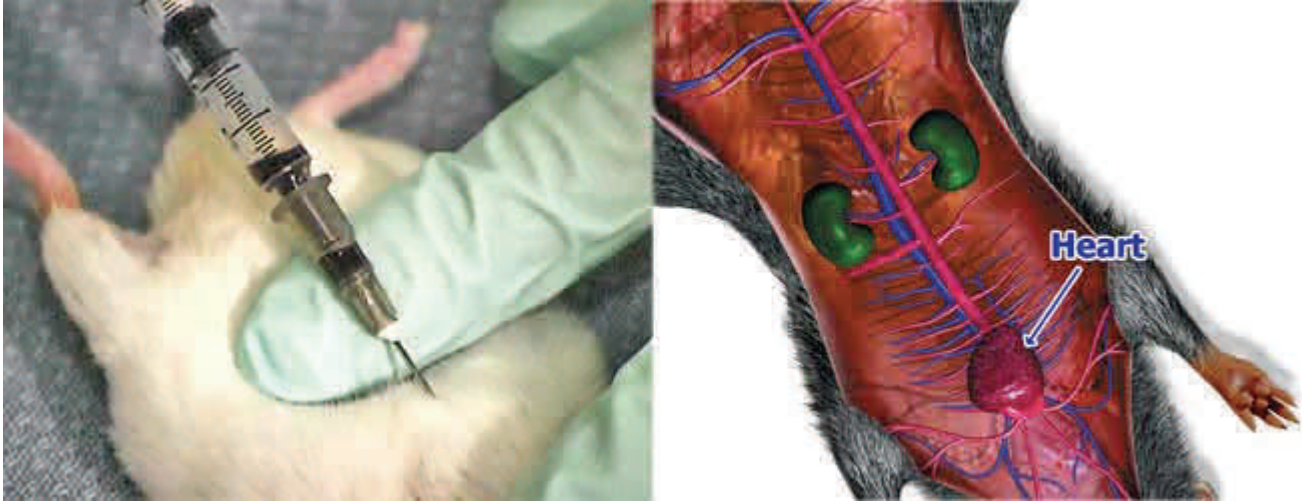


# Cardiac Puncture

## Mouse, Rat, Gerbil, Hamster, Guinea Pig



**This method requires general anesthesia and is only performed for terminal procedures. The animal must be sacrificed at the completion of the procedure prior to awakening from anesthesia.**

### **Cardiac puncture (diaphragmatic approach)**

The animal is placed on its back on a solid surface. The xyphoid process is palpated at the caudal aspect of the animal's sternum. A notch is present on both sides of this process. A 1" needle of no more than 20g is attached to a 1ml- 3ml syringe and is inserted into either notch and directed toward the heart as determined by palpating for the heart beat. Once the needle has been inserted beneath the skin, gentle negative pressure should be applied, by pulling backward on the plunger.

### **Cardiac puncture (lateral approach)**

Cardiac puncture may also be performed laterally, through the ribs. The animal is placed on its right side (left side up). The needle is inserted between the ribs, perpendicular to the skin. Generally, the location can be determined by bending the forelimb back such that the humerus (upper arm) is parallel to the spine and the elbow is over the ribcage----the point of the elbow is the best location for puncture. The needle and syringe size should be similar as those use in the diaphragmatic approach.