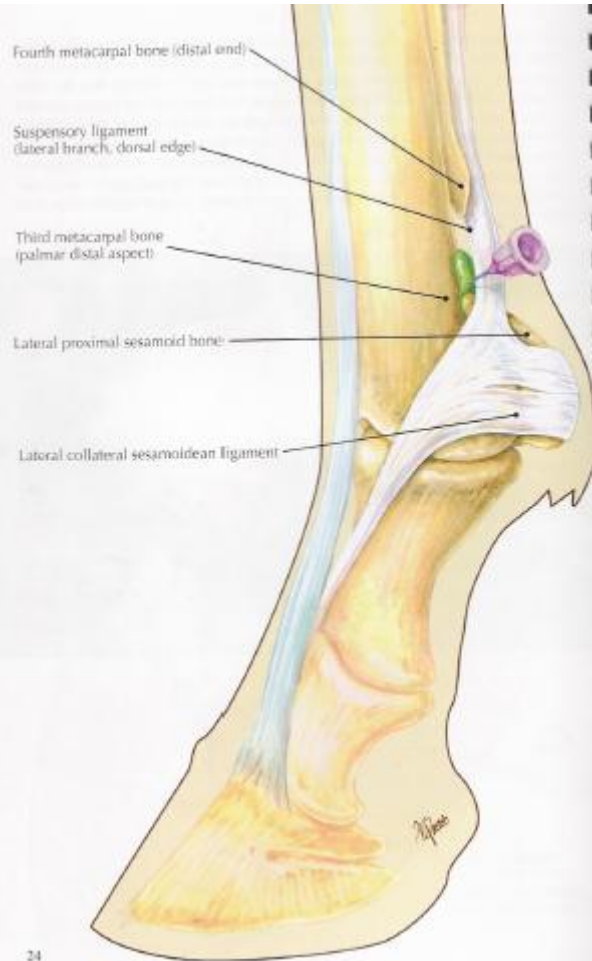
BURSAL BLOCK OF THE HINDLIMB

Navicular Bursal Block	General Information	Technique	Structures Anaesthetized
	<p>Position : Flexed</p> <p>Blocks: Navicular Bursa</p> <p>Landmarks:</p> <ul style="list-style-type: none"> - Midway between the bulbs of the heel - Proximal to the coronary band <p>Needle: 18- to 20- gauge, 3.5"</p> <p>Amount of anaesthetic: 2 to 4mL</p>	<ul style="list-style-type: none"> - Insert 3.5" spinal needle through desensitized skin on the midline immediately proximal to the coronary band - Advance the needle along the sagittal plane, aiming for a point halfway between the most plantar and most dorsal aspects of the coronary band - Advance needle until it hits bone - It may be easier to inject medication into the navicular bursa if the lower portion of the limb is flexed 	<ul style="list-style-type: none"> - Navicular apparatus - Toe region of the sole

JOINT BLOCKS OF THE HINDLIMB

Joint Block	General Information	Technique	Structures Anaesthetized
<p>Pastern Block</p> 	<p>Position:</p> <ul style="list-style-type: none"> - Distal portion of limb flexed <p>Blocks: Pastern Joint</p> <p>Landmarks:</p> <ul style="list-style-type: none"> - Proximal phalanx - Middle phalanx <p>Needle: 20 gauge, 1.5"</p> <p>Volume of anaesthetic: 8 to 10 mL</p>	<ul style="list-style-type: none"> - Insert needle perpendicular to the sagittal plane of the proximal phalanx just above the transverse bony prominence on the proximoplantar aspect of the middle phalanx close to the plantar surface of the proximal phalanx - The needle penetrates the plantar pouch of the pastern joint at the depth of about 1 inch - Fluid often drips from the needle 	<ul style="list-style-type: none"> - Pastern Joint

Fetlock Block



Position:

- Standing or flexed

Blocks: Fetlock Joint

Landmarks:

- Joint capsule of fetlock joint
- 3rd metatarsal bone
- 4th metatarsal bone
- Proximal sesamoid bone

Needle: 20 gauge, 1"

Volume of anaesthetic: 8 to 12 mL

- Palpate and identify the lateral aspect of the plantar pouch of the fetlock joint

- The pouch is bordered by the plantarodistal aspect of the third metatarsal bone; the dorsal edge of the lateral branch of suspensory ligament; the distal end of the 4th metatarsal bone; and the lateral, proximal sesamoid bone

- Insert the needle into the lateral aspect of the plantar pouch of the fetlock joint

- An alternative method holding the limb in flexion is to insert the needle into the lateral aspect of the plantar pouch

- Fetlock joint