

Lameness in horses

Joint Block:

When dealing with lameness in horse, a joint block can be used to help pinpoint the source of pain. Pain emanating from a joint may not be relieved with perineural anesthesia (nerve block) and may require a specific injection into the joint itself (joint block) for diagnosis. Joint blocks work by effectively interrupting the transmission of the pain signal from the affected area (joint) to the brain. Therefore, diagnosis will only be effective if the horse is sufficiently lame for the vet to notice a difference after administering the nerve block.

Pre-Joint Block Exam:

The vet will undertake an initial assessment of the horse to identify the lame leg and the degree of lameness. This will be done by trotting your horse in a straight line on multiple surfaces, and at times lunge the horse in both directions. Before entering the joint the vet should ensure that proper aseptic preparation of the skin is carried out, for 10 minutes minimum. The vet should also practice Sterile technique (gloves, needle and syringe) and ensure that the local anesthetic is not contaminated.

Types of Joint Blocks	Technique	Needle Size/Gauge	Volume	
Distal Interphalangeal (Coffin) Joint Block N.B: Done while the animal is standing	<u>Dorsal Pouch:</u> Insert needle through dorsal surface of distal limb, 1-2cm proximal to the coronary band, abaxial to the extensor tendon by which the needle is aligned either perpendicular (45 degree angle) to skin surface or parallel to ground. <u>Dorsal Pouch:</u> Abaxial, just above collateral cartilage, needle directed at a 45 degree angle dorsally or axially	18 to 20 gauge, 1.5 inch	5 to 10cc	
Fetlock Joint Block	<u>Proximopalmar pouch:</u> Palmar/plantar to the cannon bone, dorsal to the lateral branch of the suspensory ligament, and distal to the button of the lateral splint bone. <u>Dorsal pouch:</u> Dorsal aspect of the fetlock, Needle enters deep to the common/long digital extensor tendon. <u>Distopalmar pouch:</u> Along distal dorsal side of lateral sesamoid bone, proximal to palmar/plantar process of P1. <u>Collateral Sesamoidean approach:</u> Insert the needle between the palmar/plantar aspect of the cannon bone and dorsal articular surface of the sesamoid bone,	18 to 20 gauge, 1.5 inch	8 – 12cc	

	penetrating through the lateral collateral sesamoidean ligament.			
Carpal joint block	<p><u>Radiocarpal joint:</u> injected dorsally, with the carpus flexed. Palpated as indentation on medial or lateral side of extensor carpi radialis tendon. The needle is directed straight into the indentation.</p> <p><u>Intercarpal joint:</u> Similar. Carpus flexed and indentation medial or lateral side of extensor carpi radialis tendon. Due to communication, the intercarpal joint block also blocks the carpal-metacarpal join.</p> <p><u>Lateral Approach:</u> Palpate notch created by the ulnaris lateralis tendon and lateral digital extensor tendon. Insert the needle into small depressions immediately distal to this notch.</p>	18 to 20 gauge, 1.5 inch	7 to 10cc	
Tibial-Tarsal Joint Block	Approach on the dorsal-medial aspect of the hock, where the joint pouch is easily palpated. The needle is inserted directly inwards.	18 to 20 gauge, 1.5 inch	10 to 20cc	
Tarsometatarsal Joint Block	<p>Injected on the plantar-lateral aspect of the hock</p> <p>Needle is inserted immediately above the head of the lateral splint bone</p> <p>Needle is angled in a dorsal-medial and distal direction</p>	20 to 22 gauge, 1.5 inch	3 to 5cc	
Stifle Joint Block	<p><u>Medial Femoral-Tibial:</u> Needle is inserted in between the medial patellar ligament and medial collateral ligament, proximal to the tibial tuberosity.</p> <p><u>Femoral-Patellar:</u> Needle is inserted in between the medial and middle patellar ligament, proximal to the tibial tuberosity. Needle is angled upwards, towards the supra-patellar recess.</p> <p><u>Lateral Femoral-Tibial:</u> Needle is inserted caudal to the lateral collateral ligament, proximal to the proximal-lateral edge of the tibia.</p>	18 guage, 1.5 inch	20cc	

Post-Joint Block Exam: Once the nerve block (or blocks), has indicated the general area of the problem, the vet can then use other diagnostic techniques to more accurately determine the cause of lameness. This may involve the use of X-rays, ultrasound scans or specialized techniques such as Magnetic Resource Imaging (MRI).

