

Tibial and Peroneal Block (Figure 3.73)

Quantity of Local Anesthetic: 10 to 20 mL/site

Needle Size: 1-1/2 to 2 inches, 20 to 22 gauge

Injection Technique: Anesthetizing the tibial and deep and superficial peroneal nerves above the point of the hock desensitizes the entire distal limb. These blocks can be helpful to diagnosis some horses with hock lameness, or can be used to rule out whether the pain causing the lameness is located within the hock or distal limb. The site for injection of the tibial nerve is approximately 4 inches above the point of the hock on the medial aspect of the limb, between the Achilles tendon and the deep digital flexor muscle. The block may be performed by standing on the lateral side of the limb to be blocked or by reaching across from the opposite limb to access the medial aspect of the limb. A small amount of anesthetic placed in the skin and subcutaneous tissues may minimize the horse's reaction to the block. A 1-1/2-inch, 20- to 22-gauge needle is used to deposit 15 to 20 mL of anesthetic in several tissue planes in the fascia that overlies the deep digital flexor muscle. Blocking the tibial nerve provides anesthesia to the plantar tarsus, metatarsus, distal Achilles tendon, calcaneus, suspensory ligament, and most of the foot.

To completely desensitize the hock and limb distal to the hock, the deep and superficial peroneal (fibular) nerves must be anesthetized. The location of injection is approximately 4 inches above the point of the hock on the lateral aspect of the limb in the groove formed by the muscle bellies of the lateral and long digital extensor muscle. A 1-1/2- to 2-inch, 20-gauge needle is inserted in a slightly caudal direction until the needle contacts the caudal edge of the tibia. Ten to 15 mL of anesthetic is injected on the lateral border of the cranial tibial muscle close to the tibia. The needle is then retracted and another 10 to 15 mL of local anesthetic is injected more superficially in several planes to be sure that the superficial peroneal nerve is blocked. The depth of the superficial peroneal nerve can vary, so the more superficial injection should include a region from 0.6 cm to 2.5 cm deep.

Pitfalls:

1. Difficulty in palpating the tibial nerve
2. Placing the anesthetic too proximal or distal on the leg
3. Placing the anesthetic too superficially to block both branches of the peroneal nerves
4. Difficulty in assessing the success of the block