

## *Bursa Anesthesia*

### Navicular Bursa

**Quantity of Local Anesthetic:** 2 to 3 mL

**Needle Size:** 2-1/2 to 3-1/2 inches, 18–20 gauge

**Injection Techniques:** There are various techniques for needle entry into the navicular bursa, but the technique through the heel bulbs is thought to be most accurate (Figure 3.101). With this approach, a 3-1/2-inch, 20-gauge spinal needle is inserted between the heel bulbs just above the coronary band. The needle is advanced along a sagittal plane aiming for a point 1 cm below the coronary band, midway between the

toe and the heel. The needle is advanced until bone is contacted. Usually only 2 to 4 mL of anesthetic or medication can be injected, and flexing the lower limb will decrease the resistance to injection. A special wooden block for foot placement that unweights the heel and flexes the distal limb can facilitate the procedure. Radiographic or fluoroscopic documentation of the needle's location is recommended in most cases because it is easy to pass the needle over to the proximal border of the navicular bone into the DIP joint (Figure 3.102).

#### **Pitfalls:**

1. Needle directed too proximally and enters the DIP joint
2. Excessive pressure when injecting—unweight the limb or needle may be against the navicular bone
3. Anesthesia of palmar soft tissues of the foot due to extravasation of anesthetic